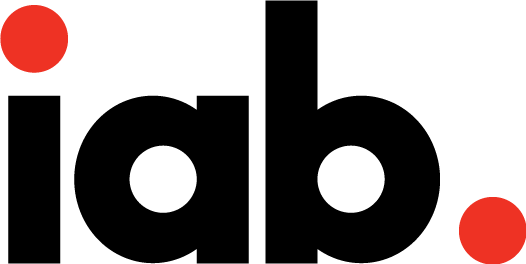
****

**OpenDirect**

API Specification Version 1.5

Released [date] 2015

About the Working Group

Contact, about programmatic committee, participants, license, etc.

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# Executive Summary

OpenDirect enables publisher to offer premium inventory using a programmatic interface that partners and vendors build according to the OpenDirect specifications.

Every organization in the industry uses some kind of interface (or a combination thereof) to manage inventory throughout the buying and selling of premium, reserved inventory. Each system is different, which means if one partner wants to integrate their system with another partner, the integration is customized to that partner. Integrations with other partners all require their own customized integration, each consuming valuable overhead. While the overhead enables more business, cutting down on the cost of these integrations allows resources to be diverted to more important ad operations tasks.

OpenDirect provides a standard way for publishers to make their inventory available in any OpenDirect-compliant interface where agencies and advertisers can reserve premium inventory.

For publishers, this means that in an OpenDirect marketplace, publishers can make their premium guaranteed inventory available to more buyers. For tech providers, an OpenDirect marketplace means that they can offer a greater variety of premium inventory to their customers. For the industry, an OpenDirect marketplace means more fluid movement of inventory while greatly reducing the overhead involved in integrating with partners.

An OpenDirect marketplace also opens the doorway to improved tracking of inventory across systems while also reducing discrepancies. As the ids for creative across systems become more standard, so does the ability to better match impression counts across inventory. While OpenDirect does not directly enable improved impression counting between parties, it does lay the foundation for opportunities to improve impression reporting between systems.

To participate in the OpenDirect marketplace, publishers need to modify their systems to log Organizational IDs and accounts consistent with the specs in this document. They also need to be able to respond to API requests for inventory details as well as manage inventory in response to API requests.

For tech providers to participate in the OpenDirect marketplace, they need to make use of the API in this spec as they design and build their interfaces.

As OpenDirect becomes more adopted in the marketplace, not only does the movement of premium inventory become more fluid, but so does the opportunity to track impressions across systems become more available.

## What’s New in Version 1.5

OpenDirect 1.0 was released in January 2015. While a handful of companies have already started adopting the API, more features are needed to encourage wider adoption. Version 1.5 adds more context, clarification, bug fixes, and feature updates while proposals for version 2.0 include features such as increased channel buying support (mobile, video, native, etc.) and order negotiation.

Updates to OpenDirect 1.5 include:

* **Context and clarification:** as much as possible, version 1.5 adds details that provide more context for programming elements, the parties involved, and how they work together.
* **Bug fixes:** as much as possible inconsistencies in the spec have been addressed.
* **Creative assignment:** version 1.5 prevented a line to be booked before creative was assigned. While functioning as designed, some publishers would like to allow a line to be booked without creative assigned on a product-by-product basis.
* **Orders:** for more control over inventory orders, features have been added for defining an expiration date and time for held inventory, order status, and for restricting inventory to a packaged deal.
* **Search by currency:** search criteria on product availability has been added to allow searching by currency.
* **Publisher order creation:** in an effort to provide better service to their clients, publishers often enter order details on behalf of buyers and advertisers. Version 1.5 enables publishers to do this using OpenDirect.

The industry effort to promote and establish OpenDirect in the marketplace is open to suggestions for new features and solutions for increasing adoption (as well as new adopters). Contact the IAB AdTech Lab at [adtech@iab.com](mailto:adtech@iab.com) to get involved.

## Audience

Tech providers can use the specifications in this document to build a system for accessing and booking publisher inventory. Tech providers may include the technical staff or partners who work with agencies, networks, exchanges, or specialty vendors that offer inventory purchasing services.

Publishers also need to use this spec to make their inventory available to API requests from Tech Providers.

## Other OpenDirect Resources

[any links to related docs and/or resources]

# Introduction/Overview

The OpenDirect API provides a standard way for publishers to integrate with tech provider partners so that they can offer premium guaranteed inventory programmatically. Using the API, buyers can build one system that can access inventory from multiple publishers without custom integrations for each one.

Some of the features supported in OpenDirect are:

* Searching product inventory
* Determining price and availability
* Applying targeting and frequency constraints
* Creating orders and adding lines
* Uploading creative and assigning creative to lines
* Reserving and booking inventory

Additional features are added with each new update to further enable wider adoption and support the needs of the industry.

## How it works

At a high level, the workflow involves establishing a relationship between buyer and publisher, setting up accounts, and placing orders on the buyer side while publisher systems respond to API requests for order placement.

The following table outlines the general steps for using the API:

|  |  |
| --- | --- |
| Buy Side | Sell Side |
| **1. Establish a relationship**  In order to buy inventory with publishers using OpenDirect systems, buyers must first obtain an ID from the publisher that can be used in any OpenDirect system for as long as you do business with the publisher. | **1. Establish a relationship**  To protect your premium inventory, buyers must first obtain an ID from you. This ID can be used in any OpenDirect system for as long as you maintain a business relationship with the buyer. |
| **2. Set up**  Buyers must be set up in the OpenDirect system(s) they use with their publisher-obtained IDs and accounts before they can begin browsing inventory and placing orders. |  |
| **3. Place Orders**  After establishing accounts in the system, buyers can begin browsing publisher inventory and adding lines to orders. | **2. Respond to API Requests**  Once buyers are set up in their OpenDirect system(s), they can begin browsing and booking inventory. On the publisher side, this is received as API requests that publisher systems must respond to. |
| **4. Submit Creative and Book Inventory**  Once desire order is established, buyers can submit creative for approval using the OpenDirect system for approval. Once approved, the order can be booked to run. | **3. Test Creative and Approve Inventory**  Buyers can submit creative using the OpenDirect system. Once tested and approved, you can book the order to run. |

## Authorization

The OpenDirect API is a RESTful API that supports paging query parameters and uses OAuth to authenticate users.

OpenDirect users include:

**Organization:** All organizations that work with the publisher must obtain an Organization ID, whether they are a buyer, or a brand advertiser.

**Buyer:** The buyer is the organization that places orders and represents an agency acting on behalf of the advertiser, or the advertiser that places orders directly. If the buyer represents advertisers, the buyer must obtain formal consent for acting on behalf of the advertiser and provide proof of that consent to the publisher. In addition to establishing an Organization ID, the buyer must also establish a Buyer ID.

**Advertisers:** Advertisers represent the brands that purchase publisher inventory for advertising their brands. An advertiser may also be a buyer, but if the advertiser works with a buyer, the advertiser must provide formal consent to allow the buyer to act on its behalf. In addition to establishing an Organization ID, the advertiser must obtain an Advertiser ID. The Advertiser ID can be used to set up advertiser accounts in an agency’s OpenDirect system.

## Using this document

How programming elements are defined and their relationship to each other

## Programming Elements

For details about the programming elements that this specification defines, see the following sections.

|  |  |
| --- | --- |
| [Resources](#_Resource_Definitions) | Defines the resource objects. For a diagram that shows the resource relationships, see [Resource Model](#_Resource_Model). |
| [Common Objects](#_Common_Objects) | Defines the objects used by one or more resource. |
| [Reference Data](#_Reference_Data) | Defines the reference data objects and possible values. Reference data provides enumerated values for a resource property. |
| [Collection Objects](#_Collection_Resources) | Defines the collection objects that GET calls return. |
| [URIs](#_URIs) | Defines the URI and supported HTTP verbs for each resource. |
| [Authentication](#_Authentication) | Defines the authentication scheme that publisher must use. |
| [Versioning](#_Versioning) | Defines the versioning scheme that publishers must use. |
| [Error Handling](#_HTTP_Error_Codes/Error) | Defines the error objects that publishers must return for 400 Bad Request. |
| [Reporting](#_Collection_Calls) | Defines the reporting URIs and objects. |
| [Workflow](#_Workflow) | Outlines the calls required to create an order. |

# Resources

The OpenDirect API is a RESTful API that supports JSON. This section defines the JSON resource objects used by the API. For a diagram that shows the relationships between these resources, see Resource Model.

For a list of URIs that use these resources, see URIs.

## Account

Defines an Account resource. An Account associates an advertiser with a buyer. A buyer is typically an agency but may also be the advertiser. A buyer may be associated with one or more advertisers and an advertiser may be associated with one or more buyers.

Before an agency may create accounts and perform buys on behalf of the advertiser, the advertiser must give permissions to the agency. The process of giving or removing permissions is publisher defined. Creating an account must fail if the advertiser has not given the agency permissions.

The Account owns the orders and creative.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| AdvertiserId | String | Max 36 char | Required | Read-only | Must support |
| BuyerId | String | Max 36 char | Required | Read-only | Must support |
| Id | String | Max 36 char | Read-only | Read-only | Must support |
| Name | String | Max 36 char | Required | Optional | Must support |
| ProviderData | String | Max 1,000 char | Optional | Optional | May support |

|  |  |
| --- | --- |
| **Property** | Description |
| **AdvertiserId** | An ID that identifies the organization that is acting as the advertiser. |
| **BuyerId** | An ID that identifies the organization that is acting as the buyer.  If the advertiser is performing their own buys, AdvertiserId and BuyerId must be the same. |
| **Id** | A system-generated opaque ID that uniquely identifies this resource. |
| **Name** | The name of the account. Used for display purposes. |
| **ProviderData** | An opaque blob of provider-defined data. Providers may use this field as needed (for example, to store an ID that correlates this object with resources within their system).  Note that any provider that edits this object may override the data in this field. The data should include a marker that you can identify to ensure the data is yours. |

## Assignment

Defines an Assignment resource. An Assignment associates a creative with a line of the order. A creative may be assigned to one or more lines and a line may be assigned one or more creative.

Notes: The assignment must fail if the following are true.

* The language of the creative does not match the language of the product (the line identifies the product).
* The specified maturity level of the creative does not match the maturity level of the product specified by the line.

A creative must be assigned to a line before the line may be booked.

To change the creative assigned to a line, first assign a new creative to the line to ensure that the line continues to deliver and then use the disable verb to set the current assignment to Inactive.

To display different creative at different times, add a line for each creative. If weighting is used, providers should indicate in the user interface whether all assignments for a line specify a weight and that the sum of all weights is 100.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| CreativeId | String | Max 36 char | Required | Read-only | Must support |
| Id | String | Max 36 char | Read-only | Read-only | Must support |
| LineId | String | Max 36 char | Required | Read-only | Must support |
| ProviderData | String | Max 1,000 char | Optional | Optional | May support |
| Status | String |  | Read-only | Read-only | Must support |
| Weight | Byte | Numeric value of 1-100. | Optional | Optional | Should support |

|  |  |
| --- | --- |
| **Property** | Description |
| **CreativeId** | The ID of the creative to display when the line runs. |
| **Id** | A system-generated opaque ID that uniquely identifies this resource. |
| **LineId** | The ID of the line that will display the creative. |
| **ProviderData** | An opaque blob of provider-defined data. Providers may use this field as needed (for example, to store an ID that correlates this object with resources within their system).  Note that any provider that edits this object may override the data in this field. The data should include a marker that you can identify to ensure the data is yours. |
| **Status** | A value that determines whether the creative serves. The following are the possible values.   * Active—The creative may serve. Set at create time. * Inactive—The creative may not serve. Set by the disable verb.   The status may not transition from Inactive to Active. |
| **Weight** | Determines how much the creative is displayed relative to the other creatives assigned to the same line.  To provide even rotation, do not specify a weight.  If weight is specified, all assignments that specify the same line must specify a weight and the weight of all the assignments must add up to 100. If the weight of all assignments does not add up to 100, even rotation is applied.  Assignments with heavier weight get proportionally more rotation compared to those with lesser weight.  For example, if the line has 2 creatives, A and B, assigned with the same dates, and A has weight 25 and B has weight 75, B will serve three times as often as A. |
| CreativeId | The ID of the creative to display when the line runs. |

## Creative

Defines a Creative resource. The Creative provides information about an ad.

To assign a creative to a line, see [Assignment](nil).

Notes: Updates to the creative are not allowed for V1.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| AccountId | String | Max 36 char | Required | Read-only | Must support |
| AdFormatType | String |  | Required | Read-only | Must support |
| AdRejectionReason | String |  | Empty field for advertisers | Empty field for advertisers | Optional |
| AdStatus | String |  | Empty field for advertisers | Empty field for advertisers | Optional |
| BackupFlashAsset | String |  | Optional | Read-only | Should support |
| ClickUrl | String |  | Required | Optional | Must support |
| CreativeAsset | String |  | Required | Read-only | Must support |
| Geometry | [Size](#_Size) |  | Required | Read-only | Must support |
| HttpsCompatible | Boolean |  | Optional | Optional | Should support |
| Id | String |  | Read-only | Read-only | Must support |
| Language | String[\_Language](#_Language) |  | Required | Optional | Must support |
| MaturityLevel | String |  | Optional | Optional | May support |
| Name | String |  | Required | Optional | Must support |
| ProviderData | String | Max 1,000 char | Optional | Optional | May support |

|  |  |
| --- | --- |
| **Property** | Description |
| **AccountId** | The ID of the account that owns the creative. |
| **AdFormatType** | The ad’s format. For a list of possible values, see [AdFormatType](#_AdFormatType).  The product that the line specifies must support the specified ad format. |
| **AdRejectionReason** | The reason why the creative audit did not approve the creative. |
| **AdStatus** | A status value that indicates where in the audit process the creative is. The following are the possible values.  Pending – The creative was submitted and is either waiting for review or is in the process of being reviewed.  Approved – The Creative passed the review.  Rejected – The creative failed the review. The AdQualityRejectionReason field contains the reason why it failed the review. |
| **BackupFlashAsset** | A base64 string that contains the backup Image in case the user’s browser does not support Flash.  The image must be of one of the following mime types.   * GIF * JPEG * PNG   The CreativeAsset property contains the Flash creative.  The publisher’s documentation should indicate any size constraints. If the asset exceeds the constraint, the publisher must return error code, BackupCreativeTooLarge. |
| **ClickUrl** | The URL of a webpage that the user is taken to if they click the ad. The URL may be specified if AdFormatType is set to Flash, FlashExpandable, or Image. |
| **CreativeAsset** | A string that contains the creative. The AdFormatType determines whether the string is a character string or a base64 string. Image and Flash creatives, must use base64 strings and all others (tags, text, and video) use character strings.  If the creative is an image, it must be of one of the following mime types.   * GIF * JPEG * PNG   The publisher’s documentation should indicate any size constraints. If the asset exceeds the constraint, the publisher must return error code, CreativeTooLarge. |
| **Geometry** | The size of the creative. |
| **HttpsCompatible** | A Boolean value that determines whether the creative can properly render on an HTML web page served over HTTPS.  Defaults to False. |
| **Id** | A system-generated opaque ID that uniquely identifies this resource. |
| **Language** | The ISO 639-1 language code that identifies the language used in the ad. For example, if the ad uses English, the ISO code would be EN. |
| **MaturityLevel** | The maturity level of the creative content. The following are the possible values.   * Children * General * Mature   At assignment time, the assignment must be rejected if the specified maturity level does not match the maturity level of the product specified by the line.  The default is General. |
| **Name** | The display name of the creative. |
| **ProviderData** | An opaque blob of provider-defined data. Providers may use this field as needed (for example, to store an ID that correlates this object with resources within their system).  Note that any provider that edits this object may override the data in this field. The data should include a marker that you can identify to ensure the data is yours. |

## Line

Defines a Line resource. A Line specifies the ad product to book, the quantity, and when the line runs.

