Oracle Banking Digital Experience

Mobile Application Builder Guide – iOS
Release 18.2.0.0.0

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Mobile Application Builder Guide – iOS

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1. Preface

1.1 Intended Audience

This document is intended for the following audience:

- Customers
- Partners

1.2 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=accandid=docacc.

1.3 Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit

http://www.oracle.com/pls/topic/lookup?ctx=accandid=info or visit

http://www.oracle.com/pls/topic/lookup?ctx=accandid=trs if you are hearing impaired.

1.4 Structure

This manual is organized into the following categories:

Preface gives information on the intended audience. It also describes the overall structure of the User Manual.

The subsequent chapters describes following details:

- Configuration / Installation.

1.5 Related Information Sources

For more information on Oracle Banking Digital Experience Release 18.2.0.0.0, refer to the following documents:

- Oracle Banking Digital Experience Licensing Guide

2. OBDX Servicing Application

2.1 Pre requisite

- Download and Install node js as it is required to run npm commands.
- XCode to be download from Mac App Store

2.2 Create Project

1. Extract iOS workspace from installer and place in a folder.
2. The workspace by default contains framework for running on devices. Hence to run the application on simulator, delete and copy the 3 frameworks (OBDXExtensions.framework, OBDXFramework.framework, OBDXWatchFramework.framework) from installer/simulator to zigbank\platforms\ios directory.

2.3 Adding UI to workspace.

Use any 1 option below

a. Building un built UI (required in case of customizations)

Extract unbuilt UI and traverse to **OBDX_Installer/installables/ui/channel/_build** folder and perform below steps

Windows –

```
npm install -g grunt-cli
npm install
set IS_GRUNT=true
node render-requirejs/render-requirejs.js mobile
npm install cwebp-bin
```

Copy "vendor" directory from _build/node_modules/cwebp-bin/ to _build/node_modules/gruntcwebp/node_modules/cwebp-bin

```
grunt --max_old_space_size=5120 mobilebuild --platform=ios
```

Linux –

```
sudo npm install -g grunt-cli
sudo npm install
export IS_GRUNT=true
node render-requirejs/render-requirejs.js mobile
npm install cwebp-bin
```

Copy "vendor" directory from _build/node_modules/cwebp-bin/ to _build/node_modules/gruntcwebp/node_modules/cwebp-bin

```
grunt --max_old_space_size=5120 mobilebuild --platform=ios
```

b. Using built UI (out of box shipped with installer)

i. Unzip dist.tar.gz for android from installer and copy folders(components,extensions,framework,images,json,lzn,pages,partials,resource, index.html, build.fingerprint) to workspace (platforms/ios/www/)

Delete originations folder inside images (images/originations) and ensure webhelp folder is not copied.

2.4 Open project in Xcode

Open Xcode by clicking ZigBank.xcodeproj at zigbank/platforms/ios/

1. Adding URLs to app.plist (ZigBank/Resources)

a. FOR NONOAM (DB Authenticator setup)

SERVER_TYPE	NONOAM
KEY_SERVER_URL	http://mum00chx.in.oracle.com:3333
WEB_URL	http://mum00chx.in.oracle.com:3333
PinnedCertificateName	Name of SSL certificate without extension of OBDX App Server

a. OAM Setup (Refer to installer pre requisite documents for OAuth configurations)

SERVER_TYPE	OAM
KEY_SERVER_URL	Eg. http://mum00chx.in.oracle.com:8003 (This URL must be of OHS without webgate)
WEB_URL	Eg.http://mum00chx.in.oracle.com:3333
KEY_OAUTH_PROVIDER_URL	http://mum00aon.in.oracle.com:14100/oauth2/rest/token
APP_CLIENT_ID	<Base64 of clientid:secret> of Mobile App client
APP_DOMAIN	OBDXMobileAppDomain
WATCH_CLIENT_ID	<Base64 of clientid:secret> of wearables
WATCH_DOMAIN	OBDXWearDomain
SNAPSHOT_CLIENT_ID	<Base64 of clientid:secret> of snapshot
SNAPSHOT_DOMAIN	OBDXSnapshotDomain
LOGIN_SCOPE	OBDXMobileAppResServer.OBDXLoginScope
PinnedCertificateOAMName	Name of SSL certificate without extension of OAM Server
PinnedCertificateName	Name of SSL certificate without extension of OBDX App Server

