NetCore SDK

Push Notification Integration Help for iOS.

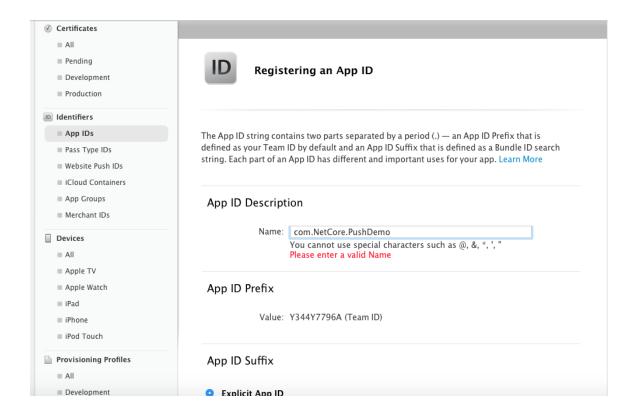
Steps are as follows:

- 1. Creating App ID And Configure Push notification Certificates
- 2. Creating Provisional Profile.
- 3. Configure Application in NetCore
- 4. Setup the NetCore Push SDK into your project.
- 5. Integrate NetCore SDK & Push Methods.

1.1 Creating Explicit App Id

For Push Notification you need create explicit App id and enable push notification for you app id, following are list of step to create app id.

- 1. Sign in to developer.apple.com/account, and click Certificates, IDs & Profiles.
- 2. Under Identifiers, select App IDs.
- 3. Click the Add button (+) in the upper-right corner.
- 4. Enter a name or description for the App ID in the description field.
- 5. To create an explicit App ID, select Explicit App ID and enter the app's bundle ID in the Bundle ID field. An explicit App ID exactly matches the bundle ID of an app you're building. For example, **com.NetCore.PushDemo**. An explicit App ID can't contain an asterisk (*).
- 6. Select the Push Notification checkbox to enable the app Push Notification service
- 7. Click Continue.
- 8. Review the registration information, and click Register.
- 9. Click Done.

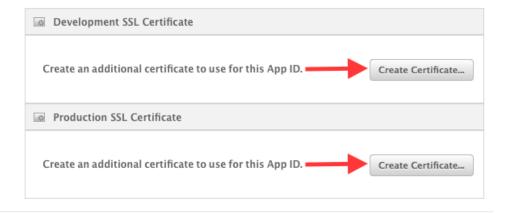


1.2 Configuring Push Notification for your application



Apple Push Notification service SSL Certificates

To configure push notifications for this iOS App ID, a Client SSL Certificate that allows your notification server to connect to the Apple Push Notification Service is required. Each iOS App ID requires its own Client SSL Certificate. Manage and generate your certificates below.



Creating Push Notification Certificates & CSR File



About Creating a Certificate Signing Request (CSR)

To manually generate a Certificate, you need a Certificate Signing Request (CSR) file from your Mac. To create a CSR file, follow the instructions below to create one using Keychain Access.

Create a CSR file.

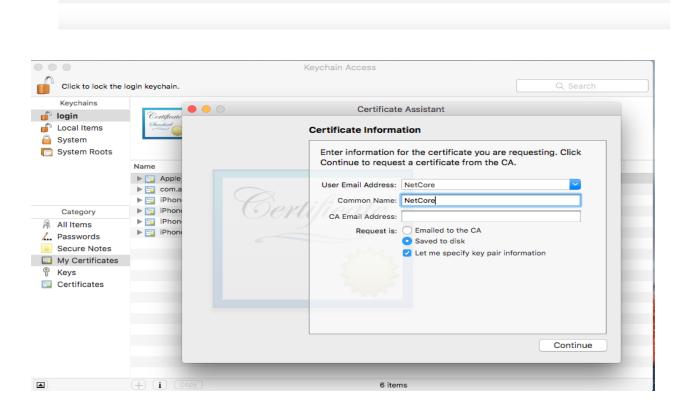
In the Applications folder on your Mac, open the Utilities folder and launch Keychain Access.

Within the Keychain Access drop down menu, select Keychain Access > Certificate Assistant > Request a Certificate from a Certificate Authority.

- In the Certificate Information window, enter the following information:
 - In the User Email Address field, enter your email address.
 - In the Common Name field, create a name for your private key (e.g., John Doe Dev Key).

Continue

- · The CA Email Address field should be left empty.
- In the "Request is" group, select the "Saved to disk" option.
- Click Continue within Keychain Access to complete the CSR generating process.



Generating Certificates and Download it



Your certificate is ready.

Download, Install and Backup

Download your certificate to your Mac, then double click the .cer file to install in Keychain Access. Make sure to save a backup copy of your private and public keys somewhere secure.

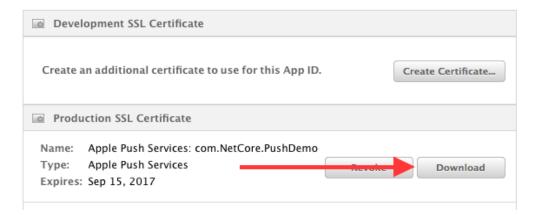






Apple Push Notification service SSL Certificates

To configure push notifications for this iOS App ID, a Client SSL Certificate that allows your notification server to connect to the Apple Push Notification Service is required. Each iOS App ID requires its own Client SSL Certificate. Manage and generate your certificates below.