For information about assigning creatives to a line, [see Assignment](nil).

Notes: The user may update a line only if it’s in the Draft state. If the line is in the Reserved or Declined state, the user may call Reset to move the line back to the Draft state in order to update the line.

| Property | Type | Constraints | Add | Update | Publisher Requirement |
| --- | --- | --- | --- | --- | --- |
| BookingStatus | String |  | Read-only | Read-only | Must support |
| Comment | String | Max 255 char | Optional | Optional | May support |
| Cost | Decimal |  | Read-only | Read-only | Must support |
| EndDate | String | Max 26 char | Required | Optional | Must support |
| FrequencyCount | Byte |  | Optional | Optional | Should support |
| FrequencyInterval | String | Max 5 char | Optional | Optional | Should support |
| Id | String | Max 36 char | Read-only | Read-only | Must support |
| Quantity | Long |  | Optional | Optional | Must support |
| Name | String | Max 200 char | Required | Optional | Must support |
| OrderId | String | Max 36 char | Read-only | Read-only | Must support |
| ProductId | String | Max 36 char | Required | Read-only | Must support |
| ProviderData | String | Max 1,000 char | Optional | Optional | May support |
| Rate | Decimal |  | Read-only | Read-only | Must support |
| RateType | String | Max 10 char | Read-only | Read-only | Must support |
| ReservedExpiryDate | String | Max 26 char | Read-only | Read-only | Should support |
| StartDate | String | Max 26 char | Required | Optional | Must support |
| StateChangeReason | String |  | Read-only | Read-only | Must support |
| Targeting | Segment |  | Optional | Optional | Should support |
| UsesExpandables | Boolean |  | Optional | Optional | Should support |

|  |  |
| --- | --- |
| **Property** | Description |
| **BookingStatus** | A value that determines whether the line is booked and is capable of delivering ads. For a state diagram, see [Booking State Diagram](#_Booking_State_Diagram).  If the line is reset, the StateChangeReason should be cleared.  Possible booking state values are:   * Draft * PendingReservation * Reserved * PendingBooking * Booked * InFlight * Finished * Stopped * Canceled * Expired * Declined   See section x for descriptions of booking status values. |
| **Comment** | User notes related to this line. |
| **Cost** | The projected cost of the line based on the specified quantity, rate and targeting. The actual cost (the amount billed) will be based on the actual number of impressions.  The cost is specified in the currency specified at the order level. If the product specifies a different currency, the cost must be converted to the order’s currency.  The cost is determined at the time the line is saved (added, updated, booked, or reserved). |
| **EndDate** | The date and time that the line will stop.  The date and time must be specified in UTC and conform to ISO 8601.  If the time is missing, 11:59 PM is assumed.  The end date must be later than the start date and should be less than or equal to the order’s end date.  If the end date is later than the order’s end date, the order’s end date should be extended to match the line’s end date. |
| **FrequencyCount** | The maximum number of times that a unique user must see ads from this line during the specified interval (see FrequencyInterval). |
| **FrequencyInterval** | The interval that FrequencyCount applies to. For example, per day or per week.  For a list of possible intervals, see [FrequencyCapInterval](#_FrequencyCapInterval). |
| **Id** | A system-generated opaque ID that uniquely identifies this resource. |
| **Quantity** | The quantity requested for the specified date range. This value will differ based on various cost types. For CPM, for examples, the value would be impressions.  The line must contain a quantity before the user may reserve or book it. If the requested quantity is not available, reserving or booking the line must fail and bookingStatus must be set to Declined. |
| **Name** | The line’s display name.  Should be unique. |
| **OrderId** | The ID of the order that this line belongs to. |
| **ProductId** | The ID of the product where the creatives run. |
| **ProviderData** | An opaque blob of provider-defined data. Providers may use this field as needed (for example, to store an ID that correlates this object with resources within their system).  Note that any provider that edits this object may override the data in this field. The data should include a marker that you can identify to ensure the data is yours. |
| **Rate** | The price per unit of impressions. For example, $10 per 1,000 impressions (CPM).  The rate is determined each time the line is saved (added, updated, booked, or reserved). |
| **RateType** | The unit of measure that Rate is expressed in. For a list of possible values, see [RateType](#_RateType).  The rate type is determined at the time the line is saved (added, updated, booked, or reserved). |
| **ReservedExpiryDate** | The date and time that the reserved inventory will expire.  If the line is reserved, the expiry date must be set. |
| **StartDate** | The date and time that the line will start.  The date and time must be specified in UTC and conform to ISO 8601.  If the time is missing, 12:00 AM is assumed.  The date and time must be greater than or equal to now and should be greater than or equal to the order’s start date.  If the start date is earlier than the order’s start date, the order’s start date should be moved to match the line’s start date if the order’s start date has not past.  Start dates that have past may not be updated. |
| **StateChangeReason** | The reason why the state was changed by the publisher.  The reason must be specified if:   * The publisher declined the booking or reservation.   The publisher or user canceled the flight. |
| **Targeting** | The segments used to target users and determine product availability. For example, behavioral, age, and gender segments.  If the line includes user segments and the delivery engine can determine whether the user matches the specified segments, it will display the ad to the user; otherwise it will not. |
| **UsesExpandables** | A Boolean value that indicates whether the line will be assigned expandable creatives. Used to determine availability.  The default is false. |

### Booking Status Values

* Draft—Indicates that a draft of the line has been saved. The line may be updated only in this state.

The line remains in this state until the user deletes, reserves, or books the line.

* PendingReservation—Indicates that the reservation is in progress.

If approved, the state moves to Reserved; otherwise, it moves to Declined.

Any user action requested in this state must fail.

* Reserved—Indicates that the inventory for the line has been reserved.

Remains in this state until the user cancels, books, resets the line or the reservation expires.

The ability to reserve inventory is optional.

Each publisher determines the length of time that inventory may be reserved without booking before it’s released.

If the line is reserved, the ReservedExpiryDate must be set to the date and time that the reserved inventory will expire.

* PendingBooking—Indicates that the booking is in progress.

If approved, the state moves to Booked; otherwise, it moves to Declined.

Any user action requested in this state must fail.

* Booked—Indicates that the line is booked and the buyer is obligated to the terms.

To book the line, the line must have a creative assigned to it. If a creative is not assigned, the booking must fail.

The line stays in this state until the user cancels the line or the line reaches its delivery window.

After the line reaches its delivery window, the line moves to the InFlight state.

* InFlight—Indicates that the line is in its delivery window.

The line stays in this state until the user cancels the line or the line reaches the end of its delivery window.

If the line reaches the end of its delivery window, then it moves to the Finished state; otherwise, it moves to the Stopped state.

* Finished—Indicates that the line successfully completed its flight.

The line remains in this state.

* Stopped—Indicates that the user or publisher canceled the line while it was in-flight.

The StateChangeReason field must specify the reason why the flight was canceled.

The line remains in this state.

* Canceled—Indicates that the user canceled the line while it was in the Reserved or Booked state.

The line remains in this state.

* Expired—Indicates that the reservation expired.

The line remains in this state unless the user resets the line, which moves it back to the Draft state

* Declined—Indicates that booking or reservation was declined by the publisher or failed.

The line remains in this state unless the user resets the line, which moves it back to the Draft state. The StateChangeReason field must specify the reason why the booking or reservation was declined or failed.

## Order

Defines an Order resource. The Order specifies the plan’s start and end dates, estimated budget, currency, and preferred billing method.

To specify the details of the order, use the [Line](#_Line) resource.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| AccountId | String | Max 36 char | Read-only | Read-only | Must support |
| Brand | String | Max 25 char | Optional | Optional | May support |
| Budget | Decimal |  | Optional | Optional | Should support |
| Contacts | Contact | The list must contain unique contact types (for example, only one billing contact). | Optional | Optional | Should support |
| Currency | String | IS0-4217 | Required | Optional | Must support |
| EndDate | String | Max 26 char | Optional | Optional | Should support |
| Expires | Date | ISO-8601 | Read-only | Read-only | Optional |
| Id | String | Max 36 char | Read-only | Read-only | Must support |
| Industry | String |  | Optional | Optional | May support |
| Name | String | Max 100 char | Required | Optional | Must support |
| OrderStatus | String |  | Read-only | Read-only | Must support |
| PackageOnly | Boolean |  | Read-only | Ready-only | Optional |
| PreferredBillingMethod | String | Max 10 char | Optional | Optional | Should support |
| ProviderData | String | Max 1,000 char | Optional | Optional | May support |
| StartDate | String | Max 26 char | Optional | Optional | Should support |

|  |  |
| --- | --- |
| **Property** | Description |
| **AccountId** | The ID of the account that identifies the advertiser and buyer that own the order. |
| **Brand** | The brand being advertised. |
| **Budget** | The order’s estimated budget. The budget is directional; it is not used to limit the amount of money that the order spends. To determine the projected spend based on quantity, aggregate the Cost property for each line of the order. |
| **Contacts** | The list of contacts to use for this order. This list of contacts is in addition to the buyer’s and advertiser’s list of contacts. |
| **Currency** | The currency that all monetary properties of the order and lines are specified in. The currency is also used for billing and reporting. For a list of possible currency ISO codes, see [Currency](#_Currency).  The publisher may enforce that all lines of the order specify products that use the same currency. |
| **EndDate** | The date and time that the order will end. The end date is directional and may be updated by the publisher to match the latest end date found in the order’s lines.  The date and time must be specified in UTC and conform to ISO 8601.  If the time is missing, 11:59 PM is assumed.  The end date must be later than the start date.  End dates that have past cannot be updated. |
| **Expires** | The date and time using the ISO 8601 format for when the order expires. Publisher will only hold inventory up until the date and time indicated. |
| **Id** | A system-generated opaque ID that uniquely identifies this resource. |
| **Industry** | The industry associated with the order. This industry may differ from the industry specified on the advertiser’s [Organization](#_Organization) object. For possible industries, see [Industry](#_Industry). |
| **Name** | The order’s display name.  Must be unique within the account’s list of orders. |
| **OrderStatus** | A value that determines whether the order is booked and is capable of delivering ads. Possible order status values are:   * Draft * PendingReservation * Reserved * PendingBooking * Booked * InFlight * Finished * Stopped * Canceled * Expired * Declined   See section x for descriptions of order status values. |
| **PackageOnly** | Identifies whether the order is only available as a package or if specific items can be separated from the inventory. A value of TRUE means the inventory is only available as a package. A value of FALSE allows the buyer to select specific items from inventory. |
| **PreferredBillingMethod** | The preferred billing method for this order. The following are the possible values.  Electronic—The invoice is sent to the billing contact’s email address.  Postal—The invoice is sent to the billing contact’s postal address.  The default is Electronic.  If the billing contact is not specified in the order, the billing contact comes from buyer’s list of contacts. |
| **ProviderData** | An opaque blob of provider-defined data. Providers may use this field as needed (for example, to store an ID that correlates this object with resources within their system).  Note that any provider that edits this object may override the data in this field. The data should include a marker that you can identify to ensure the data is yours. |
| **StartDate** | The date and time that the order will start. The start date is directional and may be updated by the publisher to match the earliest start date found in the order’s list of lines.  The date and time must be specified in UTC and conform to ISO 8601.  If the time is missing, 12:00 AM is assumed.  When creating the order, the date and time must be greater than or equal to now.  Start dates that have past may not be updated. |

## Organization

Defines an organization resource. The organization resource may represent an advertiser or agency (buyer). The [Account](#_Account) determines the role that the organization plays. The organization’s role may vary by account. For example, the organization may be an advertiser in one account and a buyer in another.

Notes: An advertiser may create one or more organizations to meet their business needs. For example, they may create a single organization and then create accounts for each brand, subsidiary, or division. Or, they may create an organization for each brand. It is up to the advertiser to determine how they use Organization and Account to meet their organizational needs.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| Address | Address |  | Optional | Optional | Should support |
| Contacts | Contact | The list must contain unique contact types (for example, only one billing contact).  A billing contact is required. | Required | Optional | Must support |
| DisapprovalReason | String | Max 255 char | Read-only | Read-only | Must support |
| Fax | String | Max 20 char | Optional | Optional | May support |
| Id | String | Max 36 char | Read-only | Read-only | Must support |
| Industry | String[\_Industry\_1](#_Industry_1) |  | Optional | Optional | May support |
| Name | String | Max 128 char. Cannot be an empty string. Must be unique. | Required | Optional | Must support |
| Phone | String | Max 20 char | Optional | Optional | Should support |
| ProviderData | String | Max 1,000 char | Optional | Optional | May support |
| Status | String | Max 15 char | Read-only | Read-only | Must support |
| Url | String | Max 1,024 char | Optional | Optional | Should support |

|  |  |
| --- | --- |
| **Property** | Description |
| **Address** | The organization’s corporate headquarters address. |
| **Contacts** | A list of one or more contacts within the organization. |
| **DisapprovalReason** | The reason why the organization was not registered.  Must be specified if Status is Disapproved. |
| **Fax** | The organization’s fax number. |
| **Id** | A system-generated opaque ID that uniquely identifies this resource. |
| **Industry** | The industry that the organization belongs to. For possible industries, see [Industry](#_Industry).  Required for advertiser organization only. |
| **Name** | The organization’s display name. |
| **Phone** | The organization’s phone number. |
| **ProviderData** | An opaque blob of provider-defined data. Providers may use this field as needed (for example, to store an ID that correlates this object with resources within their system).  Note that any provider that edits this object may override the data in this field. The data should include a marker that you can identify to ensure the data is yours. |
| **Status** | A value that indicates the current state of the approval process. The approval process confirms the organization’s identity. The following are the possible values.   * Pending—The organization is under review. * Approved—The organization is approved and can create and book orders. * Disapproved—The organization’s identity could not be verified. The organization may not create and book orders. The DisapprovalReason property must specify the reason why the organization was not approved. * Limited—The organization’s identity could not be verified; however, they may create and book orders.   This state may affect the products and pricing offered to the organization.  The organization may create orders in any state (except where noted); however, they may search for available inventory or reserve and book inventory only in the Approved and Limited states. |
| **Url** | A URL to the organization’s website. |

## Product

Defines a Product resource. A Product identifies anything from an ad placement to a Run of Network product in the publisher’s product catalog.

