# **TTkGameSDK-Lite API Document**

# (iOS)

Name	Date	version	remark
Yuanjun	2020-06-02	1.0.0	created
Yuanjun	2020-07-08	1.0.1	1. add notification of account
			banned (1.3.11 & 4.8)
			2. get available token (4.9)

# 1. Description and definition

### 1.1 API call

Import <TTkGameSDK/TTkGameSDK.h>

Every API is called by [TTkGameManager defaultManager] instance

## 1.2 Callback

error is a common field for every callback class. if error equals to nil, it means the api call is success.

### 1.3 Callback classes:

## 1.3.1 Login Callback

class: TTGCUserCompletionHandler

fields:

userInfo //the user information

### 1.3.2 Receive Notification Callback

class: TTGCNotificationCompletionHandler

fields:

result //the notification message

error

## 1.3.3 Logout Callback

class: TTGCLogoutCompleteHandler

fields:

success // BOOL type, indicate operation result

error

### 1.3.4 Get Friends Callback

class: TTGCFriendsCompletionHandler

fields:

list //fields list, contains from 0 -> N friend object

error

### 1.3.5 Share Callback

class: TTGCShareCompleteHandler

fields:

success // BOOL type, indicate operation result

error

# 1.3.6 Payment Callback

class: TTGCOrderProgressHandler

fields:

## 1.3.7 Payment Result Callback

class: TTGCOrderCompletionHandler

fields:

orderInfo //the payment order object

error

## 1.3.8 AppVersion Info Callback

class: TTGCVersionCompletionHandler

fields:

hasNewVersion //has new version

versionInfo //the version detail information. class model <TTGCAppVersion>

error

### 1.3.9 Common Callback

class: TTGCCompletionHandler

fields:

result //operation result

error

### 1.3.10 Account Kicked Callback

class: TTGCAccountKickedHandler

fields:

information //information of notification

### 1.3.11 Account Banned Callback

class: TTGCAccountBannedHandler

fields:

## 1.4 Errors

TTGCPlatformErrorType_Unknow	unkown error
TTGCPlatformErrorType_AuthorizeFailed	authorized failed
TTGCPlatformErrorType_ForUserInfoFailed	request user data failed
TTGCPlatformErrorType_LoginFailed	login failed
TTGCPlatformErrorType_FriendsListFailed	get firends failed
TTGCPlatformErrorType_MessageSendFailed	send message failed
TTGCPlatformErrorType_PayFailed	payment failed
TTGCPlatformErrorType_ShareFailed	share failed
TTGCPlatformErrorType_NotInstall	app is not installed
TTGCPlatformErrorType_NotNetWork	network exception
TTGCPlatformErrorType_SourceError	third error
TTGCPlatformErrorType_NoPermission	no permissions
TTGCPlatformErrorType_UnauthorizedRequest	unauthorized request, need login.

# 2. Setup Initialize (must)

## 2.1 Launch

Methods in AppDelegate are implement like below:

### 2.1.1 Setup Configuration:

The launch animation for SDK-1.0.5 has been removed and the specific launch animation needs to be implemented by the game developers.

```
- (BOOL) application: (UIApplication *) application
didFinishLaunchingWithOptions: (NSDictionary *) launchOptions {
    // set SDK Api Enviroment
    [[TTkGameManager defaultManager] setServerDomainTest];
    // set Pay Enviroment
    [[TTkGameManager defaultManager] setPayEnvironmentTest];
    // open log
    [[TTkGameManager defaultManager] openLogInfo];

    // launch SDK
    NSString *appId = @"xxxxxx";
    NSString *appSecret = @"xxxxxx";
    NSString *gameid = @"xxxxxxx";
    [[TTkGameManager defaultManager] setupWithAppId:appId Secret:appSecret
GameId:gameid Application:application Options:launchOptions];
    return YES;
}
```

#### 2.1.2 External Callback:

```
- (BOOL)application:(UIApplication *)app openURL:(NSURL *)url
options:(NSDictionary<UIApplicationOpenURLOptionsKey,id> *)options {
   return [[TTkGameManager defaultManager] application:app openURL:url
options:options];
}
```

