

CONSTELLATION 

Data Services Developer Guide

Version 3.9

Updated: October 2021

Change Log

Date	Action	Type	Field (Response Entity)	Description
2020-10-26	Added	DateTime (nullable)	PhotoRetrievedDate (ListingSummary, ListingDetails)	Date photos for the listing were last added or modified. Will be NULL if no images are pulled for the listing.
2020-10-26	Added	DateTime (nullable)	LastListingStatusChangeDate (ListingSummary, ListingDetails)	Date of last listing status change. May be null.
2020-10-29	--	--	--	Error trapping for intermittent error in GetAgents endpoint
2021-01-20	Added	Integer (nullable)	SalePrice (ListingSummary, ListingDetails)	Sale price as recorded by the multiple listing service/organization
2021-01-20	Added	String	SellingOffice (ListingDetails)	Name of the buyer's brokerage office at closing; may not be the same as listing office
2021-02-22	Added	Short	BathsHalf	Number of half baths as recorded by multiple listing service/organization
2021-02-22	Added	Short	BathsThreeQuarter	Number of three-quarter baths as recorded by multiple listing service/organization
2021-02-22	Added	DateTime	ImportDate	The timestamp for which a listing was first loaded into the Constellation1 database. This value was previously available via separate request; now it is part of the listing detail response.
2021-05-31	Added	Integer	CumulativeDaysOnMarket	Addition of new field (described below)
2021-10-15	Update			Added FAQ section; error corrections

Introduction

API

This document outlines all listing related endpoints available for use by partners. All APIs on the Constellation platform are RESTful and follow common programming standards for open exchange of HTTP services. This document does not fully describe the best use of each of these methods, nor how to orchestrate them to accomplish a specific objective.

Credentials

Constellation will provide the partner with a client key and two system access keys.

The **clientkey** will be the name of the partner. One **systemaccesskey** will be for accessing the QA environment during development of the integration, and the other will be for Production.

If you have not received your credentials for implementation, please contact your salesperson or account manager.

Environment

Dev	Production
https://env08-api.mlsandbox.com	https://api.marketleader.com

Authorization Headers

Each API request requires the following headers

Header	Format
ml-auth	client ={client}& systemaccesskey ={systemaccesskey}& signature ={computedsignature}
x-ml-timestamp	yyyyMMdHHmmss (in UTC format)

Creating the ml-auth header:

client	Provided by Constellation
systemaccesskey	Dev or Prod key provided by Constellation
computedsignature	<p>Apply an MD5 hash to:</p> <p>{client} {systemaccesskey} x-ml-timestamp:yyyyMMddHHmmss</p> <p>Please note that there are “spaces” between the <i>client</i>, <i>systemaccesskey</i>, and <i>x-ml-timestamp</i>. There is a colon “:” between the <i>x-ml-timestamp</i> text and the value.</p> <p>The yyyyMMddHHmmss segment should contain the exact timestamp value from the header.</p>

Example of values used to create an MD5 hash:

MyClient 87df3ca4afe5ee4cf64a2c74edb35363sdf2d2d3sd **x-ml-timestamp:20180212101522**

ContentType

All APIs in this document are JSON APIs; all request and response payload are expected to be of content type **application/json** if not marked otherwise.

Endpoint Reference

GetListings

Get listings based on a set of common search request filters (price, beds, baths, etc.). All listing search methods also contact the media list of associated images

Endpoint

<https://env08-api.mlsandbox.com/Services/Partner/GetListings>

Method

POST

Parameters (The following table describes the standard input parameters for all *GetListings* search methods.)

Name	Type	Required	Description	Example
FeedIdList	string[]	Yes	A collection of one or more unique MLS feed identifiers. Feed IDs sent in the request that are not allowed for a client will be ignored	["GAMLS", "NWMLS"]
PropertyTypeList	string[]	No	Types of listings to include in the results. Valid values may vary by feed. They can be found in the PropertyType lookup.	["SINGLE", "CONDO"]
SaleTypeList	string[]	No	Types of transactions types to include in the results. Valid values are found in the SaleType lookup.	["Resale/New", "Short Sale"]
AgentId	string	No	Listing agent ID as specified by the MLS/feed	
OfficeId	string	No	Listing office ID as specified by the MLS/feed	
MinPrice	int?	No	The lowest price value to include in the results.	
MaxPrice	int?	No	The high price value to include in the results.	
MinSquareFeet	int?	No	The minimum square feet to include in the results.	
MaxSquareFeet	int?	No	The maximum square feet to include in the results.	
MinAcres	double?	No	The minimum lot size in acres to include in the results.	
MaxAcres	double?	No	The maximum lot size in acres to include in the results.	
Beds	int?	No	The minimum number of beds to include in the results.	
BathsTotal	double?	No	The minimum number of baths include in the results.	
MinYearBuilt	int?	No	The minimum year built of the listing	
MaxYearBuilt	int?	No	The maximum year built of the listing	

HasView	bool	No	<p>Does the listing have a type of view specified?</p> <ul style="list-style-type: none"> • True: Property has a type of view specified • False: No preference - may or may not have a view 	
ViewList	string[]	No	List of the type of views to include in the results. Valid values are from View lookup by MLS feed	["Ocean", "Mountain(s)"]
StyleList	string[]	No	List of specific styles to include. Valid values are from StylesStories lookup by MLS feed	["Traditional", "Split Entry"]
StatusList	string[]	No	List of specific status to include. Valid values are from ListingStatus lookup by MLS feed	["Active", "Pending"]
HasOpenHouse	bool?	No	<p>Filter the listings that have an upcoming open house</p> <ul style="list-style-type: none"> • True: Property has a future open house scheduled • False: No preference - include those with and without an open house 	
HasAc	bool?	No	<p>Filter the listings that have air conditioning</p> <ul style="list-style-type: none"> • True: Property has air conditioning • False: No preference - include those with and without air conditioning 	
HasAgeRestrictions	bool?	No	<p>Filter the listings that have age restrictions</p> <ul style="list-style-type: none"> • 0: Properties not restricted to seniors (<i>Not recommended</i>) • 1: Properties restricted to seniors - 55+ or similar • NULL: No preference - include those with and without age restrictions specified <p>Note: Not all feeds provide age restriction definitions. If "0" is used, you may be unintentionally filtering valid properties that the MLS has just not configured.</p>	

HasBarn	bool?	No	<p>Filter the listings that have additional outbuildings such as barns, arenas, etc.</p> <ul style="list-style-type: none"> • 0: Properties that do NOT have an outbuilding (<i>Not recommended</i>) • 1: Properties that do have an outbuilding • NULL: No preference - include those with and without an outbuilding 	
HasBasement	bool?	No	<p>Filter the listings that have a basement</p> <ul style="list-style-type: none"> • 0: Properties that do NOT have a basement • 1: Properties that do have a basement • NULL: No preference - include those with and without a basement 	
HasFireplace	bool?	No	<p>Filter the listings that have one or more fireplaces</p> <ul style="list-style-type: none"> • 0: Properties that do NOT have a fireplace • 1: Properties that do have one or more fireplaces • NULL: No preference - include those with and without fireplaces 	
HasGarage	bool?	No	<p>Filter the listings that have a garage</p> <ul style="list-style-type: none"> • 0: Properties that do NOT have a garage • 1: Properties that do have a garage • NULL: No preference - include those with and without a garage 	
HasHandicapFeatures	bool?	No	<p>Filter the listings that have accessibility features</p> <ul style="list-style-type: none"> • 0: Properties that do NOT have accessibility features (<i>not recommended</i>) • 1: Properties that do have accessibility features • NULL: No preference 	

