

AdView Mobile Ad Exchange MarketPlace

API Specification for Publishers_2.5.3



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Updated Records

Ver	Date	Content	Dept
2.4.3	2017.07	Change the following suggested fields to be required: tp、brd、sw、sh、deny、mc、nt、nop、tab、ua	Product
2.5.3	2018.05	Comply with GDPR, support returning video ads in interstitial ad placement	Tech

1.Getting Started

This specification is for publishers to integrate with AdView mobile ad exchange via API.

Publishers send ad requests to AdView via HTTP GET

2.Integration process

- 1. Publishers send ad request to the AdView servers via HTTP GET. Client-side’s IP should be provided if the ad request is transited by server side. If ad request is sent by client side, IP is optional.
- 2. AdView gives ad responses, please refer to [appendix 1](#) to check if different formats of ads are served properly.
- 3. Publishers call the tracking URLs.

3. Interface Specification

3.1 Ad request

- 1. Transport： HTTP GET
- 2. Request URL： <http://open.adview.cn/agent/openRequest.do> or <https://open.adview.cn/agent/openRequest.do> , Secure = 0 is default for **http**, Secure = 1 is default for **https**
- 3. Header: Please make sure the request header contains **Accept-Encoding**, including **gzip**. If AdView responds in **gzip** format, publishers need to uncompress them.
- 4. Please pay attention to the words marked in red which indicates important and key attributes.

3.1.1 Definitions and Descriptions

Requests Attributes：

Attribute	Type		Description	Value or Sample
ver	String	required	API version	2.5.3
n	int	required	The amount of Ad requests, return≤n responses	1
appid	String	required	Unique indentifier of an app which is given after registering app in AdView publisher UI (http://www.adview.com/). Different apps should have different app ids	SDKXXXX
pt	int	required	Ad format	0=>banner 1=>interstitial 4=>opening screen 5=>video 6=>native 8=>wap
html5	int	optional	Creative type	0=>any (Native or html5) 1=>html5 ad 2=>non-html5 ad

Attribute	Type		Description	Value or Sample
secure	int	optional	Flag to indicate if the impression requires secure HTTPS URL creative assets and markup, where 0 = non-secure, 1 = secure. If omitted, the secure state is unknown, but non-secure HTTP support can be assumed.	0: creative from <i>http url</i> 1: creative from <i>https url</i>
supmacro	int	optional	Substitution macros , default 0	0= non-sup 1= support
cachetime	int	optional	Cache time of ad requests,unit :min	Suggested time<20min
posId	String	native/video ad required	Ad placement ID, apply via the AdView publisher UI	qrak8rs7z7a8 multiple ad placement ids can be separated by comma eg: qrak8rs7z7a8,srak8rs7z7a9,
pack	String	required	The packagename of your APP	com.adview.demo
w	int	required	Ad width, unit: pixel	If pt=0 1 4, required
h	int	required	Ad height, unit: pixel	If pt=0 1 4, required
tab	int	required	Device type	0=phone; 1=tablet
ip	String	required	Public IP address of device	Required when integrate via S2S
os	int	required	operation system	0=Android 1=iOS
bdr	String	required	OS version	4.2.1
tp	String	Required	Device model	g7
brd	String	Required	Device brand	htc
ua	String	Required	User agent	
sw	int	Required	Device screen width	480
sh	int	Required	Device screen height	854
deny	double	Required	Device screen density	2.0
andt	int	optional	Unique identification supported type of Android device. The default is 0	0=> support android device to transmit IMEI and Android Id 1=> support android device to transmit Google Advertising Id
sn	String	Required	Unique identifier of device; Android use IMEI, ios use IDFA	sn is highly suggested, For iOS, sn is required; For Android ,andid is required, and should fill in either gd or andid