- Double click on the downloaded SSL certificate to install it in your Keychain.
- In Keychain Access, under "My Certificates", find the certificate you just added.
- Export certificates .p12 file and add "NetCorePush.p12" name Reference link for SSL generation

2. Creating Provisioning Profile

A provisioning profiles is use to install your application to iPhone device ,following are type of provisioning profiles

1)Development provisioning profiles:- This profile use install application on limited team members devices. Follow the steps in Creating Development Provisioning Profiles if you want to create your own development provisioning profile.

2)Distribution provisioning profiles: Distribution profile having 2 types

1)Ad Hoc Distribution :- you can create this profile when you export an app archive and select the ad hoc deployment option, as described in Exporting Your App for Testing Outside the Store. To create an ad hoc provisioning profile directly in your developer account, read Creating Ad Hoc Provisioning Profiles

2)App Store Distribution

We Create store App Store Distribution file when we want deploy application over app store. To create a store provisioning profile directly in your developer account, read Creating Store Provisioning Profiles.

Note: For push notification you can create Ad Hoc Provisioning Profiles for testing, NetCore is configure production level environment for push notification.

Creating Ad Hoc Provisioning Profiles (iOS, tvOS, watchES)

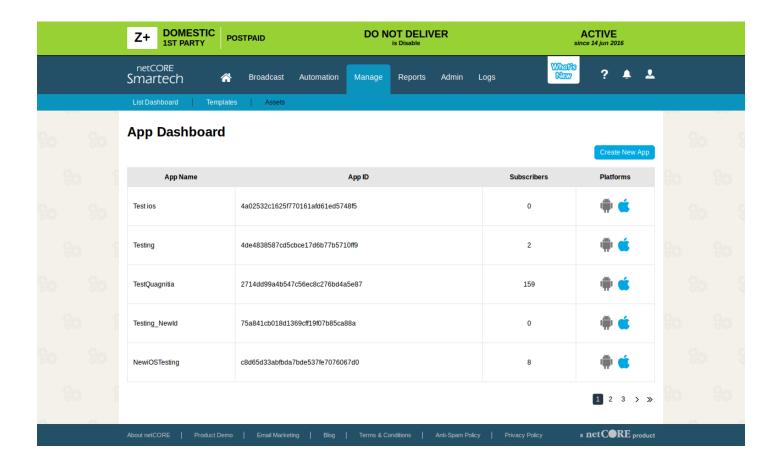
To create an ad hoc provisioning profile

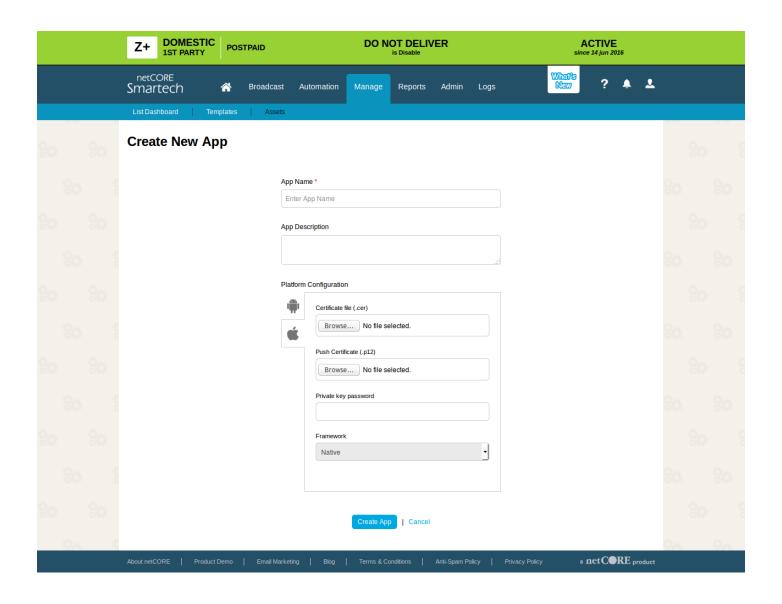
- 1. Sign in to developer.apple.com/account, and click Certificates, IDs & Profiles.
- 2. Under Provisioning Profiles, select All.
- 3. Click the Add button (+) in the upper-right corner.
- 4. Select Ad Hoc as the distribution method, and click Continue.
- 5. Choose the App ID you used for development, which matches your bundle ID, from the App ID pop-up menu, and click Continue.
- 6. If you used a team provisioning profile during development and the menu contains only the XC Wildcard, select it. If the menu contains another Xcode-managed explicit App ID (it begins with "XC" followed by the bundle ID), select that App ID. If you created your own App ID, select that one.
- 7. Select the distribution certificate you want to use, and click Continue.
- 8. If you don't have a distribution certificate, create one using Xcode, as described in Creating Signing Identities, before continuing.
- 9. Select the devices you want to use for testing, and click Continue.
- 10. Enter a profile name, and click Continue.

