Notification > Push > iOS SDK Guide

With Push SDK, mobile applications and Push can be easily integrated.

Main Features

- Register notification tokens to OS
- Receive and display notification messages
- Receive messages and collect application execution indicators through them

Downloads

Download file to click **iOS SDK** under **Notification > Push** from TOAST Document.

Supporting Environment

- iOS 8.0 or higher

Project Setting

Common

- Set Capabilities

- Set Linked Framework and Libraries

▼ **Linked Frameworks and Libraries**

Name	Status
💼 TCPushSDK.framework	Required ⬍
💼 UserNotifications.framework	Required ⬍

\+ −

VoIP

- Set info.plist

```
<key>UIBackgroundModes</key>
<array>
    <string>remote-notification</string>
    <string>voip</string>
</array>
```

- Set Linked Framework and Libraries

▼ **Linked Frameworks and Libraries**

Name	Status
💼 TCPushSDK.framework	Required ⬍
💼 UserNotifications.framework	Required ⬍
💼 PushKit.framework	Required ⬍

\+ −

SDK Guide

Initialize

Initialize PushSDK first, to register or search tokens.

```
TCPushConfiguration *configuration = [[TCPushConfiguration alloc]
initWithAppKey:@"INPUT_YOUR_APPKEY"

userId:@"INPUT_USER_ID"];

configuration.channel = @"CHANNEL";                 // Channel configuration
(default:@"default")
configuration.isAgreeNotifications = YES;        // Consent to
notifications (default:YES)
configuration.isAgreeAdvertisement = YES;        // Consent to
advertisement notifications (default:NO)
configuration.isAgreeNightAdvertisement = YES;      // Consent to night-time
advertisement notifications (default:NO)

[TCPushSdk initWithConfiguration:configuration];
```

Set Categories

> Category setting is available only in initialization.

```
TCPushConfiguration *configuration = [[TCPushConfiguration alloc]
initWithAppKey:@"INPUT_YOUR_APPKEY"

userId:@"INPUT_USER_ID"];

configuration.channel = @"CHANNEL";                 // Channel configuration
(default:@"default")
configuration.isAgreeNotifications = YES;        // Consent to
notifications (default:YES)
configuration.isAgreeAdvertisement = YES;        // Consent to
advertisement notifications (default:NO)
configuration.isAgreeNightAdvertisement = YES;      // Consent to night-time
advertisement notifications (default:NO)

UNNotificationCategory *category = ...;
NSSet *categories = [NSSet setWithObject:category];

[TCPushSdk initWithConfiguration:configuration
                  categories:categories];
```

Configuration

Property	Description	Required	Default
appKey	Push service key	Required	N/A
userId	User identifier	Required	N/A
channel	Channel	Optional	Default
isAgreeNotification	Consent to display notifications	Optional	YES
isAgreeAdvertisement	Consent to display ad notifications	Optional	NO
isAgreeNightAdvertisement	Consent to display night-time ad notifications	Optional	NO

Register Tokens

> Initialize PushSDK first, to make a request.
> Only the system token is registered when requesting token registration without initialization.

```
[TCPushSdk registerWithPushType:TCPushTypeAPNs completionHandler:^(NSString
*token, NSError *error) {
    if (error == nil) {
        // Success

    } else {
        if (token == nil) {
            // Fail

        } else {
            // Success only th system token
        }
    }
}];
```

PushType

Type	Description
TCPushTypeAPNs	General push messages
TCPushTypeAPNsSandbox	General push messages for development
TCPushTypeVoIP	VoIP push messages
TCPushTypeVoIPSandbox	VoIP push messages for development

Query Token Information

> Queries the latest token information registered by the device.

```
[TCPushSdk queryWithPushType:TCPushTypeAPNs
completionHandler:^(TCPushTokenInfo *tokenInfo, NSError *error) {
    if (error == nil) {
        // Success

    } else {
        // Fail
    }
}];
```

TokenInfo

> Properties relevant to consent to display ad nofitications (such as isAgreeAdvertisement or
> isAgreeNightAdvertisement) return configured values, only when the user language code is
> Korean (ko), and return YES for other language codes.

Property	Data Type	Description
userId	NSString	User identifier
token	NSString	Registered tokens
countryCode	NSString	Country code
languageCode	NSString	Language code
pushType	ENUM	Push type
isAgreeNotification	BOOL	Consent to display notifications
isAgreeAdvertisement	BOOL	Consent to display ad notifications
isAgreeNightAdvertisement	BOOL	Consent to display night-time ad notifications
timezone	NSString	Standard time zone
updateDate	NSDate	Date of the latest update

Receive Push Messages

> A delegate for user code execution can be configured to receive push messages.
> The receiving delegate cannot receive general push messages when application is not
> running.
> VoIP push messages, received while application is not running, are delivered to the receiving
> delegate as the application is automatically executed in the background.

```
@interface AppDelegate () <TCPushDelegate>

@end
```

```objc
@implementation AppDelegate

- (BOOL)application:(UIApplication *)application
didFinishLaunchingWithOptions:(NSDictionary *)launchOptions {

    [TCPushSdk setDelegate:self];

    return YES;
}

@end

// Receive general push messages
- (void)pushSdk:(TCPushSdk *)pushSdk didReceiveAPNsNotificationWithPayload:
(NSDictionary *)payload {

}

// Receive VOIP push messages
- (void)pushSdk:(TCPushSdk *)pushSdk didReceiveVoIPNotificationWithPayload:
(NSDictionary *)payload {

}
```