Attribute	Type		Description	Value or Sample
gd	String	Required	Google Advertising Id	sn is highly suggested, For iOS, sn is required; For Android ,andid is required, and should fill in either gd or andid IDFA value of iOS device
andid	String	Required	Android ID	
idfa	String	required	Please use real IDFA of the device	
idfv	String	required	iOS, idv value	idv value of iOS device
openudid	String	suggested	unique identifier of apple device	
mc	String	required	MAC value	
battery	int	suggested	Battery volume of the device, integer from 0~100%	75% battery, the value will be 75.
nt	String	required	network connection type	wifi/2g/3g/4g
nop	String	required	Mobile carrier code	46000、 46002、 46007=>China Mobie 46001、 46006=> China Unicom 46003、 46005=>China Telecom If there's no code, then enter "" string
country	String	suggested	Country,use ISO-3166-1 Alpha-3	
language	String	suggested	Device language settings,use alpha-2/ISO 639-1	
lat	double	suggested	Latitude	39.84104668
lon	double	suggested	Longitude	116.41272702
locType	int	suggested	Location type	1=GPS 2=IP address 3=user provided
imsi	String	suggested	international Mobile User identifier, which is stored in SIM card	
lac	String	suggested	location area code, which is used to identify the location area of GSM mobile network.	
cid	String	suggested	Cell Identifier. A code allocated by carriers in order to uniquely identify GSMPLMN.	Value is from 0~65535
bssid	String	optional	bssid of WIFI	Bssid of gateway
ssid	String	optional	ssid of WIFI	Ssid of gateway
iccid	String	optional	iccid value of Android device	
jb	int	optional	Jailbreak status of ios device	0= no jailbreak 1= jailbreak

Attribute	Type		Description	Value or Sample
tm	int	required	Test mode (under the test mode, server will not count impressions and clicks)	0= live mode 1= test mode
time	long	required	Timestamp of ad request (accurate to milliseconds)	1838483829383
token	String	required	Authorization code of API, refer to the 3.1.2 token generation	
yob	int	optional	Year of birth, 4 digits	For example, 1990
maxAge	int	optional	The maximum age of users	30
minAge	int	optional	The minimum age of users	20
gender	String	optional	gender: "M"-Male "F"-Female "O"-Other "Null"-Unknown	M
gdpr	int	optional	According to EEA GDPR regulations, gdpr attributes value indicates whether the request is subject to GDPR regulations .	0= the request is not subject to GDPR 1= the request is subject to GDPR
consent	String	optional	Consent string according to IAB's consent string format 1.1	BOMT6szOMT6szAAABAENAAAAAAA AoA AA

3.1.2 Token Generation

Rules of token generation:

MD5(appid+sn or gd+os+nop+pack+time+secretKey)

- 1) Please check above definition and descriptions of attribute appid、sn or gd、os、nop、pack、time
- 2) secretKey: provided by AdView, every single app can be assigned with one secretKey or all apps from the same account can share a same secretkey.

Here is an example of how to generate tokens:

Suppose below are the attributes needed to generate token:

```
appid:"SDK123456",
sn:"863331029860132"
os:1,
nop:"46001",
pack:"com.test",
time:"1423109691",
secretKey: "dhk3tkg5e32r8t0srhob1gv82kw0235b"
```

Splice the above attributes :

```
SDK123456863331029860132146001com.test1423109691dhk3tkg5e32r8t0srhob1gv82kw0235b
```

MD5 32-bit lowercase encryption results are:

```
token = MD5(SDK123456863331029860132146001com.test1423109691dhk3tkg5e32r8t0srhob1gv82kw0235b)
=27d09e9a185f8942dfd22f6e9853d5fe
```

Now the token is generated.