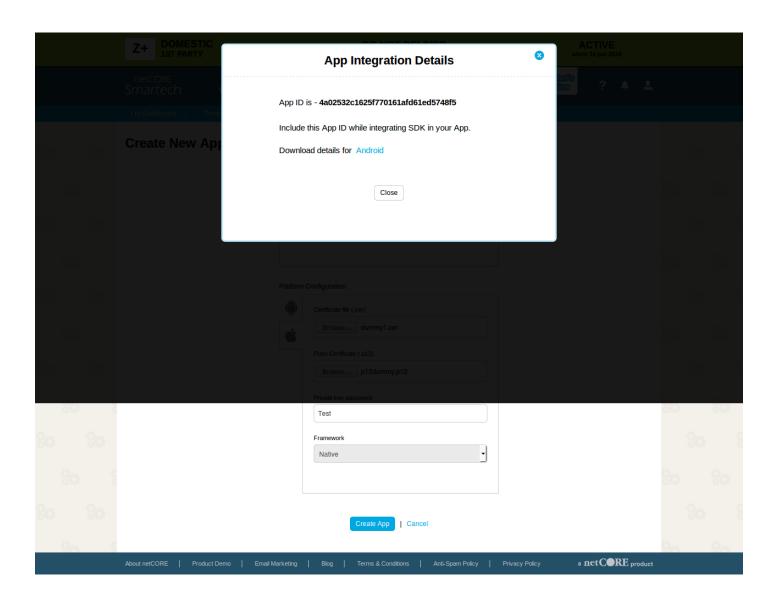
- 11. Wait while your developer account generates the provisioning profile.
- 12. At the bottom of the page, Click Done.

3. Configure Application in NetCore

To Use NetCore push notification you have to first create application inside NetCore website and upload .p12 certificate of your application.







4. Setup the NetCore Push SDK

NetCore Integration Using Cocoa Pod

- 1)Install CocoaPods on your computer.
- 2) open your project add Create pod file using below command

pod init

3) Add following Line in your podfile

pod 'Netcore-Smartech-iOS-SDK'

4)Run following command in your project directory

pod install

5) open App.xcworkspace and build app.

NetCore Manual Integration

Download NetCore iOS SDK from below links

GitHub

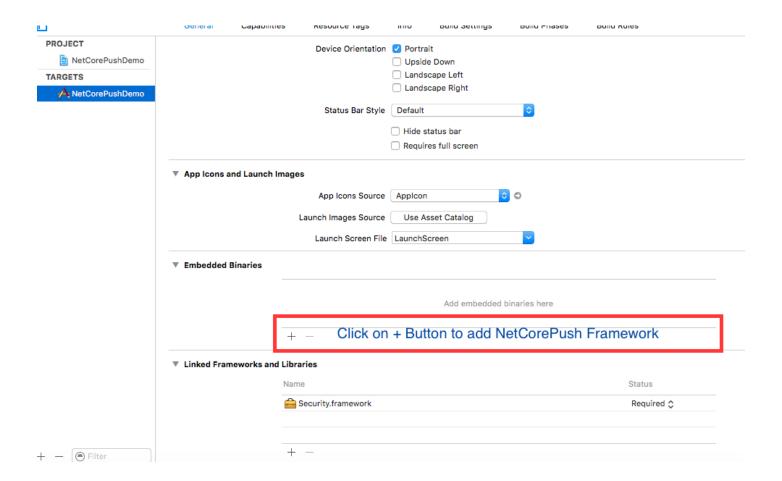
git clone https://github.com/NetcoreSolutions/Smartech-ios-sdk

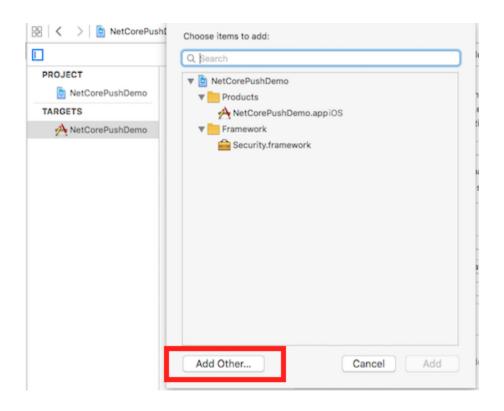
From Browser

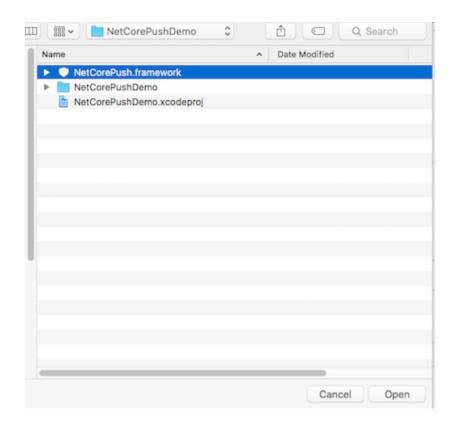
https://github.com/NetcoreSolutions/Smartech-ios-sdk/archive/master.zip

