OPENDIRECT

API SPECIFICATION VERSION 1.0

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Introduction

AOL, Yahoo!, Microsoft, and Yieldex created the OpenDirect working group in June 2013 to develop and support a standard for the programmatic selling and buying of guaranteed digital ad inventory. The OpenDirect API specification will allow buyers who want to access guaranteed inventory via automated processes avoid multiple, costly, custom integrations. This document is the culmination of those efforts.

About the Working Group

The working group consisted of Technical Analysts, Product Managers, and System Architects from AOL, Yahoo!, MicroTsoft, and Yieldex. The group was later joined by MediaMath, Bionic, and the Interactive Advertising Bureau (IAB). The working group met via weekly conference calls and quarterly in-person working sessions to finalize version 1.0 for public comment.

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Getting Started

The OpenDirect specification defines the API that publishers should implement to support programmatic direct buying of their premium guaranteed ad inventory. Implementing the API lets buyers write a single client that can access inventory from multiple publishers without the need to write custom code for each integration. Implementing the API would make integrating with a publisher more attractive.

Version 1 of the specification provides the basic features required to support programmatic buying of guaranteed inventory. For example, the API supports getting and searching product inventory, determining pricing and availability, applying targeting and frequency constraints, creating orders, adding lines to orders, uploading creative, assigning creatives to lines, and reserving and booking inventory.

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

The following should be noted:

- The API takes an advertiser first approach. Both advertisers and agencies must sign up with the publisher and receive credentials. Advertisers may perform their own buys or provide consent to have an agency perform buys on their behalf; for an agency to perform buys on behalf of an advertiser, the advertiser must provide consent. The process of signing up and providing consent is publisher defined.
- To book a line, the line must have a creative assigned to it. 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).

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

Resources	Defines the resource objects. For a diagram that shows the resource relationships, see Resource Model.
Common Objects	Defines the objects used by one or more resource.
Reference Data	Defines the reference data objects and possible values. Reference data provides enumerated values for a resource property.
Collection Objects	Defines the collection objects that GET calls return.
URIs	Defines the URI and supported HTTP verbs for each resource.
Authentication	Defines the authentication scheme that publisher must use.
Versioning	Defines the versioning scheme that publishers must use.
Error Handling	Defines the error objects that publishers must return for 400 Bad Request.
Reporting	Defines the reporting URIs and objects.
Workflow	Outlines the calls required to create an order.

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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 creatives.

Property	Type	Constraints	Add	Update	Publisher Requirement	Description
AdvertiserId	String	Maximum of 36 characters.	Required	Read-only	Must support	An ID that identifies the organization that is acting as the advertiser.
BuyerId	String	Maximum of 36 characters.	Required	Read-only	Must support	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	String	Maximum of 36 characters.	Read-only	Read-only	Must support	A system-generated opaque ID that uniquely identifies this resource.
Name	String	Maximum of 255 characters	Required	Optional	Must support	The name of the account. Used for

						display purposes.
ProviderData	String	Maximum of 1,000 characters.	Optional	Optional	May support	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.

Notes: An organization may organize accounts by brand, subsidiaries, divisions, or anything else that supports their model.

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 creatives.

Property	Type	Constraints	Add	Update	Publisher Requirement	Description
CreativeId	String	Maximum of 36 characters.	Required	Read-only	Must support	The ID of the creative to display when the line runs.
Id	String	Maximum of 36 characters.	Read-only	Read-only	Must support	A system-generated opaque ID that uniquely identifies

						this resource.
LineId	String	Maximum of 36 characters.	Required	Read-only	Must support	The ID of the line that will display the creative.
ProviderData	String	Maximum of 1,000 characters.	Optional	Optional	May support	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	String		Read-only	Read-only	Must support	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	Byte	Numeric value from 1 through 100.	Optional	Optional	Should support	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.

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 creatives 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.

Creative

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

To assign a creative to a line, see Assignment.

Property	Type	Constraints	Add	Update	Publisher Requirement	Description
AccountId	String	Maximum of 36 characters.	Required	Read-only	Must support	The ID of the account that owns the creative.
AdFormatType	String		Required	Read-only	Must support	The ad's format. For a list of possible values, see AdFormatType. The product that the line specifies must support the specified ad format.
AdQualityRejectionReason	String		Read-only	Read-only	Must support	The reason why the creative audit did not approve the creative.
AdQualityStatus	String		Read-only	Read-only	Must support	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	String		Optional	Read-only	Should support	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	String		Required	Optional	Must support	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	String		Required	Read-only	Must support	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	Size		Required	Read-only	Must support	The size of the creative.
HttpsCompatible	Boolean		Optional	Optional	Should support	A Boolean value that determines whether the creative can properly render on an HTML web page

						served over HTTPS. Defaults to False.
Id	String		Read-only	Read-only	Must support	A system-generated opaque ID that uniquely identifies this resource.
Language	String		Required	Optional	Must support	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	String		Optional	Optional	May support	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	String		Required	Optional	Must support	The display name of the creative.
ProviderData	String	Maximum of 1,000 characters	Optional	Optional	May support	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.

