

Advertising SDK Integration Guide (Android)

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Version 2.4.3

This is Phunware's Android SDK for the MaaS Advertising module. Visit the [Phunware Ads portal](#) for more details and to sign up.

Requirements

- MaaS Core v3.0.3 or greater
- Use Google Play services to enable Advertising ID support (recommended); installation instructions [here](#)

Getting Started

- Download [MaaS Advertising](#) and run the included sample app.
- Continue reading below for installation and integration instructions.

Installation

Usage of MaaS Advertising requires the following changes to the build.gradle and AndroidManifest.xml

Libraries

To use Advertising SDK add the following dependency to your build.gradle

```
compile
('com.phunware.advertising:ads:2.4.3
:release@aar'){
    transitive = true;
}
```

Update your `AndroidManifest.xml` to include these permissions and activity.

```
<uses-permission
android:name="android.permission.INTERNET"/>
<uses-permission
android:name="android.permission.ACCESS_NETWORK
_STATE"/>
<uses-permission
android:name="android.permission.READ_PHONE_STA
TE"/>

<!-- Optional permissions to enable ad
geotargeting:
<uses-permission
android:name="android.permission.ACCESS_COARSE_
LOCATION"/>
<uses-permission
android:name="android.permission.ACCESS_FINE_LO
CATION"/>
-->

<!-- Inside of the application tag: -->
<activity

android:name="com.phunware.advertising.internal
.PwAdActivity"

android:configChanges="keyboard|keyboardHidden|
orientation|screenSize" />
```

Integration

The primary methods in MaaS Advertising involve displaying the various ad types.

Native Ad Usage

Native ads are advertisements designed to fit naturally into your app's look and feel. Predefined ad features are provided as a JSON payload which your app consumes in a template that follows your UI's theme.

```
import com.phunware.advertising.*;

// ...

String zoneId = "YOURNATIVEADZONEID";
PwNativeAd nativeAd =
PwAdvertisingModule.get().getNativeAdForZone(co
ntext, zoneId);
nativeAd.setListener(new
PwNativeAd.PwNativeAdListener() {
    @Override
    public void nativeAdDidLoad(PwNativeAd
nativeAd) {
        try {
            renderUiFromNativeAd(nativeAd);

        } catch (JSONException e) {
            // Log the error and discard this
native ad instance.
        }
    }

    @Override
    public void nativeAdDidFail(PwNativeAd
nativeAd, String errMsg) {
        // The ad failed to load and the errMsg
describes why.
        // Error messages are not intended for
user display.
    }
});

nativeAd.load();

// ...

// ... when native ad data is displayed on
screen:
nativeAd.trackImpression();

// ...

// ... when native ad is clicked:
nativeAd.click(context);
```

```
private void renderUiFromNativeAd(PwNativeAd
nativeAd) throws JSONException {
    JSONObject json = new
JSONObject(nativeAd.getAdData());
    String adtitle = json.optString("adtitle");
    String imageurl =
json.optString("iconurl");
    double stars = json.optDouble("rating");
    String html = json.optString("html");
    String adtext = json.optString("adtext");
    String cta = json.optString("cta");

    // Use the data to build a view item of
your own design.
}
```

Multiple Ads Request

```

String zoneId = "YOURNATIVEADZONEID";
PwAdRequest request =
PwAdvertisingModule.get().getAdRequestForZone(zoneId);

PwAdvertisingModule.get().getNativeAdLoader();
int numberOfAdsToLoad = 10;
PwAdLoader<PwNativeAd> adLoader =
PwAdvertisingModule.get().getNativeAdLoader();

adLoader.multiLoad(context, request,
numberOfAdsToLoad,
new
PwAdLoader.PwAdLoaderListener<PwNativeAd>() {
    @Override
    public void onSuccess(PwAdLoader adLoader,
List<PwNativeAd> nativeAdsList) {
        for(PwNativeAd nativeAd : nativeAdsList) {
            // Use the native ad to build a view item.
            try {
                renderUiFromNativeAd(nativeAd);
            } catch (JSONException e) {
                // Log the error and discard this native
ad instance.
            }
        }
    }

    @Override
    public void onFail(PwAdLoader adLoader,
String errMsg) {
        // No ads are returned and the
errMsg describes why.
        // Error messages are not intended
for user display.
    }
}
);

```

Banner Usage

Banners are inline ads that are shown alongside your app's interface.

For XML usage only.