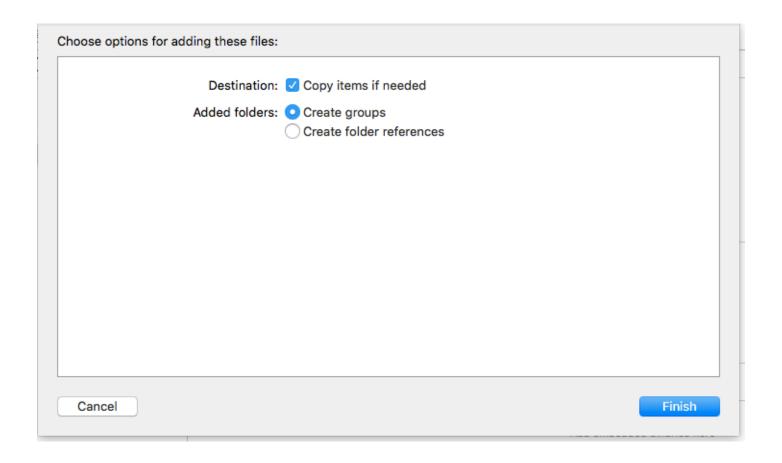
1) **Download iOS SDK** and Unzip the file. Open Framework folder - inside it you will see NetCorePush.framework file.

2) Open existing or create a new project in Xcode and drag drop or add framework in Target > Embedded Binaries section









3. Add following frameworks inside your application if required

- 1)Security
- 2)CoreLocation
- 3)SystemConfiguration
- 4)JavaScriptCore

4) Add Following capability inside your application

- 1) Push Notification
- 2) Keychain
- 3) Background Mode -> Remote Notification
- 4) App Groups

5) Swift Bridge file Reference

Create Bridge file in existing swift project if required and add Following code inside file

#import <NetCorePush/NetCorePush.h>

NetCore SDK Initialization

1) Import following file in Appdelegate File

Objective C

#import <NetCorePush/NetCorePush.h>

#import <UserNotifications/UserNotifications.h>

#import <UserNotificationsUI/UserNotificationsUI.h>

Swift

import UserNotifications import UserNotificationsUI

import NetCorePush

2. Add NetCore Application AppID in support in Finish Launching Methods (AppDelegate file)

```
#define netCore_AppID @"Your App Id which you get from Netcore Smartech admin
panel"
#define appGroup @"<group.com.CompanyName.ProductName>"

[[NetCoreSharedManager sharedInstance] setUpAppGroup:appGroup];

// Set up NetCore Application Id

[[NetCoreSharedManager sharedInstance]
handleApplicationLaunchEvent:launchOptions forApplicationId: netCore_AppID];

//set up push delegate
[NetCorePushTaskManager sharedInstance].delegate = (id)self;

// set up your third party framework initialization process as per their document
```

```
let appGroup = "<group.com.CompanyName.ProductName>"
NetCoreSharedManager.sharedInstance().setUpAppGroup(appGroup)

let netCore_AppID = "your App Id which you get from Netcore Smartech admin panel"

// Set up NetCore Application Id
NetCoreSharedManager.sharedInstance().handleApplicationLaunchEvent(launchOptio ns, forApplicationId: netCore_AppID)

//set up push delegate
NetCorePushTaskManager.sharedInstance().delegate = self

// set up your third party framework initialization process as per their document
```

3. Register Device With NetCore SDK (AppDelegate file)

```
- (void)application:(UIApplication*)application
didRegisterForRemoteNotificationsWithDeviceToken:(NSData*)deviceToken{

// Register device token with third party SDK as per their document

// Identity must be ""(blank) or as per Primary key which defined on Smartech Panel
[[NetCoreInstallation sharedInstance] netCorePushRegisteration: Identity
withDeviceToken:deviceToken Block:^(NSInteger statusCode) {
      }];
}
```

```
func application(_ application: UIApplication,
  didRegisterForRemoteNotificationsWithDeviceToken deviceToken: Data) {
  // Register device token with third party SDK as per their document
  //Identity must be ""(blank) or as per Primary key which defined on Smartech Panel
  NetCoreInstallation.sharedInstance().netCorePushRegisteration(Identity,
  withDeviceToken: deviceToken) { (status) in
     }
  }
}
```

