

TTkGameSDK-Lite API Document

(iOS)

Name	Date	version	remark
Yuanjun	2020-06-02	1.0.0	created

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
error
```

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:  
TTGCOrderStatus //Payment order status
```

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 <TTGCApVersion>
error
```

1.3.9 Common Callback

```
class: TTGCCompletionHandler
fields:
result //operation result
error
```

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 = @"xxxxx";

    NSString *appSecret = @"xxxxxxx";

    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:

```

- (BOOL)application:(UIApplication *)application continueUserActivity:(NSUserActivity
*)userActivity restorationHandler:(void (^)(NSArray<id<UIUserActivityRestoring>> *
_Nullable))restorationHandler {

    return [[TTkGameManager defaultManager] application:application
continueUserActivity:userActivity restorationHandler:restorationHandler];
}

```

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.

example

```

- (void)checkVersion {

    [[TTkGameManager defaultManager] checkAppVersionCompletion:^(BOOL hasNewVersion,
TTGCApVersionModel * _Nullable versionInfo, NSError * _Nullable error) {

        if (hasNewVersion) {

            BOOL forceUpdate = versionInfo.forceUpdate;

            if (forceUpdate) {

                // If you need to force update, you cannot continue to use it, and you need
to jump to the appstore to update.

                // Open appstore

                [[TTkGameManager defaultManager]
openAppStoreWithStoreIdentifier:@"xxx"];

            } else {

                // If update is not required, you can optionally prompt for an upgrade.

            }

        }

    }
};
}

```

2.2.1 Check Version

Method	checkAppVersionCompletion
--------	---------------------------

Callback	TTGCVersionCompletionHandler
	hasNewVersion // has new version <BOOL>
	versionInfo // the version detail information. class model <TTGCAppVersion>
	build // app build code
	version // app new version
	versionInfo // the version information
	forceUpdate // need to force upgrade <BOOL>
	currentVersionCode // 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)

```
[[TTkGameManager defaultManager] setPayEnvironmentProduction];
```

4. API: Login&User Info

User must agree the User Agreement & Privacy before do Login action

4.1 Show Agreement View

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

4.2 Login with ToTok

Method	loginWithGameCenterCompletion
Callback	TTGCUCompletionHandler

example:

```
- (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

TTGCAppeIDLoginParaModel

Params	Note
user	<NSString> user of appleIDCredential
familyName	<NSString> fullName.familyName of appleIDCredential (optional)
givenName	<NSString> fullName.givenName of appleIDCredential (optional)
identityToken	<NSData> identityToken of appleIDCredential

TTGCGameCenterLoginParaModel

Params	Note
playerID	<NSString> localPlayer.playerID of [GKLocalPlayer localPlayer]
displayName	<NSString> localPlayer.playerID of [GKLocalPlayer localPlayer]
publicKeyUrl	<NSURL> publicKeyUrl of verification
accessToken	<NSData> accessToken of verification
signature	<NSData> signature of verification
salt	<NSData> salt of verification
timestamp	<uint64_t> timestamp of verification
photoData	<NSData> user photo data (optional)

TTGCFacebookLoginParamModel

Params	Note
accessToken	<NSString> result.token.tokenString of FacebookLoginResult
accessExpire	<NSDate> result.token.expirationDate of FacebookLoginResult

TTGCTwitterLoginParamModel

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

4.3.2 Method

Method	loginWithThirdPartParamModel:Completion:
Params	
model	<p><id></p> <p>type :</p> <p>TTGCGameCenterLoginParamModel</p> <p>TTGCAppleIDLoginParamModel</p> <p>TTGCFacebookLoginParamModel</p> <p>TTGCTwitterLoginParamModel</p>
completion	TTGCUUserCompletionHandler

example

```
//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) {

        TTGCTwitterLoginParamModel *model = [[TTGCTwitterLoginParamModel alloc] init];

        model.authToken = session.authToken;

        model.authTokenSecret = session.authTokenSecret;

        model.userID = session.userID;

        [[TTkGameManager defaultManager] loginWithThirdPartParamModel: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	TTGCUUserCompletionHandler

example

```

- (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	TTGCUUserCompletionHandler
Params	TTGCUUserModel userType user type (TTGCLoginType by 4.6) userId user's indentifier nickname nickname photoUrl head image url pushOff push switch 0:push switch on 1:push switch off

example

```

- (void)getUserInfo {

    TTGCHUD_NO_Stop(@"")

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

        if (!error) {

            TTGCHUD_HINT(@"success")

            TTGCUUserModel *model = userInfo;

```

```

        [self freshUserInfo:model];
    } else {

        //error info

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

    }];
}

```

4.6 Get Login Type

Method	loginType
Return	TTGCLoInType

Definition:

Enum	TTGCLoInType
Description	Enum type for Login
Enum Values	
TTGCLoInType_unloggedIn	not login
TTGCLoInType_ToTok	ToTok user
TTGCLoInType_GameCenter	GameCenter player
TTGCLoInType_Facebook	Facebook user
TTGCLoInType_Guest	ToTokGame guest
TTGCLoInType_Twitter	Twitter user

example:

```

- (void)showLoginView {

    if ([[TtkGameManager defaultManager] loginType] == TTGCLoInType_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];

}];

```

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:

TTGCOderStatus_ProductQuerying	query product
TTGCOderStatus_Generating	order init
TTGCOderStatus_ProductPurchasing	order in trading progress
TTGCOderStatus_ProductPurchased	order purchased
TTGCOderStatus_ReceiptChecking	order verifying

Method	buyProductWithSKU: Progress: Completion:
Params	
sku	String,product id
Progress	TTGCOderProgressHandler
Completion	TTGCOderCompletionHandler class TTGCOderModel 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	TTGCOderCompletionHandler TTGCOderModel by 5.1

example:

```
- (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
contentString	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:

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

7.4 Share

7.4.1 Share Invite Message

Method	sendMessageTottk:(id)message Completion:
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] sendMessageTottk:model Completion:^(BOOL success,  
NSError * _Nullable error) {  
  
    }];  
  
}
```

7.4.2 Share Notice Message

Method	sendToMessageTottk:(id)message Completion:
Callback	TTGCShareCompleteHandler

example:

```
- (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) {  
  
  
  
    }];  
}
```

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

example:

```
- (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 ...  
  
    }];  
  
}
```