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

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.

Property	Type	Constraints	Add	Update	Publisher Requirement	Description
BookingStatus	String		Read-only	Read-only	Must support	A value that determines whether the line is booked and is capable of delivering ads. For a state diagram, see Booking State Diagram. The following are the possible 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. If the line is reset, the StateChangeReason should be cleared.
Comment	String	Maximum of 255 characters.	Optional	Optional	May support	User notes related to this line.
Cost	Decimal		Read-only	Read-only	Must support	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	String	Maximum of 26 characters.	Required	Optional	Must support	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	Byte		Optional	Optional	Should support	The maximum number of times that a unique user must see ads from this line during the specified interval (see FrequencyInterval).
FrequencyInterval	String	Maximum of 5 characters.	Optional	Optional	Should support	The interval that FrequencyCount applies to. For example, per day or per week. For a list of possible intervals, see FrequencyCapInterval.
Id	String	Maximum of 36 characters.	Read-only	Read-only	Must support	A system-generated opaque ID that uniquely identifies this resource.
Quantity	Long		Optional	Optional	Must support	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	String	Maximum of 200 characters.	Required	Optional	Must support	The line's display name. Should be unique.
OrderId	String	Maximum of 36 characters.	Read-only	Read-only	Must support	The ID of the order that this line belongs to.
ProductId	String	Maximum of 36 characters.	Required	Read-only	Must support	The ID of the product where the creatives run.
ProviderData	String	Maximum of 1,000 characters	Optional	Optional	May support	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	Decimal		Read-only	Read-only	Must support	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	String	Maximum of 10 characters.	Read-only	Read-only	Must support	The unit of measure that Rate is expressed in. For a list of possible values, see RateType. The rate type is determined at the time the line is saved (added, updated, booked, or reserved).
ReservedExpiryDate	String	Maximum of 26 characters.	Read-only	Read-only	Should support	The date and time that the reserved inventory will expire.

						If the line is reserved, the expiry date must be set.
StartDate	String	Maximum of 26 characters.	Required	Optional	Must support	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	String		Read-only	Read-only	Must support	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	Segment		Optional	Optional	Should support	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	Boolean		Optional	Optional	Should support	A Boolean value that indicates whether the line will be assigned expandable creatives. Used to determine availability. The default is false.

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.

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 resource.

Property	Type	Constraints	Add	Update	Publisher Requirement	Description
AccountId	String	Maximum of 36 characters.	Read-only	Read-only	Must support	The ID of the account that identifies the advertiser and buyer that own the order.
Brand	String	Maximum of 25 characters.	Optional	Optional	May support	The brand being advertised.
Budget	Decimal		Optional	Optional	Should support	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	Contact	The list must contain	Optional	Optional	Should support	The list of contacts to

		unique contact types (for example, only one billing contact).				use for this order. This list of contacts is in addition to the buyer's and advertiser's list of contacts.
Currency	String		Required	Optional	Must support	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. The publisher may enforce that all lines of the order specify products that use the same currency.
EndDate	String	Maximum of 26 characters.	Optional	Optional	Should support	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.
Id	String	Maximum of 36 characters.	Read-only	Read-only	Must support	A system-generated opaque ID that uniquely identifies this resource.
Industry	String		Optional	Optional	May support	The industry associated with the order. This industry may differ from the industry specified on the advertiser's Organization object. For possible industries, see Industry.
Name	String	Maximum of 100 characters.	Required	Optional	Must support	The order's display name. Must be unique within the account's list of orders.
PreferredBillingMethod	String	Maximum of 10 characters	Optional	Optional	Should support	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	String	Maximum of 1,000 characters	Optional	Optional	May support	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	String	Maximum of 26 characters.	Optional	Optional	Should support	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 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.