4. Handle Remote/Local Notification Delegate Events (AppDelegate file)

```
-(void)application:(UIApplication *)application didReceiveLocalNotification:
(UILocalNotification *)notification{
[[NetCorePushTaskManager sharedInstance] didReceiveLocalNotification:
notification.userInfo];
- (void)application:(UIApplication*)application didReceiveRemoteNotification:
(NSDictionary*)userInfo{
[[NetCorePushTaskManager sharedInstance] didReceiveRemoteNotification:
userInfol;
}
//Called to let your app know which action was selected by the user for a given
notification.
-(void)userNotificationCenter:(UNUserNotificationCenter* )center
didReceiveNotificationResponse:(UNNotificationResponse*)response
        withCompletionHandler:(void(^)(void))completionHandler
API AVAILABLE(ios(10.0)) API AVAILABLE(ios(10.0)){
    [[NetCorePushTaskManager sharedInstance]
userNotificationdidReceiveNotificationResponse:response];
```

```
func application( application: UIApplication, didReceiveRemoteNotification userInfo:
[AnyHashable: Any]){
NetCorePushTaskManager.sharedInstance().didReceiveRemoteNotification(userInfo)
  }
// MARK: - didReceiveLocalNotification method
func application( application: UIApplication, didReceive notification:
UILocalNotification){
NetCorePushTaskManager.sharedInstance().didReceiveLocalNotification(notification.us
erInfo)
  }
extension AppDelegate: UNUserNotificationCenterDelegate {
// called when application is open when user click on notification
@objc(userNotificationCenter:didReceiveNotificationResponse:withCompletionHandler
:) @available(iOS 10.0, *)
func userNotificationCenter( center: UNUserNotificationCenter, didReceive response:
UNNotificationResponse, withCompletionHandler completionHandler: @escaping () ->
Void) {
  NetCorePushTaskManager.sharedInstance().userNotificationdidReceive(response)
  }
```

5. Handle Deep Linking

```
- (BOOL)application:(UIApplication *)application openURL:(NSURL *)url sourceApplication:(NSString *)sourceApplication annotation:(id)annotation {
    //handle URL Link here return YES;
}

// PushManagerDelegate Method
-(void)handleNotificationOpenAction:(NSDictionary *)userInfo DeepLinkType:
(NSString *)strType{
    if ([strType containsString:@"your app deep link"]){
        //handle deep Link here
    }
}
```

```
func application(_ application: UIApplication, open url: URL, sourceApplication:
    String?, annotation: Any) -> Bool{
        // handle URL link here
        return true
    }

extension AppDelegate : NetCorePushTaskManagerDelegate{
    func handleNotificationOpenAction(_ userInfo: [AnyHashable : Any]!, deepLinkType
    strType: String!) {
        if strType.lowercased().contains ("your app deep link"){
            // handle deep link here
        }
    }
}
```

6. Handle Interactive buttons

```
//Method for Interactive Button
-(void)application:(UIApplication *)application handleActionWithIdentifier:(NSString *)identifier forRemoteNotification:(NSDictionary *)userInfo withResponseInfo:
(NSDictionary *)responseInfo completionHandler:(void (^)(void))completionHandler{

[[NetCorePushTaskManager sharedInstance] handleActionWithIdentifier:identifier forRemoteNotification:userInfo withResponseInfo:responseInfo];

completionHandler();
}
```

```
func application(_ application: UIApplication, handleActionWithIdentifier identifier:
   String?, forRemoteNotification userInfo: [AnyHashable : Any], withResponseInfo
   responseInfo: [AnyHashable : Any], completionHandler: @escaping () -> Void) {
        NetCorePushTaskManager.sharedInstance().handleAction(withIdentifier:
   identifier, forRemoteNotification: userInfo, withResponseInfo: responseInfo)
        completionHandler()
}
```

7. Login

Objective C

```
// Identity must be ""(blank) or as per Primary key which defined on Smartech Panel
[[NetCoreInstallation sharedInstance]netCorePushLogin: Identity Block:^(NSInteger
statusCode) {
    }];
```

Swift

// Identity must be ""(blank) or as per Primary key which defined on Smartech Panel NetCoreInstallation.sharedInstance().netCorePushLogin(Identity) { (statusCode:Int) in }

8. Logout

Objective C

[[NetCoreInstallation sharedInstance]netCorePushLogout:^(NSInteger statusCode) {
 }];

Swift

NetCoreInstallation.sharedInstance().netCorePushLogout { (statusCode:Int) in }

9. Profile Push

Objective C

```
// Identity must be ""(blank) or as per Primary key which defined on Smartech Panel

NSDictionary *info = @{@"NAME":@"Tester",@"AGE":
@"23",@"MOBILE":@"32424342"};

[[NetCoreInstallation sharedInstance]netCoreProfilePush:Identity payload:info
Block:nil];
```

Swift

```
// Identity must be ""(blank) or as per Primary key which defined on Smartech Panel let info = ["NAME":"Tester","AGE": "23","MOBILE":"32424342"]
```

NetCoreInstallation.sharedInstance().netCoreProfilePush(Identity, payload: info, block: nil)

10. Track custom event

// Activity tracking code can be generated from Smartech panel

Objective C

```
[[NetCoreAppTracking sharedInstance]sendAppTrackingEvent:Event_Id payload:
payloadArray Block:^(NSInteger statusCode) {}];

eg.
NSMutableDictionary * dict = [NSMutableDictionary new];
[dict setObject:@"Nexus" forKey:@"s^brand"];
[dict setObject:@11 forKey:@"i^price"];
[dict setObject:@2 forKey:@"i^prid"];

NSMutableArray *payloadArray = [[NSMutableArray alloc] init];
[payloadArray addObject:dict];

[[NetCoreAppTracking sharedInstance] sendAppTrackingEventWithCustomPayload:2
Payload:payloadArray Block:^(NSInteger statusCode) {} ];
```