### 2.1.3 App Events:

```
- (void) applicationDidEnterBackground: (UIApplication *) application {
    [[TTkGameManager defaultManager] applicationDidEnterBackground:application];
}
- (void) applicationWillEnterForeground: (UIApplication *) application {
    [[TTkGameManager defaultManager] applicationWillEnterForeground:application];
}
- (void) applicationDidBecomeActive: (UIApplication *) application {
    [[TTkGameManager defaultManager] applicationDidBecomeActive:application];
}
- (void) applicationWillTerminate: (UIApplication *) application {
```

```
[[TTkGameManager defaultManager] applicationWillTerminate:application];
}
```

### 2.1.4 Push Register:

```
- (void) application: (UIApplication *) application
didRegisterForRemoteNotificationsWithDeviceToken: (NSData *) deviceToken {
    [[TTkGameManager defaultManager] registerDeviceToken:deviceToken];
}
- (void) application: (UIApplication *) application
didReceiveRemoteNotification: (NSDictionary *) userInfo fetchCompletionHandler: (void
(^) (UIBackgroundFetchResult)) completionHandler {
    [[TTkGameManager defaultManager] application:application
didReceiveRemoteNotification:userInfo];
}
```

#### 2.1.5 Universal Link:

### 2.2 Check App Version

After SDK is launched, be sure to check the version to ensure that the current version is available. If you need to force upgrade, you can go to the appstore to download the latest version, otherwise the SDK function may not be available.

```
- (void)checkVersion {
    [[TTkGameManager defaultManager] checkAppVersionCompletion:^(BOOL hasNewVersion,

TTGCAppVersionModel * _Nullable versionInfo, NSError * _Nullable error) {
    if (hasNewVersion) {
        BOOL forceUpdate = versionInfo.forceUpdate;
}
```

### 2.2.1 Check Version

Method	checkAppVersionCompletion	
Callback	TTGCVersionCompletionHandler	
	hasNewVersion	// has new version <bool></bool>
	versionInfo	// the version detail information. class model <ttgcappversion></ttgcappversion>
	build	// app build code
	version	// app new version
	versionInfo	// the version information
	forceUpdate	// need to force upgrade <bool></bool>
	currentVersion	nCode // current version code

### 2.2.2 Open AppStore

Method	openAppStoreWithStoreIdentifier	
Params	identifier //App Store item identifier (NSNumber) of the product	

# 3. API: Configuration

## 3.1 Enbale Log Output

[[TTkGameManager defaultManager] openLogInfo];

## 3.2 Disable Log Output(default)

[[TTkGameManager defaultManager] closeLogInfo];

### 3.3 Set Test Environment

[[TTkGameManager defaultManager] setServerDomainTest];

## 3.4 Set Production Environment(default)

[[TTkGameManager defaultManager] setServerDomainProduction];

## 3.5 Set Sandbox Payment

[[TTkGameManager defaultManager] setPayEnvironmentTest];

# 3.6 Set Production Payment(default)

 $\hbox{\tt [[TTkGameManager defaultManager] setPayEnvironmentProduction];}$ 

# 4. API: Login&User Info

#### TTGCUserModel:

userType	user type (TTGCLoginType by 4.6)
userId	user's indentifier
accessToken	authorization token
nickname	nickname
photoUrl	nickname

#### Note:

After calling the loing api, you will get the userinfo result of TTGCUserModel type.

The token(accessToken) at this time is valid and can be verified at the server.

In the future business process, if you still need to use the token, it is recommended to use API-4.9 to obtain it to ensure that available.

User must agree the User Agreement before do Login action

# **4.1 Show Agreement View**

```
- (IBAction)agreement:(id)sender {
    [[TTkGameManager defaultManager] showAgreementView];
}
```

## 4.2 Login with ToTok

Method	loginWithGameCenterCompletion
Callback	TTGCUserCompletionHandler

```
- (IBAction)totokLogin:(id)sender {
```

```
TTGCHUD_NO_Stop(@"login...")
    __weak __typeof(self)weakSelf = self;

[[TTkGameManager defaultManager] loginWithTTkCompletion:^(id _Nonnull userInfo,

NSError * _Nonnull error) {

    if (!error) {

        //login success

        TTGCHUD_SUCCESS(@"success");

        [weakSelf closeLoginView];

    } else {

        //error info

        TTGCHUD_HINT([error.userInfo objectForKey:@"errorMsg"]);

    }

}];
```

