

# Network Carrier Analytics

## Network Carrier Analytics Report

The Network Carrier Analytics report enables you to retrieve buy-side and sell-side performance data based on carriers for devices. This is especially helpful for analyzing how carriers affect campaign performance and advertiser payment. Also, in cases where advertisers set up specific landing pages for each carrier, this report helps you identify the carriers that campaigns ran on.

For instructions on requesting and retrieving this report, see the [Example](#) below.

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## Time Frame and Time Zone

This report can retrieve data for the last 45 days and only in the UTC timezone. The `report_interval` field in the JSON request can be set to one of the following:

- `today`
- `yesterday`
- `last_2_days`
- `last_7_days`
- `last_14_days`
- `last_30_days`
- `month_to_date`
- `month_to_yesterday`

Alternately, the `start_date` and `end_date` fields can be set to a range within the last 14 days. However, since hourly data is not available for this report, the `start_date` and `end_date` cannot be identical and must be formatted as "YYYY-MM-DD" rather than "YYYY-MM-DD HH:MM:SS". The `timezone` field in the JSON request can be set only to "UTC", but this is not necessary, as the `timezone` defaults to "UTC" if not specified.

## Dimensions

Column	Type	Filter?	Example	Description
month	time	Yes	"2010-02"	The month of the auction.
day	time	Yes	"2010-02-01"	The day of the auction.

carrier_id	int	Yes	20	The ID of the carrier for the device on which the impression was served. To retrieve a complete list of carrier IDs and names, use the <a href="#">Carrier Service</a> .
carrier_name	string	No	"Sprint - FR"	The name of the carrier for the device on which the impression was served.
carrier	string	No	"Sprint - FR (20)"	<b>Deprecated</b> (as of October 17, 2016).
device_type	string	Yes	"tablets"	The type of device on which the impression was served. Possible values are: <ul style="list-style-type: none"> <li>• "desktops &amp; laptops"</li> <li>• "tablets"</li> <li>• "mobile phones"</li> <li>• "tv"</li> <li>• "game consoles"</li> <li>• "set top box"</li> <li>• "media players"</li> <li>• "other devices"</li> </ul>
connection_type	string	Yes	"Carrier-based"	The type of internet connection at the time of the impression. Possible values: "Carrier-based" or "Wifi or Static".
entity_member_id	int	Yes	123	If <code>imp_type</code> is 1 (Blank), 2 (PSA), 3 (Default Error), 4 (Default), 6 (Resold), or 8 (PSA Resulting from Default Error), the ID of the buying member; otherwise, the ID of the selling member.
buyer_member_id	int	Yes	123	The ID of the buying member. If the impression was not purchased, this field shows one of the following values: 229 = PSA, 0 = Blank, or 319 = Default.
buyer_member_name	string	No	"My Network"	The name of the buying member.
buyer_member	string	No	"My Network (123)"	<b>Deprecated</b> (as of October 17, 2016).

seller_member_id	int	Yes	456	The ID of the selling member.
seller_member_name	string	No	"That Seller"	The name of the selling member.
seller_member	string	No	"That Seller (456)"	<b>Deprecated</b> (as of October 17, 2016).
buyer_type	string	Yes	"Real Time"	The type of media purchased by the buyer member. Possible values: "Real Time" or "Direct".
seller_type	string	Yes	"Real Time"	The type of media sold by the seller member. Possible values: "Real Time" or "Direct".
advertiser_id	int	Yes	789	The ID of the advertiser. If the value is 0, either the impression was purchased by an external buyer or a default or PSA was shown.
advertiser_name	string	No	"Mobile Zombies"	The name of the advertiser.
advertiser	string	No	"Mobile Zombies (789)"	<b>Deprecated</b> (as of October 17, 2016).
advertiser_code	string	No	"MZB1010"	The custom code for the advertiser.
insertion_order_id	int	Yes	321	The ID of the insertion order.
insertion_order_name	string	No	"Mobile Insertion Order"	The name of the insertion order.
insertion_order	string	No	"Mobile Insertion Order (321)"	<b>Deprecated</b> (as of October 17, 2016).
insertion_order_code	string	No	"Mobile Insertion Order Code"	The custom code for the insertion order.
line_item_id	int	Yes	111	The ID of the line item.
line_item_name	string	No	"Mobile Line Item"	The name of the line item.

line_item	string	No	"Mobile Line Item (111)"	<b>Deprecated</b> (as of October 17, 2016).
line_item_code	string	No	"Mobile Line Item Code"	The custom code for the line item.
campaign_id	int	Yes	222	The ID of the campaign.
campaign_name	string	No	"Mobile Campaign"	The name of the campaign.
campaign	string	No	"Mobile Campaign (222)"	<b>Deprecated</b> (as of October 17, 2016).
campaign_code	string	No	"Mobile Campaign Code"	The custom code for the campaign.
split_id	int	Yes	342	The ID of the split that purchased the impressions in this data set. Splits are only applicable to augmented line items. For any reports that contain campaigns, the <code>split_id</code> (if included) will be <code>null</code> .
split_name	string	Yes	"Mobile Split 2"	The name of the split that purchased the impressions in this data set. Splits are only applicable to augmented line items. For any reports that contain campaigns, the <code>split_name</code> (if included) will be <code>null</code> .
pixel_id	int	Yes	3849	The ID of the conversion pixel.
media_type	string	Yes	"Banner"	The media type of the creative. Possible values: "Banner", "Pop", "Interstitial", "Video", "Text", "Expandable", or "Skin". To retrieve a complete list of media types, use the <a href="#">Media Type Service</a> .
mediatype_id	int	Yes	1	The ID of the media type of the creative.
size	string	Yes	"728x90"	The size of the placement/creative served.
geo_country	string	Yes	"US"	The code for the country.

