
Digital Turbine NATIVE ADS API Document

digital turbine.

December 2021



Native Ads API - Version 2

Introduction

Digital Turbine's ad request service provides a platform for the promotion of mobile applications via its network of publisher partners. Advertisers set up campaigns through Digital Turbine's Portal and can bid for inventory across the network. Advertisements subsequently appear on Digital Turbine's mobile ad networks/publishers.

The Digital Turbine Native Ad API set enables partners to integrate ads into their mobile site or mobile application.

Digital Turbine AdServer Guidelines

- Digital Turbine's Ad Server provides options and parameters to retrieve ads for display within a website or storefront.
- Access to the Ad Server is restricted, a login will be provided upon request to the partner's account representative.
- The service is designed to be a server to server-based solution which is called using the HTTP GET method and provides an XML response.
- Ads cannot be cached for an extended period. Ads are intended to be served for real time presentation, **as inventory will be updated at minimum on an hourly basis.**
- The Ad Server sends a response in approx. **400 ms** since Ad Server uses multiple campaign optimization filters before it generates the campaign list
- Ad requests **MUST** include both the device user agent (used to determine application/campaign compatibility) and IP address (used to determine user's location) for targeting purposes. Ads will not be returned if these are not provided.
- Although the "androidId" and "handsetId" variables are not required, it is highly recommended that publishers send these parameters to Digital Turbine to maximize the number of campaigns that are available to them.

Request Format

The format for ad requests to the server are as below:

```
http://<server>/v2/getAds?<param1>=<value1>&<param2>=<value2>&...<paramN>=<valueN>
```

Response in JSON?

The API response defaults to XML, but can return JSON if you make the request with the following header "**Accept: application/json; charset=UTF-8**"

Ad Presentation Flow

After the ad is displayed, publishers are required to provide tracking information back to Digital Turbine to feed the publisher's campaign optimization algorithm. The steps below outline the integration flow:

- 1) Publisher sends a **getAds request** to the Digital Turbine server and receives back XML or JSON response to parse
- 2) Publisher displays ad (or ad's) to end user using their inventory and **impressionTrackingURL** needs to be called to record an impression at DT's end
- 3) When the ad is clicked, the publisher redirects the end user to the ad's **clickProxyURL** provided in XML response
- 4) The clickProxyURL (**tracking link for the ad/campaign**) needs to be called
- 5) APK is downloaded and installed on the end user's device
- 6) Once user opens the app, DT will receive attribution for the same

Requesting Ads

Ad result sets can be filtered based on the parameters outlined below. All values sent must be URL encoded to accommodate any special characters.

Request Parameters

Field	Required	Description
id	Yes	Authentication attribute provided by Digital Turbine

password	Yes	Authentication attribute provided by Digital Turbine
siteId	Yes	Value provided by Digital Turbine to identify the publisher. Every device model is a different site ID.
userAgentHeader	Yes	The user agent of the device for which the campaign/ad is requested. Required to ensure device-application compatibility. Preferred to get the user agent header from the device itself so that Adserver can return campaigns optimized for that device
sessionId	Yes	sessionId of the end user device the request is generating Ads for. This parameter is required so ads provided in the XML response will be rotated, end users will not see duplicates on subsequent requests. However, you don't need to maintain any session and this can be any randomly generated number, for example, timestamp
placementId	Yes	Placement of site id in VIA. This can be passed as 1
ipAddress	No	Required for end user geo-targeting.
ipAddressList	No	Required for end user geo-targeting
countryCode	No	Country code to filter ads by. Example: US
countrySource	No	Integer. Example: 1
imageHeight	No	Allows partners to request various icon sizes. Digital Turbine will return the best match from the sizes we have

