

DFP Mobile Ad Network and Rich Media API

v2.0, 12 June 2012

Background

DFP Mobile is adopting a single open API for integrating with all ad networks and rich media vendors. This has the following benefits:

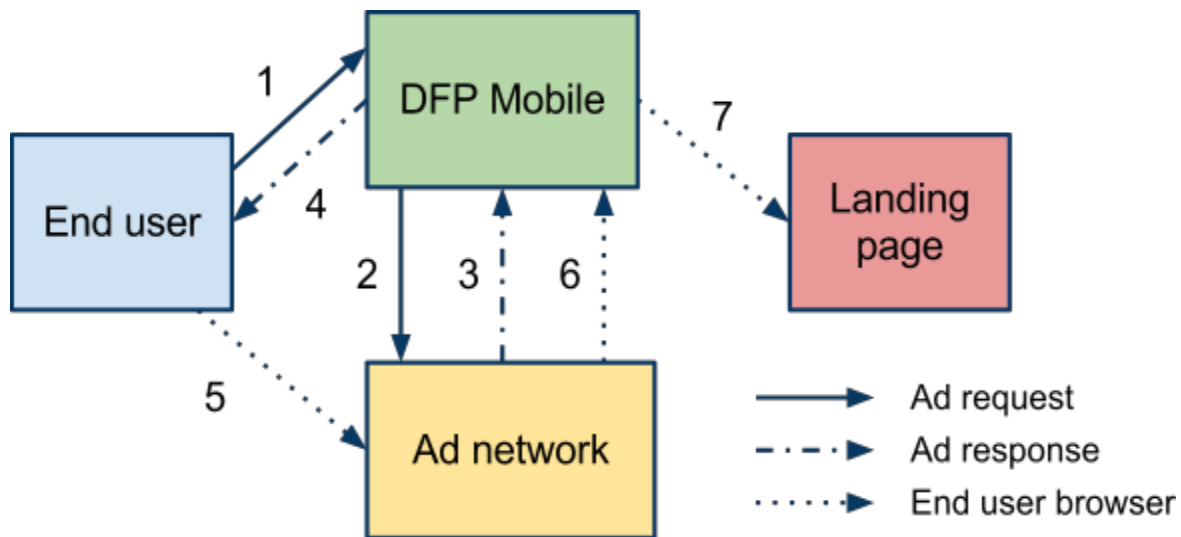
- DFP Mobile publishers don't have to wait for a third party to be integrated;
- Ad networks and rich media vendors can return any HTML ad format;
- DoubleClick no longer has to integrate third parties one by one.

Version notes

This is **version 2.0** of the API. Changes from v1.0:

- A [number of parameters](#) have been added to assist ad networks and rich media vendors. These parameters may or may not be present in any given request. Handling of these parameters is optional.

Overview



Request flow:

1. End user requests ad from DFP Mobile.
2. DFP Mobile requests ad from ad network.
3. Ad network returns ad to DFP Mobile.
4. DFP Mobile returns ad to end user.
5. End user clicks on ad, opens ad network click URL.

6. Ad network redirects end user to DFP Mobile click URL.
7. DFP Mobile redirects end user to advertiser landing page.

The [request](#) will provide the ad network with:

- the end user's IP;
- the end user's user agent;
- an identifier for the requesting ad server;
- a click URL to which a request should be made if the user clicks on the ad; and
- optionally, a [number of parameters](#) describing the request.

The [response](#) will provide the ad server with:

- the status of the response: success, no matching ad, or an error;
- the HTML for the ad, or an error message.

Note that the response should not contain Javascript which fetches the ad upon execution, as this negates the benefit of a server-to-server integration. The response should be the HTML for the ad itself.

The click URL should be used to [have DFP Mobile to redirect an end user](#) to the advertiser's landing page, to ensure that DFP receives an accurate click count.

Specification

Request

The ad request will be a HTTP GET request from DFP to the ad network request URL. The ad network request URL is specified by the ad network and input into DFP by the publisher. An example ad network request URL provided to a publisher:

```
http://www.myadserver.com/youradscript.php?pubid=1045
```

The following parameters will be added to the ad network request URL:

- ip: the end user IP.
- proxyid: an identifier for the requesting ad server. For DFP by Google (DFP 6), this will be dfpm. For DART for Publishers (DFP 5), this will be doubleclick.
- clickurl: the URL used by DFP Mobile to record clicks, encoded as defined by [section 17.13.4 of the W3C's HTML 4.0 specification](#) (application/x-www-form-urlencoded).