HasMasterOnMain	bool?	No	<p>Filter the listings that have a master bedroom on the main floor</p> <ul style="list-style-type: none"> • 0: Properties that do NOT have a master on the main floor (<i>not recommended</i>) • 1: Properties that do have a master on the main floor • NULL: No preference 	
HasPool	bool?	No	<p>Filter the listings that have a pool</p> <ul style="list-style-type: none"> • 0: Properties that do NOT have a pool • 1: Properties that do have a pool • NULL: No preference 	
HasWaterFront	bool?	No	<p>Filter the listings that have properties on a body of water</p> <ul style="list-style-type: none"> • 0: Properties that are not on the water (<i>not recommended</i>) • 1: Properties that are on the water • NULL: No preference 	
SchoolDistrict	string	No	Filter listings to a school district identified in the MLS.	
Remarks	string	No	Filter listings that have a specific phrase in the property description	
Subdivision	string	No	Filter listings to a subdivision identified in the MLS	
LandTenure	string	No	<p>Specific land tenure to filter the listings on. Not available in many MLS feeds.</p> <ul style="list-style-type: none"> • NULL: No Preference • Free Hold: Free Hold or Fee Simple properties • Lease Hold: Lease Hold properties 	
DaysOnMarket	int?	No	Filter the listings to those that have been on the market for fewer days than this value	
MLSUpdateDate	datetime?	No	Filter the listings to those that have been updated after this date	
MLSInsertDate	datetime?	No	Filter the listings to those that have been inserted after this date	

Response

ListingSummary collection

Sample Request

```
{
  "FeedIdList": ["GAMLS","NWMLS"],
  "PropertyTypeList": ["SINGLE","CONDO"],
  "SaleTypeList": ["Resale/New"],
  "StatusList": [],
  "MinPrice": "",
  "MaxPrice": "",
  "MinSquareFeet": "",
  "MaxSquareFeet": "",
  "MinAcres": "",
  "MaxAcres": "",
  "Beds": "",
  "BathsTotal": "",
  "MinYearBuilt": "",
  "MaxYearBuilt": "",
  "AgentId": "",
  "OfficeId": "",
  "HasView": false,
  "HasOpenHouse": false,
  "HasAc": false,
  "HasAgeRestrictions": false,
  "HasBarn": false,
  "HasBasement": false,
  "HasFireplace": false,
  "HasGarage": false,
  "HasHandicapFeatures": false,
  "HasMasterOnMain": false,
  "HasPool": false,
  "HasWaterFront": false,
  "SchoolDistrict": "",
  "Remarks": "",
  "Subdivision": "",
  "LandTenure": "",
  "DaysOnMarket": "",
  "SearchAreaList": [],
  "StyleList": [],
  "ViewList": [],
  "LevelList": [],
  "MlsUpdateDate": "",
  "MlsInsertDate": "",
  "SortBy": "Price"
}
```

GetListingsByAddress

Get listings using an input address and a radius to retrieve listings at or near an address

Endpoint

<https://env08-api.mlsandbox.com/services/partner/GetListingsByAddress>

Method

POST

Parameters - *(in addition to base standard input parameters list above)*

Name	Type	Required	Description
Address	string	Yes	Street address to search for listings
City	string	Yes	City to filter on listings
State	string	Yes	State to filter on listings
Zip	string	Yes	Zip code to filter on listings
Distance	int?	No	Distance is in miles. Maximum distance is 25 miles Default 10 miles if not provided

Response

ListingSummary collection

GetListingsByGeography

Get listings by a geographical name – such as neighborhood, ZIP, or city

Endpoint

<https://env08-api.mlsandbox.com/services/partner/GetListingsByGeography>

Method

POST

Parameters - (in addition to base standard input parameters list above)

Name	Type	Required	Description
Neighborhood	string	No	Neighborhood to search for listings
Zip	string	No	Zip code to filter on listings
City	string	No	City to search for listings

Response

ListingSummary collection

GetListingsByLocation

Get listings based on a custom geographic boundary such as a point or polygon

Endpoint

<https://env08-api.mlsandbox.com/services/partner/GetListingsByLocation>

Method

POST

Parameters - (in addition to base standard input parameters list above)

Name	Type	Required	Description	Notes
WktLocation	string	Yes	Well-known text format search string POINT (-77.03653, 38.897676) POLYGON(-73.976269 40.765591,-73.978672 40.762341,-73.97644 40.759351,-73.971806 40.761593,-73.971934 40.764909,-73.976269 40.765591)	
FeedIdList	String[]	Yes	A collection of one or more unique MLS feed identifiers Feed IDs sent in the request that are not allowed for a client will be ignored	FeedIdList:["METROWI","MLSNI"], "WktLocation":"POLYGON(-88.017292 43.01491549,-87.984115 43.0162908,-87.984115 42.991629,-88.017292 42.991629)

Distance	int?	No	Distance in miles. Maximum distance is 25 miles. Default 10 miles if not provided	This value is used in "POINT" search
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Response

ListingSummary collection

GetSoldListingsByLocation

Get "Sold" listings based on a custom geographic boundary such as a point or polygon

Endpoint

<https://env08-api.mlsandbox.com/services/partner/GetSoldListingsByLocation>

Method

POST

Parameters - (in addition to base standard input parameters list above)

Name	Type	Required	Description	Notes
WktLocation	string	Yes	Well-known text format search string POINT (-77.03653, 38.897676) POLYGON((-73.976269 40.765591,-73.978672 40.762341,-73.97644 40.759351 ,-73.971806 40.761593,-73.971934 40.764909,-73.976269 40.765591))	
Distance	int?	No	Distance in miles. Maximum distance is 25 miles. Default 10 miles if not provided	This value is used in "POINT" search
SoldDateRange	string		A valid value of SoldDateRange lookup provided by Constellation, i.e. (All, Last 3 months)	

Response

ListingSummary collection

GetListingDetail

Get a full feature details for a listing

Endpoint

<https://env08-api.mlsandbox.com/services/partner/GetListingDetail>

Method

GET

Parameters

Name	Type	Required	Description
FeedId	string	Yes	Unique MLS feed identifier
ListingId	string	Yes	MLS listing Id

Response

ListingDetails

GetAgents

Get list of agents associated with an MLS or feed

Endpoint

<https://env08-api.mlsandbox.com/services/partner/GetAgents>

Method

GET

Parameters

Name	Type	Required	Description	Example
FeedId	string	Yes	Unique MLS feed identifier	
AgentId	string	No	Specific agent Id to filter the search on	
OfficeId	string	No	Specific office Id to filter the search on	
FromUpdatedDate	DateTime?	No	Search from a specific updated date. Default to current date if not provided. The search will return any updated documents from 12 am.	2019-05-01T12:00:00
ToUpdatedDate	DateTime?	No	Search to a specific updated date. Default to current date time the request is made if not provided The search will return all updated documents up to the current date time.	2019-05-01T11:15:39.837
Page	int	No	Specific page number from the result set. Default is 1.	

