

Digital Out-of-Home Screen Venue Types

Introduction

The intention of this document is to standardize the list of venue types that represent Digital-Out-of-Home (DOOH) advertising screens within a programmatic OpenRTB 2.5 context. The systematization of DOOH venue types will allow for clearer targeting by media buying platforms across a spectrum of available supply-side platforms offering DOOH inventory.

Contributors

About Broadsign

Broadsign is making it easier than ever for media owners, agencies and brands to harness the power of out-of-home and connect with audiences across the globe. Powering over 425,000 signs in airports, shopping malls, health clinics, transit systems and more, Broadsign is at the heart of people's lives.

The Broadsign platform helps media owners more efficiently manage their business operations while enabling brands and agencies to easily book OOH campaigns. The platform includes tools for content distribution, playback and proof of performance; sales inventory availability and proposal generation; automated programmatic DOOH transactions; and OOH business operations.

About The Trade Desk

About Vistar

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Versioning

Version Number	Published	Acceptance
1.0	June 4, 2020	Broadsign, The Trade Desk, Vistar

Getting Started

Digital Out-of-Home screens, available within a programmatic context, maintain specific geospatial and physical parameters that describe the conditions, environment and/or surroundings. These parameters provide a mutual understanding between buyer and seller within the bidstream and during the transaction phase of trading media. This specification clarifies and classifies these parameters to maintain knowledge equality within the DOOH programmatic industry for all parties involved.

Definitions & Specification Guidelines

Screen Venue Types should describe an environment and the audience that may be found there.

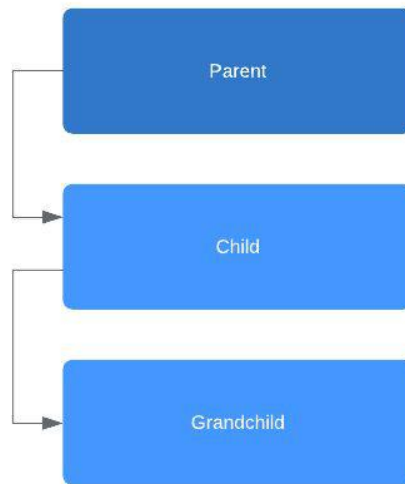
A venue type should also describe a media format, except when the media format cannot be separated from the environment. For example, an “ATM” may be in a mall, or a convenience store. The venue type should reflect those parameters.

Screen venue types should not obscure key elements of the environment.

Venue types should not equate environments that serve dramatically different purposes. For example, it would be insincere to label both Marijuana dispensaries AND pharmacies under the “Wellness” category. These two environments serve very different purposes and audiences, and thus cannot be grouped together.

Information Tiers

This specification outlines three tiers of precision for programmatic DOOH venue types: Parent Venue Types, Children Venue Types and Grandchildren Venue Types. Each tier is hierarchical and functionally dependent on the higher hierarchy. Moving down the hierarchy chain presents more precise venue information.



Parent Venue Types

The parent should act as an umbrella grouping for “Child” venue types that share characteristics in common. If the group is logical, a buyer can target the entire grouping and reach similar environments and audiences.

No screens should be solely assigned to a parent venue type, unless that parent venue type has no children.

The parent venue type should provide a high level description of an environment and a general sense of what may occur at the location. For example, the parent venue “Retail” clearly identifies that consumers visit the location to make retail purchases. It does not specify the type of purchase, the specific store names, or the format of the screens in the location.

Children Venue Types

Children venue types should provide enough detail so that given the parent venue type, a buyer is clear on the environment and what occurs in the location. For example, the child venue type “Retail / **Malls**” makes it clear that the location is a mall location where retail transactions occur. Since most buyers will share an understanding of what a “mall” is, the child venue type provides the additional clarity needed for a buyer. At the same time, it does not specify the type of mall (indoor vs outdoor, luxury vs budget), or the format of the screens (large spectacles, TV monitors, kiosks).