3.1.3 Sample request

```
http://open.adview.cn/agent/openRequest.do?n=1&appid=SDK123456&pt=0&w=720&h=200&os=0&bdr=4.4&tp=g7&brd=htc&nop=46000&tab=0& andid=87ac738442fc949&tm=0&time=1442542362486&sw=1080&sh=1920&sn= 862116020631017&pack=com.adview.cn &token=XXXXX
&ua=Mozilla%2F5.0+%28Linux%3B+U%3B+Android+4.2.2%3B+zh-cn%3B+HM+NOTE+1TD+Build%2FJDQ39%29+AppleWebKit%2F534.30
+%28KHTML%2C+like+Gecko%29+Version%2F4.0+Mobile+Safari%2F534.30
```

3.2 Ad Response

3.2.1 Definitions and Descriptions

Ad response in JSON data:

Attribute	Type	Instructions	Value(note)
res	int	status of ad response	0=> failed, 1=> successful
mg	String	ad response failed reason	
co	int	Number of ad responses	1
ad	Json Array	Ad information, if succeed,return 0 or multiple ads	

Detailed attributes of ads (elements of ad arrays):

Attribute	Type	Description	Value or sample
General attributes			
posId	String	Ad placement id	Unique, native and video format required
adi	String	Ad deal ID	client side does not need to deal with this attribute
act	int	Ad action types, currently support 1 and 2 only	1 =>ad page 2 =>download 4 =>open the map 8 =>send message 16 =>send email 32 =>dial 64 =>play video
at	int	Creative types of the ad response	0=>image banner ad 1=> text only 2=>image-text 3=>image interstitial ad 4=>html ad 5=>splash image 6=>interactive video ad 7=>patch video ad 8=>native ad 9=>web native 10=>web HTML 100=>MRAID interstitial
as	String	Ad size, not need to return when at=8	320x50
dan	String	The name of the downloaded app	Might need to returen when act=2
dai	string	The app icon of the downloaded app	Might need to returen when act=2
dpn	string	The bundle name of the downloaded app	Might need to returen when act=2

Attribute	Type	Description	Value or sample
		For android, it represents bundle ID For ios , it represents itunes ID	
das	int	the size of the downloaded app	Might need to return when act=2
When response at=4 6 7 10, will fill the below parameter			
xs	String	If at=4 or 10, xs will fill by HTML at=6 or 7, xs will fill by VAST.	
When response at=0 1 2 3 5, will fill the below parameter			
api	Array of String	URL of the ad image, usually return 1 only	["url1", "url2"]
aic	String	URL of the ad icon	Apply to text-image ads
ate	String	The text content of the ad	Text-image ads or text-only ads will return these 3 attributes, but not necessarily with values
ati	String	Ad title	
ast	String	Ad subtitle	
adLogo	String	Ad source Logo	Logo image URL
adIcon	String	"ad" character, It's optional, publishers can use their own design.	
When response at=8 9, will fill the below parameter			
native	Native object	Creative of native/web	Returned when it's a native ad request, refer to 3.2.2 native object
Reporting related attributes			
ec	Array of string	Click tracking URL, visited by client side	["url1", "url2", ...]
es	JSON object	Impression tracking URL	{ "0": ["url1", "url2", ...] }
al	String	Click redirect URL	Redirect to the landing page
dl	String	0- Redirect URL which of deep-link, use 'al' if it doesn't work	If the app is installed beforehand, it redirects to the specific page, otherwise it redirects to the normal landing page.
fallback	String	Redirect substitute URL. Use this URL if al is not supported	Might return this attribute when at=8
surl	Array of String	Download performance tracker, client side needs to visit one by one when download triggered. ["url1", "url2", ...]	Android apps and when at=2 need to deal with this attribute
furl	Array of String	Download performance tracker, client side needs to visit one by one when the app download is finished. ["url1", "url2", ...]	Android apps and when at=2 need to deal with this attribute
iurl	Array of String	Download performance tracker, client side needs to visit one by one when the app is installed. ["url1", "url2", ...]	Android apps and when at=2 need to deal with this attribute

Attribute	Type	Description	Value or sample
ourl	Array of String	Download performance tracker, client side needs to visit one by one when the app is opened. "url1","url2", ...]	Android apps and when at=2 need to deal with this attribute

