TTkGameSDK 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.GameManager class rename with TTkGameManager 2.TTGCLoginType rename with TTGCLoginType_TTk
Yuanjun	2020.5.29	1.1.0	improvements
Yuanjun	2020.6.24	1.1.1	1. add ttk login 2. add twitter login (4.5) 3. add ttk friends and share
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
Yuanjun	2020.8.03	1.1.9	1. login with Botim (4.6) 2. botim friends and share (7.3)
Yuanjun	2020.8.04	1.1.10	improvements
Yuanjun	2020.08.17	1.1.11	add track api (AppsFlyer)
Yuanjun	2020.08.25	1.1.12	add customer service (Messenger 10.1)

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:

`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 Enviroment
    [[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:

```
- (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,
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
                [[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];
```

3.7 Customer Service (Messenger)

```
 [[TTkGameManager defaultManager] contactusWithMessenger];
```

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

example:

```
- (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

example:

```
- (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 Botim

Method	loginWithBotimCompletion
Callback	TTGCUserCompletionHandler

example:

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

    } else {
        // no app please hide login button
    }
}
```

4.7 Login with Guest

Method	guestLoginCompletion
Callback	TTGCUserCompletionHandler

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
        }
    }];
}
```

4.8 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 Login
Enum Values	
TTGCLoginType_unloggedIn	not login
TTGCLoginType_TTk	TTk user
TTGCLoginType_GameCenter	GameCenter player
TTGCLoginType_Facebook	Facebook user
TTGCLoginType_Twitter	Twitter user
TTGCLoginType_Guest	Game 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

example:

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

4.11 Notification of banned

Method	accountBannedNotification
Callback	TTGCAccountBannedHandler

example:

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

4.12 Get Available Token

Method	getAvailableAccessToken
Callback	TTGCUserCompletionHandler

example:

```
    [[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: <AmuseGame 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 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

TTGCBotimFriendModel

Params	Note
`bimUid`	botim user id
`name`	friend's name
`photoUrl`	friends' avatars

TTGCBotimPlayingFriendModel

Params	Note
`bimUid`	botim user id
`userId`	user id of friend
`name`	friend's name
`photoUrl`	friends' avatars

TTGCSocialBimMessage

Params	Note
`bimUid`	botim user id
`contenString`	shared text content
`imageUrl`	shared web picture address
`title`	shared title

7.2 Share (Third-Party)

Share to Facebook, WhatsApp.

7.2.1 Share To Facebook

Method	`facebookShareMessage: completion:`
Params	

Message	1.TTGCSocialFBInvite quote //message text
	2.TTGCSocialFBImages photoImage //photo image <UIImage>
	3.TTGCSocialFBFriendsGameInvite inviteString //invite message text
completion	TTGCShareCompleteHandler

example:

```
// 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:@"game_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"]);
            }
        }
    }];
}
```

7.2.2 Share To WhatsApp

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

example:

```
// 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:@"game_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"]);

            }

        }

    }];

}
```

7.3 Share (Botim)

7.3.1 Get Botim Friends

Method	getFriendsFromBotimCompletion

Callback	TTGCBimFriendsCompletionHandler

example:

```
- (void)getFriends {
    [[TTkGameManager defaultManager] getFriendsFromBotimCompletion:^(NSArray * _Nullable
list, NSError * _Nullable error) {
        // list of botim friends
        // user model TTGCBotimFriendModel
    }];
}
```

7.3.2 Get Botim Playing Game Friends

Method	getPlayingFriendsFromBotimCompletion
Callback	TTGCBimFriendsCompletionHandler

example:

```
- (void)getFriends {
    [[TTkGameManager defaultManager] getPlayingFriendsFromBotimCompletion:^(NSArray *
_Nullable list, NSError * _Nullable error) {
        // list of botim friends
       // user model TTGCBotimPlayingFriendModel
    }];
}
```

7.3.3 Share Botim Message

Method	sendToMessageToBotim:(id)message Completion:
Callback	TTGCShareCompleteHandler

example:

```
- (void)sendMessageToFriend {
    TTGCSocialBimMessage *model = [[TTGCSocialBimMessage alloc] init];
    model.bimUid = @"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] sendToMessageToBotim: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 ...
    }];
}
```

9. API： Track

9.1 Field Description

TTGCTrackEvent (NS_ENUM)

Params	Note
`TTGCTrackEvent_Activity`	activity event
`TTGCTrackEvent_Guide`	guide event
`TTGCTrackEvent_GuideCompletion`	guide completion event
`TTGCTrackEvent_Reward`	reward event
`TTGCTrackEvent_Rank`	rank event
`TTGCTrackEvent_VipInfo`	vip info event
`TTGCTrackEvent_AdClick`	ad click event
`TTGCTrackEvent_Other`	other event

Track Event Param Keys

Keys Define	Values
`TTGCTrackParamActivityId`	af_activity_id
`TTGCTrackParamActivityAction`	af_activity_action
`TTGCTrackParamGuideId`	af_tutorial_id
`TTGCTrackParamGuideDetail`	af_tutorial_detail
`TTGCTrackParamGuideSuccess`	af_success
`TTGCTrackParamRewardId`	af_reward_id
`TTGCTrackParamUserVip`	af_user_vip
`TTGCTrackParamAdId`	af_ad_id

9.2 Track Event

Method	`tracker_event: withValues:`

example:

```
- (IBAction)activity:(id)sender {
    [[TTkGameManager defaultManager] tracker_event:TTGCTrackEvent_Activity
withValues:@{TTGCTrackParamActivityId:@"activity1",
      TTGCTrackParamActivityAction:@"click"}];
}

- (IBAction)guide1:(id)sender {
    [[TTkGameManager defaultManager] tracker_event:TTGCTrackEvent_Guide
withValues:@{TTGCTrackParamGuideId:@"guide_test1",
       TTGCTrackParamGuideDetail:@"guide1"}];
}

- (IBAction)guide2:(id)sender {
    [[TTkGameManager defaultManager] tracker_event:TTGCTrackEvent_Guide
withValues:@{TTGCTrackParamGuideId:@"guide_test2",
       TTGCTrackParamGuideDetail:@"guide2"}];
}

- (IBAction)guideCompletion:(id)sender {
    [[TTkGameManager defaultManager] tracker_event:TTGCTrackEvent_GuideCompletion
withValues:@{TTGCTrackParamGuideId:@"guide_test",
     TTGCTrackParamGuideSuccess:@YES,
     TTGCTrackParamGuideDetail:@"test_finish",}];
}

- (IBAction)reward:(id)sender {
    [[TTkGameManager defaultManager] tracker_event:TTGCTrackEvent_Reward
withValues:@{TTGCTrackParamRewardId:@"reward_222"}];
}

- (IBAction)rank:(id)sender {
    [[TTkGameManager defaultManager] tracker_event:TTGCTrackEvent_Rank
withValues:@{@"af_rank":@"R0"}];
}
```

```
- (IBAction)vip:(id)sender {
    [[TTkGameManager defaultManager] tracker_event:TTGCTrackEvent_VipInfo
withValues:@{TTGCTrackParamUserVip:@"Vip5"}];
}

- (IBAction)ad:(id)sender {
    [[TTkGameManager defaultManager] tracker_event:TTGCTrackEvent_AdClick
withValues:@{TTGCTrackParamAdId:@"ad_222"}];
}
```

10. API: Customer Service

10.1 Contact us With Messenger

Method	contactusWithMessenger

example:

```
[[TTkGameManager defaultManager] contactusWithMessenger];
```