Property	Type	Constraints	Add	Update	Publisher Requirement	Description
Address	Address		Optional	Optional	Should support	The organization's corporate headquarters address.
Contacts	Contact	The list must contain unique contact types (for	Required	Optional	Must support	A list of one or more contacts within the organization.

		example, only one billing contact). A billing contact is required.				
DisapprovalReason	String	Maximum of 255 characters.	Read-only	Read-only	Must support	The reason why the organization was not registered. Must be specified if Status is Disapproved.
Fax	String	Maximum of 20 characters.	Optional	Optional	May support	The organization's fax number.
Id	String	Maximum of 36 characters.	Read-only	Read-only	Must support	A system-generated opaque ID that uniquely identifies this resource.
Industry	String		Optional	Optional	May support	The industry that the organization belongs to. For possible industries, see Industry. Required for advertiser organization only.
Name	String	Maximum of 128 characters. Cannot be an empty string. Must be unique.	Required	Optional	Must support	The organization's display name.
Phone	String	Maximum of 20 characters.	Optional	Optional	Should support	The organization's phone number.
ProviderData	String	Maximum of 1,000 characters.	Optional	Optional	May support	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	String	Maximum of 15 characters.	Read-only	Read-only	Must support	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	String	Maximum of 1,024 characters.	Optional	Optional	Should support	A URL to the organization's website.

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.

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	Description
ActiveDate	String	Maximum of 26 characters.	Should support	The date and time, in UTC, that the product may become part of the bookable inventory.
AdFormatTypes	String		Must support	A list of ad types that the product supports. For a list of possible values, see AdFormatType.
BasePrice	Decimal		Must support	The product's base retail price; this is not the rate card price. The actual price may be more if targeting is specified.
Currency	String		Must support	The currency that the BasePrice and MinSpend properties are specified in. For a list of possible currencies, see Currency.
DeliveryType	String	Maximum of 10 characters.	Should support	The type of delivery. For example, exclusive or guaranteed. For a list of possible values, see DeliveryType.
Description	String	Maximum of 255 characters.	May support	The product's description.
Domain	String	Maximum of ??	Should support	The product's

		characters.		domain. For example, yahoo.com.
EstimatedDailyAvails	String		Should support	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	Size		Must support	A list of ad format sizes that the product supports.
HttpsCompatible	Boolean		Should support	A Boolean value that determines whether the product supports creatives that can properly render on an HTML web page served over HTTPS.
Icon	String	Publishers should support icons that are 150x150 or less. The maximum size is 10 KB.	May support	URL to a thumbnail icon of the product. May be used to display next to the product in the product catalog.
Id	String	Maximum of 36 characters.	Must support	A system-generated opaque ID that uniquely identifies this resource.
InventoryType	String		Should support	A list of devices that the product may serve on. For a list of possible values, see Inventorytype. The default is Desktop.
Languages	String		May support	A list of creative languages that the product supports.
LeadTime	Short		May support	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	String	Maximum of 38 characters.	Must support	The product's display name. The name must be unique.
MaturityLevel	String		May support	The maturity level of the publisher's content. For a list of possible values, see MaturityLevel.
MaxDuration	Short		Should support	The maximum number of days that the product may be booked for. The line must enforce the duration.
MinDuration	Short		Should support	The minimum number of days that the product must be booked for. The line must enforce the duration.
MinSpend	Decimal		Should support	The minimum amount of money that must be spent on this product in order to book it.
Position	Byte		Should support	The position of the ad as a relative measure of visibility or prominence. For a list of possible values, see AdPosition.
ProductTags	String	The list may contain a maximum of 500 tags. Each tag may contain a maximum of 100 characters.	May	List of tags used for searching the product catalog.
RateType	String		Must support	The unit of measure that BasePrice is expressed in. For a list of possible values, see RateType.
RetirementDate	String	Maximum of 26 characters.	Should support	The date and time, in UTC, that the product may be removed from

				the bookable inventory.
TargetTypes	String		Should support	A list of IDs that identify the types of targeting that the product supports. For example, DMA or Gender.
TimeZone	String		Should support	The time zone that the product runs in.
Url	String		Should support	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	Constraint	Add	Update	Publisher Requirement	Description
City	String	Maximum of 35 alpha characters. Cannot be an empty string.	Required	Optional	Must support	The city.
Country	String	Maximum of 2 alpha characters. Must be a valid ISO 3166-1 country code.	Required	Optional	Must support	The country/region.
AddressLine1	String	Maximum of 255 alphanumeric characters. Cannot be an empty string.	Required	Optional	Must support	The first line of the address.
AddressLine2	String	Maximum of 255 alphanumeric characters.	Optional	Optional	Must support	The second line of the address.
PostalCode	String	Maximum of 15 alphanumeric characters. Can include	Optional	Optional	Must support	The postal or ZIP code.

		a dash and space. Cannot be an empty string.				
State	String	Maximum of 35 alpha characters. Cannot be an empty string.	Optional	Optional	Must support	The state or province.

Contact

Defines an agency or advertiser contact.