Response

Agent collection (1000 default page size)

Name	Type	Description
Results	Agent[]	List of agent records matched in the search. Max 1000 results
Total	int	Total number of matched results found
Count	int	Number of matched results returned in this response
NextPage	int?	This value indicates more matched results available in the next "Page" query. The same request with a new "Page" parameter shall be called to retrieve the next result set When NextPage = NULL → no more data available. The search shall stop

GetOffices

Get list of offices associated with an MLS or feed

Endpoint

<https://env08-api.mlsandbox.com/services/partner/GetOffices>

Method

GET

Parameters

Name	Type	Required	Description	Example
FeedId	string	Yes	Unique MLS feed identifier	
OfficeId	string	No	Specific office Id to filter the search on	
FromUpdatedDate	DateTime?	No	Search from a specific updated date. Default to current date if not provided. The search will return any updated documents from 12 am.	2019-05-01T12:00:00
ToUpdatedDate	DateTime?	No	Search to a specific updated date. Default to current date time the request is made if not provided The search will return all updated documents up to the current date time.	2019-05-01T11:15:39.837
Page	int	No	Specific page number from the result set. Default is 1	

Response

Office collection (1000 default page size)

Name	Type	Description
Results	Office[]	Collection of office records matched in the search.
Total	int	Total number of matched results found
Count	int	Number of matched results returned in this response

NextPage	int?	<p>This value indicates more matched results available in the next "Page" query. The same request with a new "Page" parameter shall be called to retrieve the next result set</p> <p>When NextPage = NULL → no more data available. The search shall stop</p>
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GetLookupSearch

Get list of searchable values by lookup type

Endpoint

<https://env08-api.mlsandbox.com/services/partner/GetLookupSearch>

Method

GET

Parameters

Name	Type	Required	Description	Example
FeedIdList	string[]	Yes	<p>A collection of one or more unique MLS feed identifiers</p> <p>Feed IDs sent in the request that are not allowed for a client will be ignored</p>	<p>Multiple FeedId in the Get query string</p> <p>FeedIdList=GAMLS&FeedIdList=NWMLS</p>
LookupType	enum	Yes	<p>Possible values:</p> <ul style="list-style-type: none"> • PropertyType • PropertySubType • ListingStatus • Air • HeatingDelivery • HeatingSource • StylesStories • Roof • Construction • Flooring • View • SaleType • Sortables 	

Response

Name, Value collection

GetListingsOpenhouse

Get a list of open houses by MLS and/or OfficeId, AgentId with a specific open date range

Endpoint

<https://env08-api.mlsandbox.com/services/partner/GetListingsOpenhouse>

Method

GET

Parameters

Name	Type	Required	Description	Example
FeedIdList	string[]	Yes	A collection of one or more unique MLS feed identifiers Feed IDs sent in the request that are not allowed for a client will be ignored	Multiple FeedId in the Get query string FeedIdList=GAMLS&FeedIdList=NWMLS
OfficeId	string	No	Specific office Id to filter the search on	
AgentId	string	No	Specific agent Id to filter the search on	
OpenFromDate	DateTime?	No	Search from a specific open date	
OpenToDate	DateTime?	No	Search to a specific end date	

Response

ListingOpenHouse collection

Listings

Get detailed listings by feed(s), date range and status. A single search may have thousands of listings that match the criteria. Results are broken into pages of up to 500 listings. The ListingDetails collection includes an indicator of whether another page is available to fetch.

Implementations note: If a new feed is added to your credentials, you can request just that feed and pull the full list of listings without interrupting the rest of the feeds actively sync.

Endpoint

<https://env08-api.mlsandbox.com/services/partner/SyncListings>

Method

GET

Parameters

Name	Type	Required	Description	Example
FeedIdList	string[]	No	<p>A collection of one or more unique MLS feed identifiers</p> <ul style="list-style-type: none"> When no FeedId is provided in the request, all feeds the partner has access to will be returned in the results. Only feeds that a partner has access to will be included in the results. 	<p>Multiple FeedId in the Get query string</p> <p>FeedIdList=GAMLS&FeedIdList=NWMLS</p>
FromUpdatedDate	DateTime?	Yes	<p>Specify a desired search from listing last updated date.</p> <p>Default to current date if not provided.</p> <p>The search will return any updated documents from 12 am.</p>	<p>2019-05-01T12:00:00. Basis for this timestamp is US Pacific Time</p>

Name	Type	Required	Description	Example
ToUpdatedDate	DateTime?	No	Specify a desired search to listing last updated date. Default to current date time the request is made if not provided The search will return all updated documents up to the current date time	2019-05-01T11:15:39.837. Basis for this timestamp is US Pacific Time
Status	int	Yes	Possible values: <ul style="list-style-type: none"> • 0 = All • 1 = Active / Contingent / Pending • 2 = Sold • 3 = Deleted 	
Page	int	No	Specify a page number to get the listing results in the response. Default is 1.	

Response

ListingDetails collection (up to 500 listings returned in per page request), with a maximum of 300,000 listings for any one batch (500 x 600 pages)

Field	Type	Description
Results	ListingDetails[]	List of listing details records matched in the search
Total	int	Total number of matched results found
Count	int	Number of matched results returned in this response
NextPage	int?	This value indicates more matched results available in the next "Page" query. The same request with a new "Page" parameter shall be called to retrieve the next result set When NextPage = NULL → no more data available. The search shall stop.

Appendix: API Responses

GetListings Response Entity Definition

Name	Type	Description
FeedId	string	Unique Id for feed
ListingId	string	MLS ListingId
Latitude	double?	Latitude coordinate for the listing
Longitude	double?	Longitude coordinate for the listing
Price	int?	Current price of the listing
PropertyType	string	Property Type of the listing from the MLS
SalePrice	Int?	Sale price of the sold listing
SaleType	string	Transaction type of the listing
Beds	int?	Number of beds
BathsTotal	double?	Total number of baths
SquareFeet	string	Square feet of the listing
Status	string	Status of the listing
Address	string	A full street address of the listing
Address2	string	Unit number of the listing address
City	string	City of the listing
State	string	State of the listing
Zip	string	Zip code of the listing
ListingAgent	string	Listing Agent from MLS
ListingAgentId	string	Listing AgentId from MLS
ListingOffice	string	Listing Office from MLS
ListingOfficeId	string	Listing OfficeId from MLS
ListingOfficePhone	string	Listing Office phone from MLS
ShowOnMap	bool	Can the listing be shown per MLS rule?
ShowAddress	bool	Can the listing address be shown per MLS rule?
OpenHouses	List<OpenHouse>	List of open houses a listing has

ListingMedia	Media	List of all photos a listing has
AllowComment	bool	Indicates if the agent may post comment on social media about a listing
Remarks	string	Remarks of a listing
ListDate	DateTime	Listing listed date from MLS
MlsUpdateDate	DateTime	Date the listing last changed in our data set
LastListingStatusChangeDate	DateTime	Listing status updated date from MLS
PhotoRetrievedDate	DateTime	Date photos for the listing were last added or modified. Will be NULL if no images are pulled for the listing.
DaysOnMarket	int	Number of days a listing has been on market. Some MLSes, such as FeedId CAREG, have special requirements for keeping this field up-to-date, based on ListingStatus changes. Please adjust your implementation as required by your MLS.
CumulativeDaysOnMarket	Int	Number of days since a listing was first listed
ImportDate	DateTime	Date listing was first retrieved from the MLS