# 4.3 Login with Third-Party

## 4.3.1 Field Description

### TTGCAppleIDLoginParaModel

Params	Note
user	<pre><nsstring> user of appleIDCredential</nsstring></pre>
familyName	<pre><nsstring> fullName.familyName of appleIDCredential (optional)</nsstring></pre>
givenName	<pre><nsstring> fullName.givenName of appleIDCredential (optional)</nsstring></pre>
identityToken	<pre><nsdata> identityToken of appleIDCredential</nsdata></pre>

### TTGCGameCenterLoginParaModel

Params	Note
playerID	<pre><nsstring> localPlayer.playerID of [GKLocalPlayer localPlayer]</nsstring></pre>
displayName	<pre><nsstring> localPlayer.displayName of [GKLocalPlayer localPlayer]</nsstring></pre>
publicKeyUrl	<pre><nsurl> publicKeyUrl of verification</nsurl></pre>
accessToken	<nsdata> accessToken of verification</nsdata>
signature	<nsdata> signature of verification</nsdata>

salt	<nsdata> salt of verification</nsdata>
timestamp	<pre><uint64_t> timestamp of verification</uint64_t></pre>
photoData	<nsdata> user photo data (optional)</nsdata>

### TTGCFacebookLoginParaModel

Params	Note
accessToken	<pre><nsstring> result.token.tokenString of FacebookLoginResult</nsstring></pre>
accessExpire	<pre><nsdate> result.token.expirationDate of FacebookLoginResult</nsdate></pre>

### TTGCTwitterLoginParaModel

Params	Note
authToken	<pre><nsstring> The authorization token.</nsstring></pre>
authTokenSecret	<pre><nsstring> The authorization token secret.</nsstring></pre>
userId	<pre><nsstring> The user ID associated with the access token.</nsstring></pre>