Property	Type	Constraints	Add	Update	Publisher Requirement	Description
Address	Address		Optional	Optional	May support	The contact's address. Required if Type is Billing and the organization's or order's preferred billing method is paper.
Email	String	Maximum of 254 characters.	Optional	Optional	Must support	The contact's email address. Required if Type is Billing and the organization's or order's preferred billing method is electronic.
Honorific	String	Maximum of 20 characters.	Optional	Optional	May support	Honorific such as Mr. or Ms.
Fax	String	Maximum of 20 characters.	Optional	Optional	May support	The contact's fax number.
FirstName	String	Maximum of 20 characters.	Required	Optional	Must support	The contact's first name.
LastName	String	Maximum of 20 characters.	Required	Optional	Must support	The contact's last name.
Phone	String	Maximum of 20 characters.	Optional	Optional	Must support	The contact's phone number.
Title	String	Maximum of 30 characters	Optional	Optional	Must support	The contact's job title.
Type	String	Maximum of	Required	Read-only	Must support	The type of

		10 characters. The string is case insensitive.				contact that this resource represents. For a list of possible values, see ContactType.

ProductAvails

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

Property	Type	Publisher Requirement	Description
Availability	Long	Must support	The quantity that is available to book. The number must be equal to or less than the Quantity specified in 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	String	Must Support	The currency that Price is specified in. The product determines the currency.
ProductId	String	Must support	A system-generated opaque ID that uniquely identifies the product. The ID is one of the product IDs specified in ProductAvailsSearch (see ProductIds).
Price	Decimal	Must support	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	Publisher Requirement	Description
AccountId	String	Should support	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.
EndDate	String	Must support	The end date of the delivery window. The date and time must be specified in UTC and must be later than StartDate.
FrequencyCount	Byte	Should support	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	String	Should support	The interval that FrequencyCount applies to. For

			example, per day or per week. For a list of possible intervals, see FrequencyCapInterval. This field must be specified if FrequencyCount is specified.
Quantity	Long	Must support	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	String	Must support	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	String	Must support	The start date of the delivery window. The date and time must be specified in UTC and must be later than now.
Targeting	Segment	Should support	The segments to target. For example, behavioral, age, and gender segments.

ProductSearch

Defines the search criteria used to search the product catalog.

Property	Type	Publisher Requirement	Description
AdFormatTypes	String	Must support	One or more ad types. Return products that support one or more of the specified formats. For a list of possible values, see AdFormatType.
Currency	String	Must support	The currency that the product supports. Return products that support the specified currency. For a list of possible currency ISO codes, see Currency.
DeliveryType	String	Must support	The delivery type (for example, Guaranteed). For a list of possible values, see DeliveryType.
Domain	String	Must support	The product's domain. For example, yahoo.com.
Geometry	Size	Must support	One or more ad sizes. Return products that support one or more of the specified sizes.
ProductTags	String	May support	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.

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.

Size

Defines the geometry of a creative.

Property	Type	Constraints	Add	Update	Publisher Requirement	Description
Height	Short		Required	Optional	Must support	The height of the creative in pixels.
Width	Short		Required	Optional	Must support	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.

Property	Type	Constraints	Add	Update	Publisher Requirement	Description
Target	String		Required	Optional	Must support	The target category. For example, Age.
TargetValues	String		Required	Optional	Must support	A list of target values. For example, age range 18-24 and 25-34.

The values for these fields come from the Target and TargetValue reference data.

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.

Property	Type	Description
Id	String	A system-generated opaque ID that uniquely identifies this resource. The ID may contain a maximum of 36 characters.
Name	String	The ad format's display name.

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."

AdPosition

Defines the possible ad positions on a web page.

Property	Type	Description
Id	String	A system-generated opaque ID that uniquely identifies this resource. The ID may contain a maximum of 36 characters.
Name	String	The ad position's display name.

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.

ContactType

Defines the possible types of Contacts.

Property	Type	Description
Id	String	A system-generated opaque ID that uniquely identifies this resource. The ID may contain a maximum of 36 characters.
Name	String	The type's display name.

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.

Country
Defines a country that the API supports.

Property	Type	Description
IsoCode	String	The country's two-character ISO code.

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

Currency
Defines a currency that the API supports.

Property	Type	Description
IsoCode	String	The currency's three-character ISO code.

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

DeliveryType
Defines the possible types of delivery.

Property	Type	Description
Id	String	A system-generated opaque ID that uniquely identifies this resource. The ID may contain a maximum of 36 characters.
Name	String	The delivery type's display name.

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

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

FrequencyCapInterval
Defines the frequency cap intervals that the API supports.

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

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 maximum of 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.

Industry
Defines an industry that the advertiser belongs to.