ListingDetails Response Entity Definition

Name	Type	Description
ListingId	string	MLS listing ID
FeedId	string	Unique ID for each feed
AboveGroundSqFt	string	Total finished square footage measured at and above ground level
Acres	string	Lot size of the listing or land in acres
AcreSearch	double?	Lot size in numeric value
Address	string	A full street address of the listing
Address2	string	Unit number of the listing address
AgentRemarks	string	Agent remarks to the listing
Air	string	Description of the air conditioning
AirSearch	string	Standardized Air searchable value
Appliances	string	Description of the appliances included
Assessments	string	Description of the property assessments
AvailableUtilities	string	Description of the utilities available of the property

BackOnMarketDate	datetime	Date the listing went back into market
BathroomDescription	string	Description of the bathroom
BathsFull	short	# full baths
BathsHalf	short	# half baths
BathsLocation	string	Description of the bathroom location
BathsPartial	short?	# half baths – a sum of all partial baths BathQuarters, BathsHalf, BathsThreeQuarter specified in MLS
BathsQuarter	short	# quarter baths
BathsThreeQuarter	short?	# of three-quarter baths
BathsTotal	double?	# of baths total – specified in MLS
BedroomDescription	string	Description of the bedroom
Beds	short?	# of beds
BelowGroundSqFt	int?	Total finished square footage measured below ground level
BoatAmenities	string	Description of boat amenities / remarks the listing has
BodyOfWater	string	Description of body of water the listing has access to.
BreakfastDescription	string	Description of the breakfast area
Builder	string	Name of the Builder
BuildingNumber	string	House numbering
BuyerCommission	string	Buyer commission in percentage
CarpportSpaces	string	Number of carport spaces
City	string	City identified in MLS
CoListingAgentCode	string	Secondary listing agent's ID from the MLS
CommentAllowed	string	Indicates if the listing agent/office may blog about the listing
Commission	string	Commission available for the listing
CommonWalls	string	Description of the common walls the listing has
CondoFee	string	Fee associated with condo
CondoFeeFrequency	string	Frequency of condo fee
Construction	string	Description of the building's construction
ConstructionSearch	string	Standardized Construction searchable value
ContingentDate	datetime?	Date an offer was made with a contingency
ContractDate	datetime?	Date the listing enters into contract agreement

Country	string	Country identified in MLS
County	string	County identified in MLS
CoveredParkingSpaces	string	Number of covered of parking spaces
CrossStreet	string	Nearest cross streets to the property
CumulativeDaysOnMarket	Int	Number of days since a listing was first listed
CurrentUse	string	Current use of the property
DateAvailable	datetime?	Date the property is available
DaysOnMarket	int	Number of days a listing has been on market. Some MLSes, such as FeedId CAREG, have special requirements for keeping this field up-to-date, based on ListingStatus changes. Please adjust your implementation as required by your MLS.
DenDescription	string	Description of the den
DevelopmentName	string	Name of the developer
DevelopmentStatus	string	Development status specified in MLS
DimensionsUnits	string	Unit dimension specified in MLS
DiningRoomDescription	string	Description of the dining room
Directions	string	Directions to the property
DockHeight	string	Description of dock height
DoorsWindows	string	Description of door windows
DrivewayDescription	string	Description of the driveway
DwellingType	string	Listing's dwelling type
EnergyFeatures	string	Description of energy features available
EntryLocation	string	Description of the main entry location
ExpirationDate	datetime?	Listing expiration date
Exposure	string	Description of the property exposure / shade
Exterior	string	Description of the building's exterior
FamilyRoomDescription	string	Description of the family room
FarmType	string	Type of farm description
FenceDescription	string	Description of the fence
FinishedSquareFeet	string	Total finished square feet
FireplaceCount	int?	Number of fireplace available
FireplaceDescription	string	Description of the fireplaces

FloorDescription	string	Description of the floors and floor coverings
FloorSearch	string	Standardized Flooring searchable value
FloridaRoomDescription	string	Description of the Florida room
Foundation	string	Description of the building's foundation
FoundationSize	string	Size in square feet of foundation
FrontDimensions	string	Dimensions of the property front
Garage	string	What type of garage is this?
GarageSize	string	Garage size in square feet
GarageSpaces	string	How many garage spaces does the listing have?
GradeSchool	string	Elementary School
GreatRoomDescription	string	Description of the great room
GuestFacilities	string	Description of the guest area
HandicapFeatures	string	Description of handicap features
HasAc	bool	Does the listing have air conditioning?
HasAdvancedElectrical	bool	Does the listing have advanced electrical?
HasAgeRestrictions	bool	Does the listing have age restrictions?
HasAttachedParking	bool	Does the listing have attached parking?
HasBalcony	bool	Does the listing have a balcony?
HasBarn	bool	Does the listing have a barn?
HasBasement	bool	Does the listing have a basement?
HasBasementFinished	bool	Is the basement finished?
HasCarport	bool	Does the listing have a carport?
HasCovenantsDeedRestriction	bool	Does the listing have covenants deed restriction?
HasDeck	bool	Does the listing have a deck?
HasDiningRoom	bool	Does the listing have dining room?
HasDisclosure	bool	Does the listing have a listing disclosure?
HasDockFacilities	bool	Does the listing have doc facilities?
HasElevators	bool	Does the listing have elevators?
HasExclusions	bool	Does the listing have any exclusions?
HasExistingFinancing	bool	Does the listing have any existing financing?
HasFencedYard	bool	Does the listing have fenced yard?

HasFireplace	bool	Does the listing have a fireplace?
HasForcedAir	bool	Does the listing have forced air?
HasGarage	bool	Does the listing have garage?
HasGarden	bool	Does the listing have garden?
HasHandicapBaths	bool	Does the listing have handicap baths?
HasHandicapDoors	bool	Does the listing have handicap doors?
HasHandicapFeatures	bool	Does the listing have handicap features?
HasHandicapRamps	bool	Does the listing have handicap ramps?
HasHorseFacilities	bool	Does the listing have horse facilities?
HasInteriorSteps	bool	Does the listing have interior steps?
HasIrrigationRights	bool	Does the listing have irrigation system?
HasLeaseOptions	bool	Does the listing have lease options?
HasMasterOnMain	bool	Does the listing have master on main level?
HasOutbuildings	bool	Does the listing have out buildings?
HasParking	bool	Does the listing have parking?
HasPatio	bool	Does the listing have a patio?
HasPool	bool	Does the listing have a pool?
HasPorch	bool	Does the listing have a porch?
HasRailAccess	bool	Does the listing have rail access?
HasSpa	bool	Does the listing have a spa?
HasSplitBedroomPlan	bool	Does the listing have split bedroom plan?
HasSprinklerSystem	bool	Does the listing have sprinkler system?
HasStorageArea	bool	Does the listing have storage area?
HasTennisCourt	bool	Does the listing have tennis court?
HasVariableCommission	bool	Does the listing have variable commission?
HasView	bool	Does the listing have a view?
HasWaterAccess	bool	Does the listing have water access?
HasWaterfront	bool	Is the listing waterfront?
Headline	string	Special headline for the property
Heat	string	What type of heat the listing has?
HeatingDelivery	string	Heating type of equipment

