Turkcell Login SDK
iOS Integration Document

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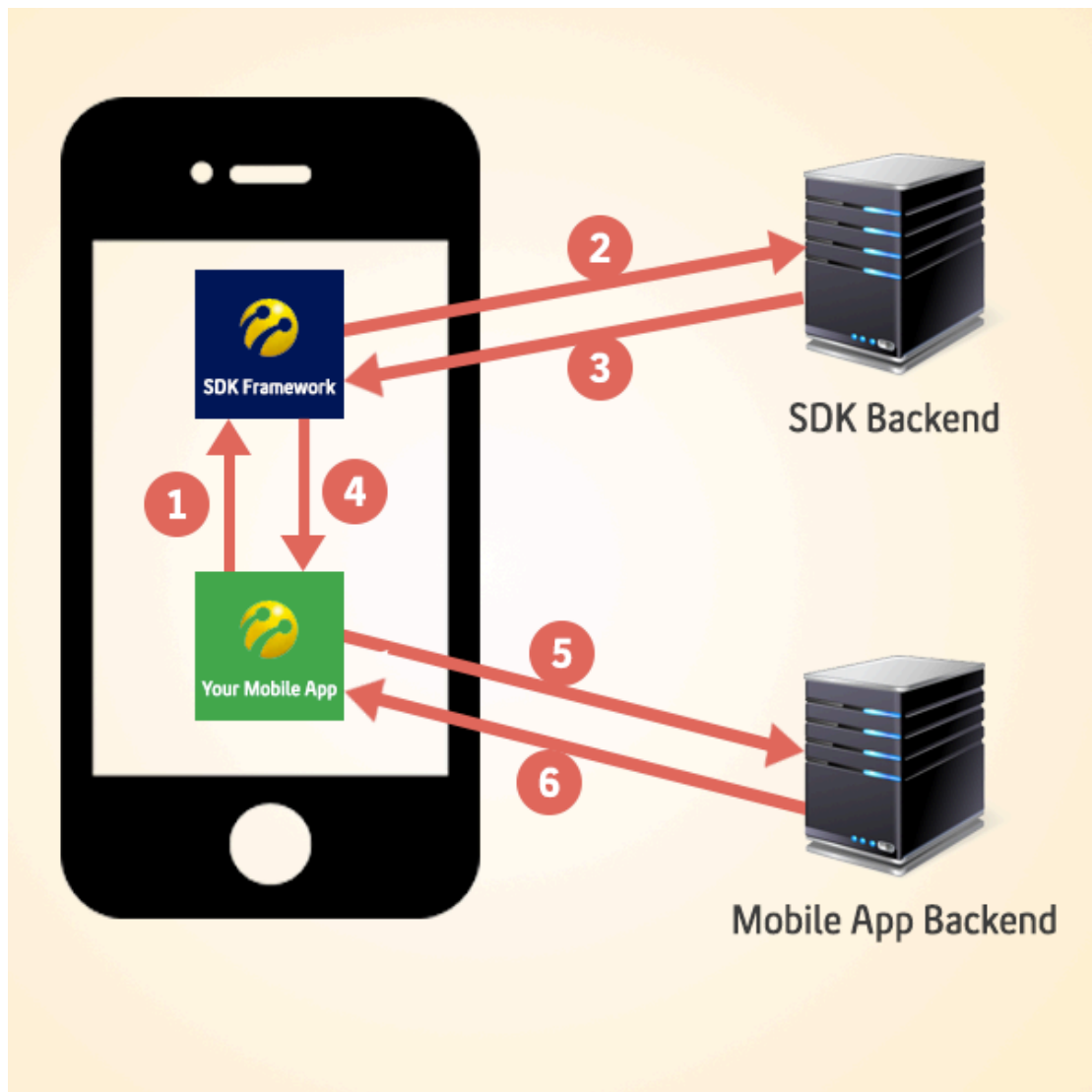
Document Version : 0.2

1. Prerequirements

Minimum deployment target for Login SDK is iOS 6.0
If your app supports lower versions than 6.0 you can't integrate your app.

2.Flow

0) First, your app initialize SDK with calling following method on TLManager:

```
-(instancetype)initWithAppID:(NSString *)appID
useTestServer:(BOOL)useTestServer theme:(TLTheme *)theme
customAccessGroup:(NSString *) accessGroup;
```

Important !
Since it may be released from memory during login process use TLManager object as instance property.