Property	Type	Description
Id	String	A system-generated ID that uniquely identifies this resource.
Name	String	The industry's display name.
ParentId	String	The ID of the sub-industry's parent. Is NULL for the top-level parent.
SubIndustries	Industry	A list of sub-industries. The list is empty if the industry has no sub-industries.

The API may support all or a subset of the following industries:

- Arts & Entertainment
  - All
  - Books & Literature
  - Celebrity/Fan Gossip
  - Fine Art
  - Humor
  - Movies
  - Music
  - Television
- 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
- 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
- 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
- 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
- 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
- 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

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    - Interior Decorating
    - Landscaping
    - Remodeling & Construction
- Law, Gov't & Politics
    - All
    - Commentary
    - Immigration
    - Legal Issues
    - Politics
    - U.S. Government Resources
- 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
- Pets
    - All
    - Aquariums
    - Birds
    - Cats
    - Dogs
    - Large Animals
    - Reptiles
    - Veterinary Medicine
- Real Estate
    - All
    - Apartments
    - Architects
    - Buying/Selling Homes
- Religion & Spirituality
    - All
    - Alternative Religions
    - Atheism/Agnosticism
    - Buddhism
    - Catholicism

    - Christianity
    - Hinduism
    - Islam
    - Judaism
    - Latter-Day Saints
    - Pagan/Wiccan
- Science
    - All
    - Astrology
    - Biology
    - Botany
    - Chemistry
    - Geography
    - Geology
    - Paranormal Phenomena
    - Physics
    - Space/Astronomy
    - Weather
- Shopping
    - All
    - Comparison
    - Contests & Freebies
    - Couponing
    - Engines
- Society
    - All
    - Dating
    - Divorce Support
    - Ethnic Specific
    - Gay Life
    - Marriage
    - Senior Living
    - Teens
    - Weddings
- 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
- Style & Fashion
    - All
    - Accessories
    - Beauty
    - Body Art
    - Clothing
    - Fashion
    - Jewelry
- 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.

Property	Type	Description
Id	String	A system-generated opaque ID that uniquely identifies this resource. The ID may contain a maximum of 36 characters.
Name	String	The ad format's display name.

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

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

Language

Defines a language that the API supports.

Property	Type	Description
IsoCode	String	The language's two-character ISO code.

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

MaturityLevel

Defines a list of maturity levels.

Property	Type	Description
Id	String	A system-generated opaque ID that uniquely identifies this resource. The ID may contain a maximum of 36 characters.
Name	String	The ad format's display name.

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

- Children
- General
- Mature

RateType

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

Property	Type	Description
Id	String	A system-generated opaque ID that uniquely identifies this resource. The ID may contain a maximum of 36 characters.

Name	String	The rate type's display name.

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

Target

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

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

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

TargetValue

Defines a target value.

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

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.

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?$filter	organizations	Organization
/accounts /accounts?$filter	accounts	Account
/accounts/{id}/assignments /accounts/{id}/assignments?$filter	assignments	Assignment
/accounts/{id}/creatives /accounts/{id}/creatives?$filter	creatives	Creative
/accounts/{id}/orders /accounts/{id}/orders?$filter	orders	Order
/accounts/{id}/orders/{id}/lines /accounts/{id}/orders/lines?$filter	lines	Lines
/products (POST) /products/search (POST)	products	Product
/products/avails (POST)	avails	ProductAvails

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”,
```

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```
    },
  ]
}
```

The collection object may include additional publisher-defined properties.
If there are no resources to return, the array must be empty.

Authentication

Publishers must support authenticating advertiser and agency users. Publishers must use OAuth 2.0 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.
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

General Request/Response Rules

If the following is true, 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.

All POST (add operations) and PUT/PATCH requests must include the resource in the response.

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.

URIs

The following describes the possible URIs for each resource. For information about each URI and an example request and response, see the URI.

Resource	URI	Verb	Required	Description
Account	/accounts	GET	Yes	Gets a list of all accounts.
		POST	Yes	Adds an account.
	/accounts/{id}	GET	Yes	Gets the specified account.
	/accounts?$filter=	GET	Yes	Gets a list of accounts that match the specified filter criteria. The user may use OData expressions with the following Account properties. • AdvertiserId • BuyerId May support getting a list of IDs.
Assignment	/accounts/{id}/assignments	GET	Yes	Gets a list of all assignments that belong to the account.
		POST	Yes	Adds an assignment to the specified account. To add an assignment, the creative must be approved. An assignment may be added at any time prior to the order finishing its flight.
	/accounts/{id}/assignments/{id}	GET	Yes	Gets the specified assignment.
		PUT or PATCH	Yes	Updates the specified assignment.
		DELETE	Yes	Deletes the specified assignment. May delete an assignment only if it has never delivered impressions.
	/accounts/{id}/assignments/{id}?disable	PUT or PATCH	Yes	Changes the status to Inactive.
	/accounts/{id}/assignments?$filter=	GET	No	Gets a list of assignments that match the specified filter criteria. The user may use OData expressions with the following