All venues should be assigned to a child type under a parent venue type, unless the parent venue type has no children.

Grandchildren Venue Types

Grandchildren venue types provide the most precise contextual geospatial information of the screen. Within certain environments, it is useful to note the functional differences between screen venues. For example, “Transit / Airports / Baggage Claim” is a venue that is functionally different from “Transit / Airports / Gate”. The first venue type traditionally represents passengers leaving the airport, whereas the second venue type may be passengers waiting for a flight departure.

Venues can be assigned to a grandchild but are optional and at the purview of the publisher or supply-side platform to provide. This information may not appear due to lack of the availability of the precise information, or the lack of differentiation needs away from the parent.

Placement in Bid Requests

In terms of placing venue types, this specification suggests placing venue type information in the device object of an OpenRTB 2.5 `bid_request`. The path would lead into an extension and a subsequent *dooh* object. The declaration of format is implicit to one the following formats:

- `device.ext.dooh.venuetyplist`
- `device.ext.dooh.venueid`
- `device.ext.dooh.venuestring`

Value Format

The following spec subscribes to UTF-8 encoding.

Enumeration ID

Each category, regardless of tier, has a unique identifier (ID) that is immutable. DSPs may opt to target this specific ID based on the media they wish to bid on.

Enumerated List

The enumerated list can be passed in the bid request. It is a comma-separated array of category IDs from the preceding and dependent tiers. Should only a parent-child category be

associated with the screen's venue, the array will be composed of two enumerated IDs. Refer to the summary chart for further details.

String Values

String values are text-based identifiers of venue categories. Dependencies on parent and child tiers use a period connector for tier separation. All unique text identifiers are lower case, and combination words utilize the standard underscore. String values may be used as substitutions for enumeration values and enumerated lists and provide greater flexibility for implementation.

Parent Categories & IDs

Parent Category	Enumeration ID	String Value
Transit	1	transit
Retail	2	retail
Outdoor	3	outdoor
Health & Beauty	4	health_beauty
Point of Care	5	point_care
Education	6	education
Office Buildings	7	office_buildings
Entertainment	8	entertainment
Government	9	government
Financial	10	financial
Residential	11	residential

Child Categories & IDs

Transit

Child Category	Category Definition	Enumeration ID	String Value
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Airports	Signage located throughout terminals in arrival and departure areas, ticketing areas, baggage claim, gate-hold rooms, concourses, retail shops, and VIP lounges.	101	transit.airports
Buses	Displays located on the inside of city or intercity buses.	102	transit.buses
Taxi & Rideshare TV	Advertising displays placed inside taxis and rideshare vehicles visible to passengers in the back seat.	103	transit.taxi_rideshare_tv
Taxi & Rideshare Top	Advertising displays placed on top of taxi and rideshare vehicles visible to nearby pedestrian and drivers.	104	transit.taxi_rideshare_top
Subway	Advertising displays placed inside subway trains or inside stations or on subway platforms.	105	transit.subway
Train Stations	Advertising displays placed inside train stations or on platforms.	106	transit.train_stations

Retail

Child Category	Category Definition	Enumeration ID	String Value
Gas Stations	An establishment beside a road selling fuel for motor vehicles.	201	retail.gas_stations
Convenience Stores	A store with extended opening hours and in a convenient location, stocking a limited range of household goods and groceries.	202	retail.convenience_store
Grocery	A retail shop that primarily sells food, either fresh or preserved.	203	retail.grocery
Liquor Stores	A retail shop that predominantly sells prepackaged alcoholic beverages, typically in bottles, intended to be consumed off the store's premises.	204	retail.liquor_stores
Mall	A large building or series of connected buildings containing a variety of retail stores and typically also restaurants.	205	retail.malls
Dispensaries	A store that sells and dispenses medicinal marijuana and CBD products.	206	retail.dispensaries
Pharmacies	A store where medicinal drugs are dispensed and sold.	207	retail.pharmacies
Parking Garages	A building in which people usually pay to park their cars, trucks and other vehicles.	208	retail.parking_garages