Swift

```
NetCoreAppTracking.sharedInstance().sendEvent(withCustomPayload: Int(Event_Id), payload: payloadArray , block: nil)

eg.
var dict = [String: Any]()
dict["s^brand"] = "Nexus"
dict["i^price"] = 11
dict["i^prid"] = 2

var payloadArray = [AnyHashable]()
payloadArray.append(dict)

NetCoreAppTracking.sharedInstance().sendEvent(withCustomPayload:2, payload: payloadArray , block: nil)
```

11. To fetch delivered push notifications

Objective C

NSArray *notificationArray = [[NetCoreSharedManager sharedInstance]
getNotifications];

Swift

let notificationArray : Array =

NetCoreSharedManager.sharedInstance().getNotifications()

12. If user wants to opt out from being tracked

Objective C

[[NetCoreSharedManager sharedInstance] optOut:<boolean_flag>];

Swift

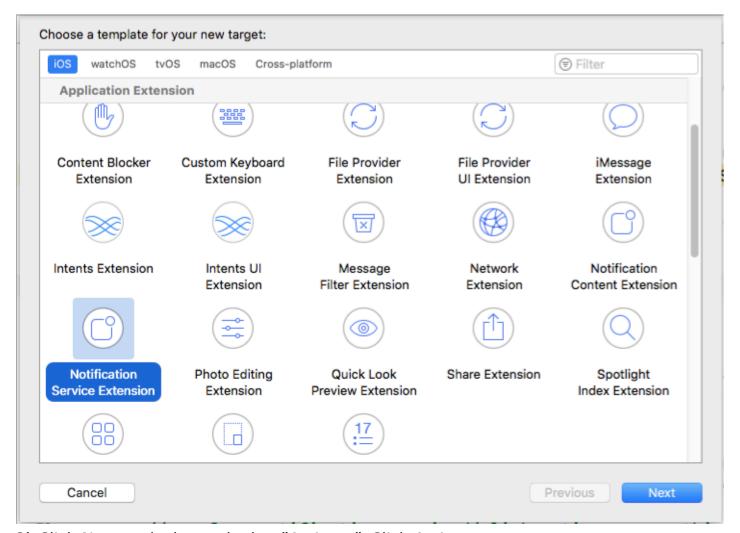
NetCoreSharedManager.sharedInstance().optOut(<boolean_flag>)

Note: The method mentioned above accepts a compulsory boolean value (true/false).

13. For Rich Push Notifications

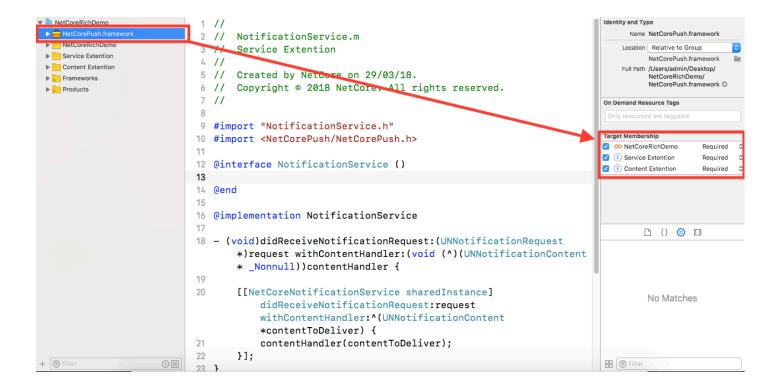
Configuration Changes

1) Add "Notification Service Extension" to your app. File->New->Target- >Notification Service Extension.



- 2) Click Next and when asked to "Activate", Click Activate.
- 3) Add "App Groups" to your apps Capabilities(Add one group with name "<group.com.CompanyName.ProductName>").
- 4) Enable **App groups in Service Extension** too and select group with name "<group.com.CompanyName.ProductName>".
- 5) If App group is not activated on the provisioning profile you are using, then
 - **1.**Enable App groups in your provisioning profile from your Apple Developer's account and replace the profile with the new one. **Or**,
 - 2. In your apps's, Target->General-> Signing, Select "Automatically manage signing" and enable App groups by going to Target->Capabilities->App group. This will automatically add app groups capability to you provisioning profile.

6) Make sure to add NetCore SDK to your Extension's too.



Implementation Changes

Objective C

Remove all the code written in "NotificationService" implementation part.