				Assignment properties. • CreativeId • LineId • StartDate • EndDate May support getting a list by IDs.
Creative	/accounts/{id}/creatives	GET	Yes	Gets a list of all creatives that belong to the account.
		POST	Yes	Adds a creative to the account.
	/accounts/{id}/creatives/{id}	GET	Yes	Gets the specified creative.
		PUT or PATCH	Yes	Updates the properties of the creative object; however, the user may not update the following properties. • ClickURL • CreativeAsset • BackupFlashAsset
		DELETE	Yes	Deletes the specified creative. May delete a creative only if it has no assignments.
	/accounts/{id}/creatives?$filter=	GET	No	Gets a list of creatives that match the specified filter criteria. The user may use OData expressions with the following Creative properties. • AdQualityStatus May support getting a list by IDs.
Line	/accounts/{id}/orders/{id}/lines	GET	Yes	Gets a list of all lines in the order.
		POST	Yes	Adds a line to the order.
	/accounts/{id}/orders/{id}/lines/{id}	GET	Yes	Gets the specified line from the order.
		PUT or PATCH	Yes	Updates the specified line. To update a line, the line must be in the Draft state.
		DELETE	Yes	Deletes the specified line. May delete a line only if it's in the Draft state. Must also delete assignments that reference the line.
	/accounts/{id}/orders/{id}/lines?$filter=			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 support getting a list by IDs.

	/accounts/{id}/orders/{id}/lines/{id}?book	PUT or PATCH	Yes	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.
	/accounts/{id}/orders/{id}/lines/{id}?reserve	PUT or PATCH	Yes	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. Supporting reserve is optional.
	/accounts/{id}/orders/{id}/lines/{id}?cancel	PUT or PATCH	Yes	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.
	/accounts/{id}/orders/{id}/lines/{id}?reset	PUT or PATCH	Yes	Resets a line back to the Draft state. To reset a line, the line must be in the Reserved or Declined state.
Order	/accounts/{id}/orders	GET	Yes	Gets a list of all orders that belong to the account.
		POST	Yes	Adds an order to the account.
	/accounts/{id}/orders/{id}	GET	Yes	Gets the specified order.
		PUT or PATCH	Yes	Updates the specified order.
		DELETE	Yes	Deletes the specified order. May delete the order only if all lines in the order are in the Draft state.
	/accounts/{id}/orders?$filter=	GET	No	Gets a list of orders that match the specified filter criteria. The user may use OData expressions and method calls with the following Order properties. • Name • StartDate

				• EndDate May support getting a list by IDs.
Organization	/organizations	GET	Yes	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	Yes	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.
	/organizations/{id}	GET	Yes	Gets the specified organization.
		PUT or PATCH	Yes	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		The process of deleting an organization is publisher defined; however, deleting an organization via the API is not supported.
	/organizations?$filter=	GET	No	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
Product	/products	GET	Yes	Gets a list of all products from the publisher's product catalog.

	/products/{id}	GET	Yes	Gets the specified product from the publisher's product catalog.
	/products/search	POST	Yes	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. The body of the response contains a collection of Product objects that match the filter criteria.
ProductAvails	/products/avails	POST	Yes	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). The body of the response contains a collection of ProductAvails objects (one for each product specified in the request).

/organizations

Description
Gets a list of Organizations that the user has access to. The response must support pagination. See Paging Query Parameters.

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}

Description
Gets or updates the specified organization.

Rules
The user must have permissions to perform the requested action. For example, advertisers and agencies may get and update the Organization 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=

Description
The response must support pagination. See Paging Query Parameters.

Rules
Example Request
Example Response

/accounts

Description
Adds an Account or gets a list of accounts that the user has access to. The response must support pagination. See Paging Query Parameters.

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}

Description

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.

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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=

Description
The response must support pagination. See Paging Query Parameters.

Rules
Example Request
Example Response

/accounts/{id}/assignments

Description
Adds an Assignment or gets a list of assignments that the user has access to.

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"
}

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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}

Description

Gets, updates, or deletes the specified Assignment.

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"
}
```


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

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

Rules
The user must have permissions to access the assignment. For example, advertisers and agencies may disable Assignments 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=

Description
Gets a list of Assignments that match the specified filter criteria. 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"
    }
  ]
}
```


/accounts/{id}/creatives

Description
Adds a Creative or gets a list of creatives that the user has access to. The response must support pagination. See Paging Query Parameters.