Outdoor

Child Category	Category Definition	Enumeration ID	String Value
Billboards	Located primarily on major roads, they attract high-density consumer exposure (mostly to vehicular traffic, but often to pedestrians).	301	outdoor.billboards
Urban Panels	Digital screens in urban environments, typically providing a public amenity. Typically visible to pedestrians and in some cases, vehicular traffic as well.	302	outdoor.billboards.urban_panels
Bus Shelters	Enclosures where individuals may wait for buses in an urban environment. Signage may be attached to the interior or exterior of the enclosure.	303	outdoor.billboards.bus_shelters

Health & Beauty

Child Category	Category Definition	Enumeration ID	String Value
Gyms	A club, building, or large room, usually containing special equipment, where people go to do physical exercise and get fit.	401	health_beauty.gyms
Salons	An establishment where a hairdresser, beautician, or couturier conducts business.	402	health_beauty.salons
Spas	A commercial establishment offering health and beauty treatment through such means as steam baths, exercise equipment, and massage.	403	health_beauty.spas

Point of Care

Child Category	Category Definition	Enumeration ID	String Value
Doctor's Offices	A club, building, or large room, usually containing special equipment, where people go to do physical exercise and get fit.	501	point_care.doctor_offices
Veterinary Offices	An establishment where a hairdresser, beautician, or couturier conducts business.	502	point_care.veterinary_offices

Education

Child Category	Category Definition	Enumeration ID	String Value
Schools	An educational institution designed to provide learning spaces and learning environments for the teaching of students between K - 12 under the direction of teachers.	601	education.schools
Colleges and Universities	An education institution designed for instruction, examination, or both, of students in many branches of advanced learning, conferring degrees in various faculties, and often embodying colleges and similar institutions.	602	education.colleges

Office Buildings

Child Category	Category Definition	Enumeration ID	String Value
Office Buildings	An office building, also known as an office block or business center is a form of commercial building which contains spaces mainly designed to be used for offices. Advertising displays may be in building lobbies, common areas, or in elevators.	701	office_buildings.office_buildings

Entertainment

Child Category	Category Definition	Enumeration ID	String Value
Recreational Locations	An educational institution designed to provide learning spaces and learning environments for the teaching of students between K - 12 under the direction of teachers.	801	entertainment.recreational
Movie Theaters	An education institution designed for instruction, examination, or both, of students in many branches of advanced learning, conferring degrees in various faculties, and often embodying colleges and similar institutions.	802	entertainment.movie_theaters
Sports Entertainment	A venue that individuals or groups can play an active sport or activity.	803	entertainment.sports

Bars	A retail business that serves alcoholic beverages.	804	entertainment.bars
Casual Dining	A restaurant that serves moderately priced food in a casual atmosphere.	805	entertainment.casual_dining
QSR	A fast food restaurant, also known as a quick service restaurant within the industry, is a specific type of restaurant that serves fast-food cuisine and has minimal table service.	806	entertainment.qsr
Hotels	An establishment providing accommodations, means, and other services for travelers and tourists.	807	entertainment.hotels
Golf Carts	A small motorized vehicle for golfers and their equipment.	808	entertainment.golf_carts

Government

Child Category	Category Definition	Enumeration ID	String Value
DMVs	An office building, also known as an office block or business center is a form of commercial building which contains spaces mainly designed to be used for offices. Advertising displays may be in building lobbies, common areas, or in elevators.	901	government.dmv
Military Bases	A facility that houses and facilitates training for military personnel and operations.	902	government.military_bases

Financial

Child Category	Category Definition	Enumeration Value	String Value
Banks	A bank is a financial institution licensed to receive deposits and make loans.	1001	financial.banks

Residential

Child Category	Category Definition	Enumeration Value	String Value
Apartment Buildings	A building that contains different residential apartments.	1101	residential.apartment