3.2.2 Native Object:

Attribute	Type	Description	Value or Sample
ver	String	Native spcificaiton version	1.0
icon	Object	Icon data	{ "url": "<image-url>", "w": 75, "h": 75 }
logo	Object	Logo data	{ "url": "<image-url>", "w": 75, "h": 75 }
images	Array of Object	Big image,elements like icon	[{ "url": "<image-url>", "w": 320, "h": 480 },]
title	String	Ad title	"ad title "
desc	String	Ad description contents	"ad description"
desc2	String	Supplement ad description text	" Supplement ad description "

3.2.3 Sample response

1. HTML Ads

```
{
  "res":1,
  "co":1,
  "mg": "",
  "ad": [
    {
      "abi": "",
      "xs": "<!DOCTYPE HTML><meta charset='utf-8'><style type='text/css'>* { padding: 0px; margin: 0px;}a:link { text-decoration: none;}</style><a href='\"http://c.gdt.qq.com/gdt_mclick.fcgi?viewid=fJX0081j08c47650_R0iZ0Ge0lCjmfK0iEAel2EftuZswN56F_c4QVdmqLwagdqM6NVf0!NK9mM25wfqApXBs_dRfFjhY5iUd5f_3gRohoh1D2tKfE!K4nsjoGaZHw0yR500XsEAIQ1PgqmurS!07z8nng2rL8M7SzH3KzHJ8L91JH9RV3vtPw_QSwwETKmEFS_2u!iX8zFkH2G1UBxQ&jtype=0&i=1&acttype=35&s=%7B%22up_x%22%3A-999%2C%22up_y%22%3A-999%2C%22down_y%22%3A-999%2C%22down_x%22%3A-999%7D\" onclick='\"loadAdViewClick();return true;\"><div style='height: 50px; width: 320px; background: #000'><div style='height: 50px; width: 270px; float: left;'><p style='white-space: nowrap; margin-left: 3px; line-height: 26px; color: #fff; font-size: 18px; vertical-align: middle'>诸神联盟</p><p style='white-space: nowrap; margin-left: 3px; line-height: 20px; color: #ddd; font-size: 14px; vertical-align: middle'>你没玩过的滑屏动作卡牌手游! </p></div><div style='width: 50px; height: 50px; overflow: hidden; background: #0977c2'><p style='line-height: 50px; height: 50px; color: #fff; font-size: 40px; text-align: center; vertical-align: middle'>&gt;</p></div></div></a><img width='1' height='1' src='http://v.gdt.qq.com/gdt_stats.fcgi?count=1&viewid0=fJX0081j08c47650_R0iZ0Ge0lCjmfK0iEAel2EftuZswN56F_c4QVdmqLwagdqM6NVf0!NK9mM25wfqApXBs_dRfFjhY5iUd5f_3gRohoh1D2tKfE!K4nsjoGaZHw0yR500XsEAIQ1PgqmurS!07z8nng2rL8M7SzH3KzHJ8L91JH9RV3vtPw_QSwwETKmEFS_2u!iX8zFkH2G1UBxQ' /><br><img width='1' height='1'
```

```
src='http://bid.adview.cn/agent/display?to=6546c3cfda53bc606870b18c4af7645f&tm=1&ro=1&ca=0&adl=&sgt=0&as=320x50&se=46002
&adi=20150317-175909_MZ01_151-852-A5fZ-
2351_1&aid=SDK201419230711146pdnly52mmwd42c&cv=&ti=1426586354&agl=&ai=UzEsJ0wBAAAFUUERXF0Zt9cnU22GsDbCw1AhP8SAear_ev65b
Q&ia=&sv=&ud=354054021886303&agt=0&bi=com.sally.express&st=0&src=6&sy=0'/><br/><script type='text/javascript'>function
appendPingImg(aUrl){var
x1=document.createElement('img');x1.width='1';x1.height='1';x1.src=aUrl;document.body.appendChild(x1);}function
loadAdViewClick(){appendPingImg('http://bid.adview.cn/agent/click?to=6546c3cfda53bc606870b18c4af7645f&tm=1&ro=1&ca=0&adl
=&sgt=0&as=320x50&se=46002&adi=20150317-175909_MZ01_151-852-A5fZ-
2351_1&aid=SDK201419230711146pdnly52mmwd42c&cv=&ti=1426586354&agl=&ai=VDEsJ0wBAAAEVlzeg1zJUkDH3RLtRm2MVQ854i9Jm90oSXr0l
k&ia=&sv=&ud=354054021886303&agt=0&bi=com.sally.express&st=0&src=6&sy=0');}</script>',
  "ast": "",
  "adi": "20150528-143838_S4bOM01nmOQ_201-414-bHnW-0_1",
  "aic": "",
  "ate": "",
  "api": [

  ],
  "ati": "",
  "apn": "",
  "dpn": "",
  "at": 4,
  "as": "300x250",
  "dai": "",
  "al": "http://www.mikecrm.com/f.php?t=MBzfN2",
  "das": "",
  "dan": "",
  "act": 1,
  "ec": [
    "ur11",
    "ur12"
  ],
  "es": {
    "0": [
      "ur13",
      "ur14"
    ]
  }
}
]
```