b. IDCS Setup

SERVER_TYPE	IDCS

KEY_SERVER_URL	Eg. http://mum00chx.in.oracle.com:8003 (This URL must be of OHS without webgate)
WEB_URL	Eg.http://mum00chx.in.oracle.com:3333
KEY_OAUTH_PROVIDER_URL	http://obdx-tenant01.identity.c9dev0.oc9qadev.com/oauth2/v1/token
APP_CLIENT_ID	<Base64 of clientid:secret> of Mobile App client
WATCH_CLIENT_ID	<Base64 of clientid:secret> of wearables
SNAPSHOT_CLIENT_ID	<Base64 of clientid:secret> of snapshot
LOGIN_SCOPE	obdxLoginScope
OFFLINE_SCOPE	urn:opc:idm:__myscopes__ offline_access

2. Adding chatbot support to mobile application (Optional)

CHATBOT_ID	The tenant ID
CHATBOT_URL	The web socket URL for the ChatApp application in IBCS

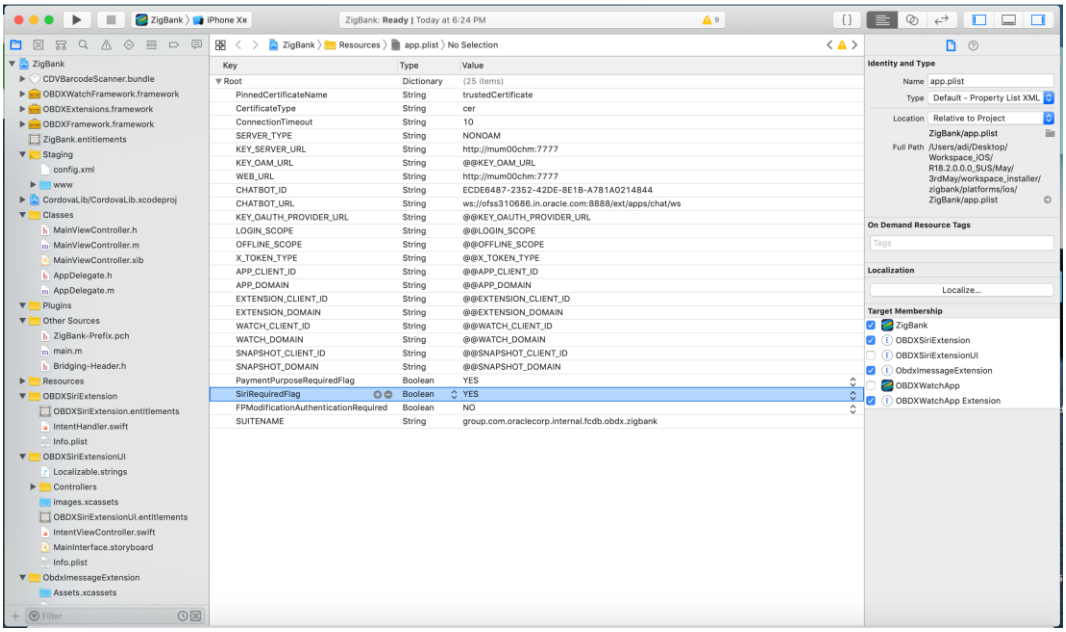
3. Common configurations

`SUITENAME`	Group identifier for sharing keystore information. Same as given in app groups
`CertificateType`	Extension of SSL Pinned certificates (Eg cer/der)

To use SSL Pinning in the application:

1. Add the certificate file (.cer) into Project's Resource folder. Open the Xcode project, right click on the Resources folder. Select "Add Files to Zigbank". Select the certificate file. Keep "Copy items checked". Also the "Zigbank" target should be selected. After addeing the certificate and setting the required SSL parameters in the app.plisty as mentioned in the above table, SSL pinning will be enabled. The server url should also point to https URL.