1) Your app asks SDK to start login process with calling following method on TLManager:

```
-(void)startLoginProcess:(UIViewController *) mainVC
skipLightLogin:(BOOL)skipLightLogin
showLoginPage:(BOOL)showLoginPage showLoader:(BOOL)pShowLoader
dismissSession:(BOOL) dismissSession
```

2) SDK makes rest call to SDK Server*
3) SDK Server returns login result to SDK Client*
4) SDK returns login result and token (if result is success) to app with delegate method:

```
-(void) loginProcessCompleted:(BOOL) success
type:(TLLoginType) loginType token:(NSString *) token;
```

*Added just for information. App developer shouldn't care about these steps.

5) App sends token its backend to validate it
6) App backend calls validateAuthToken to retrieve msisdn, then starts session and performs app related tasks.
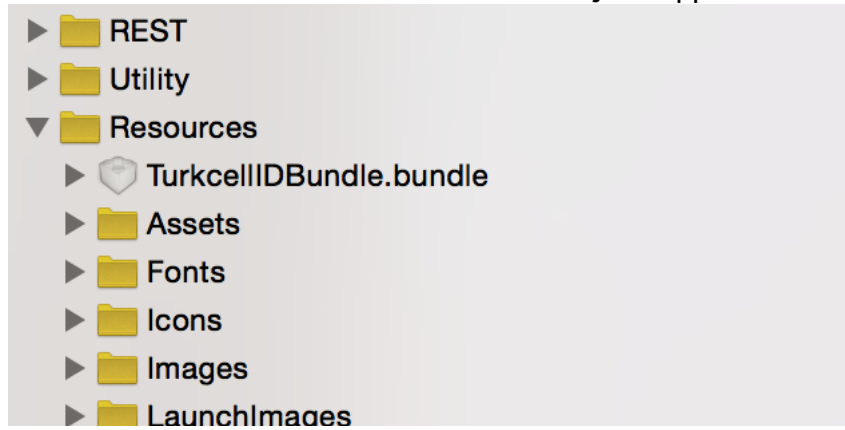
3.Integration

a. Frameworks listed below are required for SDK, first add these frameworks to your build configuration.

Name
libc++.dylib
libz.dylib
CoreTelephony.framework
LocalAuthentication.framework
Security.framework
MobileCoreServices.framework
QuartzCore.framework
Accelerate.framework
SystemConfiguration.framework
TurkcellID.framework
MessageUI.framework
UIKit.framework
Foundation.framework
CoreGraphics.framework
CoreText.framework

+   —   Drag to reorder frameworks

b. Add TurkcellID.framework file to your app framework folder. Make sure copy item if needed is selected.

TurkcellHub
1 target, iOS SDK 8.3
▶ 📁 TurkcellHub
    ⌧ Launch Screen.xib
    🗂 Images.xcassets
▼ 📁 Frameworks
    ▶ 💼 TurkcellID.framework
    ▶ 💼 Accelerate.framework
    ▶ 💼 LocalAuthentication.framework
    ▶ 💼 iAd.framework
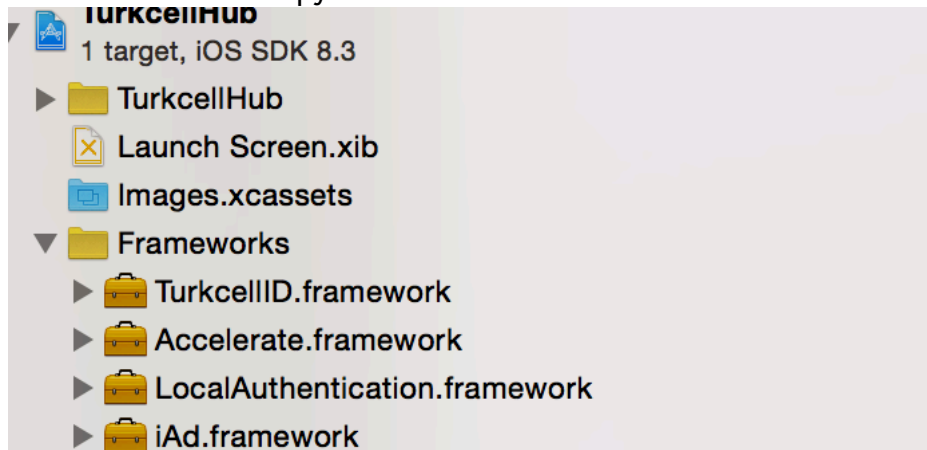
c. Add TurkcellID.bundle file to your application's related directory.