2. Non –HTML ads

```
{
  "res": 1,
  "co": 1,
  "mg": "",
  "ad": [
    {
      "abi": "",
      "ast": "一款你不得不玩的游戏",
      "adi": "20150528-135744_zceCCbKv_61-357-U9fM-1_1",
      "aic": "",
      "ate": "萌江湖创造手游新奇迹",
      "api": [
        "http://test2014.adview.cn:8088/agent/image/zceccbkv20150526164937501000_640_320.jpg"
      ],
      "apn": "",
      "ati": "萌江湖重磅上市",
      "dpn": "",
      "at": 15,
      "dai": "",
      "al": "http://www.baidu.com",
      "das": "",
      "dan": "",
      "act": 2,
    }
  ]
}
```

```
    "ec": [
      "url1",
      "url2"
    ],
    "es": {
      "0": [
        "url3",
        "url4"
      ]
    }
  }
]
```

3. native ads

```
{
  "res": 1,
  "ad": [
    {
      "ast": "",
      "adLogo": "https://bid.adview.cn/images/adlogo.png",
      "dai": "",
      "dan": "",
      "act": 1,
      "ate": "",
      "native": {
        "images": [
          {
            "w": 1280,
            "h": 720,
            "url": "http://xxxxxx.xxxxxx/DAANaGCAUAALQABjBYnXoXDqafo6bY.jpg/0?ck=9feb556af85ff05871ec10117c416f2c"
          }
        ],
        "icon": {
          "w": 300,
          "h": 300,
          "url": "http://xxx.xxxxxxxxxx/DAANaGCAEsAEsAAAdBYnXnsA2dWN1Jl.jpg/0?ck=ca0df586855cde1446768960036ad81d"
        },
        "title": "测试测试测试",
        "desc": "测试测试测试测试测试测试测试测试测试测试测试"
      },
      "adIcon": "https://bid.adview.cn/images/adicon.png",
      "das": 0,
      "ati": "",
      "ec": [
        "http://xxxx.xxx.xx/xxxx/xxxxClick.do?st=6&uuidEncType=0&sv=0&src=6&sy=0&nt=wifi&adi=20170224-112011_TC05_133-3121-cwVc-143_1&bi=com.nd.android.pandahome2&ai=0xIibloBAAAnXCAMzygqFps6jare9pdqjzONVaWC2Pp9qgAH8UEzKOYyo2iGd7mda6kcwCwDah3oa1s0Ik8tR27aLPLPC0ANq26M60FstqqQog42D2_8e_g8zz0U2_jFqL4jFA&ud=863471036046687&andt=0&as=0x0&se=46000&cv=&rqt=1&ti=1487906416&tm=0&to=f88574c98512acc3710a28518c560c7b&aid=SDK20161412020613yi4y4sv6viy7e22&ro=1&ca=0"
      ],
      "dpn": "",
      "adi": "20170224-112011_TC05_133-3121-cwVc-143_1",
      "abi": "",
      "al": "http://xxxx.xxxxxx.xxxxxx?viewid=1Pk6JwC77211hMzLleClspLXuAd1QreIu7zoTwg7mm_n6Lz2M4hNMfm73MT4IKtJod_StmhOn5rJF3PN1eFdQK!9A3lx4D0zwsYwkDBImzqHEmorFLw0EJe64z_XECOLochXpkn4R6xi54FWODKIZPIqCixpqG14zNcPvoJ!I0TIHyismXmni0z0_veoCP4Mw56d8iS3DgHJDAtr3aRfSQ&jtype=0&i=1&os=2&acttype=0&s=%7B%22up_x%22%3A-999%2C%22down_x%22%3A-999%2C%22up_y%22%3A-999%2C%22down_y%22%3A-999%7D",
      "es": {
        "0": [
          "http://xxx.xxx.xx/xxxx/openDisplay.do?st=6&uuidEncType=0&sv=0&src=6&sy=0&nt=wifi&adi=20170224-112011_TC05_133-3121-cwVc-