To disable Siri in application (in case bank does not want to use this functionality), disable touch point through admin user and then as per below screenshot turn the SiriRequiredFlag to NO



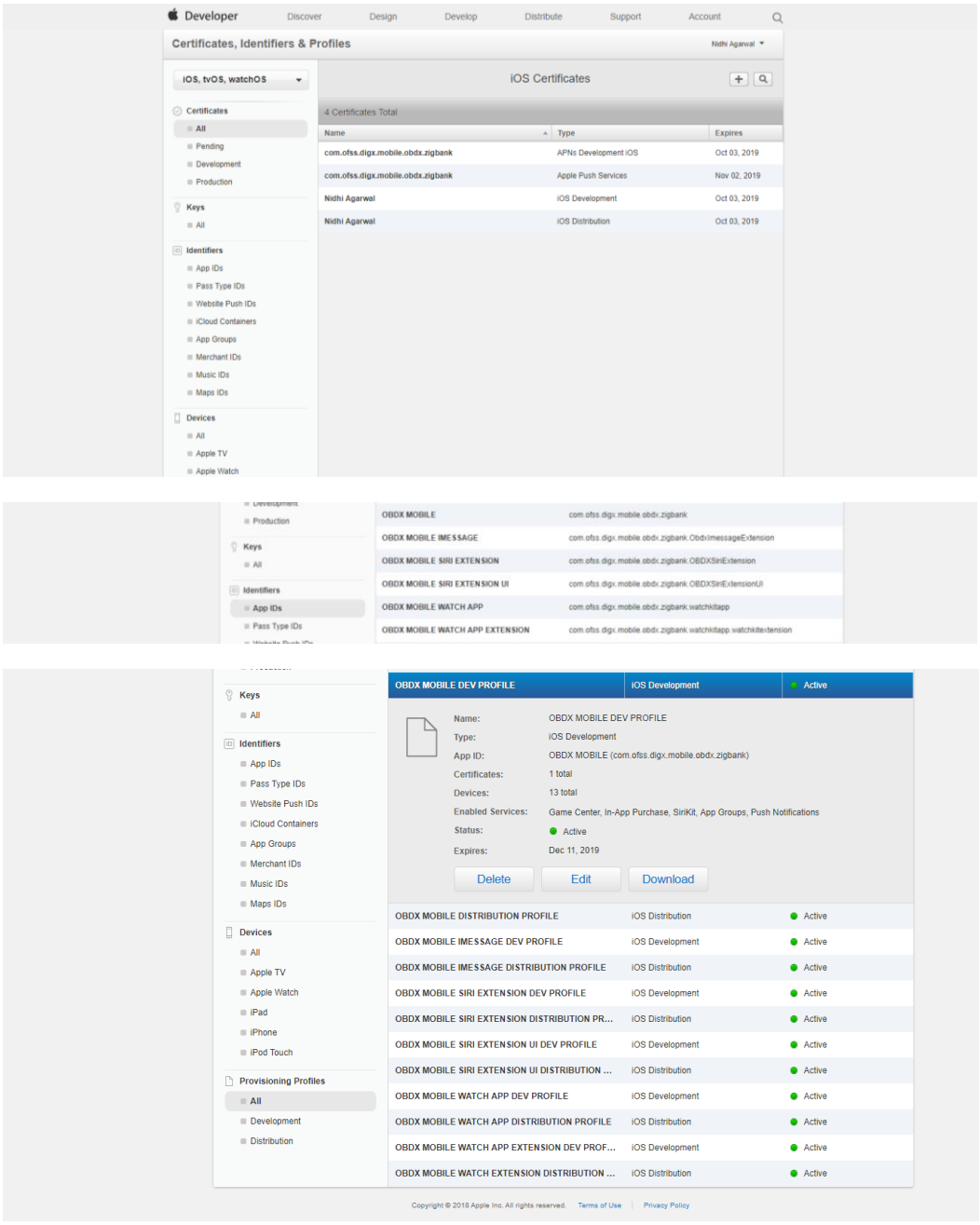
Adding Bundle Identifiers

Bundle identifiers needs to be added in the Info.plist of each the frameworks along with the Signing Capabilities tab in Xcode. For example, the bundle identifier used is abc.def.ghi.jkl. The steps to be followed are,

