

## [EXTERNAL EXPORT] OpenRTB Utilization

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SDK collects information about device, location, user, application etc., to enrich the bid requests. This doc describes which OpenRTB properties are utilized by SDK and how exactly SDK collects the information.

### OpenRTB Parameters Collected by SDK

Parameter	iOS	Android	The source of value	The condition of optionality	Tech reason for empty value
<b>app</b>					
app.name	+	+	:Apple_Inc:: CFBundleDisplayName or CFBundleName :Android:: PackageManager.getApplicationLabel (in OXSettings)		
app.bundle	+	+	:Apple_Inc:: NSBundle.mainBundle :Android:: Context.getPackageName (in OXSettings)		
<b>device</b>					
device.lmt	+	+	:Apple_Inc:: ASIdentifierManager. advertisingTrackingEnabled :Android:: AdvertisingIdClient.isLimitAdTrackingEnabled() (OXSettings)		
device.make	+	+	:Apple_Inc:: static string "Apple" :Android:: Build.MANUFACTURER		
device.model	+	+	:Apple_Inc:: UIDevice.model :Android:: Build.MODEL		
device.os	+	+	:Apple_Inc:: UIDevice.systemName :Android:: string "Android"		
device.osv	+	+	:Apple_Inc:: UIDevice.systemVersion :Android:: Build.VERSION.RELEASE		
device.hwv	+	-	:Apple_Inc:: sysctlbyname( "hw.machine", ... )		
device.language	+	+	:Apple_Inc:: [NSLocale objectForKey: NSLocaleLanguageCode] :Android:: Locale.getDefault().getLanguage()		
device.ifa	+	+	:Apple_Inc:: ASIdentifierManager.advertisingIdentifier :Android:: AdvertisingIdClient.getAdvertisingIdInfo().getId()		iOS: <a href="https://developer.apple.com/documentation/adsupport/asidentifiermanager?language=objc">https://developer.apple.com/documentation/adsupport/asidentifiermanager?language=objc</a> If ad tracking is limited ifa will be 00000000-0000-0000-0000-000000000000
device.h	+	+	:Apple_Inc:: UIScreen.mainScreen.height :Android:: WindowManager.getScreenWidth (in DeviceInfoImpl)		
device.w	+	+	:Apple_Inc:: UIScreen.mainScreen.width :Android:: WindowManager.getScreenWidth (in DeviceInfoImpl)		
device.connectiontype	+	+	:Apple_Inc:: SCNetworkReachabilityFlags :Android:: NetworkParameterBuilder ("2" for wifi, "3" for others)	Android: Network permission	

device.carrier	+	+	:Apple_Inc:: CTTelephonyNetworkInfo CTCarrier carrierName :Android:: TelephonyManager.getNetworkOperatorName() (DeviceInfoImpl)		
device.mccmnc	+	+	:Apple_Inc:: CTTelephonyNetworkInfo CTCarrier mobileCountryCode- mobileNetworkCode :Android:: TelephonyManager.getNetworkOperator (DeviceInfoImpl)		
<b>device.geo</b>				iOS: Location permission	
device.geo.lat	+	+	:Apple_Inc:: CLLocation.coordinate :Android:: OXLocationImpl		iOS: Pending location update
device.geo.lon	+	+	:Apple_Inc:: CLLocation.coordinate :Android:: OXLocationImpl		iOS: Pending location update
device.geo.type	+	+	:Apple_Inc:: static 1 :Android:: static 1		
<b>imp</b>					
imp.displaymanager	+	+	:Apple_Inc:: static string "openx" :Android:: static String "openx" in BasicParameterBuilder		
imp.displaymanagerver	+	+	:Apple_Inc:: CFBundleShortVersionString :Android:: OXSettings.SDK_VERSION		
imp.secure	+	+	:Apple_Inc:: static 1 :Android:: static 1		
imp.instl	+	+	:Apple_Inc:: banner = 0, interstitial = 1 :Android:: banner = 0, interstitial = 1		
imp.clickbrowser	+	+	:Apple_Inc:: static 0 :Android:: static 0		
imp.ext.dlp	+	+	:Android: / :Apple_Inc: "1" - indicates that deepLink+ is supported.		
<b>imp.banner</b>	+	+			
imp.banner.api	+	+	:Apple_Inc/:Android:: dynamic: OXASDKConfiguration. sendMRAIDSupportParams true: [3, 5, 6, 7] false: [7]		
<b>imp.video</b>	+	+			
imp.video.mimes	+	+	:Apple_Inc:: OXMConstants.supportedVideoMimeTypes :Android:: OXSettings.supportedVideoMimeTypes		
imp.video.playbackend	+	+	:Apple_Inc:: static 2 :Android:: static 2		
imp.video.placement	+	+	:Apple_Inc:: static 5 :Android:: static 5		
imp.video.delivery	+	+	:Apple_Inc:: static [3] :Android:: OXSettings.DELIVERY_DOWNLOAD (static 3)		
imp.video.protocols	+	+	:Apple_Inc:: static [2, 5] :Android:: OXSettings.supportedVideoProtocols (static [2, 5])		
imp.video.playbackmethod	-	-			
imp.video.pos	+	+	:Apple_Inc:: static 7 :Android:: OXSettings.VIDEO_FULLSCREEN_POS (static 7)		
<b>tmax</b>	+	+	:Apple_Inc:: OXMSDKConfiguration. connectionTimeoutInSeconds :Android:: OXSettings.CONNECTION_TIMEOUT (3000)		