		available. The default value is 72 and the max 200.
iconHeight	No	Used along with adTypeid, this allows partners to request various icon sizes in addition to a Banner or Interstitial. The default value is 72 and the max 200.
acceptLanguageHeader	No	Two letter ISO language code. Allows partners to request a specific language. Digital Turbine will return ads in the request language if available.
totalCampaignsRequested	No	Allows publishers to request multiple ads simultaneously
adTypeid	No	<p>The size of creative returned in the ad response. 1 is the default.</p> <p>1 – 72x72 Icon</p> <p>4 – 300x50 Banner</p> <p>5 – 320x50 Banner</p> <p>6 – 300x250 Interstitial</p> <p>7 – 320x480 Interstitial</p> <p>8 – 480x320 Interstitial</p> <p>9 – 768x1024 Interstitial</p> <p>10 – 1024x768 Interstitial</p> <p>11 - 390x200 interstitial</p> <p>12 - 240x350 Interstitial</p> <p>13 - 750x560 Interstitial</p> <p>14 - 560x750 Interstitial</p> <p>15 – 728x90 Banner</p> <p>16 - 1200x627 Interstitial</p> <p>28 - 600x600 Interstitial</p>

		42 - 1280x720 Interstitial
categoryId	No	The predefined category/subcategory available to filter the results on. Category IDs can be comma separated to filter for multiple categories. See the table at the end of the document for a list of IDs and their category names.
androidId	No	Raw Android ID for optimization and conversion tracking.
aldSHA1	No	Android ID SHA-1 hashed for optimization and conversion tracking when available.
aldMD5	No	Android ID MD5 hashed for optimization and conversion tracking when available.
Idfa	No	Raw iOS IDFA for optimization and conversion tracking when available.
macAddress	No	Raw MAC Address not case sensitive, including : separator for optimization and conversion tracking when available.
aaId	No (But recommended)	This is not a mandatory parameter in the request parameters while calling the getAds API but recommended to pass for the attribution to work based on device ID. Or, this can be passed post fetching the campaigns from the getAds() response while calling the Tracking URL link as well though it will need to be MD5 encrypted at that time. This is required for better conversion and tracking purpose.
campaignId	No	The Digital Turbine campaign ID. Passing this param will return

		details for the passed campaign ID only. If the campaign is not available the result will be empty.
carrierName	No	Carrier Name: Verizon, ATT, Tmobile, etc.
Lat	No	Latitude
Long	No	Longitude
gender	No	male/female
minAge	No	Age or minimum age if an age range is known
maxAge	No	Maximum age if an age range is known
childAge	No	Comma separated list of a child age ranges (0-3,4-7)
minIncome	No	Income or minimum income of an income range is known
maxIncome	No	Maximum income of an income range is known
Vendor	No	Vendor
subPartner	No	Sub Partner
deviceSpec	No	Returns campaigns with apps that has apks uploaded
screenshotSize	No	Example: 100x100

Other request parameters:

Parameter	Description
udid	Used in click proxy url + impression tracking url
templateId	Used in click proxy url + impression tracking url
stiFlow	Used in click proxy url

Parameter	Description
language	Used in impression tracking url
adUnitId	Used in impression tracking url
creativeld	Used in click proxy url + impression tracking url
templateId	Used in click proxy url + impression tracking url
bidRequestId	Used in click proxy url + impression tracking url
bidResponseId	Used in click proxy url + impression tracking url
exchange	Used in click proxy url + impression tracking url
bidClearPrice	Used in click proxy url + impression tracking url
retargeted	Used in click proxy url + impression tracking url
homeScreen	Used in click proxy url + impression tracking url
aaidSHA1	Used in click proxy url + impression tracking url
aaidMD5	Used in click proxy url + impression tracking url
handsetId	Used in click proxy url + impression tracking url
udid	Used in click proxy url + impression tracking url
odin	Used in click proxy url + impression tracking url
limitAdTracking	Used in click proxy url + impression tracking url. Values: true/false.
flows	Used in click proxy url
clicklessSupported	Used in click proxy url
rdnsCarrierSafe	Used in click proxy url
dvURL	Used in click proxy url
stiFlow	Used in click proxy url
deviceId	Used in click proxy url
algorithmId	Used in click proxy url
provider	Used in click proxy url

Parameter	Description
mccmnc	Used in click proxy url
deviceManufacturer	Used in click proxy url
deviceModel	Used in click proxy url
density	Values: ldpi/mdpi/tvdpi/hdpi/xhdpi/xxhdpi/xxxhdpi
deviceState	Configured in Via Site Optimization/Priority. Values: outOfBox/inLife
randomization	Determine if the ads for a specific request should be randomized. Values: true/false
clickProxy	if deeplink is sent then clickProxyUrl will have delivers URL