- ▶ 📁 REST
- ▶ 📁 Utility
- ▼ 📁 Resources
  - ▶ 🛡 TurkcellIDBundle.bundle
  - ▶ 📁 Assets
  - ▶ 📁 Fonts
  - ▶ 📁 Icons
  - ▶ 📁 Images
  - ▶ 📁 LaunchImages

4.Calling SDK Methods

a. Initialize

Class : TLManager

Method: `-(instancetype)initWithAppID:(NSString *)appID useTestServer:(BOOL)useTestServer theme:(TLTheme *)theme customAccessGroup:(NSString *) accessGroup;`

Parameters:

Name: `appID`
Required: YES
Type: `(NSString *)`
Description: Your application ID, you should have this before starting integration, it varies according to the environment. If you don't know your app id, you may want to contact with Osman Kara (osman.kara@turkcellteknoloji.com.tr), who is analyst of Login SDK.

Name: `useTestServer`
Required: YES
Type: `(BOOL)`
Description: Determines if SDK will use test server for its backend for not.

Name: `theme`
Required: NO
Type: `(TLTheme *)`
Description: If you want to use custom UI, you should create TLTheme object and pass it. If you pass nil, default theme will be used. More details about customizing theme is described at section 5.

Name: `customAccessGroup`
Required: NO
Type: `(NSString *)`
Description:

```
AppStore   = nil
ICTStore   = LA4DZFY7SY.com.turkcell.login.suite
Other      = Set your own group id.
```

We recommend to use Info.plist files or macros to set customAccessGroup as below:

```objc
    if(!_loginManager) {
#if STORE
        _loginManager = [[TLManager alloc] initWithAppID:TURKCELL_APPLICATION_ID useTestServer:NO theme:nil
                                    customAccessGroup:nil];

#elif ENTERPRISE
        _loginManager = [[TLManager alloc] initWithAppID:TURKCELL_APPLICATION_ID useTestServer:NO theme:nil
                                    customAccessGroup:ACCESS_GROUP_ENTERPRISE];

#else
        _loginManager = [[TLManager alloc] initWithAppID:TURKCELL_APPLICATION_ID useTestServer:BUILD_FOR_PRODUCTION ? NO : YES theme:
                                    customAccessGroup:ACCESS_GROUP_TEST];

#endif
```

==Tip: Call init method only once along application lifecycle. Call startLoginProcess each time you want to login user.==

b. Starting Login Process

Class: TLManager

Method: `-(void)startLoginProcess:(UIViewController *) mainVC skipLightLogin:(BOOL)skipLightLogin showLoginPage:(BOOL)showLoginPage showLoader:(BOOL)pShowLoader dismissSession:(BOOL) dismissSession`

Parameters:

Name: `mainVC`
Required: YES
Type: `(UIViewController *)`
Description: This is viewcontroller belongs to your app. This will be used to present SDK viewcontroller on top of itself.

Name: `skipLightLogin`
Required: YES
Type: `(BOOL)`
Description: Determines if lightlogin option will be skipped or not.

Name: `showLoginPage`
Required: YES
Type: `(BOOL)`
Description: Determines if login page will be shown, you may want to set this NO when you start login process right after your application launch.

Name: `pShowLoader`

Required: YES
Type: (BOOL)
Description: Determines if preloader will be shown while making several requests to SDK Server from SDK client. This parameter does not hides preloader on all requests.

Name: dismissSession
Required: YES
Type: (BOOL)
Description: If this parameter set to YES, login process will discard all saved login data and light login process. So if you set this parameter YES, it is guaranteed that login page will be presented (unless showLoginPage parameter set to NO)

c. Login Result Delegate

```
-(void) loginProcessCompleted:(BOOL) success
type:(TLLoginType) loginType token:(NSString *) token;
```

You should set delegate property on TLManager to your related object. Then implement delegate method.

```
Parameters:
```

```
Success    : Indicates if login is finished successfully or
not.
TLLoginType: Indicates login type. This can be used for
logging.
```

```
Values:
```

```
    TcellLoginTypeServiceLogin, //Login from login page.
    TcellLoginTypeRememberMe, // Remember me login
    TcellLoginTypeLightLogin, // Lightlogin
    TcellLoginTypeTouchID, // Login with touch id
    TcellLoginTypeNonLogin  // User is not logged in.
```