```

```
143_1&bi=com.nd.android.pandahome2&ai=0xIibloBAAAnXCAmZygqFps6jare9pdqjzONVaWC2Pp9qgAH8UEzKOYyo2iGd7mda6kcwCwDah3oa1s0Ik
8tR27aLPLPC0ANq26M6OFstqqQog42D2_8e_g8zz0U2_jFqL4jFA&ud=863471036046687&andt=0&as=0x0&se=46000&cv=&rqt=1&ti=1487906416&t
m=0&to=f88574c98512acc3710a28518c560c7b&aid=SDK20161412020613yi4y4sv6viy7e22&ro=1&ca=0",

"http://\\xxxx.xxxxxx.xx\\xxxx_stats.fcgi?count=1&viewid=1Pk6JwC77211hMzLleClspLXuAd1QreIu7zoTwg7mm_n6Lz2M4hNMfm73MT4IKt
Jod_StmhOn5rJF3PN1eFdQK!9A3lx4DozwsYwkDBimzqHEmorFLw0EJe64z_XECOLochXpkN4R6xi54FWODKIZPIqCixpqG14zNcPvoJ!I0TIHyismXmni0z
O_veoCP4Mw56d8iS3DgHJDAtr3aRfSQ"

    ]
  },
  "at": 8
}
],
"mg": "",
"co": 1
}
}
}
```

4. Vast video ads

```
{
  "res":1,
  "co":1,
  "mg": "",
  "ad":[
    {
      "abi": "",
      "xs": "<?xml version='1.0' encoding='utf-8' standalone='yes'><VAST version='3.0'>    <Ad>      <Inline>
<AdSystem/>        <AdTitle><![CDATA[test video]]></AdTitle>
<Impression><![CDATA[http://\\video.imp1.com]]></Impression>
<Impression><![CDATA[http://\\video.imp2.com]]></Impression>          <Creatives>          <Creative>
<Linear skipoffset='00:00:04'>          <Icons>          <Icon width='90' height='90'>
<StaticResource><![CDATA[http://\\test2014.adview.cn:8088\\agent\\image\\yyfl1aa3_vastexpandicon.png]]></StaticResource
>
          <IconClicks>
<IconClickTracking><![CDATA[http://\\click1.icon.com]]></IconClickTracking>
<IconClickTracking><![CDATA[http://\\click2.icon.com]]></IconClickTracking>
<IconClickThrough><![CDATA[http://\\xxxx.icon.endurl.com]]></IconClickThrough>
</IconClicks>          <IconViewTracking><![CDATA[http://\\imp1.icon.com]]></IconViewTracking>
<IconViewTracking><![CDATA[http://\\imp2.icon.com]]></IconViewTracking>          </Icon>
</Icons>          <Duration>00:00:05</Duration>          <TrackingEvents>
<Tracking event='midpoint'><![CDATA[http://\\video.midpoint.com]]></Tracking>          <Tracking
event='complete'><![CDATA[http://\\video.complete.com]]></Tracking>          <Tracking
event='start'><![CDATA[http://\\test2014.adview.cn:8088\\agent\\openDisplay.do?st=5&uuidEncType=0&sv=0&src=1&sy=0&nt=&
adi=20161111-103449_yYfL1AA3_204-43088-I9pf-
2_1_et0&bi=jxedt&ai=2s48UVgBAABiMEUuzWQOelj3LBMdog262LbirZIy2YzX783MfLu1f7MmYy3P_ZGUYyb9cSadsQFoGHQ14-
EhTAtrhF0j_3A9CNBqz_s1UNi3lGM-
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      "ur14"
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}
]
}