geo_country_name	string	No	"United States"	The name of the country.
payment_type	string	Yes	"com", "revshare"	The type of payment to a broker.
revenue_type	string	No	"CPA"	The basis on which the advertiser pays the member.
revenue_type_id	int	Yes	4	The ID of the revenue type. Possible values: -1 = No Payment, 0 = Flat CPM, 1 = Cost Plus CPM, 2 = Cost Plus Margin, 3 = CPC, 4 = CPA, 5 = Revshare, or 6 = Flat Fee, 7 = Variable CPM, 8 = Estimated CPM.
publisher	string	Yes	"AppSite (123)"	<b>Deprecated</b> (as of October 17, 2016).
publisher_code	string	No	"Publisher Code"	The custom code for the publisher.
pub_rule_name	string	No	"Publisher Rule Name"	The name of the publisher rule.
pub_rule	string	No	"Publisher Rule Name (555)"	<b>Deprecated</b> (as of October 17, 2016).
pub_rule_code	string	No	"AppSitePR123"	The custom code for the publisher rule.

bid_type	string	Yes	"Manual"	<p>The optimization phase the node was in when it bid for the impression. Note that the term "give up" is appended to the bid types below if the valuation for that impression falls below the venue's "give up price". For more information, see <a href="#">Venues</a> and <a href="#">Give Up</a> (Customer login required). Allowed values:</p> <ul style="list-style-type: none"> <li>• "Manual": Applies when you are bidding with a CPM goal, whether it's Base, EAP, or ECP.</li> <li>• "Learn": Applies when you are bidding with optimization (CPA, CPC, or margin) and we do not yet have enough data to bid optimized.</li> <li>• "Optimized": Applies when you are bidding with optimization (CPA, CPC, or margin) and we have enough data to bid optimized.</li> <li>• "Unknown": The node was in an unknown optimization phase.</li> <li>• "Optimized give up"</li> <li>• "Learn give up"</li> <li>• "Manual give up"</li> </ul>
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imp_type_id	int	Yes	6	<p>The ID for the type of impression. Possible values (associated types in parentheses):</p> <ul style="list-style-type: none"> <li>• 1 ("Blank"): No creative served.</li> <li>• 2 ("PSA"): A public service announcement served because there were no valid bids and no default creative was available.</li> <li>• 3 ("Default Error"): A default creative served due to a timeout issue.</li> <li>• 4 ("Default"): A default creative served because there were no valid bids.</li> <li>• 5 ("Kept"): Your advertiser's creative served on your publisher's site.</li> <li>• 6 ("Resold"): Your publisher's impression was sold to a third-party buyer.</li> <li>• 7 ("RTB"): Your advertiser's creative served on third-party inventory.</li> <li>• 8 ("PSA Error"): A public service announcement served due to a timeout issue or lack of a default creative.</li> <li>• 9 ("External Impression"): An impression from an impression tracker.</li> <li>• 10 ("External Click"): A click from a click tracker.</li> </ul>
imp_type	string	Yes	"Resold"	The type of impression. For possible values, see <code>imp_type_id</code> .
venue	string	Yes	"Venue Name"	The name of the cluster of domain, site, tag, and user country that AppNexus' optimization system uses to determine bid valuations. A campaign cannot targeted a venue explicitly.

## Metrics

Column	Type	Example	Formula	Description
imps	int	2340	imps	The total number of impressions (served and resold).

imps_blank	int	3	imps_blank	The number of impressions served with a blank.
imps_psa	int	5	imps_psa	The number of impressions that served a PSA.
imps_default_error	int	0	imps_default_error	The number of impressions that defaulted due to a timeout issue.
imps_default_bidder	int	0	imps_default_bidder	The number of impressions that defaulted because there were no valid bids.
imps_kept	int	0	imps_kept	The number of impressions your advertiser purchased from your publisher .
imps_resold	int	0	imps_resold	The number of impressions your publisher sold to a third party .
imps_rtb	int	2332	imps_rtb	The number of impressions your advertiser bought from a third party .
clicks	int	1	clicks	The total number of clicks across all impressions.
click_thru_pct	double	1.12359550561797%	$(\text{clicks} / \text{imps}) \times 100$	The rate of clicks to impressions as a percentage.
ctr	double	0.000221877080097626	$\text{clicks} / \text{imps}$	The rate of clicks to impressions.