d. Logout

Class: TLManager
Method: logout
Parameter: No Parameter

Since SDK doesn't know when user logged out, application itself should call this method manually inside its own logout method.
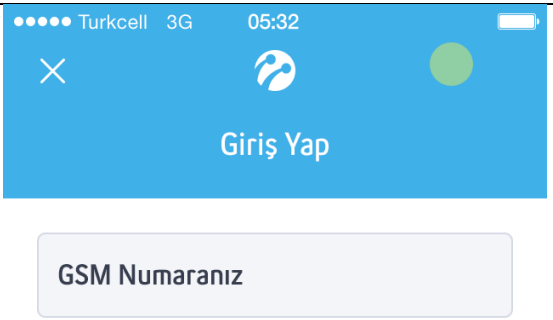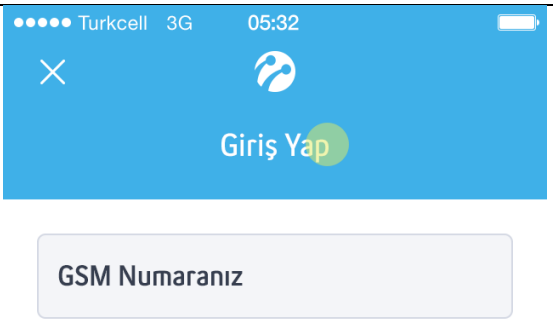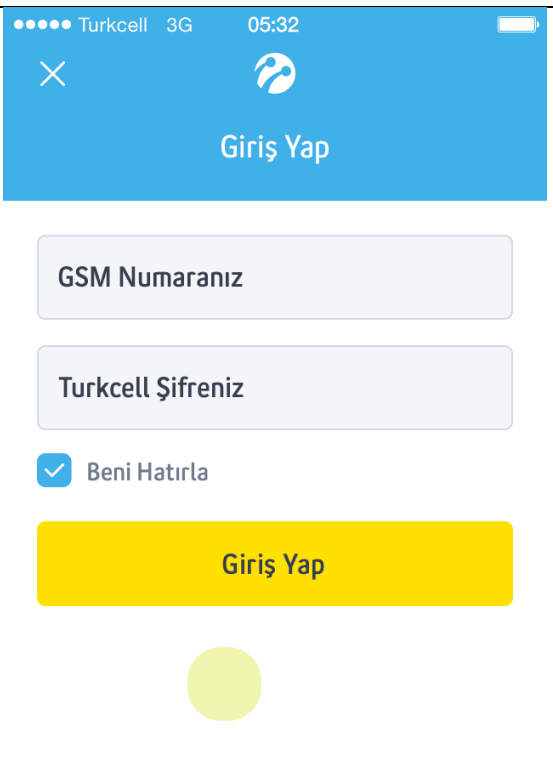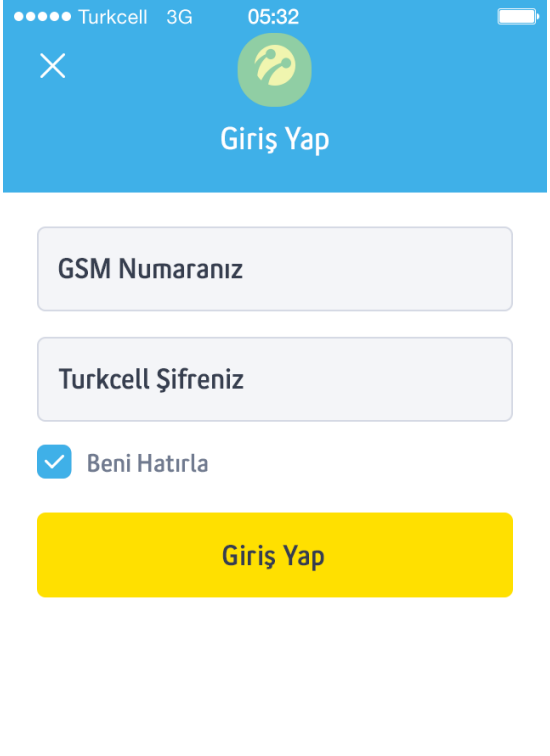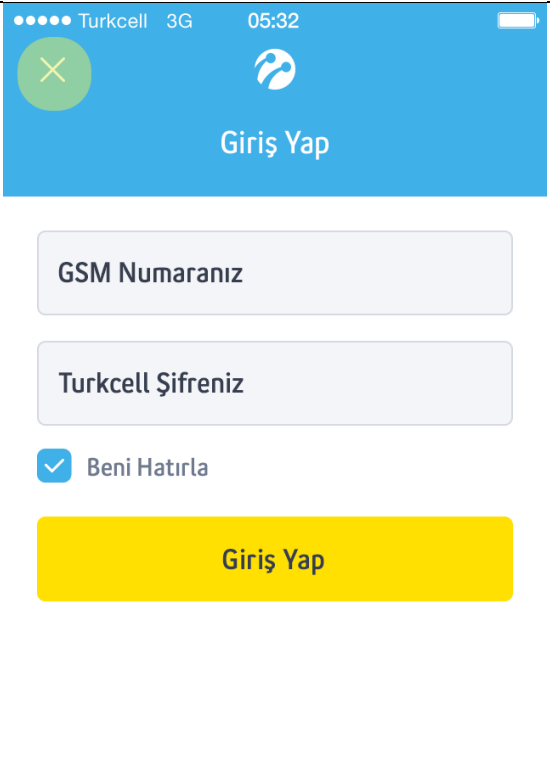
5.Keychain Sharing