HeatingDeliverySearch	string	Standardized HeatingDelivery searchable value
HeatingSource	string	What source of heating?
HeatingSourceSearch	string	Standardized HeatingSource searchable value
HighRiseAmenities	string	Description of high-rise amenities
HighSchool	string	High School
HoaDescription	string	Description of HOA
HoaDues	string	Amount of homeowners' association fees
HoaFee	string	Description of HOA fees
HoaFeeFrequency	string	Description of HOA frequency
HorseFeatures	string	Description of horse features
HotlineCode	string	Hotline code available for the listing
ImportDate	datetime?	Date listing was first retrieved from the MLS
Inclusions	string	Description of all inclusions available with the property
Interior	string	Description of interior of the property
IsAssumable	bool	Is the listing financing assumable?
IsCableAvailable	bool	Is cable available in the property?
IsCornerLot	bool	Is the listing in a corner lot?
IsCulDeSacLot	bool	Is the listing in a cul-de-sac lot?
IsDrivein	bool	
IsFixerUpper	bool	Is the listing a fixer upper?
IsFloodPlain	bool	Is the listing in flood zone?
IsForeclosed	bool	Is the listing in foreclosure?
IsFurnished	bool	Does the listing come furnished?
IsGatedCommunity	bool	Is the listing in a gated community?
IsGolfCourseLot	bool	Is the listing in a golf community or near golf?
IsHorsesAllowed	bool	Is the listing considered a horse property?
IsModelHome	bool	Is the listing a model home?
IsMountainLot	bool	Is the listing a mountain lot?
IsNewConstruction	bool	Is the listing new construction?
IsOwnerOccupied	bool	Is the listing owner occupied?
IsPetsAllowed	bool	Does the listing allow pets?

IsRuralArea	bool	Is the listing in rural area?
IsShortSale	bool	Is the listing a short sale?
IsSubdividableLot	bool	Is the listing a sub-dividable lot?
IsTradeConsidered	bool	Does the listing consider trade option?
IsTreedLot	bool	Are utilities included in the listing?
IsUtilitiesIncluded	bool	Are utilities included?
KitchenDescription	string	Description of the kitchen
LandInclusion	string	Description of the listing land inclusion
LandscapeBackDesc	string	Description of back landscape
LandscapeFrontDesc	string	Description of front landscape
LandTenure	string	Description of the property land right
LastPriceChangeDate	datetime?	Price change date
LastListingStatusChangeDate	datetime?	Status change date
Latitude	double?	Latitude coordinate provided
LaundryDescription	string	Description of the laundry room
LeftDimensions	string	Left dimension of the property
LegalDescription	string	Legal description of the property
ListDate	datetime?	Date the listing was listed in the MLS
ListingAgent	string	Listing agent's name
ListingAgentId	string	listing agent's ID from the MLS
ListingOffice	string	Listing agent's office
ListingOfficeId	string	Listing agent's office ID from the MLS
ListingOfficePhone	string	Listing agent's office phone
ListingStatus	string	Status of the listing in the MLS
ListingStatusSearch	string	Standardized ListingStatus searchable value
ListPriceHigh	decimal?	High price range of the listing
ListPriceLow	decimal?	Low price range of the listing
LivingAreaHigh	int?	High end of a living area range
LivingAreaLow	int?	Low end of a living area range
LivingAreaSource	string	Source of information for living area - county records, tax assessor, etc.
LivingAreaUnits	string	Living area units, generally in square feet or square meters

LivingRoomDescription	string	Description of the living room
LockBox	string	Does the listing have lock box?
Longitude	double?	Longitude coordinate provided
LotAreaHigh	double?	High end of a lot area range
LotAreaLow	double?	Low end of a lot area range
LotAreaUnits	string	Lot area units, generally square feet or acres
LotDescription	string	Description of the lot
LotDimensions	string	Dimensions of the lot or land parcel
LotNumber	string	The lot number if applicable/available
LotSizeSource	string	Source of information for lot size - county records, tax assessor, etc.
MasterBathDescription	string	Description of the master bathroom
MasterBedroomDescription	string	Description of the master bedroom
MiddleSchool	string	Middle school
MlsArea	string	Listing area specified in MLS
MlsAssociation	string	Association provided by the MLS
MlsModificationTimestamp	datetime?	Modification timestamp provided by the MLS
MlsStories	string	Stories provided by the MLS
MlsUpdateDate	datetime?	Date the listing last changed in our data set
MobileHomeDescription	string	Description of the mobile home
ModelName	string	Description of building model name
Neighborhood	string	Neighborhood assigned
Num1BedroomUnits	int?	The number of one bedroom units in a multi-family
Num2BedroomUnits	int?	The number of two bedroom units in a multi-family
Num3BedroomUnits	int?	The number of three bedroom units in a multi-family
Num4BedroomUnits	int?	The number of four bedroom units in a multi-family
NumberOfUnits	int?	The total # of units in the complex or building
NumEfficiencyUnits	int?	The number of efficiency units in a multi-family
OnsiteUtilities	string	Utilities available on property
OpenHouses	IList<OpenHouse>	List of open houses
OriginalListPrice	decimal?	Previous list price
OtherRoomsDescription	string	Description of other room

Outbuildings	string	The property includes an outbuilding
OwnershipType	string	Current type of ownership
ParcelNumber	string	Current parcel number
Parking	string	Description of the parking area
ParkingSpaces	string	Description of parking spaces
PatioDescription	string	Description of patio
PetDescription	string	Description of pet
PhotoRetrievedDate	datetime?	Date photos for the listing were last added or modified. Will be NULL if no images are pulled for the listing.
Plumbing	string	Description of plumbing
Pool	string	Details on pool
PotentialUse	string	Potential uses for a property
Price	int?	Current price of the listing
PricePerSqft	decimal?	Price per square feet
PropertyType	string	The full description of the property type from the MLS
PropertyTypeSearch	string	Standardized PropertyType searchable value
RearDimensions	string	Dimensions of property back
Remarks	string	Public marketing remarks
ResultCode	string	Accuracy of the geocoding
RightDimensions	string	Right dimension of the property
RoadFrontageDimensions	string	Road front dimension of the property
Roof	string	Description of the building's roof
RoofSearch	string	Standardized Roof searchable value
SaleDate	datetime?	Transaction date
SalePrice	Int?	Sale price of the sold listing
SaleType	string	What type of transaction is this?
SchoolDistrict	string	School District
SecurityFeatures	string	Description of security features
SellerCommission	string	Description of seller commission
SellingAgentId	string	Selling agent's ID from the MLS
SellingOffice	string	Selling office's name
SellingOfficeId	string	Selling office's ID from the MLS

Sewer	string	Description of the water and sewer hook-ups
ShowAddress	bool	Can a listing address be shown per MLS rule?
ShowOnMap	bool	Can a listing be shown on map per MLS rule?
SpaDescription	string	Description of spa
SprinklersDescription	string	Description of the sprinkler system
SquareFeet	string	Square feet of the property
State	string	State identified in MLS
Stories	string	How many floors does the listing have?
StreetDirPrefix	string	Direction indicator precedes the listed property's street name
StreetDirSuffix	string	Direction indicator follows the listed property street address
StreetName	string	Derived street name from the street address
StreetNumber	string	Derived street number from the street address
StreetSuffix	string	Street suffix
StructureCondition	string	Description of other structures included
Style	string	Description of the building style
StyleSearch	string	Standardized Style searchable value
Subdivision	string	Subdivision description of the listing
SubjectTo	string	Description of a conditional term on the property
Taxes	string	The total tax amount
Terms	string	Terms of sale
Topography	string	Description of the lot topography
TotalAreaOnLevel1	float	Total area of the first floor of the property
TotalAreaOnLevel2	float	Total area of the second floor of the property
TotalAreaOnLevel3	float	Total area of the third floor of the property
TotalAreaOnLevel4	float	Total area of the fourth floor of the property
TotalAreaOnLevel5	float	Total area of the fifth floor of the property
TotalRooms	string	Total number of rooms
Township	string	Township of the listing
UnitNumber	string	Unit number of the listing address
UnitTypes	string	Description of building unit type
Utilities	string	Description of the property's utilities hook-ups