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",
```


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```
  "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}

Description
Gets, updates, or deletes the specified Creative.

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=

Description

The response must support pagination. See Paging Query Parameters.

Rules
Example Request
Example Response

/accounts/{id}/orders

Description

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

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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>

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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}

Description

Gets, updates or deletes the specified Order.

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=

Description

The response must support pagination. See Paging Query Parameters.

Rules
Example Request
Example Response

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

Description

Adds a 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.

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,
```


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```
  "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"]
        },
        {
```


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```
        "target":"Gender",
        "targetValues":["Male"]
      }
    ]
    "usesExpandables":0
  }
 ]
}
```

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

Description
Gets, updates, or deletes the specified Line.

Rules
The user must have permissions to perform the requested action. For example, advertisers and agencies may get, update, and delete the Lines 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
}
```


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

Description
The response must support pagination. See Paging Query Parameters.

Rules
Example Request
Example Response

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

Description
Books the line.

Rules
The user must have permissions to book the line. For example, advertisers and agencies may book Lines 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",
```


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```
  "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

Description
Reserves the line.

Rules
The user must have permissions to reserve the line. For example, advertisers and agencies may reserve Lines 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

Description
Cancels the line.

Rules
The user must have permissions to cancel the line. For example, advertisers and agencies may cancel Lines 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

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```
{
  "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

Description
Moves the line back to the Draft state.

Rules
The user must have permissions to reset the line. For example, advertisers and agencies may reset Lines 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>

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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
}
```


/products

Description
Gets the list of Products from the product catalog. The response must support pagination. See Paging Query Parameters.

Rules

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":[
    {
```

```
    "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/{id}

Description
Gets the specified Product from the product catalog.

Rules

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

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```
{
  "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/search

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

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>

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```
{
  "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

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

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
    }
  ]
}
```

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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

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/Optional	Description
Clicks	Long	Required	The number of clicks to date. The value must be zero if no clicks have occurred.
CTR	Short	Optional	The click through rate to

			date. The formula to calculate CTR is (clicks / impressions) * 100.
ImpressionsServed	Long	Required	The number of impressions served to date. The value must be zero if no impressions have been served.
ReportDate	String	Required	The data and time of the report. The date and time is reported in the order's time zone.
Spend	Decimal	Optional	The amount spent to date.

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.

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.

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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 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 object that contains an array of 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 object.

- To search the product catalog, send a POST request to /products/search. The body of the request is a 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 object that contains an array 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 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 object that contains an array of ProductAvails 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 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 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 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 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.

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.

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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.

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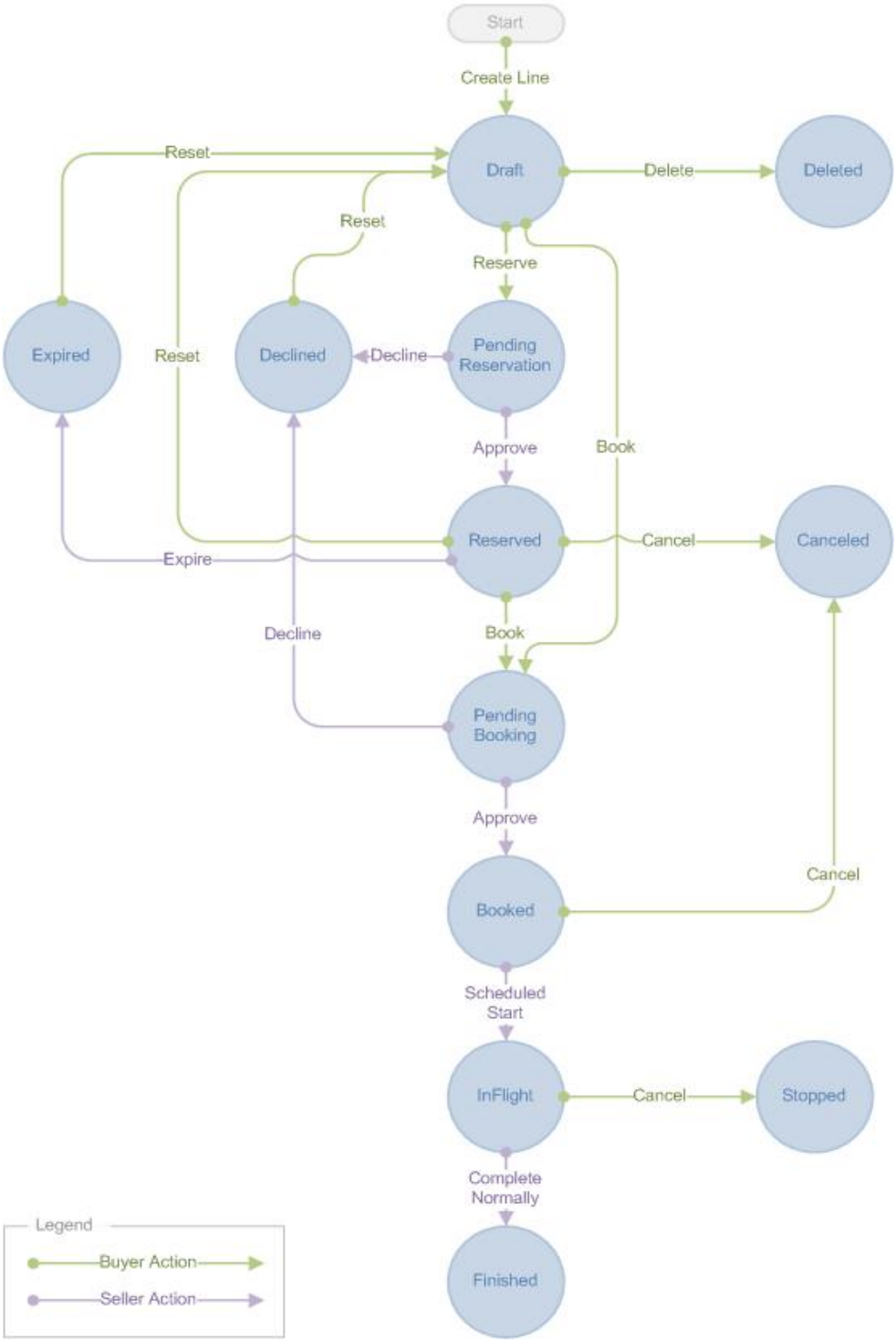
Booking State Diagram