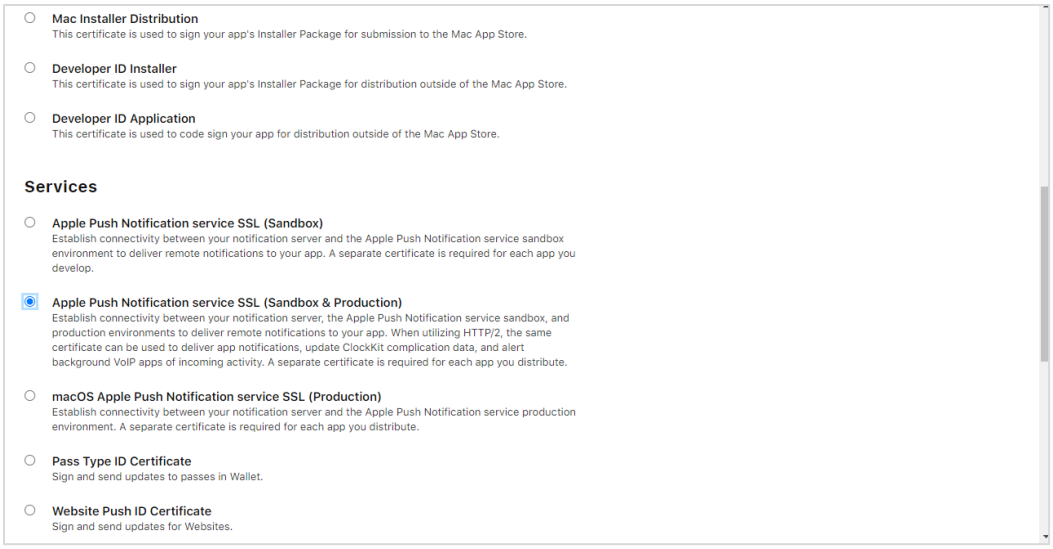
- Right click on OBDXFramework.framework(in Xcode's Project Navigator) -> Show in Finder
- When the finder directory opens the right click OBDXFramework.framework -> Show package contents.
- Open Info.plist and set Bundle identifier as abc.def.ghi.jkl.OBDXFramework
- Repeat the steps for the other three frameworks as well, with the following values:
    - Bundle identifier for Cordova.framework : abc.def.ghi.jkl.Cordova
    - Bundle identifier for OBDXExtensions.framework : abc.def.ghi.jkl.OBDXExtensions
    - Bundle identifier for OBDXWatchFramework.framework : abc.def.ghi.jkl. OBDXWatchFramework

2.5 Generating Certificates for Development, Production and Push Notifications

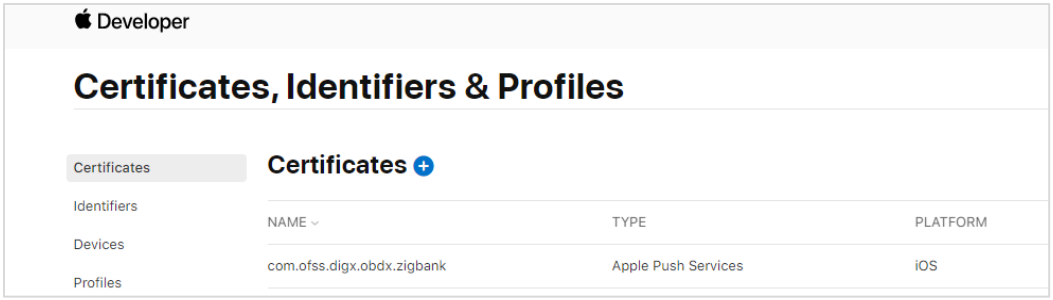
Create all certificates (by uploading CSR for keychain utility), provisioning profiles and push certificates as shown below by login in developer console. For development add device UUIDs and add same to provisioning profiles. Add capabilities as shown below and ensure the bundle identifier matches the one of the application in Xcode



Ensure AppGroups capability is added to all profiles and for mobile profile SiriKit, App Groups, Push Notifications must by added.