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Type | Constraints | Publisher Requirement |
| ActiveDate | String | Max 26 char | Should support |
| AdFormatTypes | Array |  | Must support |
| AllowNoCreative | Boolean |  | May support |
| BasePrice | Decimal |  | Must support |
| Currency | String |  | Must support |
| DeliveryType | String | Max 10 char | Should support |
| Description | String | Max 255 char | May support |
| Domain | String Array | Max 255 char | Should support |
| EstimatedDailyAvails | String |  | Should support |
| Geometry | Size |  | Must support |
| HttpsCompatible | Boolean |  | Should support |
| Icon | String | Publishers should support icons that are 150x150 or less. The maximum size is 10 KB. | May support |
| Id | String | Max 36 char | Must support |
| InventoryType | String |  | Should support |
| Languages | String |  | May support |
| LeadTime | Short |  | May support |
| Name | String | Max 38 char | Must support |
| MaturityLevel | String |  | May support |
| MaxDuration | Short |  | Should support |
| MinDuration | Short |  | Should support |
| MinSpend | Decimal |  | Should support |
| Position | Byte |  | Should support |
| ProductTags | Array | Max 500 tags.  Max 100 characters each | May Support |
| RateType | String |  | Must support |
| RetirementDate | String | Max 26 char | Should support |
| TargetTypes | String |  | Should support |
| TimeZone | String |  | Should support |
| Url | String |  | Should support |

|  |  |
| --- | --- |
| **Property** | Description |
| **ActiveDate** | The date and time, in UTC, that the product may become part of the bookable inventory. |
| **AdFormatTypes** | A list of ad types that the product supports. For a list of possible values, see [AdFormatType](#_AdFormatType). |
| **AllowNoCreative** | A Boolean value that indicates whether line items assigned to this order may be booked before creative is assigned. A value of TRUE allows lines to be booked without creative assigned. Default value is FALSE and prevents lines from being booked when no creative is assigned. |
| **BasePrice** | The product’s base retail price; this is not the rate card price. The actual price may be more if targeting is specified. |
| **Currency** | The currency that the BasePrice and MinSpend properties are specified in. For a list of possible currencies, see [Currency](#_Currency). |
| **DeliveryType** | The type of delivery. For example, exclusive or guaranteed. For a list of possible values, see [DeliveryType](#_DeliveryType). |
| **Description** | The product’s description. |
| **Domain** | The product’s domain. For example, yahoo.com. |
| **EstimatedDailyAvails** | An estimated range of available daily impressions. The ranges should be of the form: Thousands, Tens of Thousands, Hundreds of Thousands, and so on. |
| **Geometry** | A list of ad format sizes that the product supports. |
| **HttpsCompatible** | A Boolean value that determines whether the product supports creatives that can properly render on an HTML web page served over HTTPS. |
| **Icon** | URL to a thumbnail icon of the product. May be used to display next to the product in the product catalog. |
| **Id** | A system-generated opaque ID that uniquely identifies this resource. |
| **InventoryType** | A list of devices that the product may serve on. For a list of possible values, see [Inventorytype](#_InventoryType). The default is Desktop. |
| **Languages** | A list of creative languages that the product supports. |
| **LeadTime** | The number of days (*n*) from today that a line that reference this product can begin running; the line’s start date must be equal to or later than today + *n*. |
| **Name** | The product’s display name.  The name must be unique. |
| **MaturityLevel** | The maturity level of the publisher’s content. For a list of possible values, see [MaturityLevel](#_MaturityLevel). |
| **MaxDuration** | The maximum number of days that the product may be booked for. The line must enforce the duration. |
| **MinDuration** | The minimum number of days that the product must be booked for. The line must enforce the duration. |
| **MinSpend** | The minimum amount of money that must be spent on this product in order to book it. |
| **Position** | The position of the ad as a relative measure of visibility or prominence. For a list of possible values, see [AdPosition](#_AdPosition). |
| **ProductTags** | List of tags used for searching the product catalog. |
| **RateType** | The unit of measure that BasePrice is expressed in. For a list of possible values, see [RateType](#_RateType). |
| **RetirementDate** | The date and time, in UTC, that the product may be removed from the bookable inventory. |
| **TargetTypes** | A list of IDs that identify the types of targeting that the product supports. For example, DMA or Gender. |
| **TimeZone** | The time zone that the product runs in. |
| **Url** | A URL to the specification that describes the creative requirements. |

# Common Objects

The following objects are common to one or more resources.

## Address

Defines a postal address.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| City | String | Max 35 alpha characters. Cannot be an empty string. | Required | Optional | Required |
| Country | String | Max 2 alpha characters. Must be a valid ISO 3166-1 country code. | Required | Optional | Required |
| AddressLine1 | String | Max 255 alphanumeric characters.  Cannot be an empty string. | Required | Optional | Required |
| AddressLine2 | String | Max 255 alphanumeric characters. | Optional | Optional | Required |
| PostalCode | String | Max 15 alphanumeric characters. Can include a dash and space.  Cannot be an empty string. | Optional | Optional | Required |
| State | String | Max 35 alpha characters. Cannot be an empty string. | Optional | Optional | Required |

|  |  |
| --- | --- |
| **Property** | Description |
| **City** | The city. |
| **Country** | The country/region. |
| **AddressLine1** | The first line of the address. |
| **AddressLine2** | The second line of the address. |
| **PostalCode** | The postal or ZIP code. |
| **State** | The state or province. |

## Contact

Defines an agency or advertiser contact.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| Address | String |  | Optional | Optional | Optional |
| Email | String | Max 254 characters. | Optional | Optional | Required |
| Honorific | String | Max 20 characters. | Optional | Optional | Optional |
| Fax | String | Max 20 characters. | Optional | Optional | Optional |
| FirstName | String | Max 20 characters. | Required | Optional | Required |
| LastName | String | Max 20 characters. | Required | Optional | Required |
| Phone | String | Max 20 characters. | Optional | Optional | Required |
| Title | String | Max 30 characters. | Optional | Optional | Required |
| Type | String | Max 10 characters.  The string is case insensitive. | Required | Read-only | Required |

|  |  |
| --- | --- |
| **Property** | Description |
| **Address** | The contact’s address.  Required if Type is Billing and the organization’s or order’s preferred billing method is paper. |
| **Email** | The contact’s email address.  Required if Type is Billing and the organization’s or order’s preferred billing method is electronic. |
| **Honorific** | Honorific such as Mr. or Ms. |
| **Fax** | The contact’s fax number. |
| **FirstName** | The contact’s first name. |
| **LastName** | The contact’s last name. |
| **Phone** | The contact’s phone number. |
| **Title** | The contact’s job title. |
| **Type** | The type of contact that this resource represents. For a list of possible values, see [ContactType](#_ContactType). |

## ProductAvails

Defines the availability and pricing information that a product availability search request returns.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| Availability | Long |  |  |  | Required |
| Currency | String |  |  |  | Required |
| ProductId | String |  |  |  | Required |
| Price | Decimal |  |  |  | Required |

|  |  |
| --- | --- |
| **Property** | Description |
| **Availability** | The quantity that is available to book.  The number must be equal to or less than the Quantity specified in [ProductAvailsSearch](#_ProductAvailsSearch). For example, if Quantity is set to 500,000 and there are 500,000 impressions available, Availability must be set to 500,000. However, if there are only 250,000 impressions available, Availability must be set to 250,000. If there are no impressions available, Availability must be set to 0.  Note that publishers may set an artificial limit on the maximum number of available impressions.  This is the number of available impressions over the date range; the availability on a given date within the range may vary. |
| **Currency** | The currency used to specify Price. The product determines the currency. |
| **ProductId** | A system-generated opaque ID that uniquely identifies the product.  The ID is one of the product IDs specified in [ProductAvailsSearch](#_ProductAvailsSearch) (see ProductIds). |
| **Price** | The product’s price per unit. The product’s rate type determines the unit. For example, if RateType is CPM, the price is per 1,000 impressions. |

## ProductAvailsSearch

Defines the search criteria used to search for product availability and pricing information.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| AccountId | String |  |  |  | Recommended |
| Currency | String |  |  |  | Recommended |
| EndDate | String |  |  |  | Required |
| FrequencyCount | Byte |  |  |  | Recommended |
| FrequencyInterval | String |  |  |  | Recommended |
| Quantity | Long |  |  |  | Required |
| ProductIds | String |  |  |  | Required |
| StartDate | String |  |  |  | Required |
| Targeting | Segment |  |  |  | Recommended |

|  |  |
| --- | --- |
| **Property** | Description |
| **AccountId** | The ID of the account that identifies the agency and advertiser. If not specified, the pricing information is based on the product’s base rate. |
| **Currency** | The currency the product supports. If the publisher supports the option to filter product avails by currency, then only products that support select currency is returned. Otherwise, publisher returns duplicate product avails, each with different supported currencies. |
| **EndDate** | The end date of the delivery window. The date and time must be specified in UTC and must be later than StartDate. |
| **FrequencyCount** | The maximum number of times that a unique user must see ads during the specified interval (see FrequencyInterval).  This field must be specified if FrequencyInterval is specified. |
| **FrequencyInterval** | The interval that FrequencyCount applies to. For example, per day or per week.  For a list of possible intervals, see [FrequencyCapInterval](#_FrequencyCapInterval).  This field must be specified if FrequencyCount is specified. |
| **Quantity** | The quantity requested for the specified date range. This value will differ based on various cost types. For CPM, for examples, the value would be impressions.  The maximum quantity that may be specified is publisher dependent. |
| **ProductIds** | A list of IDs that identify the products to get availability and pricing information for.  The maximum number of IDs that can be specified is publisher dependent.  The date range, quantity, and targeting apply to all specified products. |
| **StartDate** | The start date of the delivery window. The date and time must be specified in UTC and must be later than now. |
| **Targeting** | The segments to target. For example, behavioral, age, and gender segments. |

## ProductSearch

Defines the search criteria used to search the product catalog.

Note that product selection uses a logical AND between fields and a logical OR between field values. For example, the product is select if it supports the Flash OR Image OR Text ad format, AND supports USD currency, AND specifies the OR bar product tag.

At least one field must be specified.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| AdFormatTypes | Array |  |  |  | Required |
| Currency | String |  |  |  | Required |
| DeliveryType | String |  |  |  | Required |
| Domain | String |  |  |  | Required |
| Geometry | Size |  |  |  | Required |
| ProductTags | String |  |  |  | Optional |

|  |  |
| --- | --- |
| **Property** | Description |
| **AdFormatTypes** | One or more ad types. Return products that support one or more of the specified formats.  For a list of possible values, see [AdFormatType](#_AdFormatType). |
| **Currency** | The currency that the product supports.  Return products that support the specified currency.  For a list of possible currency ISO codes, see [Currency](#_Currency). |
| **DeliveryType** | The delivery type (for example, Guaranteed). For a list of possible values, see [DeliveryType](#_DeliveryType). |
| **Domain** | The product’s domain. For example, yahoo.com. |
| **Geometry** | One or more ad sizes. Return products that support one or more of the specified sizes. |
| **ProductTags** | One or more tags.  Return products that have product tags that exactly match one or more of the specified tags.  A match occurs if the specified tag exactly matches the product’s tag (using a case insensitive comparison). For example, the product is selected if the specified search tag is Travel and the product includes a Travel tag. However, if the product includes only a European Travel tag, the product is not selected. |

## Size

Defines the geometry of a creative.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| Height | Short |  | Required | Optional | Required |
| Width | Short |  | Required | Optional | Required |

|  |  |
| --- | --- |
| **Property** | Description |
| **Height** | The height of the creative in pixels. |
| **Width** | The width of the creative in pixels. |

## Segment

Defines the target and target values used to search for product availability and to specify targeting for a line.

The values for these fields come from the [Target](#_Target) and [TargetValue](#_TargetValue) reference data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| Target | String |  | Required | Optional | Required |
| TargetValues | String |  | Required | Optional | Required |

|  |  |
| --- | --- |
| **Property** | Description |
| **Target** | The target category. For example, Age. |
| **TargetValues** | A list of target values. For example, age range 18-24 and 25-34. |

# Reference Data

This section defines the reference data that an OpenDirect API must support. Reference data provides enumerated values for a resource property. The publisher must return only those values that they support.

## AdFormatType

Defines the possible ad formats.

The API may support all or a subset of the following ad formats.

* HTML5
* HTML5 Expandable
* Flash
* FlashExpandable
* Image
* Tag
* TagExpandable
* Text
* Video
* VPAID
* MRAID

Tag and TagExpandable denote a third-party script.

Native Ads

It’s permissible to add a “Native” format if supported by publisher using the following designation “x-Native.” For example, “x-fallfashion.”

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| Id | String | The ID may contain a Max 36 characters. |  |  |  |
| Name | String |  |  |  |  |

|  |  |
| --- | --- |
| **Property** | Description |
| **Id** | A system-generated opaque ID that uniquely identifies this resource. |
| **Name** | The ad format’s display name. |

## AdPosition

Defines the possible ad positions on a web page.

The API may support all or a subset of the following ad positions.

* AboveFold—Ad placements that are visible without scrolling.
* BelowFold—Ad placements that are visible only if the user scrolls down the page.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| Id | String | The ID may contain a Max 36 characters. |  |  |  |
| Name | String |  |  |  |  |

|  |  |
| --- | --- |
| **Property** | Description |
| **Id** | A system-generated opaque ID that uniquely identifies this resource. |
| **Name** | The ad position’s display name. |

## ContactType

Defines the possible types of [Contacts](#_Contact).

The API must support the following contact types.

* Billing—The person to contact with billing inquiries.
* Buyer—The person to contact with general questions about the order.
* Creative—The person to contact if there is an issue with one of the order’s creatives.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| Id | String | The ID may contain a Max 36 characters. |  |  |  |
| Name | String |  |  |  |  |

|  |  |
| --- | --- |
| **Property** | Description |
| **Id** | A system-generated opaque ID that uniquely identifies this resource. |
| **Name** | The type’s display name. |

## Country

Defines a country that the API supports.

The API may support all or a subset of the countries specified in ISO 3166-1.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| IsoCode | String |  |  |  |  |

|  |  |
| --- | --- |
| **Property** | Description |
| **IsoCode** | The country’s two-character ISO code. |

## Currency

Defines a currency that the API supports.

The API may support all or a subset of the currencies specified in ISO 4217.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| IsoCode | String |  |  |  |  |

|  |  |
| --- | --- |
| **Property** | Description |
| **IsoCode** | The currency’s three-character ISO code. |

## DeliveryType

Defines the possible types of delivery.

The API may support all or a subset of the following formats.

* Exclusive—100% share of voice.
* Guaranteed—Guaranteed delivery of all booked impressions.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| Id | String | Max 36 char |  |  |  |
| Name | String |  |  |  |  |

|  |  |
| --- | --- |
| **Property** | Description |
| **Id** | A system-generated opaque ID that uniquely identifies this resource. |
| **Name** | The delivery type’s display name. |

## FrequencyCapInterval

Defines the frequency cap intervals that the API supports.

The frequency interval specifies the units in which the frequency count is expressed. For example, if a line’s frequency count is 2 and interval is Day, display the ad to the same user a Max 2 times in the same calendar day.