Receive Push Action

> When an action of a message received in a user-defined category occurs, it is passed to the delegate.

```objc
// for all actions except text input action
- (void)pushSdk:(TCPushSdk *)pushSdk
   handleAction:(NSString *)actionIdentifier
       category:(NSString *)categoryIdentifier
        payload:(NSDictionary *)payload {

}

// for text input action
- (void)pushSdk:(TCPushSdk *)pushSdk
   handleAction:(NSString *)actionIdentifier
       category:(NSString *)categoryIdentifier
        payload:(NSDictionary *)payload
       userText:(NSString *)userText {

}
```

Receive Rich Push Message

To collect receive righ push message, add Notification Service Extension (iOS 10.0+) and extends TCPushServiceExtension to your application.
File New > Target > iOS > Notification Service Extension
Rich push messages are based on categories and can not be used in duplicate with user categories.

```
#import <UserNotifications/UserNotifications.h>
#import <TCPushSDK/TCPushSDK.h>

@interface NotificationService : TCPushServiceExtension

@end
```

Receive Righ Push Message Action

Receive actions and messages through the delegate.

```
// for all actions except text input action
- (void)pushSdk:(TCPushSdk *)pushSdk
   handleAction:(NSString *)actionIdentifier
       category:(NSString *)categoryIdentifier
        payload:(NSDictionary *)payload {

}

// for text input action
- (void)pushSdk:(TCPushSdk *)pushSdk
   handleAction:(NSString *)actionIdentifier
       category:(NSString *)categoryIdentifier
        payload:(NSDictionary *)payload
       userText:(NSString *)userText {

}
```

Collect Indicators

Client sends whether to execute application on receiving and notifying push messages, to a server. Check more on the **Statistics** tab of the console.

Received

To collect Received Indicators, add Notification Service Extension (iOS 10.0+) to your application.
File > New > Target > iOS > Notification Service Extension

Set Analytics information

Entering the analytics information in the extension's info.plist file automatically collects and transmits the Received indicators.

- Property List

Information Property List		Dictionary	(12 items)
▼ TCPushAnalytics	⌄	Dictionary	(1 item)
AppKey	⊕ ⊖	String	⌄ INPUT_YOUR_APPKEY
▶ App Transport Security Settings	⌄	Dictionary	(1 item)
Localization native development re...	⌄	String	$(DEVELOPMENT_LANGUAGE)
Bundle display name	⌄	String	TCPushServiceExtensionSample
Executable file	⌄	String	$(EXECUTABLE_NAME)
Bundle identifier	⌄	String	$(PRODUCT_BUNDLE_IDENTIFIER)
InfoDictionary version	⌄	String	6.0
Bundle name	⌄	String	$(PRODUCT_NAME)
Bundle OS Type code	⌄	String	XPC!
Bundle versions string, short	⌄	String	1.0
Bundle version	⌄	String	1
▶ NSExtension	⌄	Dictionary	(2 items)

- Source Code

```xml
<?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>TCPushAnalytics</key>
    <dict>
        <key>AppKey</key>
        <string>INPUT_YOUR_APPKEY</string>
    </dic>
</dict>
</plist>
```

Notification Service Extension

You must extended implementation of TCPushServiceExtension.

```objc
#import <UserNotifications/UserNotifications.h>
#import <TCPushSDK/TCPushSDK.h>


@interface NotificationService : TCPushServiceExtension


@end
```

Opened

Collecting and sending Opened Indicators are automatically done within SDK. Initialization is required
If you do not initialize, enter the analytics information in the application's info.plist and the Opend indicator will be automatically collected and transmitted.

- Property List

Key		Type		Value
▼ Information Property List		Dictionary		(18 items)
▼ TCPushAnalytics	⌄	Dictionary		(1 item)
AppKey	⊕ ⊖	String	⌄	INPUT_YOUR_APPKEY
Localization native development re...	⌄	String		$(DEVELOPMENT_LANGUAGE)
Executable file	⌄	String		$(EXECUTABLE_NAME)
Bundle identifier	⌄	String		$(PRODUCT_BUNDLE_IDENTIFIER)
InfoDictionary version	⌄	String		6.0
Bundle name	⌄	String		$(PRODUCT_NAME)
Bundle OS Type code	⌄	String		APPL
Bundle versions string, short	⌄	String		1.0
Bundle version	⌄	String		1
Application requires iPhone enviro...	⌄	Boolean		YES
▶ App Transport Security Settings	⌄	Dictionary		(1 item)
▶ Required background modes	⌄	Array		(2 items)
Launch screen interface file base...	⌄	String		LaunchScreen
Main storyboard file base name	⌄	String		Main
▶ Required device capabilities	⌄	Array		(1 item)
UIRequiresFullScreen	⌄	Boolean		YES
▶ Supported interface orientations	⌄	Array		(1 item)
▶ Supported interface orientations (i...	⌄	Array		(4 items)

- Source Code

```xml
<?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>TCPushAnalytics</key>
    <dict>
        <key>AppKey</key>
        <string>INPUT_YOUR_APPKEY</string>
    </dic>
</dict>
</plist>
```

Error Codes

Error Codes	Description
TCPushErrorNotInitialized	Not initialized
TCPushErrorInvalidParameters	Error in parameters
TCPushErrorPermissionDenined	Failed to acquire authority
TCPushErrorSystemFail	Failed to register system notifications
TCPushErrorNetworkFail	Failed to receive/deliver via network
TCPushErrorServerFail	Failed to respond via server
TCPushErrorInvalidUrl	Invalid URL request
TCPushErrorNetworkNotReachable	Network not connected