The user agent header will contain the user agent of the end user device.

Example request:

```
GET
/youradscript.php?pubid=1045&ip=72.53.22.11&proxyid=dfpm&clickurl=http%3A%2F%2Fadclick.g.doubleclick.net%2Facl%3Fsa%3DL%26ai%3DBnSIulzqoTpCuKOUFOg%26adurl%3D
```

User-Agent: ePhone/Mozilla (4.1)

Optional request parameters

The following parameters may be added to the ad network request URL:

- **iu**: An identifier for the ad unit making the current request, encoded as defined by [section 17.13.4 of the W3C's HTML 4.0 specification](#) (application/x-www-form-urlencoded).
- **sz**: The size or sizes of the ad unit. For fixed size ad units, this will be in the form widthxheight (eg 320x50). For aspect ratio ad units, this will be in the form width-height (eg 6-1). Where there are multiple sizes, they will be delimited with a bar (|). The list will be encoded as defined by [section 17.13.4 of the W3C's HTML 4.0 specification](#) (application/x-www-form-urlencoded).
- **env**: Describes the environment the request is being made from. Possible values:
 - br for a web browser
 - ma for a mobile application

If the environment is unknown, the env parameter will not be present.

- **url**: For mobile web, the URL of the web page. For mobile apps, an identifier for the application. The value will be encoded as defined by [section 17.13.4 of the W3C's HTML 4.0 specification](#) (application/x-www-form-urlencoded).
- **test** (optional): If present, this parameter indicates that an impression should not be counted by the ad network. This is to be used when testing integrations and rendering previews for the publisher.

DFP will behave as follows in respect of these parameters:

- DFP by Google (DFP 6) will:
 - Always include iu
 - Include sz whenever specified in the ad request (almost always)
 - Include env when it can be detected:
 - Always for sites using GPT (br)
 - Always for apps using the Google AdMob SDK (ma)
 - Include url when available
 - Include test when rendering a preview
- DART for Publishers (DFP 5) will never add these parameters.

Example request with all optional parameters except the test parameter:

```
GET
/youradscript.php?pubid=1045&ip=72.53.22.11&proxyid=dfpm&clickurl=http%3A%2F%2Fadclick.g.doubleclick.net%2Fadclk%3Fsa%3DL%26ai%3DBnSIulzqoTpCuKOUFOg%26adurl%3D&iu=news%2Fbusiness%2Fleader&sz=320x50%7C6-1&env=sdk&url=4.2.iphone.com.publisher.appname.adsenseformobileapps.com
User-Agent: ePhone/Mozilla (4.1)
```

Response

The ad network response must consist of XML complying with the following schema:

```

<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">

  <!-- Type for the status of the ad response -->
  <xs:simpleType name="status">
    <xs:restriction base="xs:string">
      <xs:enumeration value="SUCCESS"/>
      <xs:enumeration value="NO_MATCHING_AD_FOUND"/>
      <xs:enumeration value="ERROR"/>
    </xs:restriction>
  </xs:simpleType>

  <xs:element name="adresponse">
    <xs:simpleContent>
      <xs:extension base="xs:string">
        <xs:attribute name="status" type="status" use="required" />
      </xs:extension>
    </xs:simpleContent>
  </xs:element>

</xs:schema>

```

The `status` attribute of the `adresponse` element will be interpreted as follows:

- **SUCCESS:** the request was handled successfully and a matching ad was found.
- **NO_MATCHING_AD_FOUND:** the request was handled successfully, but no matching ad was found.
- **ERROR:** the request was not handled successfully by the ad network.

The body of the `adresponse` element will depend upon the value of the `status` element:

- **SUCCESS:** the body will contain the snippet of HTML to be served to the end user.
- **NO_MATCHING_AD_FOUND:** the body will be empty.
- **ERROR:** the body will contain a message explaining the nature of the error.

The body of the `adresponse` element must contain valid XML with entities appropriately encoded (e.g. ">" as ">"). CDATA sections will not be supported.