UtilityRoomDescription	string	Description of the utilities room
ViewDescription	string	Description of views available
ViewSearch	string	Standardized View searchable value
Water	string	Description of the property's water source
WaterAccess	string	Description of water access
Waterfront	string	Description of waterfront
WaterFrontageDimensions	string	Waterfront dimensions
WaterfrontType	string	Description of waterfront type
WoodedAcreage	double?	Wooded area in acres
YearBuilt	string	The year built based on the MLS data
Zip	string	ZIP Code identified in MLS
Zoning	string	The current zoning of the property

ListingMedia Entity Definition

Name	Type	Description
PhotoCount	int	Number of listing photos
Photos	Photo[]	Collection of photo entities
VirtualTourUrl	string	3rd Party virtual tour URL

Photo Entity Definition

Name	Type	Description
Sequence	int	Listing photo sequence number
NormalSizeUrl	string	Normal size listing photo URL - max at 300 pixels
LargeSizeUrl	string	Large size listing photo URL - max at 1024 pixels

OpenHouse Entity Definition

Name	Type	Description
IsActive	bool	Indicates if an open house is active

StartDate	DateTime?	Open house start date time
EndDate	DateTime?	Open house end date time
Remarks	string	Open house remarks

Lookup search types

LookupType	Description
PropertyType	Returns a list of property types. <i>Examples: Farm, Land, Residential</i>
PropertySubType	Returns a list of property sub types. <i>Examples: Apartment, Cabin, Condo, Duplex</i>
ListingStatus	Returns a list of standardized listing statuses. <i>Examples: Active, Coming Soon, Contingent, Pending, Sold</i>
Air	Returns a list of searchable air/cooling types. <i>Examples: Central Air, Electric</i>
HeatingDelivery	Returns a list of searchable heat delivery systems. <i>Examples: Baseboard, Ceiling, Electric</i>
HeatingSource	Returns a list of searchable heat sources. <i>Examples: Coal, Electric, Wood</i>
StylesStories	Returns a list of searchable style and story/level descriptions. <i>Examples: 1 Story, Colonial, Raised Ranch</i>
Roof	Returns a list of searchable roof types. <i>Examples: Aluminum, Asphalt, Composition</i>
Construction	Returns a list of searchable building materials. <i>Examples: Brick, Stone, Vinyl</i>
Flooring	Returns a list of searchable flooring types. <i>Examples: Bamboo, Carpet, Concrete</i>
View	Returns a list of searchable view types. <i>Examples: Bay, Beach, City, Lake</i>
SaleType	Returns a list of searchable sales types. <i>Examples: Sale, lease, rental</i>
Sortables	Return a list of sortable fields: <i>Examples: Price, Beds, Baths</i>

Appendix: Class schema

The following class schema in C# representation can be used to map with JSON responses from the API usages.

ListingSummary - for all GetListings responses

```
public class ListingSummary
```



```

{
    public string FeedId { get; set; }
    public string ListingId { get; set; }
    public double? Latitude { get; set; }
    public double? Longitude { get; set; }
    public int? Price { get; set; }
    public string PropertyType { get; set; }
    public string Style { get; set; }
    public string ViewDescription { get; set; }
    public string ListingStatus { get; set; }
    public string Address { get; set; }
    public string Address2 { get; set; }
    public string City { get; set; }
    public string State { get; set; }
    public string Zip { get; set; }
    public short? Beds { get; set; }
    public double? BathsTotal { get; set; }
    public string SquareFeet { get; set; }
    public string ListingAgentId { get; set; }
    public string ListingAgent { get; set; }
    public string ListingOffice { get; set; }
    public string ListingOfficeId { get; set; }
    public string ListingOfficePhone { get; set; }
    public bool HasOpenHouse { get; set; }
    public bool ShowOnMap { get; set; }
    public bool ShowAddress { get; set; }
    public int ActualPhotoCount { get; set; }
    public string VirtualTourUrl { get; set; }
    public bool AllowComment { get; set; }
    public string Remarks { get; set; }
    public string SaleType { get; set; }
    public DateTime? SaleDate { get; set; }
    public DateTime? ListDate { get; set; }
    public DateTime? MlsUpdateDate { get; set; }
    public DateTime? LastListingStatusChangeDate { get; set; }
    public DateTime? PhotoRetrievedDate { get; set; }
    public int DaysOnMarket { get; set; }
    public int CumulativeDaysOnMarket { get; set; }
    public IList<OpenHouse> OpenHouses { get; set; }
    public ListingMedia Media { get; set; }
}

```

ListingMedia

```

public class ListingMedia
{
    public int PhotoCount { get; set; }
    public IList<Photo> Photos { get; set; }
    public string VirtualTourUrl { get; set; }
}

```

```

public class OpenHouse
{
    public bool IsActive { get; set; }
    public DateTime? StartDate { get; set; }
    public DateTime? EndDate { get; set; }
    public string Remarks { get; set; }
}

```

```

public class Photo
{
    public int Sequence { get; set; }
    public string NormalSizeUrl { get; set; }
    public string LargeSizeUrl { get; set; }
}

```

ListingDetails

```

public class ListingDetails
{
    public string FeedId { get; set; }
    public string ListingId { get; set; }

    public int? AboveGroundSqFt { get; set; }
    public string Acres { get; set; }
    public double? AcreSearch { get; set; }
    public int ActualPhotoCount { get; set; }
    public string Address { get; set; }
    public string Address2 { get; set; }
    public string AgentRemarks { get; set; }
    public string Air { get; set; }
    public string AirSearch { get; set; }
    public bool AllowComment { get; set; }
    public string Appliances { get; set; }
    public string Assessments { get; set; }
    public int? AssessmentsSearch { get; set; }
    public string AvailableUtilities { get; set; }
    public DateTime? BackOnMarketDate { get; set; }
    public string BathroomDescription { get; set; }
    public short? BathsFull { get; set; }
    public string BathsLocation { get; set; }
    public short? BathsPartial { get; set; }
    public short? BathsThreeQuarter { get; set; }
    public double? BathsTotal { get; set; }
    public string BedroomDescription { get; set; }
    public short? Beds { get; set; }
    public int? BelowGroundSqFt { get; set; }
    public string BoatAmenities { get; set; }
    public string BodyOfWater { get; set; }
    public string BreakfastDescription { get; set; }
}