All applications which signed with same Turkcell iOS Developer account and exist in same chain, share their remember me login information.

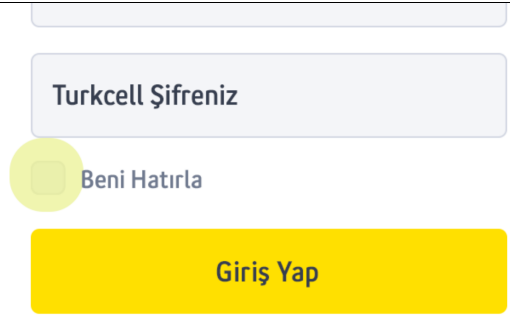First, you should add Entitlement.plist file to your project.

- Create Entitlement file for each build configuration (at least you have to create for AppStore and ICTStore), rename it whatever you want.
- Add "*Keychain Access Groups*" key, select type as an array, set value `$(AppIdentifierPrefix)com.turkcell.login.suite` for AppStore Entitlement file
- Add "*Keychain Access Groups*" key, select type as an array, set value `$(AppIdentifierPrefix)com.turkcell.login.suite` for ICTStore Entitlement file
-
- Go to build settings for your app target, find "Code Signing Entitlements" select your Entitlements file for AppStore and ICTStore profile.
    - o Important Note: If you want to sign ipa with nonTurkcell Apple Account, you should put your bundle identifier values to Entitlement files which belongs to Debug and Release configuration.
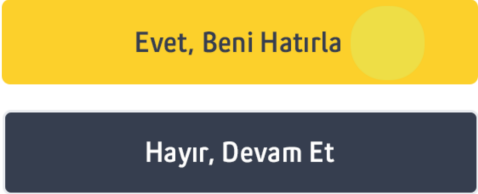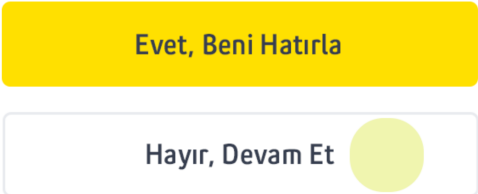
6.Customizing Theme
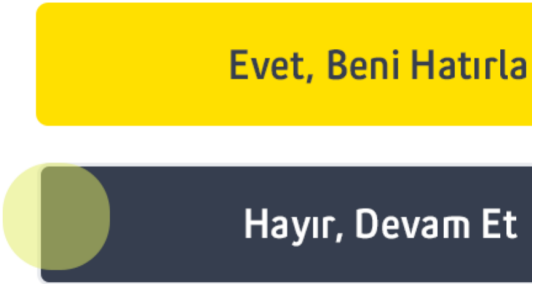
`UIColor * colorTopBarBackground;`	
`UIColor * colorTopBarText;`	
`UIColor * colorLoginBackground;`	

`UIImage * imageTopBarLogo;`	
`UIImage * imageDismissButton;`	

`UIImage * imageBackButton;`	
`UIColor * colorTextFieldBorder;`	
`UIColor * colorTextFieldBackground;`	
`UIColor * colorTextFieldText;`	
`UIImage * imageRememberMeSelected;`	