## **4.3.2 Method**

Method	loginWithThirdPartParaModel:Completion:	
Params	Params	
model	<id></id>	
	type:	
	TTGCGameCenterLoginParaModel	
	TTGCAppleIDLoginParaModel	
	TTGCFacebookLoginParaModel	
	TTGCTwitterLoginParaModel	
completion	TTGCUserCompletionHandler	

```
//appleid
- (void)authorizationController:(ASAuthorizationController *)controller
didCompleteWithAuthorization:(ASAuthorization *)authorization API_AVAILABLE(ios(13.0))
{
```

```
weak typeof(self)weakSelf = self;
   if ([authorization.credential isKindOfClass:[ASAuthorizationAppleIDCredential
class]]) {
       ASAuthorizationAppleIDCredential *appleIDCredential =
(ASAuthorizationAppleIDCredential *)authorization.credential;
       TTGCAppleIDLoginParaModel *model = [[TTGCAppleIDLoginParaModel alloc] init];
       model.user = appleIDCredential.user;
       if (appleIDCredential.fullName) {
          model.familyName = appleIDCredential.fullName.familyName;
          model.givenName = appleIDCredential.fullName.givenName;
       model.identityToken = appleIDCredential.identityToken;
       [[TTkGameManager defaultManager] loginWithThirdPartParaModel:model
Completion: ^(id _Nullable userInfo, NSError * _Nullable error) {
          if (!error) {
              //login success
              TTGCHUD SUCCESS(@"success");
              [weakSelf closeLoginView];
           } else {
              //error info
              TTGCHUD HINT([error.userInfo objectForKey:@"errorMsg"]);
       }];
   }
//gamecenter
- (void) authenticatedPlayer: (GKLocalPlayer *) localPlayer {
   weak typeof(self)weakSelf = self;
   __block NSData *photoData = nil;
   [localPlayer loadPhotoForSize:GKPhotoSizeNormal withCompletionHandler:^(UIImage *
_Nullable photo, NSError * _Nullable error) {
       if (photo != nil) {
          photoData = UIImageJPEGRepresentation(photo, 0.3);
```

```
[localPlayer generateIdentityVerificationSignatureWithCompletionHandler:^(NSURL
* Nullable publicKeyUrl, NSData * Nullable signature, NSData * Nullable salt, uint64 t
timestamp, NSError * _Nullable error) {
          if (error) {
              NSLog(@"%@",error.description);
              return;
           }
          TTGCGameCenterLoginParaModel *model = [[TTGCGameCenterLoginParaModel alloc]
init];
          model.playerID = localPlayer.playerID;
          model.displayName = localPlayer.displayName;
          model.publicKeyUrl = publicKeyUrl;
          model.signature = signature;
          model.salt = salt;
          model.timestamp = timestamp;
          model.photoData = photoData;
           [[TTkGameManager defaultManager] loginWithThirdPartParaModel:model
Completion: ^(id Nullable userInfo, NSError * Nullable error) {
              if (!error) {
                  //login success
                  TTGCHUD SUCCESS(@"success");
                  [weakSelf closeLoginView];
               } else {
                  //error info
                  TTGCHUD HINT([error.userInfo objectForKey:@"errorMsg"]);
          }];
       }];
   }];
//facebook
- (IBAction) facebookLogin: (id) sender {
```

```
TTGCHUD_NO_Stop(@"login...")
   weak typeof(self)weakSelf = self;
   FBSDKLoginManager *manager = [[FBSDKLoginManager alloc] init];
       if ([FBSDKAccessToken currentAccessToken]) {
            [manager logOut];
       [manager logInWithPermissions:@[@"email",@"public profile"]
fromViewController:self handler:^(FBSDKLoginManagerLoginResult * Nullable result,
NSError * _Nullable error) {
          if (error) {
           } else {
              TTGCFacebookLoginParaModel *model = [[TTGCFacebookLoginParaModel alloc]
init];
              model.accessToken = result.token.tokenString;
              model.accessExpire = result.token.expirationDate;
               [[TTkGameManager defaultManager] loginWithThirdPartParaModel:model
Completion:^(id _Nullable userInfo, NSError * _Nullable error) {
                  if (!error) {
                      //login success
                      TTGCHUD SUCCESS(@"success");
                      [weakSelf closeLoginView];
                  } else {
                      //error info
                      TTGCHUD HINT([error.userInfo objectForKey:@"errorMsg"]);
                  }
              }];
       }];
//twitter
- (IBAction) twitterLogin: (id) sender {
   TTGCHUD NO Stop(@"login...")
   __weak __typeof(self)weakSelf = self;
```

```
[[Twitter sharedInstance] logInWithViewController:self completion:^(TWTRSession
*session, NSError *error) {
     if (session) {
         TTGCTwitterLoginParaModel *model = [[TTGCTwitterLoginParaModel alloc] init];
         model.authToken = session.authToken;
         model.authTokenSecret = session.authTokenSecret;
         model.userID = session.userID;
         [[TTkGameManager defaultManager] loginWithThirdPartParaModel:model
Completion: ^(id _Nullable userInfo, NSError * _Nullable error) {
            if (!error) {
                //login success
                TTGCHUD_SUCCESS(@"success");
                [weakSelf closeLoginView];
            } else {
                //error info
                TTGCHUD HINT([error.userInfo objectForKey:@"errorMsg"]);
         }];
     } else {
         NSString *str = [NSString stringWithFormat:@"%@",error.description];
         TTGCHUD_HINT(str);
     }
   }];
```

# 4.4 Login with Guest

Method	guestLoginCompletion
Callback	TTGCUserCompletionHandler

```
- (void)guestLogin {
   TTGCHUD_NO_Stop(@"login...")
   __weak __typeof(self)weakSelf = self;
   [[TTkGameManager defaultManager] guestLoginCompletion:^(id _Nonnull userInfo,

NSError * _Nonnull error) {
        if (!error) {
            //login success
            TTGCHUD_HINT(@"success")
            [weakSelf closeLoginView];
        } else {
            //error info
            TTGCHUD_Stop
        }
    }];
}
```

## 4.5 Get User Info

Method	userInfoCompletion
Callback	TTGCUserCompletionHandler

```
- (void)getUserInfo {
    TTGCHUD_NO_Stop(@"")
    [[TTkGameManager defaultManager] userInfoCompletion:^(id _Nullable userInfo,
NSError * _Nullable error) {
    if (!error) {
        TTGCHUD_HINT(@"success")

        TTGCUserModel *model = userInfo;
        [self freshUserInfo:model];
    } else {
        //error info
        TTGCHUD_HINT([error.userInfo objectForKey:@"errorMsg"]);
    }
}
```

```
}1;
}
```