Grandchild Categories & IDs

Transit: Airports

Grandchild Category	Category Definition	Enumeration ID	String Value
Arrival Hall	TBC	10101	transit.airports.arrivals_hall
Baggage Claim	TBC	10102	transit.airports.baggag e_claim
Departures Hall	TBC	10103	transit.airports.departu res_hall
Food Court	TBC	10104	transit.airports.food_co urt
Gates	TBC	10105	transit.airports.gates
Lounges	TBC	10106	transit.airports.lounges
Shopping Area	TBC	10107	transit.airports.shoppin g_area

Transit: Buses

Grandchild Category	Category Definition	Enumeration ID	String Value
Bus	TBC	10201	transit.buses.bus
Terminal	TBC	10202	transit.buses.terminal

Transit: Subway

Grandchild Category	Category Definition	Enumeration ID	String Value
Subway Train	TBC	10501	transit.subway.train
Platform	TBC	10502	transit.subway.platfor m

Transit: Train Stations

Grandchild Category	Category Definition	Enumeration ID	String Value
Train	TBC	10601	transit.train_stations.train
Platform	TBC	10602	transit.train_station.platform

Retail: Gas Stations

Grandchild Category	Category Definition	Enumeration ID	String Value
Pump	TBC	20101	retail.gas_stations.pump
Shop	TBC	20102	retail.gas_stations.shop

Retail: Grocery

Grandchild Category	Category Definition	Enumeration ID	String Value
Shop Entrance	TBC	20301	retail.grocery.shop_entrance
Check Out	TBC	20302	retail.grocery.check_out

Retail: Malls

Grandchild Category	Category Definition	Enumeration ID	String Value
Concourse	TBC	20501	retail.malls.concourse
Food Court	TBC	20502	retail.malls.food_court
Spectacular	TBC	20503	retail.malls.spectacular

Outdoor: Billboards

Grandchild Category	Category Definition	Enumeration ID	String Value
Roadside	TBC	30101	outdoor.billboards.roadside
Highway	TBC	30102	outdoor.billboards.highway
Spectacular	TBC	30103	outdoor.billboards.spectacular

Health and Beauty: Gyms

Grandchild Category	Category Definition	Enumeration ID	String Value
Lobby	TBC	40101	health_beauty.gyms.lobby
Fitness Equipment	TBC	40102	health_beauty.gyms.equipment

Office Buildings: Office Buildings

Grandchild Category	Category Definition	Enumeration ID	String Value
Elevator	TBC	70101	office_buildings.office_buildings.elevator
Lobby	TBC	70102	office_buildings.office_buildings.lobby

Entertainment: Recreational Locations

Grandchild Category	Category Definition	Enumeration ID	String Value
Theme Parks	TBC	80101	entertainment.recreational.theme_parks

Museums and Galleries	TBC	80102	entertainment.recreational.museums_galleries
Concert Venues	TBC	80103	entertainment.recreational.concer_venues

Entertainment: Movie Theaters

Grandchild Category	Category Definition	Enumeration ID	String Value
Lobby	TBC	80201	entertainment.movie_theaters.lobby
Food Court	TBC	80202	entertainment.movie_theaters.food_court

Entertainment: Sports Entertainment

Grandchild Category	Category Definition	Enumeration ID	String Value
Sport Arena	TBC	80301	entertainment.sports.arena
Club House	TBC	80302	entertainment.sports.club_house

Entertainment: Hotels

Grandchild Category	Category Definition	Enumeration ID	String Value
Lobby	TBC	80701	entertainment.hotels.lobby
Elevator	TBC	80702	entertainment.hotels.elevator

Residential: Apartment Buildings

Grandchild Category	Category Definition	Enumeration ID	String Value
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Lobby	TBC	110101	residential.apartment_ buildings.lobby
Elevator	TBC	110102	residential.apartment_ buildings.elevator

