ToTokGameSDK API Document

(iOS)

Name	Date	version	remark
Yuanjun	2020.3.18	1.0.0	created
Yuanjun	2020.3.27	1.0.1	improvements
Yuanjun	2020.3.31	1.0.2	add game invite
Yuanjun	2020.4.07	1.0.3	add single sign-on
Yuanjun	2020.4.12	1.0.4	improvements
Yuanjun	2020.4.17	1.0.5	1.launch animation deleted
			(2.1.1)
			2.add agreement view (4.1) &
			delete 4.2 of last version
			3.Domain Changed
			4.add login with apple (4.2)
Yuanjun	2020.4.27	1.0.6	improvements
Yuanjun	2020.5.13	1.0.7	improvements
Yuanjun	2020.5.27	1.0.8	SDK rename
			1.Replace
			ToTokGameManager class
			name with TTkGameManager
			2.Replace
			TTGCLoginType_ToTok with
			TTGCLoginType_TTk
Yuanjun	2020.5.29	1.1.0	improvements
Yuanjun	2020.6.24	1.1.1	1. add totok login (4.6)
			2. add twitter login (4.5)
			3. add totok friends and share
			(7.2 & 7.3 & 7.4)
Yuanjun	2020.7.06	1.1.2	add notification of account
			banned (1.3.11 & 4.11)

Yuanjun	2020.7.10	1.1.3	1. fix AppsFlyer
			2. get available token (4.12)
Yuanjun	2020.7.14	1.1.4	bug fix
Yuanjun	2020.7.15	1.1.5	add thirdUid in
			TTGCUserModel (4.8)
Yuanjun	2020.7.20	1.1.6	1. get product detail (6.3)
Yuanjun	2020.7.22	1.1.7	fix bug of SDK codeSign
Yuanjun	2020.7.27	1.1.8	improvements

1. Description and definition

1.1 API call

Import <TTkGameSDK/TTkGameSDK.h>

Every API is called by [TTkGameManager defaultManager] instance

1.2 Callback

 ${\tt error}$ is a common field for every callback class. If ${\tt error}$ equals to ${\tt nil}$, it means the api call is success.

1.3 Callback classes:

1.3.1 Login Callback

class: TTGCUserCompletionHandler

fields:

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:

TTGCOderStatus //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 <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:

information //the reason of banned

time

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 Environment
    [[TTkGameManager defaultManager] setServerDomainTest];
```

```
// set Pay Enviroment
[[TTkGameManager defaultManager] setPayEnvironmentTest];

// open log
[[TTkGameManager defaultManager] openLogInfo];

// launch SDK

NSString *appId = @"xxxxx";

NSString *appSecret = @"xxxxxx";

NSString *gameid = @"xxxxxx";

[[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;
        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
```

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>
	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 Apple

Login with Apple only supports iOS13 and higher.

Method	loginWithAppleCompletion
Callback	TTGCUserCompletionHandler

example:

```
- (IBAction)appleLogin:(id)sender {
   TTGCHUD_NO_Stop(@"login...")
   __weak __typeof(self)weakSelf = self;
   [[TTkGameManager defaultManager] loginWithAppleCompletion:^(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 GameCenter

Method	loginWithGameCenterCompletion	
Callback	TTGCUserCompletionHandler	

```
- (void) gamecenterLogin {
    TTGCHUD_NO_Stop(@"login...")
    __weak __typeof(self) weakSelf = self;
    [[TTkGameManager defaultManager] loginWithGameCenterCompletion:^(id _Nonnull
userInfo, NSError * _Nonnull error) {
```

```
if (!error) {
    //login success

    TTGCHUD_HINT(@"success")
    [weakSelf closeLoginView];
} else {
    //error info
    TTGCHUD_HINT([error.userInfo objectForKey:@"errorMsg"]);
}
}};
```

4.4 Login with Facebook

Method	loginWithFacebookCompletion
Callback	TTGCUserCompletionHandler

```
- (void)facebookLogin {
    TTGCHUD_NO_Stop(@"login...")
    __weak __typeof(self)weakSelf = self;
    [[TTkGameManager defaultManager] loginWithFacebookCompletion:^(id _Nonnull
userInfo, NSError * _Nonnull error) {
    if (!error) {
        //login success
        TTGCHUD_HINT(@"success")
        [weakSelf closeLoginView];
    } else {
        //error info
        TTGCHUD_HINT([error.userInfo objectForKey:@"errorMsg"]);
    }
}];
```

4.5 Login with Twitter

Method	loginWithTwitterCompletion
Callback	TTGCUserCompletionHandler

example:

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

TTGCHUD_NO_Stop(@"login...")

__weak __typeof(self)weakSelf = self;

[[TTkGameManager defaultManager] loginWithTwitterCompletion:^(id __Nonnull userInfo,

NSError * _Nonnull error) {

if (!error) {

//登录成功

TTGCHUD_SUCCESS(@"success")

[weakSelf closeLoginView];
} else {

//查看error信息

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

}];
```

4.6 Login with ToTok

Method	loginWithTTkCompletion
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"]);
}
}];
```

4.7 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
        }
    }];
}
```

4.8 Get User Info

Method	userInfoCompletion	
Callback	TTGCUserCompletionHandler	
Params	TTGCUserModel	
	userType	user type (TTGCLoginType by 3.7)
	userId	user's indentifier
	thirdUid	third-party user 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")
        TTGCUserModel *model = userInfo;
        [self freshUserInfo:model];
    } else {
        //error info
        TTGCHUD_HINT([error.userInfo objectForKey:@"errorMsg"]);
    }
};
}
```

4.9 Get Login Type

Method	loginType
Return	TTGCLoginType

Definition:

Enum	TTGCLoginType	
Description	Enum type for	or Login
Enum Values		
TTGCLoginType_unloggedIn		not login
TTGCLoginType_TTk		ToTok user
TTGCLoginType_GameCenter		GameCenter player
TTGCLoginType_Facebook		Facebook user
TTGCLoginType_Twitter		Twitter user
TTGCLoginType_Guest		ToTokGame guest

example:

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

4.10 Notification of offline

Method	accountKickedNotification
Callback	TTGCAccountKickedHandler

```
[[TTkGameManager defaultManager] accountKickedNotification:^(NSString * _Nullable information) {
```

```
//Your account has been logged in on another device, please login again.

TTGCHUD_HINT(information);

[self showLoginView];
}];
```

4.11 Notification of banned

Method	accountBannedNotification
Callback	TTGCAccountBannedHandler

example:

4.12 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	rams	
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)>

```
- (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 6.1

example:

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

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

6.3 Get Product Info

Method	getProductDetailWithSKU:	Completion:	

Params	
sku	String, product id
Completion	TTGCProductCompletionHandler
	class TTGCProductModel
	sku; //The string that identifies the product to the Apple App Store.
	price; //The cost of the product in the local currency.
	localeCurrency; //The currency code associated with the locale.
	localizedTitle; //The name of the product.
	localizedDescription; //A description of the product.

example:

```
- (void)getInfo:(NSString *)sku {
   [[TTkGameManager defaultManager] getProductDetailWithSKU:sku
Completion:^(id _Nullable productInfo, NSError * _Nullable error) {
      if (productInfo) {
          TTGCProductModel *model = productInfo;
         NSLog(@" sku
                                    : %@", model.sku);
          NSLog(@" price
                             : %@", model.price);
          NSLog(@" localeCurrency : %@", model.localeCurrency);
          NSLog(@" localizedTitle
                                     : %@", model.localizedTitle);
          NSLog(@" localizedDescription : %@", model.localizedDescription);
      } else {
         // error info
   }];
```

7. API: SNS & Share

7.1 Field Description

TTGCFriendModel

Params

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

```
- (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 (ToTok)

7.4.1 Share Invite Message

Method	sendToMessageTottk:(id)message Completion:
Callback	TTGCShareCompleteHandler

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

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) {
    }];
}
```

7.5 Share (Third-Party)

Share to Facebook, WhatsApp.

7.5.1 Share To Facebook

age: completion:	
------------------	--

```
Params

Message 1.TTGCSocialFBInvite
quote //message text

2.TTGCSocialFBImages
photoImage //photo image <UIImage>

3.TTGCSocialFBFriendsGameInvite
inviteString //invite message text

completion TTGCShareCompleteHandler
```

```
// share invite link to facebook
- (IBAction) fbShare: (id) sender {
   TTGCSocialFBInvite *obj = [[TTGCSocialFBInvite alloc] init];
   obj.quote = @"Join us";
   [[TTkGameManager defaultManager] facebookShareMessage:obj completion:^(BOOL success,
NSError * _Nullable error) {
       if (success) {
       } else {
          if (error) {
              TTGCHUD_HINT([error.userInfo objectForKey:@"errorMsg"]);
   }];
}
//share image to facebook
- (IBAction) fbpic: (id) sender {
   UIImage *image = [UIImage imageNamed:@"totokgame logo 1024"];
   TTGCSocialFBImages *obj = [[TTGCSocialFBImages alloc] init];
   obj.photoImage = image;
   [[TTkGameManager defaultManager] facebookShareMessage:obj completion:^(BOOL success,
NSError * _Nullable error) {
      if (success) {
       } else {
         if (error) {
```

```
TTGCHUD_HINT([error.userInfo objectForKey:@"errorMsg"]);
   }];
//send invite to facebook friends (This feature is only available if you are logged in with
Facebook)
- (IBAction) fbGameInviteFriends: (id) sender {
   TTGCSocialFBFriendsGameInvite *obj = [[TTGCSocialFBFriendsGameInvite alloc] init];
   obj.inviteString = @"join us";
   [[TTkGameManager defaultManager] facebookShareMessage:obj completion:^(BOOL success,
NSError * _Nullable error) {
       if (success) {
          TTGCHUD_SUCCESS(@"sent the message");
       } else {
          if (error) {
              TTGCHUD HINT([error.userInfo objectForKey:@"errorMsg"]);
   }];
```

7.5.2 Share To WhatsApp

Method	whatsAppShareMessage: completion:
Params	
Message	1.TTGCSocialWAInvite
	contentString // whatsApp message text
	2.TTGCSocialWAImages
	photos //NSArray image <uiimage></uiimage>
completion	TTGCShareCompleteHandler

```
// share invite link to whatsApp
- (IBAction) whatsAppShare: (id) sender {
   TTGCSocialWAInvite *obj = [[TTGCSocialWAInvite alloc] init];
   obj.contentString = @"play games";
   [[TTkGameManager defaultManager] whatsAppShareMessage:obj completion:^(BOOL success,
NSError * _Nullable error) {
       if (success) {
       } else {
          if (error) {
              TTGCHUD HINT([error.userInfo objectForKey:@"errorMsg"]);
   }];
// share picture to whatsApp
- (IBAction)wapic:(id)sender {
   TTGCSocialWAImages *obj = [[TTGCSocialWAImages alloc] init];
   UIImage *image = [UIImage imageNamed:@"totokgame_logo_1024"];
   obj.photos = @[image];
   [[TTkGameManager defaultManager] whatsAppShareMessage:obj completion:^(BOOL success,
NSError * Nullable error) {
      if (success) {
       } else {
          if (error) {
              TTGCHUD HINT([error.userInfo objectForKey:@"errorMsg"]);
   }];
```

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 ...
}];
}
```