Sample Request

Generic:

http://ads.appia.com/v2/getAds?id=[ID]&password=[PASSWORD]&sessionId=[SESSIONID]&siteId=[SITEID]&userAgentHeader=[USERAGENTHEADER]&ipAddress=[IPADDRESS]&placementId=[PLACEMENTID]&androidId=[ANDROIDID]&aldSHA1=[AIDSHA1]&aldMD5=[AIDMD5]&macAddress=[MACADDRESS]&idfa=[IDFA]&aaid=[ANDROIDADVERTISINGID]&subSite=[SubSiteId]

Actual:

http://ads.appia.com/v2/getAds?id=123&password=digitalturbinePassword&sessionId=somerandomvalue001&siteId=1234&userAgentHeader=Mozilla/5.0 (Linux; U; Android 4.1; en-us; Full Android on Crespo Build/GINGERBREAD) AppleWebKit/533.1 (KHTML, like Gecko) Version/4.0 Mobile Safari/533.1&siteId=1234&ipAddress=173.226.92.34&placementId=320x50&androidId=01930&aldSHA1=&aldMD5=&macAddress=0123456789ab&idfa=1234&aaid=1234&subSite=1234567890

Response Parameters

Response provides all the data available in XML/XHTML format, which can be used to construct or readily display the Ad.

Field	Description	Value
adListId	Unique uuid for each request. Part of clickProxyUrl and impressionUrl.	String
apks	List of apk configuration from the Via App/Manage Apk page.	List of Objects
appId	The app's unique identifier in the app store, Google Play	String
averageRatingImageURL	An image representing the star rating of the application.	String
bidId	Unique id for each campaign. Part of metadata object, clickProxyUrl and impressionUrl. Example: BID214330009156094520454149095213969486968	String
bidRate	Amount paid to a publisher for an install	Float
billingTypeId	Billing type of campaign. Can be: CPI (1), CPP (2), CPC (3), CPM (4)	Integer
callToAction	Static localized parameter that returns "Install now" text. Supports following languages codes: en, zh, sv, da, no, fi, de, es, fr, nl, it, tr, ro, pt, pt-br	String
campaignDisplayOrder	Recommended display order for the ad based on Digital Turbine's campaign performance algorithm	Integer
campaignId	The campaign's ID within the Digital Turbine system.	Integer
campaignTypeId	A tracking parameter used by Digital Turbine. Typically, unused by publishers.	Integer
categoryName	The category of the application from Google Play	String
clickProxyURL	A link that will record a click in Digital Turbine's system and redirect the end user to the appropriate app store, Google Play or iTunes.	String

	Tracking link for the campaign.	
creativeId	The ID of the creative returned. Typically, unused by publishers.	Integer
enableAutoLaunch	If false, user will be presented with the app details modal containing the call to action: "tap here to open".	Boolean
homeScreen	Shows if campaign may appear on the home screen. Configured in Via site optimization page.	Boolean
impressionTrackingURL	pixel tracker that must be placed when an ad is shown to the end-user. Typically, unused for Install campaigns	String
impressionId	Unique id for each campaign. Part of metadata object and impressionUrl. Example: IMP181121631983274148732716928498071899713	String
installDelay	Delay in seconds between download complete and install for an app delivery	Integer
isRandomPick	All ads are returned in order of their performance, with a few randomly returned out of order. This indicates if the specific ad was returned in performance order or was a random placement.	String
metadata	Contains such metadata as bidId and impressionId.	Object
maxOSVersion	The maximum OS version supported. Must be used to filter out unsupported devices.	Float
minOSVersion	The minimum OS version supported. Must be used to filter out unsupported devices.	Float
numberOfDownloads	How much downloads have happened for a specific app.	String
numberOfRatings	The number of ratings.	String

productDescription	The ad copy for the ad. Typically a short description of the product.	String
productId	Digital Turbine system ID for the application linked to a campaign. Typically, unused by publishers.	Integer
postInstallActions	Discovery notifications post install actions.	Object
productName	The headline for the ad. Typically, the title of the product	String
productThumbnail	URL for the app icon	String
responseTime	Digital Turbine AdServer response time for the current ad request. Typically, unused by publishers.	String
reclickAttribution	Determines whether or not to re-click the attribution click upon auto-launch if an app is already installed.	Boolean
rating	The application rating	Float
s2s	Server to server parameter.	Boolean
segments	Specific for applist site. Configured under Site Optimization/Apllist in Via. Each segment has list of campaigns.	List of Objects
totalCampaignsRequested	Indicates the number of campaigns requested. The results may be less than the number requested if the targeting criteria filters out available ads.	Integer
useInstallerBroadcast	Broadcast message to the installed app.	Boolean
version	Current version of the ad server. Typically, unused by publishers.	String