# 4.6 Get Login Type

Method	loginType
Return	TTGCLoginType

#### Definition:

Enum	TTGCLoginType	
Description	Enum type for Login	
Enum Values		
TTGCLoginType_	TTGCLoginType_unloggedIn not login	
TTGCLoginType_ToTok		ToTok user
TTGCLoginType_GameCenter		GameCenter player
TTGCLoginType_Facebook F		Facebook user
TTGCLoginType_Guest		ToTokGame guest
TTGCLoginType_Twitter Tv		Twitter user

```
- (void) showLoginView {
    if ([[TTkGameManager defaultManager] loginType] == TTGCLoginType_unloggedIn) {
        //unlogged in and show login UI
        [self backgroundUI];
        [self loginView];
    } else {
        dispatch_after(dispatch_time(DISPATCH_TIME_NOW, (int64_t)(2.5 * NSEC_PER_SEC)),
        dispatch_get_main_queue(), ^{
            [self getUserInfo];
        });
    }
}
```

## 4.7 Notification of offline

Method	accountKickedNotification
Callback	TTGCAccountKickedHandler

### example:

```
[[TTkGameManager defaultManager] accountKickedNotification:^(NSString * _Nullable
information) {
    //Your account has been logged in on another device, please login again.
    TTGCHUD_HINT(information);
    [self showLoginView];
}];
```

## 4.8 Notification of banned

Method	accountBannedNotification
Callback	TTGCAccountBannedHandler

#### example:

```
[[TTkGameManager defaultManager] accountBannedNotification:^(NSString * _Nullable
information, NSString * _Nullable time) {
      //Your account has been banned.
}];
```

## 4.9 Get Available Token

Method	getAvailableAccessToken
Callback	TTGCUserCompletionHandler

```
[[TTkGameManager defaultManager] getAvailableAccessToken:^(id _Nullable userInfo,
NSError * _Nullable error) {
    if (userInfo) {
```

```
TTGCUserModel *userModel = userInfo;

NSLog(@"userid: %@", userModel.userId);

NSLog(@"token: %@", userModel.accessToken);
}
}];
```

# 5. API: Logout

Method	logout
Callback	TTGCLogoutCompleteHandler

### example:

```
- (IBAction)logout:(id)sender {
   TTGCHUD_NO_Stop(@"logout...")

[[TTkGameManager defaultManager] logout:^(BOOL success, NSError * _Nullable error) {
   if (success) {
        TTGCHUD_HINT(@"success")
        [self showLoginView];
   } else {
        //error info
        NSLog(@"%@",error.userInfo);
        TTGCHUD_HINT([error.userInfo objectForKey:@"errorMsg"]);
   }
};
```

# 6. API: Game Payment

### **6.1 Product Purchase**

#### **Order Status Definition:**

TTGCOrderStatus_ProductQuerying	query product
TTGCOrderStatus_Generating	order init
TTGCOrderStatus_ProductPurchasing	order in trading progress
TTGCOrderStatus_ProductPurchased	order purchased
TTGCOrderStatus_ReceiptChecking	order verifying

Method	buyProductWithSKU: Progress: Completion:
Params	
sku	String, product id
Progress	TTGCOrderProgressHandler
Completion	TTGCOrderCompletionHandler
	class TTGCOrderModel
	orderId
	orderRef //transaction_id
	channel //1
	env //0=sandbox, 1=production
	sku //product id
	amount //price
	createTime
	payTime
	cancelTime
	status //0=order created, 1=order payed, 2=order reset

### remark:

the Game Server should send the product to user's account after the order be payed, then check the order status by server api, Order status check is necessary for anti-spam

Server API: <ToTokGame Server API Document (to Game Developer)>

#### example:

```
- (IBAction)pay: (id) sender {
    TTGCHUD_NO_Stop(@"pay...")
    [[TTkGameManager defaultManager] buyProductWithSKU:@"LangChaoJD001"

Progress:^(TTGCOderStatus orderStatus) {
        NSLog(@"order status: %ld", (long) orderStatus);
    } Completion:^(id _Nullable orderInfo, NSError * _Nullable error) {
        if (orderInfo) {
            TTGCHUD_HINT(@"success")
        }
        if (error) {
            NSLog(@"%@", error.userInfo);
            TTGCHUD_HINT([error.userInfo objectForKey:@"errorMsg"]);
        }
    }
}
```