1) Import NetCore Framework into Extension

#import <NetCorePush/NetCorePush.h>

2) Handle Notification Request

```
- (void)didReceiveNotificationRequest:(UNNotificationRequest *)request
withContentHandler:(void (^)(UNNotificationContent * _Nonnull))contentHandler {

[[NetCoreNotificationService sharedInstance]
setUpAppGroup:@"<group.com.CompanyName.ProductName>"];

[[NetCoreNotificationService sharedInstance] didReceiveNotificationRequest:request
withContentHandler:^(UNNotificationContent *contentToDeliver) {

contentHandler(contentToDeliver); }];
}
```

3) Handle Notification Service Time Expire

```
- (void)serviceExtensionTimeWillExpire {

[[NetCoreNotificationService sharedInstance] serviceExtensionTimeWillExpire];
}
```

```
🔡 🔇 > 🛅 NetCoreRichDemo 🗎 Service Extention > 📠 NotificationService.m > 🔟 -didReceiveNotificationRequest:withContentHandler:
                                                                                                   < ( )
  9 #import "NotificationService.h"
 10 #import <NetCorePush/NetCorePush.h>
 11
 12 @interface NotificationService ()
 13
 14 @end
 15
 16 @implementation NotificationService
 17
 18 - (void)didReceiveNotificationRequest:(UNNotificationRequest *)request
         withContentHandler:(void (^)(UNNotificationContent * Nonnull))contentHandler {
 19
         [[NetCoreNotificationService sharedInstance]
 20
             setUpAppGroup:@"group.com.NetCore.DemoApp"];
 21
 22
         [[NetCoreNotificationService sharedInstance] didReceiveNotificationRequest:request
             withContentHandler:^(UNNotificationContent *contentToDeliver) {
             contentHandler(contentToDeliver);
 23
        }];
 24
 25 }
 27 - (void)serviceExtensionTimeWillExpire {
 28
         [[NetCoreNotificationService sharedInstance] serviceExtensionTimeWillExpire];
 29
 30 }
 31
 22
```

- 4) After all the above code, Your "**Notification Service**" should look like the image above.
- 5) Define the App Transport Security configuration by adding the following snippet to the Notification Service target's Info.plist.

Remove all the code written in "NotificationService" class part .

1) Import NetCore Framework into Extension

import NetCorePush

2) Handle Notification Request

```
override func didReceive(_ request: UNNotificationRequest, withContentHandler
contentHandler: @escaping (UNNotificationContent) -> Void) {
   NetCoreNotificationService.sharedInstance().setUpAppGroup("<group.com.Company
   Name.ProductName>")
   NetCoreNotificationService.sharedInstance().didReceive(request)
   { (contentToDeliver:UNNotificationContent) in
   contentHandler(contentToDeliver) }}
```

3) Handle Notification Service Time Expire

```
override func serviceExtensionTimeWillExpire() {
  NetCoreNotificationService.sharedInstance().serviceExtensionTimeWillExpire()
}
```

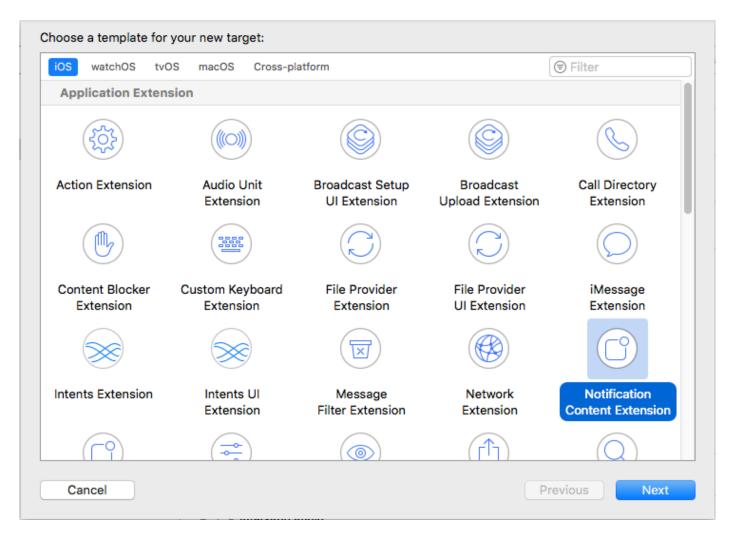
4) After all the above code, Your "Notification Service" class should look like the image below.

```
🔡 🔇 > 🖺 CarouselTestSwift > 🦲 Service Extension > 🐚 NotificationService.swift > M didReceive(_:withContentHandler:)
                                                                                                  < ( )
       Created by Admin on 11/06/18.
 6 // Copyright @ 2018 Manish Kumar. All rights reserved.
 7 //
 9 import UserNotifications
 10 import NetCorePush
 12 class NotificationService: UNNotificationServiceExtension {
 13
        override func didReceive(_ request: UNNotificationRequest, withContentHandler
 14
             contentHandler: @escaping (UNNotificationContent) -> Void) {
 15
 16
             NetCoreNotificationService.sharedInstance().setUpAppGroup("group.com.NetCore.Demo
             ("ggA
 17
             NetCoreNotificationService.sharedInstance().didReceive(request)
 18
                 { (contentToDeliver:UNNotificationContent) in
 19
                 contentHandler(contentToDeliver)
 20
             }
        }
 21
 22
 23
        override func serviceExtensionTimeWillExpire() {
 24
             NetCoreNotificationService.sharedInstance().serviceExtensionTimeWillExpire()
 25
        }
 27 }
```