Sample Response

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ads xmlns="http://www.appia.com/AS/get/ads/2013-01">
  <adListId>dee6f238-e5cd-4c5b-93a1-808769166cb6</adListId>
  <ad>
    <apks>
      <apk>

<fileName>com.ibotta.android~c358be779552584db2b8b711cb275788.apk</fileName>
      <fileSize>56430138</fileSize>
      <md5>c358be779552584db2b8b711cb275788</md5>
      <networkType>both</networkType>
      <packageName>com.ibotta.android</packageName>
      <permissions>

<permission>android.permission.ACCESS_COARSE_LOCATION</permission>

<permission>android.permission.ACCESS_FINE_LOCATION</permission>

<permission>android.permission.ACCESS_NETWORK_STATE</permission>

<permission>android.permission.ACCESS_WIFI_STATE</permission>

<permission>android.permission.AUTHENTICATE_ACCOUNTS</permission>
      <permission>android.permission.BLUETOOTH</permission>
    </permissions>

<sha2>78e706f9fad37011bd8fc7a8c93abe5c085e143a9b57cbcd7597da6ed55877b0</sha2>
      <title>Ibotta</title>
      <url>https://s3.amazonaws.com/appia-dev-
apks/com.ibotta.android~c358be779552584db2b8b711cb275788.apk</url>
      <version>4.11.2</version>
      <versionCode>2096</versionCode>
    </apk>
  </apks>
  <appId>com.zavyn.app.01</appId>

<averageRatingImageUrl>https://assets.gopda.com/hua/cdn/adpub/default/rated-5-
5.png</averageRatingImageUrl>
  <bidRate>2.100</bidRate>
  <billingTypeId>1</billingTypeId>
  <callToAction>Install Now</callToAction>
  <campaignDisplayOrder>1</campaignDisplayOrder>

```

```

    <campaignId>12424</campaignId>
    <campaignTypeId>2</campaignTypeId>
    <categoryName>Books & Reference</categoryName>
    <clickProxyURL>https://balalaika-central-2022-
alpha.dev.appia.com/v2/delivers/clickAd.jsp?siteId=41488&deviceId=4520&
spotId=&sessionId=getAdsDebug&campaignId=12424&creativeId=&pack
ageName=com.zavyn.app.01&fulfillmentTypeId=1&placementId=&campaignD
isplayOrder=1&enc=true&ts=17da484dedf&algorithmId=166&partner=1
411&homeScreen=false&houseApp=false&installDelay=0&enableAutoLa
unch=true&countryCode=US&bidId=BID2152010592250891887570280656411679014
81&adListId=dee6f238-e5cd-4c5b-93a1-808769166cb6</clickProxyURL>
    <creativeId>0</creativeId>
    <externalMetadata xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:nil="true"/>
    <homeScreen>false</homeScreen>
    <impressionTrackingURL>https://balalaika-central-2022-
alpha.dev.appia.com/v2/impressionAd.jsp?siteId=41488&campaignId=12424&c
reativeId=&campaignDisplayOrder=1&ts=17da484dedf&sessionId=getAdsDe
bug&packageName=com.zavyn.app.01&enc=true&eventGroupId=EVTGID163914
2708845248814692352&algorithmId=166&partner=1411&countryCode=US&
;bidId=BID215201059225089188757028065641167901481&impressionId=IMP166976276
725647341184525072781505505140&adListId=dee6f238-e5cd-4c5b-93a1-
808769166cb6</impressionTrackingURL>
    <isRandomPick>false</isRandomPick>
    <numberOfRatings>1,000-10,000</numberOfRatings>
    <productId>17063</productId>
    <productName>Zavyn App 01</productName>
    <rating>5.0</rating>
    <numberOfDownloads>1,000-10,000</numberOfDownloads>
    <tstiEligible>false</tstiEligible>
    <stiEnabled>false</stiEnabled>
    <postInstallActions/>
    <useInstallerBroadcast>false</useInstallerBroadcast>
    <installDelay>0</installDelay>
    <reclickAttribution>false</reclickAttribution>
    <enableAutoLaunch>true</enableAutoLaunch>
    <s2s>false</s2s>
    <metadata>
        <bidId>BID215201059225089188757028065641167901481</bidId>
    </metadata>
</impressionId>IMP166976276725647341184525072781505505140</impressionId>
    </metadata>
</ad>
<responseTime>2.163 seconds</responseTime>

```