The API may support all or a subset of the following intervals.

* Day
* Month
* Week
* Hour
* LineDuration – For the life of the line based on its start and end dates.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| Id | String |  |  |  |  |
| Name | String |  |  |  |  |

|  |  |
| --- | --- |
| **Property** | Description |
| **Id** | A system-generated ID that uniquely identifies this resource. |
| **Name** | The name of the interval. |

## Industry

Defines an industry that the advertiser belongs to.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| Id | String |  |  |  |  |
| Name | String |  |  |  |  |
| ParentId | String |  |  |  |  |
| SubIndustries | Industry |  |  |  |  |

|  |  |
| --- | --- |
| **Property** | Description |
| **Id** | A system-generated ID that uniquely identifies this resource.  The API may support all or a subset of the following industries: |
| **Name** | The industry’s display name. |
| **ParentId** | The ID of the sub-industry’s parent. Is NULL for the top-level parent. |
| **SubIndustries** | A list of sub-industries. The list is empty if the industry has no sub-industries. |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Arts & Entertainment** | All  Books & Literature  Celebrity/Fan Gossip  Fine Art  Humor  Movies  Music  Television | **Education** | All  7-12 Education  Adult Education  Art History  College Administration  College Life  Distance Learning  English as a 2nd Language  Graduate School  Homeschooling  Homework/Study Tips  K-6 Education  Language Learning  Private School  Special Education  Studying Business | | **Health & Fitness** | All  A.D.D.  AIDS/HIV  Allergies  Alternative Medicine  Arthritis  Asthma  Autism/PDD  Bipolar Disorder  Brain Tumor  Cancer  Cholesterol  Chronic Fatigue syndrome  Chronic Pain  Cold & Flu  Deafness  Dental Care  Depression  Dermatology  Diabetes  Epilepsy  Exercise  GERN/Acid Reflux  Headaches/Migraines  Heart Disease  Herbs for Health  Holistic Healing  IBS/Crohn’s Disease  Men’s Health  Nutrition  Orthopedics  Panic/Anxiety Disorders  Pediatrics  Physical Therapy  Psychology/Psychiatry  Senior Health  Sexuality  Sleep Disorders  Smoking Cessation  Substance Abuse  Thyroid Disease  Weight Loss  Women’s Health | |
| **Automotive** | All  Auto Parts  Auto Repair  Buying/Selling Cars  Car Culture  Certified Pre-owned  Convertible  Coupe  Crossover  Diesel  Electric Vehicle  Hatchback  Hybrid  Luxury  Mini Van  Motorcycles  Off-Road Vehicles  Performance Vehicles  Pickup  Road-Side Assistance  Sedan  Trucks & Accessories  Vintage Cars  Wagon |
| **Family & Parenting** | All  Adoption  Babies & Toddlers  Daycare/Preschool  Eldercare  Family Internet  Parenting – K-6 Kids  Parenting – 7-12 Kids  Parenting Teens  Pregnancy  Special Needs Kids | |
| **Food & Drink** | All  American Cuisine  Barbecues & Grilling  Cajun/Creole  Chinese Cuisine  Cocktails/Beer  Coffee/Tea  Cuisine-Specific  Desserts & Baking  Dining Out  Food Allergies  French Cuisine  Health/Low-fat Cooking  Italian Cuisine  Mexican Cuisine  Vegan  Vegetarian  Wine | |
| **Business** | All  Advertising  Agriculture  Biotech/Biomedical  Business Software  Construction  Forestry  Government  Green Solutions  Logistics  Marketing  Metals |
| **Careers** | All  Career Advice  Career Planning  College  Financial Aid  Job fairs  Job Search  Nursing  Resume Writing/Advice  Scholarships  Telecommuting  U.S. Military | **Hobbies & Interest** | | | | | |
| All  Art/Technology  Arts & Crafts  Beadwork  Bird Watching  Board Games/Puzzles  Candle & Soap Making  Card Games  Chess  Cigars  Collecting  Comic Books  Drawing/Sketching | | Freelance Writing  Genealogy  Getting Published  Guitar  Home Recording  Investors & Patents  Jewelry Making  Magic & Illusion  Needlework  Painting  Photography  Radio  Roleplaying Games | | | Sci-Fi & Fantasy  Scrapbooking  Screenwriting  Stamps & Coins  Video & Computer Games  Woodworking |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Home & Garden** | All  Appliances  Entertaining  Environmental Safety  Gardening  Home Repair  Home Theater  Interior Decorating  Landscaping  Remodeling & Construction | **Real Estate** | All  Apartments  Architects  Buying/Selling Homes | **Style & Fashion** | All  Accessories  Beauty  Body Art  Clothing  Fashion  Jewelry |
| **Religion & Spirituality** | All  Alternative Religions  Atheism/Agnosticism  Buddhism  Catholicism  Christianity  Hinduism  Islam  Judaism  Latter-Day Saints  Pagan/Wiccan |
| **Sports** | All  Auto Racing  Baseball  Bicycling  Bodybuilding  Boxing  Canoeing/Kayaking  Cheerleading  Climbing  Cricket  Figure Skating  Fly Fishing  Football  Freshwater Fishing  Game & Fish  Golf  Horse Racing  Horses  Hunting/Shooting  Inline Skating  Martial Arts  Mountain Biking  NASCAR Racing  Olympics  Paintball  Power & Motorcycles  Pro Basketball  Pro Ice Hockey  Rodeo  Rugby  Running/Jogging  Sailing  Saltwater Fishing  Scuba Diving  Skate Boarding  Skiing  Snowboarding  Surfing/Body Boarding  Swimming  Table Tennis/Ping-Pong  Tennis  Volleyball  Walking  Waterski/Wakeboard  Work Soccer |
| **Law, Gov’t & Politics** | All  Commentary  Immigration  Legal Issues  Politics  U.S. Government Resources |
| **Science** | All  Astrology  Biology  Botany  Chemistry  Geography  Geology  Paranormal Phenomena  Physics  Space/Astronomy  Weather |
| **News** | All  International News  Local New  National News  Other |
| **Personal Finance** | All  Beginning Investing  Credit/Debit & Loans  Financial New  Financial Planning  Hedge Fund  Insurance  Investing  Mutual Funds  Options  Retirement Planning  Stocks  Tax Planning |
| **Shopping** | All  Comparison  Contests & Freebies  Couponing  Engines |
| **Society** | All  Dating  Divorce Support  Ethnic Specific  Gay Life  Marriage  Senior Living  Teens  Weddings |
| **Pets** | All  Aquariums  Birds  Cats  Dogs  Large Animals  Reptiles  Veterinary Medicine |

|  |  |  |  |
| --- | --- | --- | --- |
| **Technology & Computing** | All  3-D Graphics  Animation  Antivirus Software  C/C++  Cameras & Camcorders  Cell Phones  Computer Certification  Computer Networking  Computer Peripherals  Computer Reviews  Data Centers  Databases  Desktop Publishing  Desktop Video  Email  Graphics Software  Home Video/DVD  Internet Technology  Java  JavaScript  Linux  MP2/MIDI  Mac OS  Mac Support  Net Conferencing  Net for Beginners  Network Security  PC Support  Palmtops/PDAs  Portable Entertainment  Shareware/Freeware  Unix  Visual Basic  Web Clip Art  Web Design/HTML  Web Search  Windows | **Travel** | All  Adventure Travel  Africa  Air Travel  Africa  Air Travel  Australia & New Zealand  Bed & Breakfasts  Budget Travel  Business Travel  Camping  Canada  Caribbean  Cruises  Eastern Europe  Europe  France  Greece  Honeymoons/Getaways  Hotels  Italy  Japan  Mexico & Central America  National Parks  South America  Spas  Theme Parks  Traveling with Kids  United Kingdom |

## InventoryType

Defines a list of devices that the product may serve on.

The API may support all or a subset of the following values.

* App — An in-app ad
* Desktop
* Mobile
* Tablet

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| Id | String | Max 36 char |  |  |  |
| Name | String |  |  |  |  |

|  |  |
| --- | --- |
| **Property** | Description |
| **Id** | A system-generated opaque ID that uniquely identifies this resource. |
| **Name** | The ad format’s display name. |

## Language

Defines a language that the API supports.

The API may support all or a subset of the languages specified in ISO 639-1.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| IsoCode | String |  |  |  |  |

|  |  |
| --- | --- |
| **Property** | Description |
| **IsoCode** | The language’s two-character ISO code. |

## MaturityLevel

Defines a list of maturity levels. The API may support all or a subset of the following values.

* Children
* General
* Mature

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| Id | String | Max 36 char |  |  |  |
| Name | String |  |  |  |  |

|  |  |
| --- | --- |
| **Property** | Description |
| **Id** | A system-generated opaque ID that uniquely identifies this resource. |
| **Name** | The ad format’s display name. |

## RateType

Defines a unit of measure that a cost (i.e. BasePrice) is expressed in.

The API may support all or a subset of the following values.

* CPM—Cost per thousand impressions
* CPMV—Cost per thousand impressions viewed
* CPC—Cost per click
* CPD—Cost per day
* FlatRate—Flat rate

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| Id | String | The ID may contain a Max 36 characters. |  |  |  |
| Name | String |  |  |  |  |

|  |  |
| --- | --- |
| **Property** | Description |
| **Id** | A system-generated opaque ID that uniquely identifies this resource. |
| **Name** | The rate type’s display name. |

## Target

Defines a target category. For example: gender or DMA targeting.

The API must support the following target categories and may support additional categories such as zip code or postal code.

* Age
* Gender
* DMA
* Country
* State/Province
* Daypart
* Weekpart
* Behavioral

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| Id | String |  |  |  |  |
| Name | String |  |  |  |  |

|  |  |
| --- | --- |
| **Property** | Description |
| **Id** | A system-generated ID that identifies this resource. |
| **Name** | The target category. |

## TargetValue

Defines a target value.

The API must support the following values per target category:

* Age
  + Publisher-defined age ranges.
* Gender
  + Female
  + Male
* DMA
  + Source is Digital Envoy
* Country
  + Source is Digital Envoy
* State/Province
  + Source is Digital Envoy
* Daypart
  + 0 through 23 hours
* Weekpart
  + Sunday
  + Monday
  + Tuesday
  + Wednesday
  + Thursday
  + Friday
  + Saturday
* Behavioral

Publisher-defined behavioral segments.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Property | Type | Constraints | Add | Update | Publisher Requirement |
| Id | String |  |  |  |  |
| Value | String |  |  |  |  |
| TargetId | String |  |  |  |  |

|  |  |
| --- | --- |
| **Property** | Description |
| **Id** | A system-generated ID that uniquely identifies this resource. |
| **Value** | The target value. |
| **TargetId** | A system-generated ID that identifies the target category that this value belongs to. |

# Collection Objects

For GET calls that return a collection of resources, such as /accounts/{id}/orders, the response must be an object that contains an array of the requested resources. The array must be named according to the type of resource it contains. The following table identifies the property name that must be used for each collection call.

|  |  |  |
| --- | --- | --- |
| **Call** | **Property Name** | **Resource** |
| /organizations  /organizations?$filter | organizations | [Organization](#Organization) |
| /accounts  /accounts?$filter | accounts | [Account](#_Account) |
| /accounts/{id}/assignments  /accounts/{id}/assignments?$filter | assignments | [Assignment](#_Assignment) |
| /accounts/{id}/creatives  /accounts/{id}/creatives?$filter | creatives | [Creative](#_Creative)[\_Assignment](#_Assignment) |
| /accounts/{id}/orders  /accounts/{id}/orders?$filter | orders | [Order](#_Order)[\_Campaign](#_Campaign)[\_Assignment](#_Assignment) |
| /accounts/{id}/orders/{id}/lines  /accounts/{id}/orders/lines?$filter | lines | [Lines](#_Line)[\_Assignment](#_Assignment) |
| /products (POST)  /products/search (POST) | products | [Product](#_Product)[\_Assignment](#_Assignment) |
| /products/avails (POST) | avails | [ProductAvails](#_ProductAvails)[\_Assignment](#_Assignment) |

The following shows an example response for /accounts.

{

"accounts": [

{

"advertiserId": “B7EBC7F3-FBB3-4250-99F1-8D001088434B”,

"agencyId": "4AA837B7-1A27-421E-9DDD-CAEF1AE884B5",

"id": “9B0878BE-7254-49BE-AFD4-B0A67C7C3D26”,

},

{

"advertiserId": “16B55667-37CF-4447-A79D-88E6DAC4D7C2”,

"agencyId": "4AA837B7-1A27-421E-9DDD-CAEF1AE884B5",

"id": “EAC93F5D-F448-44D6-8333-4E530D14C9DA”,

},

]

}

The collection object may include additional publisher-defined properties.

If there are no resources to return, the array must be empty.

# General Support Requirements

OpenDirect-compliant systems must support the following:

## Authentication

Publishers must support authenticating advertiser and agency users. Publishers must use [OAuth 2.0](http://tools.ietf.org/html/draft-ietf-oauth-v2-15) for user authentication. Publishers must support the implicit and authorization code grant flows.

Each request must include an AccessToken header that is set to the user’s access token. If the token is not valid, the request must fail with HTTP status code 401 Unauthorized.

## Versioning

Versioning occurs at the API level and is URI based. All services that make up the API must use the same version number. The version may fall anywhere in the path before the resource and must have the form v*n*, where *n* is a positive integer. For example, in the URI https://<host>/api/v1/accounts/{id}, v1 indicates version 1 of the API.

## HTTP Error Codes/Error Handling

The publisher must support the following HTTP status codes.

|  |  |
| --- | --- |
| **Status Code** | **Description** |
| 200 Ok | Return for a successful GET, POST, PUT, or PATCH request. |
| 400 Bad Request | Return for a POST, PUT or PATCH request that contains invalid data, or when the requested action (i.e. book) is not valid.  The response must include the reasons for the error. For details, see [Error Response](#_Error_Response). |
| 401 Unauthorized | Return if the user is not authorized to make the request. |
| 404 Not found | Return if the requested resource is not found. |
| 500 Internal server error | Return for server-related errors. |

The API may support the following HTTP status codes.

|  |  |
| --- | --- |
| **Status Code** | **Description** |
| 302 Found | Return if the resource has moved. The Location header must include the new URI. |
| 304 Not modified | Return for requests that include the If-None-Match header (to support ETags) and the resource has not changed. |
| 412 Precondition failed | Return for requests that include the If-Match header (to support ETags) and the resource has changed. |

## Error Response

If the request generates a 400 Bad Request status code, the response must contain a collection object; the collection object must contain a single field named **errors**. The value of **errors** is an array of one or more error objects. The following table defines the properties of the error object.

|  |  |  |  |
| --- | --- | --- | --- |
| **Property** | **Type** | **Required/Optional** | **Description** |
| ErrorCode | String | Required | A symbolic string constant that identifies the error. |
| Context | Dictionary<string, object> | Optional | A list of Publisher-defined key/value pairs that provide additional context about the error. For example, an ID that identifies a log entry. |
| Link | String | Optional | A URL to additional help text that may help the caller solve the issue. |
| ErrorMessage | String | Required | A string that describes the error that occurred. |

The following shows the body of an example error response.