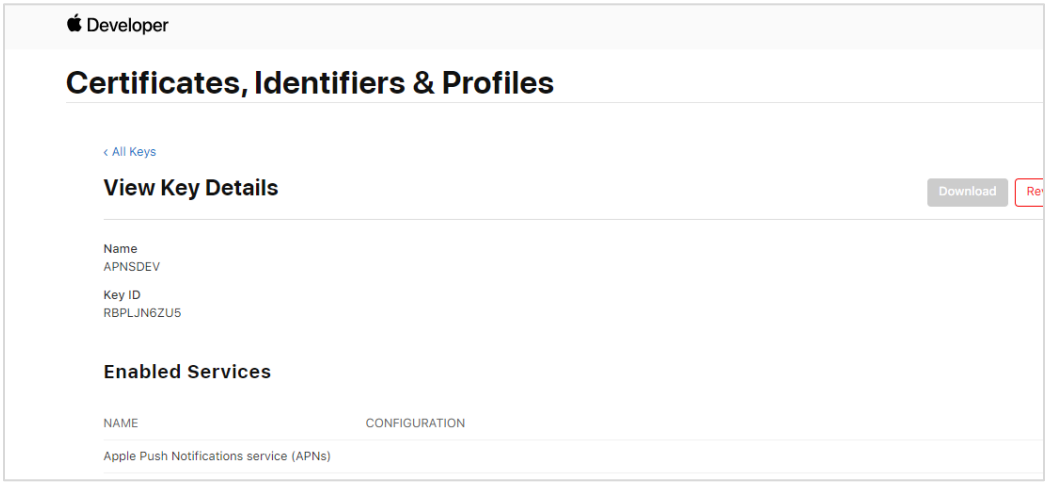
Note the certificate/bundle name



Note the Team ID from top right corner

Navigate to the “Keys” section and create APNS key

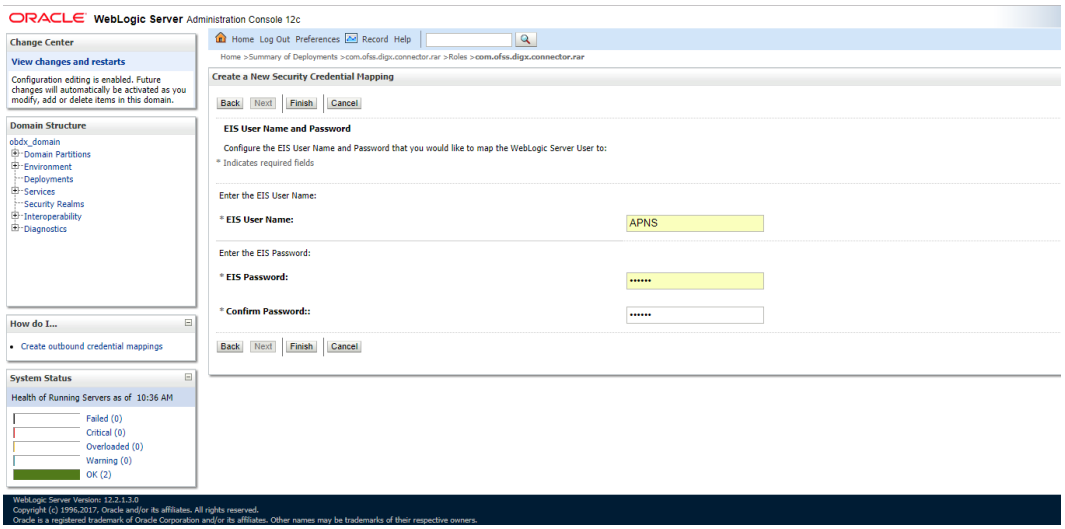
Note APNS key and download the .p8 file. Copy the .p8 to config/resources\mobile