Add this to your layout xml.

```
<!-- Add a banner to your layout xml. -->
<!-- This will cause a 320x50 ad to be created,
which will automatically kick off ad rotation.
-->
<com.phunware.advertising.PwBannerAdView
    android:id="@+id/bannerAd"
    android:layout_width="320dp"
    android:layout_height="50dp"
    zone="YOUR_ZONE_ID" />
```

OR

If Zone is not specified, add this to your layout .xml

```
<!-- Add a banner to your layout xml. -->
<!-- This will cause a 320x50 ad to be created,
which will automatically kick off ad rotation.
-->
<com.phunware.advertising.PwBannerAdView
    android:id="@+id/bannerAd"
    android:layout_width="320dp"
    android:layout_height="50dp" />
```

Add this to your activity:

```
import com.phunware.advertising.*;

// ...

PwBannerAdView bannerAdView =
(PwBannerAdView)findViewById(R.id.bannerAd);
bannerAdView.startRequestingAdsForZone("YOURBAN
NERZONE_ID");
```

Interstitial Usage

Interstitial ads are best used at discrete stopping points in your app's flow, such as at the end of a game level or when the player dies.

```
import com.phunware.advertising.*;

// ...

PwInterstitialAd interstitialAd =
PwAdvertisingModule.get().getInterstitialAdForZ
one(this, "YOURINTERSTITIALZONE_ID");
interstitialAd.show();
```

Video Ads Usage

Video ads are interstitial ads that play

a video. They are best used at discrete stopping points in your app's flow, such as at the end of a game level or when the player dies.

```
import com.phunware.advertising.*;

// ...

PwVideoInterstitialAd videoAd =
PwAdvertisingModule.get().getVideoInterstitialA
dForZone(this, "YOURVIDEOZONE_ID");
videoAd.show();
```

Rewarded Video Ads Usage

Rewarded Video ads are interstitial ads that play a video and reward the user after see the video. They are best used on games making the user wants to see an Ad to be rewarded.

```
import com.phunware.advertising.*;

//...

PwRewardedVideoAd rewardedVideoAd =
PwRewardedVideoAd.getInstance(this,
"YOUR_REWARDED_VIDEO_ZONE_ID");
rewardedVideoAd.setUserId("YOUR_LOCAL_PLAYER_ID
"); //This is required.

//You can send custom data in a HashMap
HashMap<String, String> customData = new
HashMap<>();
    customData.put("Data 1", "value 1");
    customData.put("Data 2", "value 2");
    //Note: this custom data is converted
to JSON, and has a limit of 255 characters, if
this exceeds the 255 limit the SDK will delete
the necessary keys of data to reach the limit.

mRewardedVideoAd.setCustomData(customData);

//Setting listeners.
rewardedVideoAd.setListener(new
PwRewardedVideoAd.PwRewardedVideoAdListener() {
    @Override
    public void
rewardedVideoDidLoad(PwRewardedVideoAd
rewardedVideoAd, TVASTRewardedVideoInfo
rewardedVideoInfo) {

    }

    @Override
    public void
rewardedVideoDidClose(PwRewardedVideoAd
rewardedVideoAd, TVASTRewardedVideoInfo
```

```

rewardedVideoInfo) {
    Log.d("TAG",
"rewardedVideoDidClose");
}

@Override
public void
rewardedVideoDidFail(PwRewardedVideoAd
rewardedVideoAd, String error,
TVASTRewardedVideoInfo rewardedVideoInfo) {
    //If rewarded video doesn't
have remaining views, you can check the error
code if this exist.
    if(rewardedVideoInfo.getError()
== 557){

Toast.makeText("getContext()", "You don't have
remaining views", Toast.SHORT).show();
    }

}

@Override
public void
rewardedVideoActionWillLeaveApplication(PwRear
dedVideoAd rewardedVideoAd,
TVASTRewardedVideoInfo rewardedVideoInfo) {

}

@Override
public void
rewardedVideoDidEndPlaybackSuccessfully(PwRear
dedVideoAd rewardedVideoAd, RVSuccessInfo
rewardedVideoSuccessInfo,
TVASTRewardedVideoInfo rewardedVideoInfo) {

    Log.d("REWARD:",
rewardedVideoSuccessInfo.getCurrencyId());
    Log.d("AMOUNT:",
String.valueOf(rewardedVideoSuccessInfo.getAmou
nt()));

    //Remaining views after video
completes.
    Log.d("REMAINING VIEWS:",
String.valueOf(rewardedVideoSuccessInfo.getRema
iningViews()));
}

@Override
public void
onCacheCompleted(PwRewardedVideoAd
rewardedVideoAd, TVASTRewardedVideoInfo

```



```
rewardedVideoInfo) {
    if (rewardedVideoAd != null) {
        rewardedVideoAd.show();
    }
}

@Override
public void
onCacheProgress(PwRewardedVideoAd
rewardedVideoAd, int percentageCompleted) {

}
```

```
});  
rewardedVideoAd.load();
```