{

"errors": [

{

"context": {“logId”:”123abc”},

"message": "The requested impressions are not available.",

"errorCode": “ImpressionsNotAvailable”,

"link": "https:\\<host>\help\impressions.aspx”

},

{

"context": {},

"message": "",

"errorCode": “”,

"link": ""

},

]

}

## Data Format

Supported mime type: application/json

## Reporting

Reporting occurs at the line level. The publisher must support the following GET calls to generate a click and impression report.

|  |  |
| --- | --- |
| **URI** | **Description** |
| /accounts/{id}/orders/{id}/lines/stats | Aggregates the impressions and clicks for all lines in the order. |
| /accounts/{id}/orders/{id}/lines/{id}/stats | Aggregates the impressions and clicks for the specified line. |

The following identifies the properties of the report.

|  |  |  |  |
| --- | --- | --- | --- |
| **Property** | **Type** | **Required** | **Description** |
| Clicks | Long | Yes | The number of clicks to date. The value must be zero if no clicks have occurred. |
| CTR | Short | No | The click through rate to date. The formula to calculate CTR is (clicks / impressions) \* 100. |
| ImpressionsServed | Long | Yes | The number of impressions served to date. The value must be zero if no impressions have been served. |
| ReportDate | String | Yes | The data and time of the report. The date and time is reported in the order’s time zone. |
| Spend | Decimal | No | The amount spent to date. |

# General Request/Response Rules and URIs

Clearer explanation…

1. If the following is true for the request, the response must not include the property.

* The value is NULL
* There is no default value
* Its type is numeric or string

However, if the property is an array of any type and is NULL, the response must include the property and it must be set to an empty array.

1. All POST (add operations) and PUT/PATCH requests must include the resource in the response.
2. For POSTs (add operations), ignore properties that are set to NULL. However, for PUT/PATCH, if a property is set to NULL, remove the current value.

## URI Summary Table

|  |  |  |  |
| --- | --- | --- | --- |
| Resource | URI | Verbs | Required |
| Account | [/accounts](#_/tenants/{id}/accounts) | GET, POST | Yes |
|  | [/accounts/{id}](#_/tenants/{id}/accounts/{id}) | GET | Yes |
|  | [/accounts?$filter=](#_/tenants/{id}/accounts?$filter=) | GET | Yes |
| Assignment | [/accounts/{id}/assignments](#_/tenants/{id}/accounts/{id}/assignm) | GET, POST | Yes |
|  | [/accounts/{id}/assignments/{id}](#_/tenants/{id}/accounts/{id}/assignm_1) | GET, PUT or PATCH, DELETE | Yes |
|  | [/accounts/{id}/assignments/{id}?disable](#_/tenants/{id}/accounts/{id}/assignm_2) | PUT or PATCH | Yes |
|  | [/accounts/{id}/assignments?$filter=](#_/tenants/{id}/accounts/{id}/assignm_3) | GET | No |
| Creative | [/accounts/{id}/creatives](#_/tenants/{id}/accounts/{id}/creativ) | GET, POST | Yes |
|  | [/accounts/{id}/creatives/{id}](#_/tenants/{id}/accounts/{id}/creativ_1) | GET, PUT or PATCH, DELETE | Yes |
|  | [/accounts/{id}/creatives?$filter=](#_/tenants/{id}/accounts/{id}/creativ_2) | GET | No |
| Order | [/accounts/{id}/](#_/tenants/{id}/accounts/{id}/campaig)orders | GET, POST | Yes |
|  |  | GET, PUT or PATCH, DELETE | Yes |
|  | [/accounts/{id}/orders/{id}](#_/tenants/{id}/accounts/{id}/campaig_1) | GET | No |
| Line | [/accounts/{id}/orders/{id}/lines](#_/tenants/{id}/accounts/{id}/campaig_6) | GET, POST | Yes |
|  | [/accounts/{id}/orders/{id}/lines/{id}](#_/tenants/{id}/accounts/{id}/campaig_7) | GET, PUT or PATCH, DELETE | Yes |
|  | [/accounts/{id}/orders?$filter=](#_/tenants/{id}/accounts/{id}/campaig_2) | GET? | YES? |
|  | [/accounts/{id}/orders/{id}/lines/{id}?book](#_/tenants/{id}/accounts/{id}/campaig_9) | PUT or PATCH | Yes |
|  | [/accounts/{id}/orders/{id}/lines/{id}?reserve](#_/tenants/{id}/accounts/{id}/campaig_10) | PUT or PATCH | Yes |
|  | [/accounts/{id}/orders/{id}/lines/{id}?cancel](#_/tenants/{id}/accounts/{id}/campaig_11) | PUT or PATCH | Yes |
|  | [/accounts/{id}/orders/{id}/lines/{id}?reset](#_/tenants/{id}/accounts/{id}/campaig_12) | PUT or PATCH | Yes |
| Organizations | [/organization](#_/tenants/{id}/customers)s | GET, POST | Yes |
|  | [/organizations/{id}](#_/tenants/{id}/customers/{id}) | GET, PUT or PATCH, DELETE | Yes |
|  | [/organizations?$filter=](#_/tenants/{id}/customers?$filter=) | GET | No |
| Products | [/products](#_/tenants/{id}/products) | GET | Yes |
|  | [/products/{id}](#_/tenants/{id}/products/{id}) | GET | Yes |
|  | [/products/search](#_/tenants/{id}/products/search) | POST | Yes |
|  | [/products/avails](#_/tenants/{id}/products/avails) | POST | Yes |

## Account Resource

Description

### /accounts

Adds an [Account](#_Customer) or gets a list of accounts that the user has access to. The response must support pagination. See Paging Query Parameters.

**Verbs**

GET: Gets a list of all accounts.

POST: Adds an account.

**Rules**

An advertiser or agency may add accounts to only the organization they own; an agency may not add accounts to an advertiser’s organization. If an advertiser wants an agency to manage an account on their behalf, the advertiser must add the account and set the account’s buyerId to the agency’s organization ID.

An organization may add as many accounts as needed to create a buying structure that supports their needs. For example, the organization may create a single account, an account for each region, an account for each brand, and so on.

For an advertiser, the list of accounts will include only accounts that they own. However, for an agency, the list of accounts will include the accounts that they own and the accounts that they manage on behalf of advertisers.

**Example POST Request**

POST https://<host>/<path>/<version>/accounts HTTP/1.1  
Content-Type: application/json  
AccessToken: <OAuth token>  
  
{  
 "advertiserId":"1234987",  
 "buyerId":"34587",  
 "name":"Brand A",  
 "providerData":"cid=934759"  
}

**Example POST Response**

HTTP/1.1 200 OK  
Location: https://<host>/<path>/<version>/accounts/23873345

Content-Type: application/json  
Content-Length: 379

{  
 "advertiserId":"1234987",  
 "buyerId":"34587",  
 "id":"23873345",  
 "name":"Brand A",  
 "providerData":"cid=934759"  
}

**Example GET Request**

GET https://<host>/<path>/<version>/accounts HTTP/1.1  
Accept: application/json  
AccessToken: <OAuth token>

**Example GET Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 187

{  
 "accounts":[  
 {  
 "advertiserId":"1234987",  
 "buyerId":"1234987",  
 "id":"9876542",  
 "name":"Brand B",  
 "providerData":"cid=8934579"  
 },  
 {  
 "advertiserId":"1234987",  
 "buyerId":"34587",  
 "id":"23873345",  
 "name":"Brand A",  
 "providerData":"cid=934759"  
 }  
 ]  
}

### /accounts/{id}

Gets the specified [Account](#_Customer).

**Verb**

GET: Gets the specified account.

**Rules**

The user must have permissions to perform the requested action. For example, advertisers and agencies may get the accounts that they own. In addition, an agency may get the accounts that they manage on behalf of advertisers.

**Example GET Request**

GET https://<host>/<path>/<version>/accounts/23873345 HTTP/1.1  
Accept: application/json  
AccessToken: <OAuth token>

**Example GET Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 187

{  
 "advertiserId":"1234987",  
 "buyerId":"34587",  
 "id":"23873345",  
 "name":"Brand A",  
 "providerData":"cid=934759"  
}

### /accounts?$filter=

The response must support pagination. See Paging Query Parameters.

**Verb**

Get: Gets a list of accounts that match the specified filter criteria. The user may use OData expressions with the following Account properties:

* AdvertiserId
* BuyerId

May also support getting a list of IDs.

**Rules**

None?

**Example Request**

None?

**Example Response**

None?

## Account Assignments

Description

### /accounts/{id}/assignments

Adds an [Assignment](#_Assignment) or gets a list of assignments that the user has access to.

**Verbs**

GET: Gets a list of all assignments that belong to the account.

POST: Adds an assignment to the specified account. To add an assignment, the creative must be approved. An assignment may be added at any time prior to the order finishing its flight.

**Rules**

An advertiser or agency may add assignments to accounts that they own. In addition; an agency may add assignments to accounts that they manage on behalf of advertisers.

For advertisers, the list will include only assignments that they own. For agencies, the list will include the assignments that they own and the assignments that belong to accounts that they manage on behalf of advertisers.

**Example POST Request**

POST https://<host>/<path>/<version>/accounts/23873345/assignments HTTP/1.1  
Content-Type: application/json  
AccessToken: <OAuth token>  
  
{  
 "creativeId":"394857",  
 "lineId":"394578",  
 "weight":75,  
 "providerData":"cid=98374"  
}

**Example POST Response**

HTTP/1.1 200 OK  
Location: https://<host>/<path>/<version>/accounts/23873345/assignments/34534  
Content-Type: application/json  
Content-Length: 187

{  
 "creativeId":"394857",  
 "lineId":"394578",  
 "Id":"34534",  
 "weight":75,  
 "status":"Active",  
 "providerData":"cid=98374"  
}

**Example GET Request**

GET https://<host>/<path>/<version>/accounts/23873345/assignments HTTP/1.1  
Accept: application/json  
AccessToken: <OAuth token>

**Example GET Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 387

{  
 "assignments":[  
 {  
 "creativeId":"394857",  
 "lineId":"394578",  
 "weight":75,  
 "id":"34534",  
 "status":"Active",  
 "providerData":"cid=98374"  
 },  
 {  
 "creativeId":"54345",  
 "lineId":"394578",  
 "weight":25,  
 "id":"453365",  
 "status":"Active",  
 "providerData":"cid=34325"  
 }  
 ]  
}

### /accounts/{id}/assignments/{id}

Gets, updates, or deletes the specified [Assignment](#_Assignment).

**Verbs**

GET: Gets the specified assignment.

PUT or PATCH: Updates the specified assignment.

DELETE: Deletes the specified assignment. May delete an assignment only if it has never delivered impressions.

**Rules**

The user must have permissions to perform the requested action. For example, advertisers and agencies may get, update, and delete the assignments that they own. In addition, an agency may get, update, and delete assignments that belong to the accounts that they manage on behalf of advertisers.

An assignment may be deleted only if it has never delivered impressions.

**Example GET Request**

GET https://<host>/<path>/<version>/accounts/23873345/assignments/453365 HTTP/1.1  
Accept: application/json  
AccessToken: <OAuth token>

**Example GET Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 108

{  
 "creativeId":"54345",  
 "lineId":"394578",  
 "weight":25,  
 "id":"453365",  
 "status":"Active",  
 "providerData":"cid=34325"  
}

**Example PATCH Request**

PATCH https://<host>/<path>/<version>/accounts/23873345/assignments/453365 HTTP/1.1  
Content-Type: application/json  
AccessToken: <OAuth token>  
  
{  
 "weight":30  
}

**Example PATCH Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 108

{  
 "creativeId":"54345",  
 "lineId":"394578",  
 "weight":30,  
 "id":"453365",  
 "status":"Active",  
 "providerData":"cid=34325"  
}

### /accounts/{id}/assignments/{id}?disable

Prevents a creative from running or stops a creative that is currently running.

**Verbs**

PUT or PATCH: Changes the status to “Inactive.”

**Rules**

The user must have permissions to access the assignment. For example, advertisers and agencies may disable [Assignment](#_Assignment)s that they own. In addition, an agency may disable assignments that belong to the accounts that they manage on behalf of advertisers.

**Example Request**

PATCH https://<host>/<path>/<version>/accounts/23873345/assignments/453365 HTTP/1.1  
Content-Type: application/json  
AccessToken: <OAuth token>

**Example Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 108

{  
 "creativeId":"54345",  
 "lineId":"394578",  
 "weight":30,  
 "id":"453365",  
 "status":"Inactive",  
 "providerData":"cid=34325"  
}

### /accounts/{id}/assignments?$filter=

Gets a list of [Assignment](#_Assignment)s that match the specified filter criteria.

**Verb**

GET: The response must support pagination. See Paging Query Parameters. The caller may use OData expressions with the following Assignment properties:

* CreativeId
* LineId
* StartDate
* EndDate

**Rules**

The user must have permissions to access the assignment. For example, advertisers and agencies may get assignments that they own. In addition, an agency may get assignments that belong to the accounts that they manage on behalf of advertisers.

**Example GET Request**

GET https://<host>/<path>/<version>/accounts/23873345/assignments?$filter=LineId+eq+394578 HTTP/1.1  
Accept: application/json  
AccessToken: <OAuth token>

**Example GET Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 108

{  
 "assignments":[  
 {  
 "creativeId":"394857",  
 "lineId":"394578",  
 "weight":75,  
 "id":"65433",  
 "status":"Active",  
 "providerData":"cid=98374"  
 },  
 {  
 "creativeId":"54345",  
 "lineId":"394578",  
 "weight":25,  
 "id":"453365",  
 "status":"Active",  
 "providerData":"cid=34325"  
 }  
 ]  
}

## Account Creative

Description

### /accounts/{id}/creatives

Adds a [Creative](#_Creative) or gets a list of creatives that the user has access to. The response must support pagination. See Paging Query Parameters.

**Verbs**

GET: (required) Gets a list of all creatives that belong to the account.

POST: (required) Adds a creative to the account.

**Rules**

An advertiser or agency may add creatives to accounts that they own. In addition; an agency may add creatives to accounts that they manage on behalf of advertisers.

For advertisers, the list will include only creatives that they own. For agencies, the list will include the creatives that they own and the creatives that belong to accounts that they manage on behalf of advertisers.