Summary Table

Parent Category	Child Category	Grandchild Category	Enumeration ID	Enumeration Array	String List
Transit	-	-	1	[1]	transit
Transit	Airports	-	101	[1, 101]	transit.airports
Transit	Airports	Arrivals Hall	10101	[1, 101, 10101]	transit.airports.arri vals_hall
Transit	Airports	Baggage Claim	10102	[1, 101, 10102]	transit.airports.bag gage_claim
Transit	Airports	Departures Hall	10103	[1, 101, 10103]	transit.airports.dep artures_hall
Transit	Airports	Food Court	10104	[1, 101, 10104]	transit.airports.fo d_court
Transit	Airports	Gates	10105	[1, 101, 10105]	transit.airports.gat es
Transit	Airports	Lounges	10106	[1, 101, 10106]	transit.airports.lou nges
Transit	Airports	Shopping Area	10107	[1, 101, 10107]	transit.airports.sho pping_area
Transit	Buses	-	102	[1, 102]	transit.buses
Transit	Buses	Bus	10201	[1, 102, 10201]	transit.buses.bus
Transit	Buses	Terminal	10202	[1, 102, 10202]	transit.buses.termi nal
Transit	Taxi & Rideshare TV	-	103	[1, 103]	transit.taxi_ridesha re_tv
Transit	Taxi & Rideshare Top	-	104	[1, 104]	transit.taxi_ridesha re_top
Transit	Subway	-	105	[1, 105]	transit.subway
Transit	Subway	Subway Train	10501	[1, 105, 10501]	transit.subway.trai n

Transit	Subway	Platform	10502	[1, 105, 10502]	transit.subway.platform
Transit	Train Stations	-	106	[1, 106]	transit.train_stations
Transit	Train Stations	Train	10601	[1, 106, 10601]	transit_train_stations.train
Transit	Train Stations	Platform	10602	[1, 106, 10602]	transit_train_stations.platform
Retail	-	-	2	[2]	retail
Retail	Gas Station	-	201	[2, 201]	retail.gas_stations
Retail	Gas Station	Pump	20101	[2, 201, 20101]	retail.gas_stations.pump
Retail	Gas Station	Shop	20102	[2, 201, 20102]	retail.gas_stations.shop
Retail	Convenience Stores	-	202	[2, 202]	retail.convenience_store
Retail	Grocery	-	203	[2, 203]	retail.grocery
Retail	Grocery	Shop Entrance	20301	[2, 203, 20301]	retail.grocery.shop_entrance
Retail	Grocery	Check Out	20302	[2, 203, 20302]	retail.grocery.check_out
Retail	Liquor Stores	-	204	[2, 204]	retail.liquor_stores
Retail	Malls	-	205	[2, 205]	retail.malls
Retail	Malls	Concourse	20501	[2, 205, 20501]	retail.malls.concourse
Retail	Malls	Food Court	20502	[2, 205, 20502]	retail.malls.food_court
Retail	Malls	Spectacular	20503	[2, 205, 20503]	retail.malls.spectacular
Retail	Dispensaries	-	206	[2, 206]	retail.dispensaries
Retail	Pharmacies	-	207	[2, 207]	retail.pharmacies
Retail	Parking Garages	-	208	[2, 208]	retail.parking_garages
Outdoor	-	-	3	[3]	outdoor
Outdoor	Billboard	-	301	[3, 301]	outdoor.billboards
Outdoor	Billboard	Roadside	30101	[3, 301, 30101]	outdoor.billboards.roadside
Outdoor	Billboard	Highway	30102	[3, 301, 30102]	outdoor.billboards.