```

3.3 Impressions and Clicks Reporting

3.3.1 Impressions Reporting

When publishers receive ad responses from AdView, if the 'es' field is returned, publishers need to use 'es' for reporting when the ad impression triggered. **Multiple reporting URLs should all be reported, and HTML ads need to deal with 'es' field, too. The impression reports must be initiated by the client-side,** it might be regarded as non-human traffic if reported by server side. In case of impression reportings are required but your impression reporting latency is too long, then this impression will be regarded as non-human, and no revenue will be paid for this impression.

3.3.2 Clicks Reporting

When publishers receive ad responses from AdView, if the 'ec' field is returned, publishers need to use 'ec' for reporting when the clicks triggered. **Multiple reporting URLs should all be reported, and HTML ads need to deal with 'ec' field, too. The clicks reporting must be initiated by the client-side,** it might be regarded as non-human traffic if reported by server side. In case of clicks reportings are required but your reporting latency is too long, then this clicks will be regarded as non-human, and no revenue will be paid for this click.

3.3.3 Macros

This is used for the statistics of the coordinates when user click and leave the page, both of which are to the left top of ad placement (we call left top is the original point). When supmacro = 1, click tracker will issue the following macro, publishers need to do substitution macros in client side, otherwise the click reporting will be invalid.

The macros may be contained in es and ec .

The following macros should all be substituted:

Macro	Description
{ABSOLUTE_COORD}	The macro of the absolute coordinate of user click, use for resend the coordinate of user click: original point is the left top point of ad placement, the actual value of logic pixel is the value of coordinates. The format of replacing macro is {"down_x":"123", "down_y":"234", "up_x":"123", "up_y":"234"} Example: down_x=down_event.getX(); down_y=down_event.getY(); up_x=up_event.getX(); up_y=up_event.getY();
{RELATIVE_COORD}	The macro of the relative coordinate of user click, use for resend the coordinate of user click: original point is the left top point of ad placement ,get the ratio of the user's click and leave coordinates to the coordinates of the lower right corner of the ad (maximum size of the ad),then expand the result by 1000 times to take an integer. Example: down_x=down_event.getX()/adSize.width*1000; down_y=down_event.getY()/adsize.height*1000; up_x=up_event.getX()/adSize.width*1000; up_y=up_event.getY()/adsize.height*1000;
{UUID}	Device unique identifier. iOS use IDFA, Android use IMEI
{LATITUDE}	Geo information, latitude
{LONGITUDE}	Geo information, longitude

Attribute	type		Description	Value or sample
down_x	String	yes	The X-axis value of where user clicks	Fill in "-999" if value cannot access
down_y	String	yes	The Y-axis value of where user clicks	Fill in "-999" if value cannot access
up_x	String	yes	The X-axis value of when user's fingers	Fill in "-999" if value cannot

			leave the screen	access
up_y	String	yes	The Y-axis value of when user’s fingers leave the screen	Fill in “-999” if value cannot acquire