**Example POST Request**

POST https://<host>/<path>/<version>/accounts/23873345/creatives HTTP/1.1  
Content-Type: application/json  
AccessToken: <OAuth token>  
  
{  
 "accountId":"23873345",  
 "adFormatType":"Tag",  
 "creativeAsset":"<third-party script goes here>",  
 "geometry":{  
 "height":"160",  
 "width":"600"  
 },  
 "language":"EN",  
 "maturityLevel":"General",  
 "name":"My Creative",  
 "providerData":"cid=54574"  
}

**Example POST Response**

HTTP/1.1 200 OK  
Location: https://<host>/<path>/<version>/accounts/23873345/creatives/53444

Content-Type: application/json  
Content-Length: 108  
  
{  
 "accountId":"23873345",  
 "adFormatType":"Tag",  
 "adQualityStatus":"Pending",  
 "creativeAsset":"<third-party script goes here>",  
 "geometry":{  
 "height":"160",  
 "width":"600"  
 },  
 "httpsCompatible":0,  
 "id":"53444",  
 "language":"EN",  
 "maturityLevel":"General",  
 "name":"My Creative",  
 "providerData":"cid=54574"  
}

**Example GET Request**

GET https://<host>/<path>/<version>/accounts/23873345/creatives HTTP/1.1  
Accept: application/json  
AccessToken: <OAuth token>

**Example GET Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 187

{  
 "creatives":[  
 {  
 "accountId":"23873345",  
 "adFormatType":"Tag",  
 "adQualityStatus":"Approved",  
 "creativeAsset":"<third-party script goes here>",  
 "geometry":{  
 "height":"160",  
 "width":"600"  
 },  
 "httpsCompatible":0,  
 "id":"53444",  
 "language":"EN",  
 "maturityLevel":"General",  
 "name":"My Creative",  
 "providerData":"cid=54574"  
 }  
 ]  
}

### /accounts/{id}/creatives/{id}

Gets, updates, or deletes the specified [Creative](#_Creative).

**Verbs**

GET: (required) Gets the specified creative.

PUT or PATCH: (required) Updates the properties of the creative object; however, the user may not update the following properties:

* ClickURL
* CreativeAsset
* BackupFlashAsset

DELETE: (required) Deletes the specified creative. May delete a creative only if it has no assignments.

**Rules**

The user must have permissions to perform the requested action. For example, advertisers and agencies may get, update, and delete the creatives that they own. In addition, an agency may get, update, and delete the creatives that belong to the accounts that they manage on behalf of advertisers.

A creative may be deleted only if it has no assignments.

**Example GET Request**

GET https://<host>/<path>/<version>/accounts/23873345/creatives/53444 HTTP/1.1  
Accept: application/json  
AccessToken: <OAuth token>

**Example GET Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 308

{  
 "accountId":"23873345",  
 "adFormatType":"Tag",  
 "adQualityStatus":"Pending",  
 "creativeAsset":"<third-party script goes here>",  
 "geometry":{  
 "height":"160",  
 "width":"600"  
 },  
 "httpsCompatible":0,  
 "id":"53444",  
 "language":"EN",  
 "maturityLevel":"General",  
 "name":"My Creative",  
 "providerData":"cid=54574"  
}

**Example PATCH Request**

PATCH https://<host>/<path>/<version>/accounts/23873345/creatives/53444 HTTP/1.1  
Content-Type: application/json  
AccessToken: <OAuth token>  
  
{  
 "clickUrl":"http://domain.com/path"  
}

**Example PATCH Response**

HTTP/1.1 200 OK

Content-Type: application/json  
Content-Length: 308

{  
 "accountId":"23873345",  
 "adFormatType":"Tag",  
 "adQualityStatus":"Pending",  
 "clickUrl":"http://domain.com/path"  
 "creativeAsset":"<third-party script goes here>",  
 "geometry":{  
 "height":"160",  
 "width":"600"  
 },  
 "httpsCompatible":0,  
 "id":"53444",  
 "language":"EN",  
 "maturityLevel":"General",  
 "name":"My Creative",  
 "providerData":"cid=54574"  
}

### /accounts/{id}/creatives?$filter=

The response must support pagination. See Paging Query Parameters.

**Verbs**

GET: (optional) Gets a list of creatives that match the specified filter criteria. The user may use OData expressions with the following Creative properties:

* AdQualityStatus

May support getting a list by IDs.

**Rules**

None?

**Example Request**

None?

**Example Response**

None?

## Account Orders

Description

### /accounts/{id}/orders

Adds an [Order](#_Order) or gets a list of orders that the user has access to. The response must support pagination. See Paging Query Parameters.

**Verbs**

GET: (required) Gets a list of all orders that belong to the account.

POST: (required) Adds an order to the account.

**Rules**

An advertiser or agency may add orders to accounts that they own. In addition; an agency may add orders to accounts that they manage on behalf of advertisers.

For advertisers, the list will include only orders that they own. For agencies, the list will include the orders that they own and the orders that belong to accounts that they manage on behalf of advertisers.

**Example POST Request**

POST https://<host>/<path>/<version>/accounts/23873345/orders HTTP/1.1  
Content-Type: application/json  
AccessToken: <OAuth token>  
  
{  
 "accountId":"23873345",  
 "brand":"Four Wakes",  
 "budget":50000,  
 "currency":"USD",  
 "endDate":"2014-12-24T18:00:00.000Z",  
 "name":"My Order",  
 "providerData":"cid=563364",  
 "startDate":"2014-11-24T06:00:00.000Z",  
}

**Example POST Response**

HTTP/1.1 200 OK  
Location: https://<host>/<path>/<version>/accounts/23873345/orders/1235872  
Content-Type: application/json  
Content-Length: 108  
  
{  
 "accountId":"23873345",  
 "brand":"Four Wakes",  
 "budget":50000,  
 "currency":"USD",  
 "endDate":"2014-12-24T18:00:00.000Z",  
 "id":"1235872",  
 "name":"My Order",  
 "preferredBillingMethod":"Electronic",  
 "providerData":"cid=563364",  
 "startDate":"2014-11-24T06:00:00.000Z",  
}

**Example GET Request**

GET https://<host>/<path>/<version>/accounts/23873345/orders HTTP/1.1  
Accept: application/json  
AccessToken: <OAuth token>

**Example GET Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 187

{  
 "orders":[  
 {  
 "accountId":"23873345",  
 "brand":"Four Wakes",  
 "budget":50000,  
 "currency":"USD",  
 "endDate":"2014-12-24T18:00:00.000Z",  
 "id":"1235872",  
 "name":"My Order",  
 "preferredBillingMethod":"Electronic",  
 "providerData":"cid=563364",  
 "startDate":"2014-11-24T06:00:00.000Z",  
 }  
 ]  
}

### /accounts/{id}/orders/{id}

Gets, updates or deletes the specified [Order](#_Order).

**Verbs**

GET: (required) Gets the specified order.

PUT or PATCH: (required) Updates the specified order.

DELETE: (required) Deletes the specified order. May delete the order only if all lines in the order are in the Draft state. Must also delete assignments that reference the line.

**Rules**

The user must have permissions to perform the requested action. For example, advertisers and agencies may get, update, and delete the orders that they own. In addition, an agency may get, update, and delete the orders that belong to the accounts that they manage on behalf of advertisers.

Only orders in the Draft booking state may be deleted.

**Example GET Request**

GET https://<host>/<path>/<version>/accounts/23873345/orders/1235872 HTTP/1.1  
Accept: application/json  
AccessToken: <OAuth token>

**Example GET Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 158

{  
 "accountId":"23873345",  
 "brand":"Four Wakes",  
 "budget":50000,  
 "currency":"USD",  
 "endDate":"2014-12-24T18:00:00.000Z",  
 "id":"1235872",  
 "name":"My Order",  
 "preferredBillingMethod":"Electronic",  
 "providerData":"cid=563364",  
 "startDate":"2014-11-24T06:00:00.000Z",  
}

**Example PATCH Request**

PATCH https://<host>/<path>/<version>/accounts/23873345/orders/1235872 HTTP/1.1  
Content-Type: application/json  
AccessToken: <OAuth token>  
  
{  
 "startDate":"2014-12-05T18:00:00.000Z",  
 "name":"My Better Order Name"  
}

**Example PATCH Response**

HTTP/1.1 200 OK   
Content-Type: application/json  
Content-Length: 358

{  
 "accountId":"23873345",  
 "brand":"Four Wakes",  
 "budget":50000,  
 "currency":"USD",  
 "endDate":"2014-12-24T18:00:00.000Z",  
 "id":"1235872",  
 "name":"My Better Order Name",  
 "preferredBillingMethod":"Electronic",  
 "providerData":"cid=563364",  
 "startDate":"2014-12-05T18:00:00.000Z ",  
}

### /accounts/{id}/orders?$filter=

The response must support pagination. See Paging Query Parameters.

**Verbs**

GET: (optional) Gets a list of creatives that match the specified filter criteria. The user may use OData expressions with the following Creative properties:

* AdQualityStatus

May support getting a list by IDs.

**Rules**

None?

**Example Request**

None?

**Example Response**

None?

## Account Order Lines

Description

### /accounts/{id}/orders/{id}/lines

Adds a [Line](#_Line) to an order or gets a list of lines that the user has access to. The response must support pagination. See Paging Query Parameters.

**Verbs**

GET: (required) Gets a list of all lines in the order.

POST: (required) Adds a line to the order.

**Rules**

An advertiser or agency may add lines to orders that they own. In addition; an agency may add lines to orders that they manage on behalf of advertisers.

For advertisers, the list will include only lines that they own. For agencies, the list will include the lines that they own and the lines that belong to accounts that they manage on behalf of advertisers.

**Example POST Request**

POST https://<host>/<path>/<version>/accounts/23873345/orders/1235872/lines HTTP/1.1  
Content-Type: application/json  
AccessToken: <OAuth token>  
  
{  
 "comment":"Free form comment",  
 "endDate":"2014-12-10T18:00:00.000Z",  
 "frequencyCount":3,  
 "frequencyInterval":"Day",  
 "quantity":30000,  
 "name":"My Line 1",  
 "productId":"456366",  
 "providerData":"cid=88873",  
 "startDate":"2014-12-05T06:00:00.000Z",  
 "targeting":[  
 {  
 "target":"Age",  
 "targetValues":["18-24","25-34"]  
 },  
 {  
 "target":"Gender",  
 "targetValues":["Male"]  
 }  
 ]   
}

**Example POST Response**

HTTP/1.1 200 OK  
Location: https://<host>/<path>/<version>/accounts/23873345/orders/1235872/lines/345233  
Content-Type: application/json  
Content-Length: 878  
  
{  
 "bookingStatus":"Draft",  
 "comment":"Free form comment",  
 "endDate":"2014-12-10T18:00:00.000Z",  
 "frequencyCount":3,  
 "frequencyInterval":"Day",  
 "id":"345233",  
 "quantity":30000,  
 "name":"My Line 1",  
 "orderId":"1235872",  
 "productId":"456366",  
 "providerData":"cid=88873",  
 "startDate":"2014-12-05T06:00:00.000Z",  
 "targeting":[  
 {  
 "target":"Age",  
 "targetValues":["18-24","25-34"]  
 },  
 {  
 "target":"Gender",  
 "targetValues":["Male"]  
 }  
 ]   
 "usesExpandables":0  
}

**Example GET Request**

GET https://<host>/<path>/<version>/accounts/23873345/orders/1235872/lines HTTP/1.1  
Accept: application/json  
AccessToken: <OAuth token>

**Example GET Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 587

{  
 "lines":[  
 {  
 "bookingStatus":"Booked",  
 "comment":"Free form comment",  
 "cost":39.30,  
 "endDate":"2014-12-10T18:00:00.000Z",  
 "frequencyCount":3,  
 "frequencyInterval":"Day",  
 "id":"345233",  
 "quantity":30000,  
 "name":"My Line 1",  
 "orderId":"1235872",  
 "productId":"456366",  
 "providerData":"cid=88873",  
 "rate":1.31,  
 "rateType":"CPM",  
 "startDate":"2014-12-05T06:00:00.000Z",  
 "targeting":[  
 {  
 "target":"Age",  
 "targetValues":["18-24","25-34"]  
 },  
 {  
 "target":"Gender",  
 "targetValues":["Male"]  
 }  
 ]   
 "usesExpandables":0  
 }  
 ]  
}

### /accounts/{id}/orders/{id}/lines/{id}

Gets, updates, or deletes the specified [Line](#_Line).

**Verbs**

GET: (required) Gets the specified line from the order.

PUT or PATCH: (required) Updates the specified line. To update a line, the line must be in the Draft state.

DELETE: (required) Deletes the specified line. May delete a line only if it’s in the Draft state. Must also delete assignments that reference the line.

**Rules**

The user must have permissions to perform the requested action. For example, advertisers and agencies may get, update, and delete the [Line](#_Line)s that they own. In addition, an agency may get, update, and delete the lines that belong to the accounts that they manage on behalf of advertisers.

A line may be deleted only if it’s in the Draft state. In addition, all assignments that reference the line must be deleted.

**Example GET Request**

GET https://<host>/<path>/<version>/accounts/23873345/orders/1235872/lines/345233 HTTP/1.1  
Accept: application/json  
AccessToken: <OAuth token>

**Example GET Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 158

{  
 "bookingStatus":"Draft",  
 "comment":"Free form comment",  
 "endDate":"2014-12-10T18:00:00.000Z",  
 "frequencyCount":3,  
 "frequencyInterval":"Day",  
 "id":"345233",  
 "quantity":30000,  
 "name":"My Line 1",  
 "orderId":"1235872",  
 "productId":"456366",  
 "providerData":"cid=88873",  
 "startDate":"2014-12-05T06:00:00.000Z",  
 "targeting":[  
 {  
 "target":"Age",  
 "targetValues":["18-24","25-34"]  
 },  
 {  
 "target":"Gender",  
 "targetValues":["Male"]  
 }  
 ]   
 "usesExpandables":0  
}

**Example PATCH Request**

PATCH https://<host>/<path>/<version>/accounts/23873345/orders/1235872/lines/345233 HTTP/1.1  
Content-Type: application/json  
AccessToken: <OAuth token>  
  
{  
 "frequencyCount":NULL,  
 "frequencyInterval":NULL,  
}

**Example PATCH Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 458

{  
 "bookingStatus":"Draft",  
 "comment":"Free form comment",  
 "endDate":"2014-12-10T18:00:00.000Z",  
 "id":"345233",  
 "quantity":30000,  
 "name":"My Line 1",  
 "orderId":"1235872",  
 "productId":"456366",  
 "providerData":"cid=88873",  
 "startDate":"2014-12-05T06:00:00.000Z",  
 "targeting":[  
 {  
 "target":"Age",  
 "targetValues":["18-24","25-34"]  
 },  
 {  
 "target":"Gender",  
 "targetValues":["Male"]  
 }  
 ]   
 "usesExpandables":0  
}

### /accounts/{id}/orders/{id}/lines?$filter=

**Description**

The response must support pagination. See Paging Query Parameters.

**Verbs**

GET: (required) Gets a list of lines that match the specified filter criteria. The user may use OData expressions and method calls with the following Line properties:

* Name
* BookingStatus
* StartDate
* EndDate

May also support getting a list by IDs.

**Rules**

None?

**Example Request**

None?

**Example Response**

None?

### accounts/{id}/orders/{id}/lines/{id}?book

Books the line.

**Verbs**

PUT or PATCH: (required) Begins the booking process for the line. The booking process may be asynchronous.

To book a line, the line must:

* Be in the Draft or Reserved state.
* Have a creative assigned.
* Have available impressions.

If successfully booked, the line moves to the Booked state; otherwise, it moves to Declined and sets StateChangedReason.

**Rules**

The user must have permissions to book the line. For example, advertisers and agencies may book [Line](#_Line)s that they own. In addition, an agency may book lines that belong to the accounts that they manage on behalf of advertisers.

