Integration Description Document

1. Introduction

Oversea Version 3.4 includes Native, Native Banner and Native Interstitial Ads formats.

2. Prepare work

2.1, Add aar

Copy aar file to libs of project, add compile(name: 'cmadsdk_world_base_V3.4.1', ext: 'aar') in dependent tag of Gradle script.

2.2、Modify AndroidManifest.xml

Add permission:

2.3、Init SDK

```
CMAdManager.applicationInit(this, "Your AppId", "You channel ID");
}
```

3. Code Integration

3.1. Native

3.1.1 load and show Ad

load Ad for example:

```
// The first parameter: Context
// The second parameter: Posid
NativeAdManager nativeAdManager = new NativeAdManager(this, "Your posi
d");
 nativeAdManager.setNativeAdListener(new INativeAdLoaderListener() {
           @Override
           public void adLoaded() {
                 //get ad
                 INativeAd ad = nativeAdManagerEx.getAd();
                 if (ad == null) {
                         return;
                  }
                 //Initialize the ad view, and use the elemnets of the
                 //INativeAd object to fill the mAdView
                //the layout should be prepared by yourself
                 View mAdView = View.inflate(MainActivity.this,"Your Ad
 layout", null);
                //Bind the ad with the mAdView
                //notice: this step is necessary, if don't , the event li
ke
                //click of the ad will not effective.
                //unregisterView should be used when the ad no need to
show.
                 ad.registerViewForInteraction(mAdView);
                 if (mAdView != null) {
                    // remove old mAdView
                    nativeAdContainer.removeView(mAdView);
                  }
                    //add the mAdView into the layout of view container
                    //(the container should be prepared by youself)
```

```
nativeAdContainer.addView(mAdView);
}

@Override
public void adFailedToLoad(int i) {
    // load failed
}

@Override
public void adClicked(INativeAd ad) {
    //ad clicked
}
});

nativeAdManager.loadAd();
```

if you want to display Ad:

```
nativeAdManager.showAd();
```

3.1.2 Native API

• com.cmcm.adsdk.nativead.NativeAdManager

Methodology	Method Introduction
NativeAdManager(Context context, String posid)	NativaAdManager construct function
setNativeAdListener(INativeAdLoaderListener listener)	set callback interface
loadAd()	concurrent load ads
preloadAd()	sequence load ads
getAd()	get ads

• com.cmcm.baseapi.ads.lNativeAd

Methodology	Method Introduction
getAdtitle()	ad title
getAdBody()	ad description

getAdIconUrl()	ad icon url
getAdCoverImageUrl()	ad background picture Url
getAdCallToAction()	ad button text
getAdStarRating()	ad star score (can be null)
getAdSocialContext()	ad download amount or website (can be null)
hasExpired()	check ad expired (true mean expired)
isDownLoadApp()	check download type app (true: yes false: no null: no information
setImpressionListener(ImpressionListener listener)	set callback after SDK ad impression report
registerViewForInteraction(View view)	bundle ad view with ad itself(requested)
unregisterView()	unbundling ad view with ad itself(requested)

3.2.1 Banner Ad integration

load and show banner Ad for example:

```
//Parameter: Context
CMNativeBannerView bannerView = new CMNativeBannerView(this);
//Set banner Size (requested)
bannerView.setAdSize(CMBannerAdSize);
//Set posid (requested)
bannerView.setPosid(mAdPosid);
//set callback listener
bannerView.setAdListener(new CMBannerAdListener() {
    @Override
     public void onAdLoaded(CMAdView ad) {
          //after load success and need to display ad must invoke this
method
          cmNativeBannerView.prepare();
          mLinearLayout.removeAllViews();
          mLinearLayout.addView(ad);
     }
    @Override
```

when Activity destory, suggest destory bannerView

```
@Override
    protected void onDestroy() {
        super.onDestroy();
        if(cmNativeBannerView != null){
            cmNativeBannerView.onDestroy();
        }
    }
}
```

3.2.2 The Main APIs for Native Banner

• com.cmcm.adsdk.banner.CMNativeBannerView

Methodology	Method Introduction
setPosid(String posid)	Set ad position id
setAdSize(CMBannerSize size)	Set banner size
setAdListener(CMBannerAdListener listener)	Set banner callback interface
loadAd()	downloading ad
prepare()	after the success of the load needs to display ads invoke this method

• com.cmcm.adsdk.banner.CMBannerAdSize

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com.cmcm.adsdk.banner.CMBannerAdListener

Methodology	Method Introduction
onAdLoaded(CMAdView view)	ad request success
adFailedToLoad(CMAdView view, int error)	ad request failure
onAdClicked(CMAdView view)	ad click

3.3.1. InterstitialAd integration

primary code for example:

```
//init InterstitialAdManager
//parameter: Context , posid
InterstitialAdManager interstitialAdManager=new InterstitialAdManager(C
ontext, posid)
//set this callback interface if you need callback.
interstitialAdManager.setInterstitialCallBack(new InterstitialAdCallBac
k() {
                    @Override
                    public void onAdLoadFailed(int errorCode) {
                        //request failed
                    }
                    @Override
                    public void onAdLoaded() {
                        //request success
                    @Override
                    public void onAdClicked() {
                       //ad clicked
                    @Override
                    public void onAdDisplayed() {
                            //ad display
                    @Override
                    public void onAdDismissed() {
                        //click close button that ad destory
                });
```

start load InterstitialAd

```
interstitialAdManager.loadAd();
```

display InterstitialAd

```
interstitialAdManager.showAd();
```

3.3.2. The Main APIs for Native Interstitial

• com.cmcm.adsdk.interstitial.InterstitialAdManager

Methodology	Method Description
loadAd()	ad downloading
showAd()	ad display
setInterstitialCallBack(InterstitialAdCallBack listener)	set callback interface
setInterstialOverClickEnable(boolean enable)	set whether the shaded are response or not when cliked (no response in default)

com.cmcm.adsdk.interstitial.InterstitialAdCallBack

Methodology	Method Description
onAdLoaded()	ad request implement
onAdLoadFailed()	ad request failure
onAdClicked()	ad click
onAdDisplayed()	ad display
onAdDismissed(int errorcode)	click 'close' button to close ad unit

Note: There is no picture loading function of the SDK, need to add the picture loading function from outside. Please set the load function before sending request of interstitial Ads. Please add the following code at the init:

CMAdManager Factory. set Image Download Listener (new MyImage Load Listener ());

4. Proguard script

Add the following script in your proguard script:

```
-keep class com.cmcm.adsdk.** { *;}
```

5、Error Code

ErrorCode	Instruction
10001	lack the settings of the ad position, (perhaps lacks sdk initialization, or the cloud end closes the ad position)
10002	lacks ad data
10003	internal error
10004	request timeout
10005	There is no this type of advertising