Macro substitution sample:

Before substitution :

http://open.adview.cn/agent/openClick.do?uuidEncType=0&nt=wifi&bi=com.jxedt&m_revcoord={RELATIVE_COORD}&ud=865214034472689&andt=0&se=46000&m_ud={UUID}&rqt=1&m_lon={LONGITUDE}&m_abscoord={ABSOLUTE_COORD}&ca=0&st=0&m_lat={LATITUDE}&sv=0&src=159&sy=0&adi=2xxx&ai=vLHU&as=640x70&cv=&ti=1521511205&tm=0&to=eadad7ffa7139194113e31e717e1002&aid=SDK201616280401472xvliyoaat7wee5&ro=1

After substitution:

http://open.adview.cn/agent/openClick.do?uuidEncType=0&nt=wifi&bi=com.jxedt&m_revcoord=%7b%22down_x%22%3a230%2c%22down_y%22%3a930%2c%22up_x%22%3a233%2c%22up_y%22%3a930%7d&ud=865214034472689&andt=0&se=46000&m_ud865214034472689&rqt=1&m_lon=119.67239&m_abscoord=%7b%22down_x%22%3a428%2c%22down_y%22%3a115%2c%22up_x%22%3a433%2c%22up_y%22%3a115%7d&ca=0&st=0&m_lat=26.023286666666664&sv=0&src=159&sy=0&adi=2xxx&ai=vLHU&as=640x70&cv=&ti=1521511205&tm=0&to=eadad7ffa7139194113e31e717e1002&aid=SDK201616280401472xvliyoaat7wee5&ro=1

3.3.4 HTML Ad Notes

HTML ads can use HTML to automatically trigger redirection. And when ‘**al**’ (click redirect URL) is empty, HTML ads need to support JavaScript.

Appendix 1: Ad formats samples

1. banner image ad



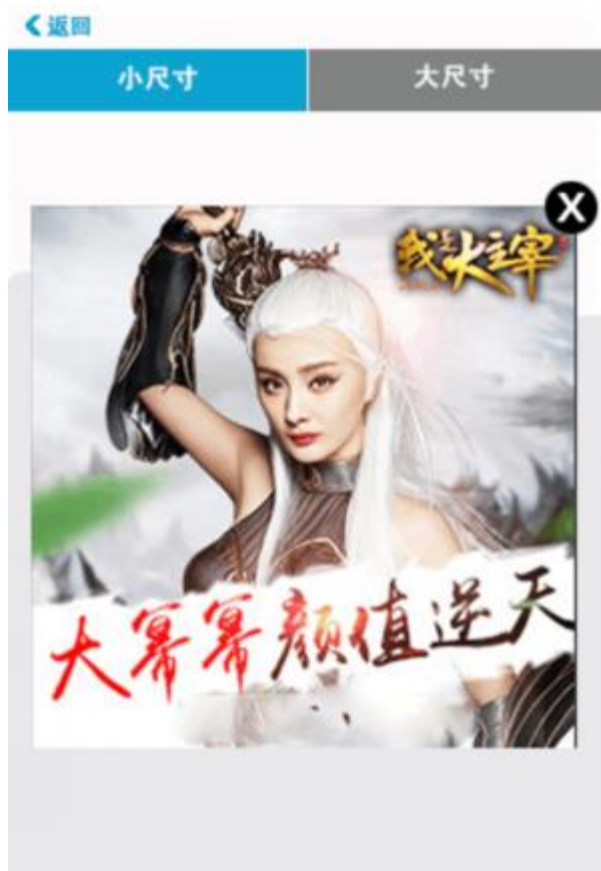
2. banner image-text ad



3. banner text only



4. interstitial image



5. interstitial image-text



Appendix 2: Terminologies

Terminology	Instructions
Partner	Partners that acquire ads through AdView
Tracking URL	The links that in AdView's ad response, aiming at tracking the ad impression and click behaviors for the publishers' statistics and settlements.