The following diagram shows the state changes of a Line resource. For details about each state, see BookingStatus.



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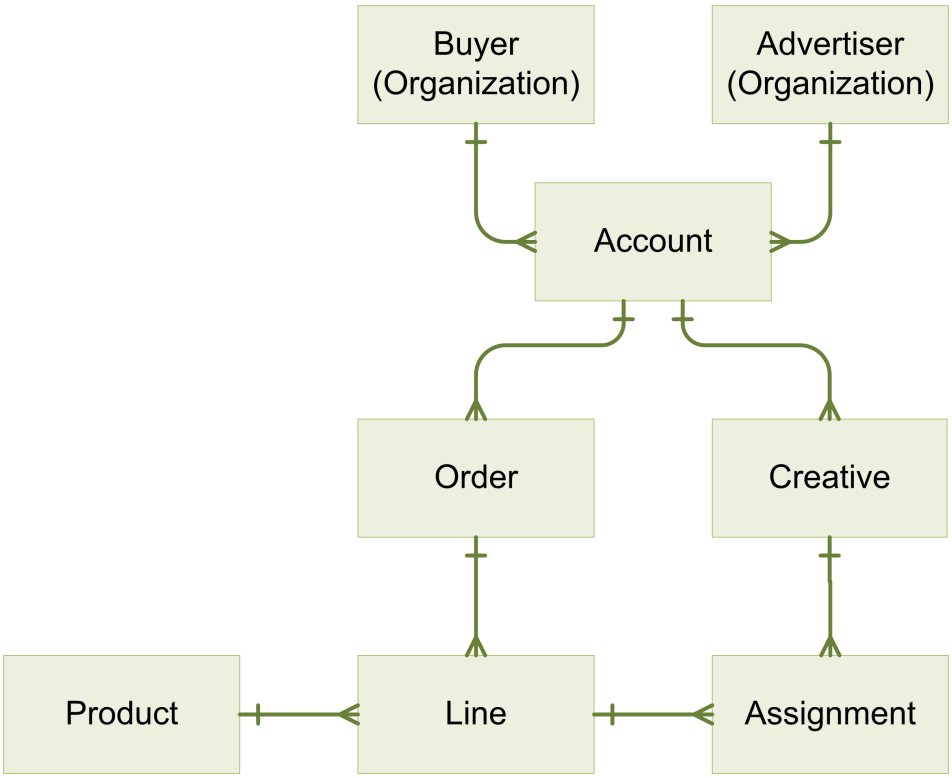
Resource Model Diagram

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.



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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	Currently, Agency X manages Advertiser A's Brand B account. Advertiser A decides that	Nice to Have	Cannot perform mid order.

to recreate the data.	they now want Agency Y to manage the Brand B account and removes Agency X and assigns Agency y.		
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		Out of Scope	

resell to advertisers).			
An agency must be able to create and manage advertiser orders without the publisher knowing the advertiser's identity.		Out of Scope	