## User-Defined Params

Parameter	iOS	Android	Set Up Method	Description
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app.storeUrl	+	+	:Apple_Inc:: Targeting.appStoreMarketURL :Android:: Targeting.setAppStoreMarketUrl
device.ip	+	+	:Apple_Inc:: Targeting.IP :Android:: Targeting.setIpAddress
user.id	+	+	:Apple_Inc:: Targeting.userID :Android:: Targeting.setUserid
user.buyerid	+	+	:Apple_Inc:: Targeting.buyerUID :Android:: Targeting.setBuyerUId
user.yob	+	+	:Apple_Inc:: Targeting.userAge :Android:: Targeting.setUserAge
user.gender	+	+	:Apple_Inc:: Targeting.userGender :Android:: Targeting.setUserGender
user.customdata	+	+	:Apple_Inc:: Targeting.userCustomData :Android:: Targeting.setUserCustomData
user.keywords	+	+	:Android:: Targeting.setUserKeywords :Apple_Inc:: Targeting.keywords
user.ext	+	+	:Apple_Inc:: Targeting.userExt :Android:: Targeting.setUserExt
user.geo.lat/lon	+	+	:Apple_Inc:: Targeting.setLatitude: longitude: :Android:: Targeting.setUserLatLng
app.publisher.name	+	+	:Apple_Inc:: Targeting.getPublisherName :Android:: Targeting.setPublisherName
user.ext.eids	+	+	:Apple_Inc:: Targeting.eids :Android:: Targeting.eids

## Other SDK defined parameters

### attr/battr

The Apollo SDK doesn't send any blocked attributes and does not support functionality for custom attributes so far <https://openxtechinc.atlassian.net/browse/MOBILE-6707> . Apollo SDK is open to implementing this feature on demand when we have a strict publisher or demand request.

## Native Ad Request Markup

### Native Object

Parameter	iOS	Android	Set Up Method
ver		+	:Apple_Inc:: :Android:: static "1.2"
context		+	:Apple_Inc:: :Android:: NativeAdConfiguration.setContext
contextsubtype		+	:Apple_Inc:: :Android:: NativeAdConfiguration.setContextSubType
plcmtype		+	:Apple_Inc:: :Android:: NativeAdConfiguration.setPlacementType
seq		+	:Apple_Inc:: :Android:: NativeAdConfiguration.setSeq
assets		+	:Apple_Inc:: :Android:: NativeAdConfiguration.addAsset
eventtrackers		+	:Apple_Inc:: :Android:: NativeAdConfiguration.addTracker
privacy		+	:Apple_Inc:: :Android:: NativeAdConfiguration.setPrivacy

ext		+	:Apple_Inc:: :Android:: NativeAdConfiguration.setExt
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## Asset Request Object

Parameter	iOS	Android	Set Up Method
required		+	:Apple_Inc:: :Android:: NativeAsset.setRequired
<b>title</b>		+	
title.len		+	:Apple_Inc:: :Android:: NativeAssetTitle.setLen
title.ext		+	:Apple_Inc:: :Android:: NativeAssetTitle.getTitleExt
<b>img</b>		+	
img.type		+	:Apple_Inc:: :Android:: NativeAssetImage.setType
img.w		+	:Apple_Inc:: :Android:: NativeAssetImage.setW
img.wmin		+	:Apple_Inc:: :Android:: NativeAssetImage.setWMin
img.h		+	:Apple_Inc:: :Android:: NativeAssetImage.setH
img.hmin		+	:Apple_Inc:: :Android:: NativeAssetImage.setHMin
img.mimes		+	:Apple_Inc:: :Android:: NativeAssetImage.setMimes
img.ext		+	:Apple_Inc:: :Android:: NativeAssetImage.getImageExt
<b>video</b>		+	
video.mimes		+	:Apple_Inc:: :Android:: NativeAssetVideo.setMimes
video.minduration		+	:Apple_Inc:: :Android:: NativeAssetVideo.setMinDuration
video.maxduration		+	:Apple_Inc:: :Android:: NativeAssetVideo.setMaxDuration
video.protocols		+	:Apple_Inc:: :Android:: NativeAssetVideo.setProtocols
video.ext		+	:Apple_Inc:: :Android:: NativeAssetVideo.getVideoExt
<b>data</b>		+	
data.type		+	:Apple_Inc:: :Android:: NativeAssetData.setType
data.len		+	:Apple_Inc:: :Android:: NativeAssetData.setLen
data.ext		+	:Apple_Inc:: :Android:: NativeAssetData.getDataExt
ext		+	:Apple_Inc:: :Android:: NativeAsset.getAssetExt