# **6.2 Query Order**

Method	queryOrderWithOrderId: Completion:
Params	
orderId	the order's id
Completion	TTGCOrderCompletionHandler
	TTGCOrderModel by 5.1

```
- (IBAction) query: (id) sender {
    [[TTkGameManager defaultManager] queryOrderWithOrderId:@"xxx"

Completion:^(id _Nullable orderInfo, NSError * _Nullable error) {
    if (orderInfo) {
        //get order info
    } else {
        //error message
    }
}];
```

# 7. API: SNS & Share

# 7.1 Field Description

#### TTGCFriendModel

Params	Note
ttkUid	totok user id
name	friend's name
photoUrl	friends' avatars

### TTGCPlayingFriendModel

Params	Note
ttkUid	totok user id
userId	user id of friend
name	friend's name
photoUrl	friends' avatars

### TTGCSocialTTkNotice

Params	Note
ttkUid	totok user id
title	shared title
contentString	shared text content
imageUrl	shared web picture address

### TTGCSocialTTkInvite

Params	Note
ttkUid	totok user id
contenString	shared text content
imageUrl	shared web picture address
buttonTitle	shared click button name

### 7.2 Get ToTok Friends

Method	getFriendsFromServerCompletion
Callback	TTGCTTkFriendsCompletionHandler

### example:

```
- (void)getFriends {
    [[TTkGameManager defaultManager] getFriendsFromServerCompletion:^(NSArray * _Nullable
list, NSError * _Nullable error) {
        // list of ttk friends
    }];
}
```

# 7.3 Get Playing Game Friends

Method	getPlayingFriendsFromServerCompletion
Callback	TTGCTTkFriendsCompletionHandler

### example:

## 7.4 Share

## 7.4.1 Share Invite Message

|--|

Callback

TTGCShareCompleteHandler

### example:

```
- (void) inviteFriend {
   TTGCSocialTTkInvite *model = [[TTGCSocialTTkInvite alloc] init];
   model.ttkUid = @"xxxxxxxx";
   model.contentString = @"come and join us";
   model.buttonTitle = @"Accept";
   model.imageUrl =
@"http://t8.baidu.com/it/u=1484500186,1503043093&fm=79&app=86&f=JPEG?w=1280&h=853";
   [[TTkGameManager defaultManager] sendToMessageTottk:model Completion:^(BOOL success,
NSError * _Nullable error) {
    }];
}
```

Note: The ttkUid in the example is obtained from the friends list.

## 7.4.2 Share Notice Message

Method	sendToMessageTottk:(id)message Completion:
Callback	TTGCShareCompleteHandler

```
- (void) sendNoticeToFriend {
   TTGCSocialTTkNotice *model = [[TTGCSocialTTkNotice alloc] init];
   model.ttkUid = @"xxxxxxxxx";
   model.contentString = @"come and join us";
   model.title = @"play game";
   model.imageUrl =
   @"http://t8.baidu.com/it/u=1484500186,1503043093&fm=79&app=86&f=JPEG?w=1280&h=853";
   [[TTkGameManager defaultManager] sendToMessageTottk:model Completion:^(BOOL success,
   NSError * _Nullable error) {
```

}

Note: The ttkUid in the example is obtained from the friends list.

# 8. API: Push

# 8.1 Register

#### in AppDelegate:

```
- (void) application: (UIApplication *) application

didRegisterForRemoteNotificationsWithDeviceToken: (NSData *) deviceToken {
    [[TTkGameManager defaultManager] registerDeviceToken:deviceToken];
}
```

# 8.2 Receive Push Message

Method	getRemoteNotification
Callback	TTGCNotificationCompletionHandler

```
- (void) recieveMessage {
    [[TTkGameManager defaultManager] getRemoteNotification:^(id _Nullable result,

NSError * _Nullable error) {
        //Receive a push message and can customize the event based on the message.
        //Do something ...
}];
```