| ```
UIImage *
imageRememberMeNotSelected;
``` | **Turkcell Şifreniz**<br><br>☐ Beni Hatırla<br><br>**Giriş Yap** |
| ```
UIColor *
colorTouchIDOfferBackground;
``` | Turkcell Hesabım uygulamasına giriş yapabilmek için tek yapmanız gereken parmağınızı telefonunuzun tuşuna dokundurmak. Bundan sonra yapacağınız girişlerde tekrar GSM Numaranızı ya da Turkcell Şifrenizi girmeniz gerekmeyecektir. |
| ```
UIImage * imageTouchIDOfferIcon;
``` | Turkcell Hesabım uygulamasına giriş yapabilmek için tek yapmanız gereken parmağınızı telefonunuzun tuşuna dokundurmak. Bundan sonra yapacağınız girişlerde tekrar GSM Numaranızı ya da Turkcell Şifrenizi girmeniz gerekmeyecektir. |
| ```
UIColor *
colorTouchIDOfferDescription;
``` | Turkcell Hesabım uygulamasına giriş yapabilmek için tek yapmanız gereken parmağınızı telefonunuzun tuşuna dokundurmak. Bundan sonra yapacağınız girişlerde tekrar GSM Numaranızı ya da Turkcell Şifrenizi girmeniz gerekmeyecektir. |

`UIColor *` `colorChangePasswordBackground;`	**Eski Şifre** **Yeni Şifre** **Yeni Şifre (Tekrar)** **Şifremi Değiştir**
`UIColor* colorPositiveButtonText;`	**Eski Şifre** **Yeni Şifre** **Yeni Şifre (Tekrar)** **Şifremi Değiştir**
`UIColor* colorNegativeButtonText;`	**Evet, Beni Hatırla** **Hayır, Devam Et**
`UIColor*` `colorNegativeButtonHighlightedText;`	**Evet, Beni Hatırla** **Hayır, Devam Et**

`UIColor* colorPositiveButtonBackground;`	
`UIColor* colorPositiveButtonBackgroundHighlighted;`	
`UIColor* colorNegativeButtonBackground;`	
`UIColor* colorNegativeButtonBackgroundHighlighted;`	
`UIColor* colorNegativeButtonBorder;`	
`UIColor* colorNegativeButtonBorderHighlighted;`	

| ```
UIColor*
colorLabelLoginPageRememberMeText
;
``` |  Cihazınıza yüklü diğer Turkcell uygulamalarına giriş yaparken de 53*1**2*00 numaralı hattınızı hatırlamamızı ister misiniz? |
| `UIImage* imageRememberMeAppChain;` | |
| ```
UIColor
*colorBackgroundRememberMeOffer;
``` |  |

`NSString * customButtonTitle;`	Carrier 🗢 10:56 AM ▬ ✕ 🏃 Giriş Yap GSM Numaranız Şifreniz ☑ Beni Hatırla **Giriş Yap** ⑦ Şifre Al	✏ Şifre Değiştir Test Button You can add button to login page footer with setting this parameter. You can use -(void) customButtonClicked; delegate method on TLManager to handle button click event. Please note that after clicling this button, login page will be dismissed.

7.FAQ

       a.   I receive "OSStatus error: [-25243] Security error has occurred." during login process and remember me doesn't work

Cause : Entitlements were set wrong. To check code signing entitlements, open Terminal app. Go to builded .app file directory Run following command :

`codesign -d --entitlements :- "your_app_name.app"`

Output should be something as below:

```
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN"
"http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
     <key>application-identifier</key>
     <string>{TEAMID}com.XXXXXXXX</string>
     <key>aps-environment</key>
     <string>production</string>
     <key>com.apple.developer.team-identifier</key>
     <string>{TEAMID}</string>
     <key>keychain-access-groups</key>
     <array>
          <string>{ keychain-access-groups value}</string>
     </array>
</dict>
</plist>
```

Make sure that keychain-access-groups value has correct value. If you receive -25243] Security error has occurred." it means this value must be incorrect or is not even set. OSStatus error: [-25243] Security error has occurred." it means this value must be incorrect or is not even set.

Solution: Go to your app build settings, find code signing part and check AppStore and ICTStore file references.
Your setting should be similar with:

▼ **Code Signing**

Setting	platinum
▼ **Code Signing Entitlements**	<Multiple values>
AppStore	platinum/platinum-AppStore.entitlements
Debug	platinum/platinum.entitlements
Enterprise	platinum/platinum-Enterprise.entitlements
Release	platinum/platinum.entitlements

If file references are set correctly, then check file contents. Regarding to application features you may add extra properties to file. i.e: com.apple.security.application-groups
But at least, your Appstore and ICTStore entitlement files should contain properties below.

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN"
"http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
      <key>keychain-access-groups</key>
      <array>

      <string>$(AppIdentifierPrefix)com.turkcell.login.suite</string>
      </array>
</dict>
</plist>
```