Only organizations that have an Approved or Limited status may book lines.

To book a line, the line must:

* Be in the Draft or Reserved booking state.
* Have a creative assigned.
* Have available quantity/impressions

The booking process may be asynchronous. If asynchronous, set the bookingStatus field to PendingBooking until the line is booked or declined. If successfully booked, set the bookingStatus field to Booked; otherwise, set the bookingStatus field to Declined and specify why the request was declined in the StateChangedReason field.

**Example Request**

PATCH https://<host>/<path>/<version>/accounts/23873345/orders/1235872/lines/345233?book HTTP/1.1  
Content-Type: application/json  
AccessToken: <OAuth token>

**Example Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 458

{  
 "bookingStatus":"Draft",  
 "comment":"Free form comment",  
 "endDate":"2014-12-10T18:00:00.000Z",  
 "id":"345233",  
 "quantity":30000,  
 "name":"My Line 1",  
 "orderId":"1235872",  
 "productId":"456366",  
 "providerData":"cid=88873",  
 "startDate":"2014-12-05T06:00:00.000Z",  
 "targeting":[  
 {  
 "target":"Age",  
 "targetValues":["18-24","25-34"]  
 },  
 {  
 "target":"Gender",  
 "targetValues":["Male"]  
 }  
 ]   
 "usesExpandables":0  
}

### /accounts/{id}/orders/{id}/lines/{id}?reserve

Reserves the line.

**Verbs**

PUT or PATCH: (required) Reserves the line. The reserve process may be asynchronous. To reserve a line, the line must be in the Draft state. If successfully reserved, the line moves to the Reserved state; otherwise, it moves to Declined and StateChangedReason is set.

**Rules**

The user must have permissions to reserve the line. For example, advertisers and agencies may reserve [Line](#_Line)s that they own. In addition, an agency may reserve lines that belong to the accounts that they manage on behalf of advertisers.

Only organizations that have an Approved or Limited status may reserve lines.

To reserve a line, the line must be in the Draft booking state.

The reservation process may be asynchronous. If asynchronous, set the bookingStatus field to PendingReservation until the line is reserved or declined. If successfully reserved, set the bookingStatus field to Reserved and the ReservedExpiryDate field to the date and time that the reservation expires. If the line was not reserved, set the bookingStatus field to Declined and specify why the request was declined in the StateChangedReason field.

Supporting reserve is optional.

**Example Request**

PATCH https://<host>/<path>/<version>/accounts/23873345/orders/1235872/lines/345233?reserve HTTP/1.1  
Content-Type: application/json  
AccessToken: <OAuth token>

**Example Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 458

{  
 "bookingStatus":"Draft",  
 "comment":"Free form comment",  
 "endDate":"2014-12-10T18:00:00.000Z",  
 "id":"345233",  
 "quantity":30000,  
 "name":"My Line 1",  
 "orderId":"1235872",  
 "productId":"456366",  
 "providerData":"cid=88873",  
 "startDate":"2014-12-05T06:00:00.000Z",  
 "targeting":[  
 {  
 "target":"Age",  
 "targetValues":["18-24","25-34"]  
 },  
 {  
 "target":"Gender",  
 "targetValues":["Male"]  
 }  
 ]   
 "usesExpandables":0  
}

### /accounts/{id}/orders/{id}/lines/{id}?cancel

Cancels the line.

**Verbs**

PUT or PATCH: (required) Cancels the line. To cancel a line, the line must be in the Reserved, Booked, or InFlight state. If successfully canceled, the line moves to the Canceled state. If the status was InFlight, StateChangedReason is set.

**Rules**

The user must have permissions to cancel the line. For example, advertisers and agencies may cancel [Line](#_Line)s that they own. In addition, an agency may cancel lines that belong to the accounts that they manage on behalf of advertisers.

To cancel a line, the line must be in the Reserved, Booked, or InFlight state. If successfully canceled, set the bookingStatus field to Canceled. If the previous status was InFlight, set the StateChangedReason field as appropriate (for example, “User canceled”).

**Example Request**

PATCH https://<host>/<path>/<version>/accounts/23873345/orders/1235872/lines/345233?cancel HTTP/1.1  
Content-Type: application/json  
AccessToken: <OAuth token>

**Example Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 658

{  
 "bookingStatus":"InFlight",  
 "comment":"Free form comment",  
 "cost":39.30,  
 "endDate":"2014-12-10T18:00:00.000Z",  
 "id":"345233",  
 "quantity":30000,  
 "name":"My Line 1",  
 "orderId":"1235872",  
 "productId":"456366",  
 "providerData":"cid=88873",  
 "rate":1.31,  
 "rateType":"CPM",  
 "startDate":"2014-12-05T06:00:00.000Z",  
 "targeting":[  
 {  
 "target":"Age",  
 "targetValues":["18-24","25-34"]  
 },  
 {  
 "target":"Gender",  
 "targetValues":["Male"]  
 }  
 ]   
 "usesExpandables":0  
}

### /accounts/{id}/orders/{id}/lines/{id}?reset

Moves the line back to the Draft state.

**Verbs**

PUT or PATCH: (required) Resets a line back to the Draft state. To reset a line, the line must be in the Reserved or Declined state.

**Rules**

The user must have permissions to reset the line. For example, advertisers and agencies may reset [Line](#_Line)s that they own. In addition, an agency may reset lines that belong to the accounts that they manage on behalf of advertisers.

To reset a line, the line must be in the Reserved, Declined, or Expired booking state. If successfully reset, set the bookingStatus field to Draft.

**Example Request**

PATCH https://<host>/<path>/<version>/accounts/23873345/orders/1235872/lines/345233?reset HTTP/1.1  
Content-Type: application/json  
AccessToken: <OAuth token>

**Example Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 458

{  
 "bookingStatus":"Declined",  
 "comment":"Free form comment",  
 "endDate":"2014-12-10T18:00:00.000Z",  
 "id":"345233",  
 "quantity":30000,  
 "name":"My Line 1",  
 "orderId":"1235872",  
 "productId":"456366",  
 "providerData":"cid=88873",  
 "startDate":"2014-12-05T06:00:00.000Z",  
 "stateChangeReason":"The request impressions are not available.",  
 "targeting":[  
 {  
 "target":"Age",  
 "targetValues":["18-24","25-34"]  
 },  
 {  
 "target":"Gender",  
 "targetValues":["Male"]  
 }  
 ]   
 "usesExpandables":0  
}

## Organizations

Description

### /organizations

Gets a list of [Organizations](#_Product) that the user has access to. The response must support pagination. See Paging Query Parameters.

**Verbs**

GET: (required) Gets a list of all organizations that the user has access to. The list may contain both advertiser and agency organizations depending on the caller’s access. For example, if the caller is an advertiser, the list will contain only the advertiser’s organization objects; however, if the caller is an agency, the list will contain the agency’s organization objects and the organization objects of the advertisers whose accounts that they manage.

POST: (required) Adds an organization. Note that POST is not supported in the public API; it is included here for completeness. The process of adding advertiser and agency organizations and providing credentials is publisher defined.

**Rules**

The list will contain a single organization for advertisers; however, for agencies, the list will include the agency’s organization and the organizations of the advertisers whose accounts they manage

**Example Request**

GET https://<host>/<path>/<version>/organizations HTTP/1.1  
Accept: application/json  
AccessToken: <OAuth token>

**Example Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 1879

{  
 "organizations":[  
 {  
 "address":{  
 "addressLine1":"1234 Tiger Blvd",  
 "city":"Redmond",  
 "country":"US",  
 "postalCode":"98123",  
 "state":"WA"  
 },  
 "contacts":[  
 {  
 "address":{  
 "addressLine1":"1234 Tiger Blvd",  
 "city":"Redmond",  
 "country":"US",  
 "postalCode":"98123",  
 "state":"WA"  
 },  
 "email":"jsilver@contoso.com",  
 "honorific":"Ms",  
 "fax":"2065551212",  
 "firstName":"Janet",  
 "lastName":"Silver",  
 "phone":"2065550101",  
 "title":"Comptroller",  
 "type":"Billing"  
 }  
 ],

"fax":"2065551212",  
 "id":"12345678",  
 "industry":"Automotive",  
 "name":"Contoso",  
 "phone":"2065550100",  
 "providerData":"cid=89345",  
 "status":"Approved",  
 "url":"http://contoso.com"  
 }  
 ]  
}

### /organization/{id}

Gets or updates the specified organization.

**Verbs**

GET: (required) Gets the specified organization.

PUT or PATCH: (required) Updates the specified organization.The caller must have permissions to update the organization. For example, an advertiser and agency may update their organization object but an agency may not update an advertiser’s Organization object.

DELETE: (required) The process of deleting an organization is publisher defined; however, deleting an organization via the API is not supported.

**Rules**

The user must have permissions to perform the requested action. For example, advertisers and agencies may get and update the [Organization](#_Product) that they own; however, an agency may only get the organization of the advertisers whose accounts they manage.

An agency may not update an advertiser’s organization.

**Example GET Request**

GET https://<host>/<path>/<version>/organizations/12345678 HTTP/1.1  
Accept: application/json  
AccessToken: <OAuth token>

**Example GET Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 1879

{  
 "address":{  
 "addressLine1":"1234 Tiger Blvd",  
 "city":"Redmond",  
 "country":"US",  
 "postalCode":"98123",  
 "state":"WA"  
 },  
 "contacts":[  
 {  
 "address":{  
 "addressLine1":"1234 Tiger Blvd",  
 "city":"Redmond",  
 "country":"US",  
 "postalCode":"98123",  
 "state":"WA"  
 },  
 "email":"jsilver@contoso.com",  
 "honorific":"Ms",  
 "fax":"2065551212",  
 "firstName":"Janet",  
 "lastName":"Silver",  
 "phone":"2065550101",  
 "title":"Comptroller",  
 "type":"Billing"  
 }  
 ],

"fax":"2065551212",  
 "id":"12345678",  
 "industry":"Automotive",  
 "name":"Contoso",  
 "phone":"2065550100",  
 "providerData":"cid=89345",  
 "status":"Approved",  
 "url":"http://contoso.com"  
}

**Example PATCH Request**

PATCH https://<host>/<path>/<version>/organizations/12345678 HTTP/1.1  
Content-Type: application/json  
AccessToken: <OAuth token>  
  
{  
 "id":"12345678",  
 "contacts":[  
 {  
 "email":"bnicks@contoso.com",  
 "honorific":"Mr",  
 "fax":"2065551212",  
 "firstName":"Bill",  
 "lastName":"Nicks",  
 "phone":"2065550105",  
 "title":"Comptroller",  
 "type":"Billing"  
 }  
 ]  
}

**Example PATCH Response**

HTTP/1.1 200 OK

Content-Type: application/json  
Content-Length: 1879

{  
 "address":{  
 "addressLine1":"1234 Tiger Blvd",  
 "city":"Redmond",  
 "country":"US",  
 "postalCode":"98123",  
 "state":"WA"  
 },  
 "contacts":[  
 {  
 "address":{  
 "addressLine1":"1234 Tiger Blvd",  
 "city":"Redmond",  
 "country":"US",  
 "postalCode":"98123",  
 "state":"WA"  
 },  
 "email":"bnicks@contoso.com",  
 "honorific":"Mr",  
 "fax":"2065551212",  
 "firstName":"Bill",  
 "lastName":"Nicks",  
 "phone":"2065550105",  
 "title":"Comptroller",  
 "type":"Billing"  
 }  
 ],

"fax":"2065551212",  
 "id":"12345678",  
 "industry":"Automotive",  
 "name":"Contoso",  
 "phone":"2065550100",  
 "providerData":"cid=89345",  
 "status":"Approved",  
 "url":"http://contoso.com"  
}

### /organizations?$filter=

The response must support pagination. See Paging Query Parameters.

**Verbs**

GET: (optional) Gets a list of organizations that match the specified filter criteria. The user may use OData expressions and method calls with the following Organization properties:

* Name
* Status
* One or more organization IDs

**Rules**

None?

**Example Request**

None?

**Example Response**

None?

## Products

Description

### /products

Gets the list of [Product](#_Product_1)s from the product catalog. The response must support pagination. See Paging Query Parameters.

**Verbs**

GET: (required) Gets a list of all products from the publisher’s product catalog.

**Rules**

None?

**Example Request**

GET https://<host>/<path>/<version>/products HTTP/1.1  
Accept: application/json  
AccessToken: <OAuth token>

**Example Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 5899

{  
 "products":[  
 {  
 "adFormatTypes":["Flash", "Tag", "Image"],  
 "basePrice":1.31,  
 "currency":"USD",  
 "deliveryType":"Guaranteed",  
 "description":"A description of the product for display purposes",  
 "domain":"mydomain.com",  
 "estimatedDailyAvails":"Hundreds of Thousands",  
 "geometry":[  
 {  
 "height":160  
 "width":600  
 }  
 ]  
 "httpsCompatible":0,  
 "icon":"http://<domain>/<path>/icon.jpg",  
 "id":"456366",  
 "inventoryType":["Desktop","Tablet"],  
 "languages":["EN"],  
 "name":"Unique Product Name",  
 "maturityLevel":"General",  
 "maxDuration":30,  
 "minDuration":1,  
 "minSpend":30.00,  
 "position":"AboveFold",  
 "productTags":"Foo Bar Zoo",  
 "rateType":"CPM",  
 "targetTypes":["2342","3355"],  
 "timeZone":"Eastern Standard Time"  
 "url":"http://<domain>/<path>/creativespec.aspx"  
 }  
 ]  
}

### /products/{id}

Gets the specified [Product](#_Product_1) from the product catalog.

**Verbs**

GET: (required) Gets the specified product from the publisher’s product catalog.

**Rules**

None?

**Example Request**

GET https://<host>/<path>/<version>/products/456366 HTTP/1.1  
Accept: application/json  
AccessToken: <OAuth token>

**Example Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 5899

{  
 "adFormatTypes":["Flash", "Tag", "Image"],  
 "basePrice":1.31,  
 "currency":"USD",  
 "deliveryType":"Guaranteed",  
 "description":"A description of the product for display purposes",  
 "domain":"mydomain.com",  
 "estimatedDailyAvails":"Hundreds of Thousands",  
 "geometry":[  
 {  
 "height":160  
 "width":600  
 }  
 ]  
 "httpsCompatible":0,  
 "icon":"http://<domain>/<path>/icon.jpg",  
 "id":"456366",  
 "inventoryType":["Desktop","Tablet"],  
 "languages":["EN"],  
 "name":"Unique Product Name",  
 "maturityLevel":"General",  
 "maxDuration":30,  
 "minDuration":1,  
 "minSpend":30.00,  
 "position":"AboveFold",  
 "productTags":"Foo Bar Zoo",  
 "rateType":"CPM",  
 "targetTypes":["2342","3355"],  
 "timeZone":"Eastern Standard Time"  
 "url":"http://<domain>/<path>/creativespec.aspx"  
}

### /products/search

Gets a list of [Products](#_Product_1) from the product catalog that matches the specified filter criteria (see [ProductSearch](#_ProductSearch)). The response must support pagination. See Paging Query Parameters.