```

```
public string Builder { get; set; }
public string BuildingNumber { get; set; }
public string BuyerCommission { get; set; }
public string CarportSpaces { get; set; }
public float? CarportSpacesSearch { get; set; }
public string City { get; set; }
public string CoListingAgentCode { get; set; }
public string Commission { get; set; }
public string CommonWalls { get; set; }
public string CondoFee { get; set; }
public string CondoFeeFrequency { get; set; }
public string Construction { get; set; }
public string ConstructionSearch { get; set; }
public DateTime? ContingentDate { get; set; }
public DateTime? ContractDate { get; set; }
public string Country { get; set; }
public string County { get; set; }
public string CoveredParkingSpaces { get; set; }
public string CrossStreet { get; set; }
public string CurrentUse { get; set; }
public DateTime? DateAvailable { get; set; }
public int DaysOnMarket { get; set; }
public string DenDescription { get; set; }
public string DevelopmentName { get; set; }
public string DevelopmentStatus { get; set; }
public string DimensionsUnits { get; set; }
public string DiningRoomDescription { get; set; }
public string Directions { get; set; }
public bool DockHeight { get; set; }
public string DoorsWindows { get; set; }
public string DrivewayDescription { get; set; }
public string DwellingType { get; set; }
public string EnergyFeatures { get; set; }
public string EntryLocation { get; set; }
public DateTime? ExpirationDate { get; set; }
public string Exposure { get; set; }
public string Exterior { get; set; }
public string FamilyRoomDescription { get; set; }
public string FarmType { get; set; }
public string FenceDescription { get; set; }
public int? FinishedSquareFeet { get; set; }
public string FireplaceCount { get; set; }
public string FireplaceDescription { get; set; }
public string FloorDescription { get; set; }
public string FloorSearch { get; set; }
public string FloridaRoomDescription { get; set; }
public string Foundation { get; set; }
public string FoundationSize { get; set; }
public int? FoundationSizeSearch { get; set; }
public string FrontDimensions { get; set; }
public string Garage { get; set; }
public string GarageSize { get; set; }
public float? GarageSpaces { get; set; }
```

```
public string GradeSchool { get; set; }
public string GreatRoomDescription { get; set; }
public string GuestFacilities { get; set; }
public string HandicapFeatures { get; set; }
public bool HasAc { get; set; }
public bool HasAdvancedElectrical { get; set; }
public bool HasAgeRestrictions { get; set; }
public bool HasAttachedParking { get; set; }
public bool HasBalcony { get; set; }
public bool HasBarn { get; set; }
public bool HasBasement { get; set; }
public bool HasBasementFinished { get; set; }
public bool HasCarport { get; set; }
public bool HasCityView { get; set; }
public bool HasCovenantsDeedRestriction { get; set; }
public bool HasDeck { get; set; }
public bool HasDiningRoom { get; set; }
public bool HasDisclosure { get; set; }
public bool HasDockFacilities { get; set; }
public bool HasElevators { get; set; }
public bool HasExclusions { get; set; }
public bool HasExistingFinancing { get; set; }
public bool HasFencedYard { get; set; }
public bool HasFireplace { get; set; }
public bool HasForcedAir { get; set; }
public bool HasGarage { get; set; }
public bool HasGarden { get; set; }
public bool HasHandicapBaths { get; set; }
public bool HasHandicapDoors { get; set; }
public bool HasHandicapFeatures { get; set; }
public bool HasHandicapRamps { get; set; }
public bool HasHorseFacilities { get; set; }
public bool HasInteriorSteps { get; set; }
public bool HasIrrigationRights { get; set; }
public bool HasLeaseOptions { get; set; }
public bool HasMasterOnMain { get; set; }
public bool HasMountainView { get; set; }
public bool HasOceanView { get; set; }
public bool HasOpenHouse { get; set; }
public bool HasOutbuildings { get; set; }
public bool HasParking { get; set; }
public bool HasParkView { get; set; }
public bool HasPatio { get; set; }
public bool HasPool { get; set; }
public bool HasPorch { get; set; }
public bool HasRailAccess { get; set; }
public bool HasSpa { get; set; }
public bool HasSplitBedroomPlan { get; set; }
public bool HasSprinklerSystem { get; set; }
public bool HasStorageArea { get; set; }
public bool HasTennisCourt { get; set; }
public bool HasValleyView { get; set; }
public bool HasVariableCommission { get; set; }
```

```

public bool HasView { get; set; }
public bool HasWaterAccess { get; set; }
public bool HasWaterfront { get; set; }
public bool HasWaterView { get; set; }
public string Headline { get; set; }
public string Heat { get; set; }
public string HeatingDelivery { get; set; }
public string HeatingDeliverySearch { get; set; }
public string HeatingSource { get; set; }
public string HeatingSourceSearch { get; set; }
public string HighRiseAmenities { get; set; }
public string HighSchool { get; set; }
public string HoaDescription { get; set; }
public string HoaDues { get; set; }
public string HoaFee { get; set; }
public int? HoaFeeSearch { get; set; }
public string HoaFeeFrequency { get; set; }
public string HorseFeatures { get; set; }
public string HotlineCode { get; set; }
public string Inclusions { get; set; }
public string Interior { get; set; }
public bool IsAssumable { get; set; }
public bool IsCableAvailable { get; set; }
public bool IsCornerLot { get; set; }
public bool IsCulDeSacLot { get; set; }
public bool IsDrivein { get; set; }
public bool IsFixerUpper { get; set; }
public bool IsFloodPlain { get; set; }
public bool IsFurnished { get; set; }
public bool IsGatedCommunity { get; set; }
public bool IsGolfCourseLot { get; set; }
public bool IsHorsesAllowed { get; set; }
public bool IsModelHome { get; set; }
public bool IsMountainLot { get; set; }
public bool IsNewConstruction { get; set; }
public bool IsOwnerOccupied { get; set; }
public bool IsPetsAllowed { get; set; }
public bool IsRuralArea { get; set; }
public bool IsSubdividableLot { get; set; }
public bool IsTradeConsidered { get; set; }
public bool IsTreedLot { get; set; }
public bool IsUtilitiesIncluded { get; set; }
public string KitchenDescription { get; set; }
public string LandInclusion { get; set; }
public string LandscapeBackDesc { get; set; }
public string LandscapeFrontDesc { get; set; }
public string LandTenure { get; set; }
public DateTime? LastPriceChangeDate { get; set; }
public DateTime? LastListingStatusChangeDate { get; set; }
public double? Latitude { get; set; }
public string LaundryDescription { get; set; }
public string LeftDimensions { get; set; }
public string LegalDescription { get; set; }

```

```

public DateTime? ListDate { get; set; }
public string ListingAgent { get; set; }
public string ListingAgentId { get; set; }
public string ListingOffice { get; set; }
public string ListingOfficeId { get; set; }
public string ListingOfficePhone { get; set; }
public string ListingStatus { get; set; }
public string ListingStatusSearch { get; set; }
public decimal? ListPriceHigh { get; set; }
public decimal? ListPriceLow { get; set; }
public int? LivingAreaHigh { get; set; }
public int? LivingAreaLow { get; set; }
public string LivingAreaSource { get; set; }
public string LivingAreaUnits { get; set; }
public string LivingRoomDescription { get; set; }
public string LockBox { get; set; }
public double? Longitude { get; set; }
public double? LotAreaHigh { get; set; }
public double? LotAreaLow { get; set; }
public string LotAreaUnits { get; set; }
public string LotDescription { get; set; }
public string LotDimensions { get; set; }
public string LotNumber { get; set; }
public string LotSizeSource { get; set; }
public string MasterBathDescription { get; set; }
public string MasterBedroomDescription { get; set; }
public string MiddleSchool { get; set; }
public string MlsArea { get; set; }
public string MlsAssociation { get; set; }
public DateTime MlsModificationTimestamp { get; set; }
public string MlsPropertyType { get; set; }
public string MlsStories { get; set; }
public DateTime? MlsUpdateDate { get; set; }
public string MobileHomeDescription { get; set; }
public string ModelName { get; set; }
public string Neighborhood { get; set; }
public int? Num1BedroomUnits { get; set; }
public int? Num2BedroomUnits { get; set; }
public int? Num3BedroomUnits { get; set; }
public int? Num4BedroomUnits { get; set; }
public short? NumberOfUnits { get; set; }
public int? NumEfficiencyUnits { get; set; }
public string OnsiteUtilities { get; set; }
public decimal? OriginalListPrice { get; set; }
public string Other { get; set; }
public string OtherRoomsDescription { get; set; }
public string Outbuildings { get; set; }
public string OwnershipType { get; set; }
public string ParcelNumber { get; set; }
public string Parking { get; set; }
public string ParkingSpaces { get; set; }
public float? ParkingSpacesSearch { get; set; }
public string PatioDescription { get; set; }