total_convs	int	1	total_convs	The total number of post-view and post-click conversions.
post_view_convs	int	15	post_view_convs	The total number of recorded post-view conversions.
post_click_convs	int	15	post_click_convs	The total number of recorded post-click conversions.
convs_per_mm	double	221.877080097625	(total_convs / imps) x 1,000,000	The number of conversions per million impressions.
convs_rate	double	0.000221877080097626	total_convs / imps	The rate of conversions to impressions.
cost	money	16.833378	cost	The total amount of media cost for direct publisher and purchased third-party inventory.
cpm	money	1.66051685393258	(cost / imps) x 1000	The media cost per 1000 impressions.
revenue	money	25.767257	booked_revenue + reseller_revenue	The total revenue booked through direct advertisers (line item) and direct publishers (resold impressions).
booked_revenue	money	25.767257	booked_revenue	The total revenue booked through direct advertisers (line item).
reseller_revenue	money	0	reseller_revenue	The total revenue on resold impressions through direct publishers.

rpm	money	2.60548314606741	(revenue / imps) x 1000	The revenue per 1000 impressions.
profit	money	0.084102	revenue - cost	The total network revenue minus network cost.
ppm	money	0.944966292134831	(profit / imps) x 1000	The profit per 1000 impressions.
total_publisher_rpm	money	1.66051685393258	(cost / imps) x 1000	The cost per 1000 impressions paid to direct and third-party publishers, including errors.
sold_publisher_rpm	double	147.786	(cost / imps) x 1000 ----- no errors	The cost per 1000 impressions paid to direct and third-party publishers, not including errors.
sold_network_rpm	double	231.888	(revenue / imps) x 1000 ----- no errors	The revenue per 1000 impressions that were not errors.

## Example

### >> 1. Create the JSON-formatted report request

The JSON file should include the `report_type` "network\_carrier\_analytics", as well as the `columns` (dimensions and metrics) and `report_interval` that you want to retrieve. You can also filters for specific dimensions, define granularity (year, month, day), and specify the format in which the data should be returned (csv, excel, or html). For a full explanation of fields that can be included in the JSON file, see the [Report Service](#).

In this example, we want to see how campaigns are performing on mobile phones and tablets across three specific carriers. Specifically, for each combination of carrier and device type, we want the number of impressions, the number of clicks, the total money spent, the money spent per 1000 impressions, the money paid to us by the advertiser, and the total profit (money earned - money spent).

```

$ cat network_carrier_analytics

{
  "report": {
    "report_type": "network_carrier_analytics",
    "filters": [
      {
        "carrier_id": [
          345,
          567,
          837
        ]
      },
      {
        "device_type": [
          "mobile phones",
          "tablets"
        ]
      }
    ],
    "columns": [
      "day",
      "carrier_id",
      "device_type",
      "imp_type",
      "imps",
      "clicks",
      "cost",
      "cpm",
      "booked_revenue",
      "profit"
    ],
    "report_interval": "last_14_days",
    "format": "csv"
  }
}

```

### >> 2. POST the request to the Report Service

POST the JSON request to get back a Report ID.

```

$ curl -b cookies -c cookies -X POST -d @network_carrier_analytics
'https://api.appnexus.com/report'
{
  "response": {
    "status": "OK",
    "report_id": "097f59fc3ab7d02c5d60db42081d9b69"
  }
}

```

### >> 3. GET the report status from the Report Service

Make a GET call with the Report ID to retrieve the status of the report. Continue making this GET call until the `execution_status` is "ready". Then use the **report-download** service to save the report data to a file, as described in the next step.

```

$ curl -b cookies -c cookies
'https://api.appnexus.com/report?id=097f59fc3ab7d02c5d60db42081d9b69'
{
  "response":{
    "status":"OK",
    "report":{
      "name":null,
      "created_on":"2013-02-01 12:19:53",
      "json_request":
"{\"report\":{\"report_type\":\"network_carrier_analytics\",\"filters\":[{\"advertiser_id\":1459},
{\"geo_country\":\"US\"}],\"columns\":[\"day\",\"carrier_id\",\"device_make\",\"device_model\",\"connection_type\",
\"imp_type\",\"imps\",\"clicks\",\"cost\",\"cpm\",\"booked_revenue\",\"profit\"],\"format\":\"csv\"}]}",
      "url": "report-download?id=097f59fc3ab7d02c5d60db42081d9b69"
    },
    "execution_status":"ready"
  }
}

```

#### >> 4. GET the report data from the Report Download Service

To download the report data to a file, make another GET call with the Report ID, but this time to the **report-download** service. You can find the service and Report ID in the `url` field of the previous GET response. When identifying the file that you want to save to, be sure to use the file extension of the "format" that you specified in your initial POST.

If an error occurs during download, the response header will include an HTTP error code and message. Use `-i` or `-v` in your call to expose the response header.

```

$ curl -b cookies -c cookies
'https://api.appnexus.com/report-download?id=097f59fc3ab7d02c5d60db42081d9b69' >
/tmp/network_carrier_analytics.csv

```

## Related Topics

- [Report Service](#)
- [API Best Practices](#)
- [API Semantics](#)