```
<totalCampaignsRequested>7</totalCampaignsRequested>
<version>v2</version>
</ads>
```

Error Response

If access has not been enabled, an error message will be returned:

```
<ads>
<errorMessage>{errorMessage}</errorMessage>
<serverId>{server}</serverId>
<version>{version}</version>
</ads>
```

Campaign Categories

Category ID	Category	Sub-Category
9	Games	All Games
10	Games	Action
79	Games	Adventure
80	Games	Arcade
81	Games	Board
82	Games	Card
12	Games	Casino
13	Games	Casual
83	Games	Educational
84	Games	Music
11	Games	Puzzle
14	Games	Racing

Category ID	Category	Sub-Category
85	Games	Role Playing
86	Games	Simulation
87	Games	Sports
88	Games	Strategy
89	Games	Trivia
90	Games	Word
33	Apps	All Apps
2	Apps	Books & Reference
3	Apps	Business
4	Apps	Comics
5	Apps	Communication
6	Apps	Education
7	Apps	Entertainment
8	Apps	Finance
16	Apps	Health & Fitness
17	Apps	Lifestyle
19	Apps	Media & Video
20	Apps	Medical
21	Apps	Music & Audio
22	Apps	News & Magazines
23	Apps	Personalization
24	Apps	Photography
25	Apps	Productivity
26	Apps	Shopping

Category ID	Category	Sub-Category
27	Apps	Social Networking
15	Apps	Sports
28	Apps	Sports
29	Apps	Tools
30	Apps	Transportation
31	Apps	Travel
18	Apps	Travel & Local
32	Apps	Weather

Frequently Asked Questions

1. Is the API server-to-server based or client-to-server?

The API was created for client-to-server/device-to-server, however we have had implementations where it is used server-to-server (there are some workarounds for this as UA header, AAID etc are not available during server calls). In server-to-server cases, as long as the API is requested often enough (1 hour) the response is valid. If it is cached for longer, campaigns may have capped out, hence we suggest calling it often.

2. What is UserAgentHeader mandatory to be passed in request?

Mainly publishers have concern about UserAgentHeader to be passed in the request and why can't we resolve it from the request only.

This is because we need to identify between iOS and Android to ensure device-application compatibility. So preferred to get the user agent header from the device itself so that Ad server can return campaigns optimized for that device.

3. What is SessionID? is it required to maintain sessions?

A sessionID is a random value, like a cache-buster. It is called a sessionID instead of a cachebuster because in cases where you want the same API response as earlier, you make a request by the same sessionID. So if you navigate off the page and return and want the same set of ads, use the same sessionId you used earlier.

It's not required to maintain sessions however so this can be random generated value for example timestamp.

4. Why do we need to send IPaddress?

We require this to be passed from publisher's end correctly in order to serve the right campaigns. If we try to resolve this from the URL automatically, it will pick up the IP address of the server/client as per the location and will serve campaigns based on that.

5. What is placementID?

Use "1" as the placementID value.

6. Which xml element holds the creative image (not icon)?

<productThumbnail> will contain the creative image, which is basically the App Icon image (72 * 72)

7. Google Advertising ID (AAID): This is not a mandatory parameter in the request parameters while calling the getAds API but **recommended** to pass for the attribution to work based on device ID.

Or, this can be passed post fetching the campaigns from the getAds() response while calling the Tracking URL link as well though it will need to be MD5 encrypted at that time. This is required for better conversion and tracking purpose.