```

```
public string PetDescription { get; set; }
public DateTime? PhotoRetrievedDate { get; set; }
public string Plumbing { get; set; }
public string Pool { get; set; }
public string PotentialUse { get; set; }
public int? Price { get; set; }
public decimal? PricePerSqft { get; set; }
public string PropertyType { get; set; }
public string PropertyTypeSearch { get; set; }
public string RearDimensions { get; set; }
public string Remarks { get; set; }
public string ResultCode { get; set; }
public string RightDimensions { get; set; }
public string RoadFrontageDimensions { get; set; }
public string Roof { get; set; }
public string RoofSearch { get; set; }
public DateTime? SaleDate { get; set; }
public string SaleType { get; set; }
public string SchoolDistrict { get; set; }
public string SecurityFeatures { get; set; }
public string SellerCommission { get; set; }
public string SellingAgentId { get; set; }
public string SellingOfficelId { get; set; }
public string Sewer { get; set; }
public bool ShowAddress { get; set; }
public string ShowingInstructions { get; set; }
public bool ShowOnMap { get; set; }
public string SpaDescription { get; set; }
public string SprinklersDescription { get; set; }
public string SquareFeet { get; set; }
public string State { get; set; }
public string Stories { get; set; }
public string StreetDirPrefix { get; set; }
public string StreetDirSuffix { get; set; }
public string StreetName { get; set; }
public string StreetNumber { get; set; }
public string StreetSuffix { get; set; }
public string StructureCondition { get; set; }
public string Style { get; set; }
public string StyleSearch { get; set; }
public string Subdivision { get; set; }
public string SubjectTo { get; set; }
public string Taxes { get; set; }
public string Terms { get; set; }
public string Topography { get; set; }
public float TotalAreaOnLevel1 { get; set; }
public float TotalAreaOnLevel2 { get; set; }
public float TotalAreaOnLevel3 { get; set; }
public float TotalAreaOnLevel4 { get; set; }
public float TotalAreaOnLevel5 { get; set; }
public string TotalRooms { get; set; }
public int? TotalRoomsSearch { get; set; }
public string Township { get; set; }
```

```

public string UnitNumber { get; set; }
public string UnitTypes { get; set; }
public string Utilities { get; set; }
public string UtilityRoomDescription { get; set; }
public string ViewDescription { get; set; }
public string ViewSearch { get; set; }
public string VirtualTourUrl { get; set; }
public string WaterAccess { get; set; }
public string Waterfront { get; set; }
public string WaterFrontageDimensions { get; set; }
public string WaterfrontType { get; set; }
public double? WoodedAcreage { get; set; }
public string YearBuilt { get; set; }
public string Zip { get; set; }
public string Zoning { get; set; }

public IList<OpenHouse> OpenHouses { get; set; }
public ListingMedia Media { get; set; }
}

```

Agent

```

public class Agent
{
    public string AgentId { get; set; }
    public string FirstName { get; set; }
    public string LastName { get; set; }
    public string MemberType { get; set; }
    public string Association { get; set; }
    public string Designation { get; set; }
    public string LicenseNumber { get; set; }
    public string Nsdrid { get; set; }
    public string CellPhone { get; set; }
    public string HomePhone { get; set; }
    public string OfficePhone { get; set; }
    public string Fax { get; set; }
    public string Email { get; set; }
    public string Url { get; set; }
    public string Status { get; set; }
    public string Specialty { get; set; }
    public string Language { get; set; }
    public string PhotoUrl { get; set; }
}

```

Office


```

public class Office
{
    public string OfficeId { get; set; }
    public string Name { get; set; }
    public string Type { get; set; }
    public string Address { get; set; }
    public string City { get; set; }
    public string State { get; set; }
    public string Zip { get; set; }
    public string Phone { get; set; }
    public string Fax { get; set; }
    public string LicenseNumber { get; set; }
    public string Nrds { get; set; }
    public string OfficeType { get; set; }
    public string BrokerId { get; set; }
    public string Status { get; set; }
    public string Association { get; set; }
    public string Email { get; set; }
    public string Url { get; set; }
}

```

ListingOpenHouse

```

public class ListingOpenHouse
{
    public string FeedId { get; set; }
    public string ListingId { get; set; }
    public bool IsPublic { get; set; }
    public bool AllowIDX { get; set; }
    public bool IsActive { get; set; }
    public DateTime? StartDate { get; set; }
    public DateTime? EndDate { get; set; }
    public string Remarks { get; set; }
}

```

Exception Handling

Http Status Code	Description	Sample
------------------	-------------	--------

<p>400 Bad Request</p>	<p>The request is invalid, e.g.:</p> <ul style="list-style-type: none"> ▪ failed data validation ▪ request payload can't be parsed 	<pre>{ "ExceptionType": "Validation", "Message": "Feeds NWLOUISIANA are not allowed.", "ErrorCode": 0, "ActionArguments": { "request": { "FeedId": "NWLOUISIANA", "AgentId": null, "OfficelId": null, "FromUpdatedDate": "1970-01-01T00:00:00", "ToUpdatedDate": null, "Page": 1 }, "client": "altisource" }, "Data": { "Errors": null } }</pre>
<p>403 Forbidden</p>	<p>The request is denied, e.g. the credential is not found in our system or access is blocked</p>	
<p>404 Not Found</p>	<p>The requested resource does not exist</p>	
<p>429 Too Many Requests</p>	<p>The caller exceeded the rate limit</p> <p>We rate limit client requests to protect our service against abuse or DDOS attacks.</p> <p>Once client exceed this limit, they'll receive a 429 Error response and need to wait till the rate limit gets reset.</p>	<pre>{ "ExceptionType": "TooManyRequests", "Message": "Too many requests. Api will be available in 20.6250626 seconds", "ErrorCode": 0, "ActionArguments": { "request": { "FeedIdList": null, "FromUpdatedDate": null, "ToUpdatedDate": null, "Status": 0, "Page": 2, "PageSize": 200 } }, "Data": { "Errors": null } }</pre>

Appendix: FAQ

1. What are my request limits?

Per endpoint, per clientkey, there is a throttle and a quota. The default endpoint throttles are configured at 100 requests per minute, and quotas at 10,000 requests per hour. Ideally, we would like client code to chunk calls to fit these limits, but if additional information about a use case is provided, we can consider an increase.

There's also a hard cap of 300,000 results returned per result-set. Our guidance on that is to add additional parameters to requests that would result in more than that.

2. What are the timezones for DateTime parameters?

The x-ml-timestamp header is UTC, MlsModificationTimestamp is whatever timezone the source MLS passes to us, and the rest are Pacific Time.