**Verbs**

POST: (required) Gets a list of products from the publisher’s product catalog based on the criteria specified in the body of the request. For a list of the filter criteria that a caller may specify, see [ProductSearch](#_ProductSearch). The body of the response contains a collection of [Product](#_Product) objects that match the filter criteria.

**Rules**

Product selection uses a logical AND between fields and a logical OR between field values. For example, the product is select if it supports the Flash OR Image OR Text ad format, AND supports USD currency, AND specifies the foo OR bar product tag.

**Example Request**

GET https://<host>/<path>/<version>/products/search HTTP/1.1  
Accept: application/json  
AccessToken: <OAuth token>

{  
 "adFormatType":["Tag"],  
 "geometry":[  
 {  
 "height":160  
 "width":600  
 }  
 ]  
}

**Example Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 5899

{  
 "products":[  
 {  
 "adFormatType":["Flash", "Tag", "Image"],  
 "basePrice":1.31,  
 "currency":"USD",  
 "deliveryType":"Guaranteed",  
 "description":"A description of the product for display purposes",  
 "domain":"mydomain.com",  
 "estimatedDailyAvails":"Hundreds of Thousands",  
 "geometry":[  
 {  
 "height":160  
 "width":600  
 }  
 ]  
 "httpsCompatible":0,  
 "icon":"http://<domain>/<path>/icon.jpg",  
 "id":"456366",  
 "inventoryType":["Desktop","Tablet"],  
 "languages":["EN"],  
 "name":"Unique Product Name",  
 "maturityLevel":"General",  
 "maxDuration":30,  
 "minDuration":1,  
 "minSpend":30.00,  
 "position":"AboveFold",  
 "productTags":"Foo Bar Zoo",  
 "rateType":"CPM",  
 "targetTypes":["2342","3355"],  
 "timeZone":"Eastern Standard Time"  
 "url":"http://<domain>/<path>/creativespec.aspx"  
 }  
 ]  
}

### /products/avails

Gets pricing and avails information (see [ProductAvails](#_ProductAvails_1)) for the specified products (see [ProductAvailsSearch](#_ProductAvailsSearch)). The response must support pagination. See Paging Query Parameters.

**Verbs**

POST: (required) Gets the availability and pricing information for a specified list of products based on flight dates, quantity and targeting. The body of the request contains the list of products and flight details (See [ProductAvailsSearch](#_ProductAvailsSearch)). The body of the response contains a collection of [ProductAvails](#_ProductAvails) objects (one for each product specified in the request).

**Rules**

Only organizations that have an Approved or Limited status may search for avails.

**Example Request**

GET https://<host>/<path>/<version>/products/avails HTTP/1.1  
Accept: application/json  
AccessToken: <OAuth token>

{  
 "accountId":"23873345",  
 "endDate":"2014-12-10T18:00:00.000Z",  
 "frequencyCount":3,  
 "frequencyInterval":"Day",  
 "quantity":30000,  
 "productIds":["456366"],  
 "startDate":"2014-12-05T06:00:00.000Z",  
 "targeting":[  
 {  
 "target":"Age",  
 "targetValues":["18-24","25-34"]  
 },  
 {  
 "target":"Gender",  
 "targetValues":["Male"]  
 }  
 ]   
}

**Example Response**

HTTP/1.1 200 OK  
Content-Type: application/json  
Content-Length: 5899

{  
 "avails":[  
 {  
 "availability":21543,  
 "currency":"USD",  
 "productId":"456366",  
 "price":1.26  
 }  
 ]  
}

# Paging Query Parameters

For any resource that returns lists of data, these resources should support paging. Two resource parameters—count and offset—will be required in order to support paging. If the parameters aren’t included, the total number of available data might not be returned.

count: Indicates the number of desired records to be returned in the response.

offset: Indicates the starting point from which the number of records should be returned in the response. If you wish to start with the first record, you must provide 0. Always use the number prior to the record position that is desired. For example, you have 100 records and wish to return 25 per page, you would specify it this way:

count= 25, offset 0  
count= 25, offset 25  
count= 25, offset 50  
count= 25, offset 75

Recommended Count Limit: 250

**Custom Headers**

When using paging, the consumer may need to know how many total records there are so this should be part of the response. There are two options here. One would be to return the total count in an outer json object to the request. The other is to use a custom header. The custom header is preferable because it does not become part of the model represented by the json. The con is, many frown upon custom headers.

Header Name: X-Total-Count

# OpenDirect Workflow

The following describes the calls that a client would make to get product avails and pricing, create an order and add lines to it, upload creatives and associate them with a line, and get a performance report. For a diagram that shows the flow, see [Workflow Diagram](#_Workflow_Diagram).

## Onboarding a Provider

A provider is a partner who writes the client that agencies and advertisers use to buy premium guaranteed ad inventory from the publisher. Onboarding the provider is a manual process that is publisher dependent.

## Adding an Agency Organization

Agencies sign up directly with the publisher. An agency may create one or more organizations. Each user should have their own credentials.

## Adding an Advertiser Organization

Advertisers sign up directly with the publisher. An advertiser may create one or more organizations. For example, they may create a single organization and then create accounts for each brand, subsidiary, or division. Or, they may create an organization for each brand. It is up to the advertiser to determine how they use Organization and Account to meet their organizational needs.

Each user should have their own credentials.

## Getting an OAuth 2.0 Access Token

Providers must use OAuth 2.0 to authenticate the user. Each API call requires an AccessToken header that is set to the OAuth access token.

The provider may choose to use either the implicit grant flow or authorization code grant flow depending on their usage. For one time or short-term access, use the implicit grant flow. The token is short lived and will expire in minutes or seconds as determined by the authentication service. Web applications should not use the implicit flow.

For repeat or long term access, use the authorization code grant flow. The authentication service returns an access token, refresh token, and expiration time. Before the access token expires, use the refresh token to get a new access token.

## Adding an Account

An advertiser may create one or more accounts based on how they organize their buys. For example, they could create accounts for each brand, subsidiary, or division. The account identifies the advertiser and buyer. If the advertiser performs their own buys, the account would identify them as the advertiser and buyer.

If the advertiser grants an agency permission to perform buys on their behalf, the account would identify the agency as the buyer. The agency must have permissions to create accounts and perform buys on behalf of the advertiser. The process of granting an agency permission to manage an advertiser’s accounts is publisher defined.

In addition to defining the relationship between the advertiser and buyer, an account also owns orders and creatives.

To create an account, POST a request to /accounts. The body of the request is an [Account](#_Account) resource object. The Account object contains the buyer’s ID and the advertiser’s ID. The response includes the Location header that contains the URI to the new account.

## Get Product Inventory, Availability and Pricing

The following provides several options for getting product inventory details. Typically, you’d use the first two options to present a product catalog and the last option to add and book a line.

To get a product catalog to display to the user, send a GET request to /products. The response includes a [collection](#_Collection_Calls) object that contains an array of [Product](#_Product) objects. The Product object contains the product’s base rate and estimated daily impressions (for example, hundreds of thousands). Providers should not use the avails search method (option 3) to determine estimated avails.

* To get a specific product from the catalog, send a GET request to /products/{id}. The response contains a [Product](#_Product) object.

To search the product catalog, send a POST request to /products/search. The body of the request is a [ProductSearch](#_ProductSearch) object that contains the search criteria. For example, the client may search the catalog for products that use a specific ad format. The response includes a [collection](#_Collection_Calls) object that contains an array [Product](#_Product) objects that match the search criteria. If no products match the search criteria, the array is empty.

To get product availability and pricing information for specific products, send a POST request to /products/avails. You should make this call only to determine actual availability just before adding and booking a line; you should not use this call to present availability as part of a product catalog.

* The body of the request is a [ProductAvailsSearch](#_ProductAvailsSearch) object. The client must specify a date range, quantity, list of product IDs and may optionally specify frequency and targeting information. To get custom rates and availability for an advertiser, include the account ID, which identifies the advertiser and agency.

The response includes a [collection](#_Collection_Calls) object that contains an array of [ProductAvails](#_ProductAvails_1) objects. Each ProductAvails object contains the available quantity and pricing information for a product. The number of available impressions returned will be either the specified quantity, if the requested quantity is available, or less if there is fewer quantity available.

Note that the caller should not use this call to determine the maximum available impressions. Instead, they should use /products or /products/search which returns the estimated daily availability and base pricing details. If they use the avails search for product catalog purposes, they will likely display inaccurate pricing information to the user. For example, the pricing for 500,000,000 impressions may be less than the pricing for 100,000 impressions, which may lead the user to mistakenly believe that they’re getting the impressions for $5.00 CPM instead of $15.00 CPM.

## Creating an Order

An order is the parent container for lines. To add an order, send a POST request to /accounts/{id}/orders. The body of the request is an [Order](#_Order) object which specifies directional start and end dates, estimated budget, currency, and preferred billing method. The response includes the Location header that contains the URI to the new order.

## Adding Lines to the Order

A line specifies the ad product to book, quantity, targeting details, and a date range of when the line runs. To add a line to the order, send a POST request to /accounts/{id}/orders/{id}/lines. The body of the request is a [Line](#_Line) resource object. Typically, the client should specify the same details on the line that were used to search for product availability.

The response includes the Location header that contains the URI to the new line. The state of the line is Draft.

The line may be updated only in the Draft state. To update a line, send a PATCH or PUT request to /accounts/{id}/orders/{id}/lines/{id}. The body of the request is either a full or partial Line resource object depending on whether the publisher supports PUT or PATCH.

## Uploading a Creative and Assigning It to a Line

To upload a creative, send a POST request to /accounts/{id}/creatives. The body of the request is a [Creative](#_Creative) resource object. The Creative object specifies the creative’s format, size, language, and the creative itself.

The creative must pass editorial review before it may be assigned to a line. To determine whether the creative passed editorial review, send a GET request to /accounts/{id}/creative/{id}. The response contains a Creative object. The creative passed editorial review if AdQualityStatus is set to Approved

To assign the creative to a line after it passes editorial review, send a POST request to /accounts/{id}/assignments. The body of the request is an [Assignment](#_Assignment) object. The Assignment object specifies the creative ID and line ID. If you assign more than one creative to a line, the creatives are rotated evenly. To control the rotation, set the optional weight property.

Note that a line must have a creative assigned to it before it may be booked. The creative may be the actual creative that the advertiser plans to run or a placeholder creative that is later replaced with the actual creative when it becomes available. However, the line will run with whichever creative is assigned to it (the actual creative or placeholder creative).

## Reserving, Booking, and Canceling a Line

To reserve, book, or cancel a line, send a PATCH or PUT request to the following URIs, respectively.

/accounts/{id}/orders/{id}/lines/{id}?reserve

/accounts/{id}/orders/{id}/lines/{id}?book

/accounts/{id}/orders/{id}/lines/{id}?cancel

Each call initiates an asynchronous process to perform the work. To determine whether the request succeeded, send a GET request to /accounts/{id}/orders/{id}/lines/{id} to get the specified line. Access the BookingStatus property to verify that the status changed accordingly. For example, if the request was reserve, confirm that BookingStatus is Reserved. If the reservation or booking process failed, the status will be Declined. To determine why the request was declined, access the StateChangeReason property.

## Reporting Clicks and Impressions

See [Reporting](#_Reporting).

## Diagrams

The following diagrams illustrate key aspects of OpenDirect workflow and system dependencies.

### Publisher Workflow Diagram

The following diagram illustrates the publisher workflow.

### Agency Workflow Diagram

The following diagram illustrates the calls required to add an order. The diagram does not include the one time calls to get and cache reference data.

### Advertiser Workflow Diagram

### Booking State Diagram

The following diagram shows the state changes of a [Line](#_Line) resource. For details about each state, see [BookingStatus](#bookingstatus).

### Resource Model Diagram

The following diagram shows the relationships between the OpenDirect resources. This model allows a buyer to work with many advertisers and an advertiser to work with many buyers. If the advertiser does their own buying, they'd be both the advertiser and the buyer. For details about the resource objects, see Resources.

# Definitions

The following list of terms used in this document are define as they relate to OpenDirect.

**long:** a numeric integer type that is at least 32 bits.

**short:** a numeric integer type that is at least 16 bits.

**byte:** ?

**decimal:** a numeric type that allows decimals

**size:** ? (found this as a type)

**organization:**

**buyer:**

**advertiser:**

**publisher:**

**line:**

**reserved:**

**booked:**

**account:**

# vNext

The following requirements were not included in v1 of the specification but may be addressed in a future version.

|  |  |  |
| --- | --- | --- |
| **Scenario** | **Reason for postponing** | **Consider in version** |
| Provide visibility of ad units on a webpage. |  |  |
| Include creative agency ID in Account. |  |  |
| Update a creative. |  |  |
| Add start/end dates to Assignment to support ad rotation by date. |  |  |
| Change Line.RateType to Optional when other types are supported (default to CPM). |  |  |

# Scenarios

The following are the scenarios used to determine the resource model that the specification would use.

|  |  |  |  |
| --- | --- | --- | --- |
| **Scenario** | **Example** | **Priority** | **Notes** |
| An advertiser must be able to create one or more accounts and manage media buys at the account level. | Advertiser A has multiple brands such as Brand A and Brand B. Advertiser A must be able to logon to a provider’s tool and create an account for Brand A and an account for Brand B. Advertiser A must be able to create a media plan and buy directly without agency involvement. | Must Have |  |
| An advertiser must be able to logon to any provider’s tool and see all of their orders regardless of whether the advertiser or an agency created them. |  | Nice To Have |  |
| An advertiser must be able to assign third-party service providers, such as creative agencies, to an account so they can provide creatives. |  | Nice to Have | vNext |
| An advertiser must be able to change the agency that manages an account without having to recreate the data. | Currently, Agency X manages Advertiser A’s Brand B account. Advertiser A decides that they now want Agency Y to manage the Brand B account and removes Agency X and assigns Agency y. | Nice to Have | Cannot perform mid order. |
| An agency must be able to create and manage their own accounts and manage any advertisers’ accounts that they’ve been granted permissions to manage. |  | Must Have |  |
| An advertiser must be able to logon to any provider’s tool that they have access to and view all of their (the advertiser’s) accounts. |  | Must Have |  |
| An agency must be able to logon to any provider’s tool that they have access to and view all of their (the agency’s) accounts and the accounts that they manage on behalf of advertisers. |  | Must Have |  |
| A publisher must be able to identify the advertiser and agency before providing products, avails, and rates. |  | Must Have |  |
| A publisher must be able to send an invoice to the advertiser, agency, or tool provider based on the advertiser’s preference (specified at the account level). |  | Must Have |  |
| A publisher must be able to exclude specific advertisers from websites in order to honor whitelists. |  | Must Have |  |
| A publisher must be able to determine revenue at the account level. | Publisher A must be able to determine revenue at the account level so it can calculate sales reps’ commissions. | Must Have |  |
| An agency must be able to create and manage orders for multiple advertisers through a single account (buy products in bulk and resell to advertisers). |  | Out of Scope |  |
| An agency must be able to create and manage advertiser orders without the publisher knowing the advertiser’s identity. |  | Out of Scope |  |