Examples

Example response for a successful ad request:

```

<adresponse status="SUCCESS">
  &lt;a
  href='http://adclick.g.doubleclick.net/aclk?sa=L&amp;ai=BnSIulzqoTpCuKOU
  FOg&amp;adurl=http%3A%2F%2Fwww.landingpage.com'&gt;&lt;img
  src='http://www.myadserver.com/img?id=1234567'&gt;&lt;/img&gt;&lt;/a&gt;
</adresponse>

```

DFP Mobile would serve the following HTML for the above response:

```

<a

```

```
href='http://adclick.g.doubleclick.net/aclick?sa=L&ai=BnSIulzqoTpCuKOUFOg&
adurl=http%3A%2F%2Fwww.landingpage.com'><img
src='http://www.myadserver.com/img?id=1234567'></img></a>
```

Example response for a successful ad request with no matching ad found:

```
<adresponse status="NO_MATCHING_AD_FOUND"></adresponse>
```

Example response for an ad request which results in an error:

```
<adresponse status="ERROR">ERROR 0021: Invalid ad size
requested</adresponse>
```

Ensuring DFP Mobile records the end user's click

It is the ad network's responsibility to ensure that DFP Mobile sees any clicks on the ad made by the user. This is done by making a request to the URL specified in the clickurl parameter in the ad request when the user clicks on the ad. One way to do this is to redirect the user to this URL, and have DFP Mobile redirect the user to the advertiser's landing page. DFP Mobile allows this.

To specify that a request to the DFP Mobile click URL should be redirected on to the advertiser's landing page, append the landing page URL to the click URL specified in the ad request. The landing page URL must be encoded as defined by [section 17.13.4 of the W3C's HTML 4.0 specification](#) (application/x-www-form-urlencoded).

For example, for the request from DFP Mobile:

```
GET
/youradscript.php?ip=72.53.22.11&proxyid=dfpm&clickurl=http%3A%2F%2Fadcl
ick.g.doubleclick.net%2Fadclick%3Fsa%3DL%26ai%3DBnSIulzqoTpCuKOUFOg%26adurl
%3D
```

Assuming the ad network responds with an ad for which the advertiser landing page is <http://www.landingpage.com>, the ad network should redirect the end user to:

```
http://adclick.g.doubleclick.net/aclick?sa=L&ai=BnSIulzqoTpCuKOUFOg&adurl=
http%3A%2F%2Fwww.landingpage.com
```

This will result in DFP Mobile recording a click for this ad request and redirecting the end user to <http://www.landingpage.com>.

Note for partners working with DART for Publishers (DFP 5)

DART for Publishers has slightly unusual redirect behaviour. Partners working with DART for Publishers should use the proxyid parameter to distinguish requests from DART for Publishers (proxyid=doubleclick) from those from DFP by Google (proxyid=dfpm).

For DART for Publishers, only the http:// section of the URL should be encoded. For example, for the destination URL <http://www.landingpage.com/mobile/summer>, append:

```
http%3A%2F%2Fwww.landingpage.com/mobile/summer
```

Passing key-values from a DFP Mobile ad request to the ad network

DFP publishers will be able to pass key-values through to the ad network by adding request parameters of the form `ad_network_parameter=$dfp_request_parameter`. This allows the ad network to access a custom key value which has been included in the tag by the publisher.

For example, assume the publisher is making requests to DFP Mobile as follows:

```
http://pubads.g.doubleclick.net/gampad/adx?iu=/12345/adunit&sz=320x50&c=12345&t=content_category%3Dsports
```

To pass the `content_category` parameter to the ad network as a parameter named `ad_type`, the publisher should add the following parameter to the ad network request URL:

```
ad_type=$content_category
```

The ad network request URL entered by the publisher would then be:

```
http://www.myadserver.com/youradscript.php?pubid=1873&ad_type=$content_category
```

And the request from DFP Mobile to the ad network would be:

```
http://www.myadserver.com/youradscript.php?pubid=1873&ad_type=sports&ip=72.53.22.11&proxyid=dfpm&clickurl=http%3A%2F%2Fadclick.g.doubleclick.net%2Fadclick%3Fsa%3DL%26ai%3DBnSIulzqoTpCuKOUFOg%26adurl%3D
```