					highway
Outdoor	Billboard	Spectacular	30103	[3, 301, 30103]	outdoor.billboards.spectacular
Outdoor	Urban Panels	-	302	[3, 302]	outdoor.urban_panels
Outdoor	Bus Shelters	-	303	[3, 303]	outdoor.bust_shelters
Health and Beauty	-	-	4	[4]	health_beauty
Health and Beauty	Gyms	-	401	[4, 401]	health_beauty.gyms
Health and Beauty	Gyms	Lobby	40101	[4, 401, 40101]	health_beauty.gyms.lobby
Health and Beauty	Gyms	Fitness Equipment	40102	[4, 401, 40102]	health_beauty.gyms.equipment
Health and Beauty	Salons	-	402	[4, 402]	health_beauty.salons
Health and Beauty	Spas	-	403	[4, 403]	health_beauty.spas
Point of Care	-	-	5	[5]	point_care
Point of Care	Doctor's Offices	-	501	[5, 501]	point_care.doctor_offices
Point of Care	Veterinary Offices	-	502	[5, 502]	point_care.veterinary_offices
Education	-	-	6	[6]	education
Education	Schools	-	601	[6, 601]	education.schools
Education	Colleges and Universities	-	602	[6, 602]	education.colleges
Office Buildings	-	-	7	[7]	office_buildings
Office Buildings	Office Buildings	-	701	[7, 701]	office_buildings.office_buildings
Office Buildings	Office Buildings	Elevator	70101	[7, 701, 70101]	office_buildings.office_buildings.elevator
Office Buildings	Office Buildings	Lobby	70102	[7, 701, 70102]	office_buildings.office_buildings.lobby
Entertainment	-	-	8	[8]	entertainment
Entertainment	Recreational Locations	-	801	[8, 801]	entertainment.recreational

Entertainment	Recreational Locations	Theme Parks	80101	[8, 801, 80101]	entertainment.recreational.theme_parks
Entertainment	Recreational Locations	Museums and Galleries	80102	[8, 801, 80102]	entertainment.recreational.museums_galleries
Entertainment	Recreational Locations	Concert Venues	80103	[8, 801, 80103]	entertainment.recreational.concert_venues
Entertainment	Movie Theaters	-	802	[8, 802]	entertainment.movie_theaters
Entertainment	Movie Theaters	Lobby	80201	[8, 802, 80201]	entertainment.movie_theaters.lobby
Entertainment	Movie Theaters	Food Court	80202	[8, 802, 80202]	entertainment.movie_theaters.food_court
Entertainment	Sports Entertainment	-	803	[8, 803]	entertainment.sports
Entertainment	Sports Entertainment	Sport Arena	80301	[8, 803, 80301]	entertainment.sports.arena
Entertainment	Sports Entertainment	Club House	80302	[8, 803, 80302]	entertainment.sports.club_house
Entertainment	Bars	-	804	[8, 804]	entertainment.bars
Entertainment	Casual Dining	-	805	[8, 805]	entertainment.casual_dining
Entertainment	QSR	-	806	[8, 806]	entertainment.qsr
Entertainment	Hotels	-	807	[8, 807]	entertainment.hotels
Entertainment	Hotels	Lobby	80701	[8, 807, 80701]	entertainment.hotels.lobby
Entertainment	Hotels	Elevator	80702	[8, 807, 80702]	entertainment.hotels.elevator
Entertainment	Golf Carts	-	808	[8, 808]	entertainment.golf_carts
Government	-	-	9	[9]	government
Government	DMVs	-	901	[9, 901]	government.dmv
Government	Military Bases	-	902	[9, 902]	government.military_bases
Financial	-	-	10	[10]	financial
Financial	Banks	-	1001	[10, 1001]	financial.banks
Residential	-	-	11	[11]	residential

Residential	Apartment Buildings	-	1101	[11, 1101]	residential.apartment_buildings
Residential	Apartment Buildings	Lobby	110101	[11, 1101, 110101]	residential.apartment_buildings.lobby
Residential	Apartment Buildings	Elevator	110102	[11, 1101, 110102]	residential.apartment_buildings.elevator

Specification Expansion & Amendment Process

This specification, written by the contributing parties, is not exhaustive and amenable to changes based on feedback from new participants. However, due to the initial adoption between the contributing parties, the frequency of changes shall be maintained on a cadence that respects the level of effort required by currently-integrated parties. As such, versioning of this spec will occur. Additionally, this spec can be amended on a quarterly cadence between contributors and adopters from the buy-side or sell-side.