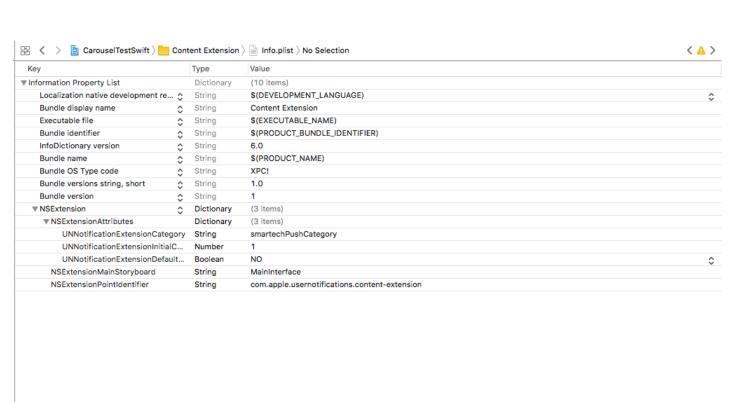
5) Define the App Transport Security configuration by adding the following snippet to the Notification Service target's Info.plist.

14. For Carousel Push Notifications

- 1) Add "Notification Content Extension" to your app. File->New->Target-
- >Notification Content Extension.



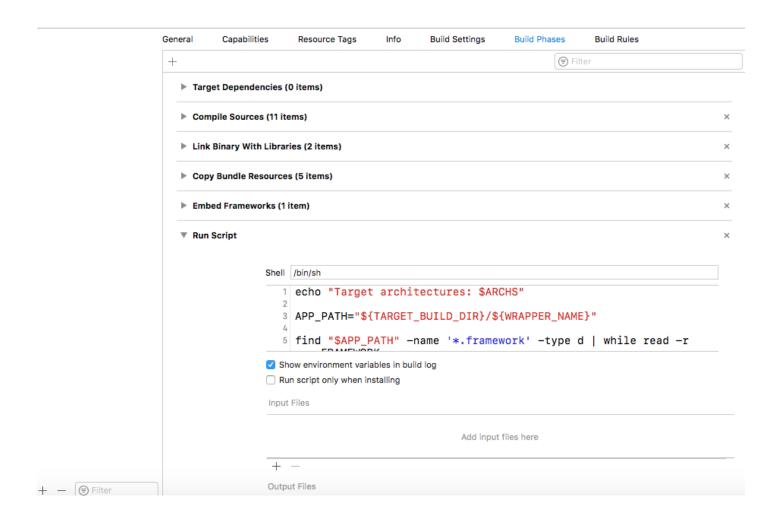
- 2) Click Next and when asked to "Activate", Click yes.
- 3) Add "App Groups" to your apps Capabilities(Add one group with name "<group.com.CompanyName.ProductName>").
- 4) Enable **App groups in Service Extension** too and select group with name "<group.com.CompanyName.ProductName>".
- 5) Replace "MainInterface.storyboard" of Content Extension with the provided by us.
- 6) In "Info.plist" file of Content Extension, replace "UNNotificationExtensionCategory" value with "smartechPushCategory"
- 7) In "Info.plist" file of Content Extension, add
 "UNNotificationExtensionDefaultContentHidden" Boolean value with "NO".



8) Replace "NotificationViewController" class files from the Rich Push folder into your project.

Deployment Over Apple Store

Add Following runscript in your application target ,when you are deploying application over apple store, this run script use remove unused architecture in release mode



```
APP PATH="${TARGET BUILD DIR}/${WRAPPER NAME}"
# This script loops through the frameworks embedded in the application and
# removes unused architectures.
find "$APP PATH" -name '*.framework' -type d | while read -r FRAMEWORK
do
  FRAMEWORK EXECUTABLE NAME=$(defaults read "$FRAMEWORK/Info.plist"
CFBundleExecutable)
  FRAMEWORK EXECUTABLE PATH="$FRAMEWORK/
$FRAMEWORK EXECUTABLE NAME"
  echo "Executable is $FRAMEWORK_EXECUTABLE_PATH"
  EXTRACTED ARCHS=()
  for ARCH in $ARCHS
  do
    echo "Extracting $ARCH from $FRAMEWORK_EXECUTABLE_NAME"
    lipo -extract "$ARCH" "$FRAMEWORK EXECUTABLE PATH" -o
"$FRAMEWORK EXECUTABLE PATH-$ARCH"
    EXTRACTED ARCHS+=("$FRAMEWORK EXECUTABLE PATH-$ARCH")
  done
  echo "Merging extracted architectures: ${ARCHS}"
  lipo -o "$FRAMEWORK EXECUTABLE PATH-merged" -create "$
{EXTRACTED ARCHS[@]}"
  rm "${EXTRACTED_ARCHS[@]}"
  echo "Replacing original executable with thinned version"
  rm "$FRAMEWORK EXECUTABLE PATH"
  mv "$FRAMEWORK EXECUTABLE PATH-merged"
"$FRAMEWORK EXECUTABLE PATH"
done
```