Update the password as shown below –

Sr. No.	Table	PROP_ID	CATEGORY_ID	PROP_VALUE	Purpose
1	DIGX_FW_CONFIG_ALL_B	APNS	DispatchDetails	<Password>	Provides key of .p8 certificate
2	DIGX_FW_CONFIG_ALL_B	APNSKeyStore	DispatchDetails	DATABASE or CONNECTOR	Specifies whether to pick certificate password from database or from connector. Default DB (No change)
3	DIGX_FW_CONFIG_ALL_B	Proxy	DispatchDetails	<protocol,proxy_address>	Provides proxy address, if any, to be provided while connecting to APNS server. Delete row if proxy not required. Example: HTTP,148.50.60,80
4	DIGX_FW_CONFIG_ALL_B	CERT_TYPE	DispatchDetails	For dev push certs add row with value ‘dev’	For prod push certificates this row is not required
5	DIGX_FW_CONFIG_ALL_B	ios_cert_path	DispatchDetails	resources/mobile/AuthKey_RBPLJN6ZU5.p8	Update the certificate path/name if required. Should be relative to config directory
6	DIGX_FW_CONFIG_ALL_B	APNS_BUNDLE	DispatchDetails	Eg. com.ofss.digx.obdx.zigbank	Certificate Name
7	DIGX_FW_CONFIG_ALL_B	APNS_TEAMID	DispatchDetails	Eg. 3NX1974C93	Team ID of Apple developer account

If CONNECTOR is selected in Step 2 update key as below

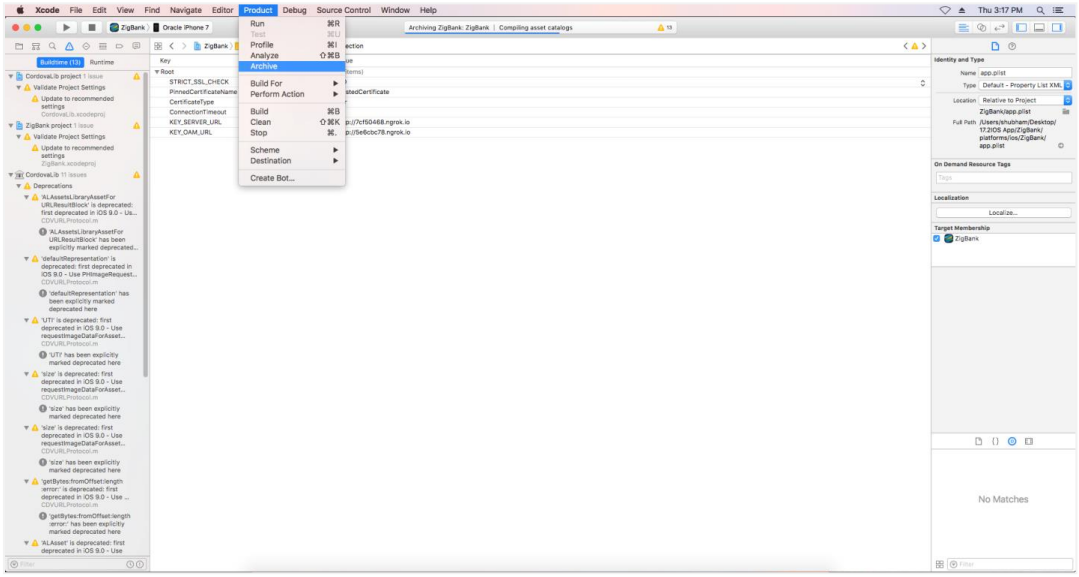


Properties for tokens to be configured as –

Sr. No.	Table	PROP_ID	CATEGORY_ID	PROP_VALUE (Default Value)	Purpose
1	DIGX_FW_CONFIG_ALL_B	APMOBAPP_EXPIRYTIME	authenticationConfig	864000	Time in secs after which user will have to reregister for alternate login in mobile app
2	DIGX_FW_CONFIG_ALL_B	APSNAPSHOT_EXPIRYTIME	authenticationConfig	1296000	Time in secs after which user will have to reregister for snapshot (for mobile app & wearable)
3	DIGX_FW_CONFIG_ALL_B	APWEARABLE_EXPIRYTIME	authenticationConfig	1296000	Time in secs after which user will have to reregister for login in wearables
4	DIGX_FW_CONFIG_ALL_B	APSIRICHATBOT_EXPIRYTIME	authenticationConfig	1296000	Time in secs after which user will have to reregister for Siri (There is no separate registration, it will happen automatically after alternate login is enabled)

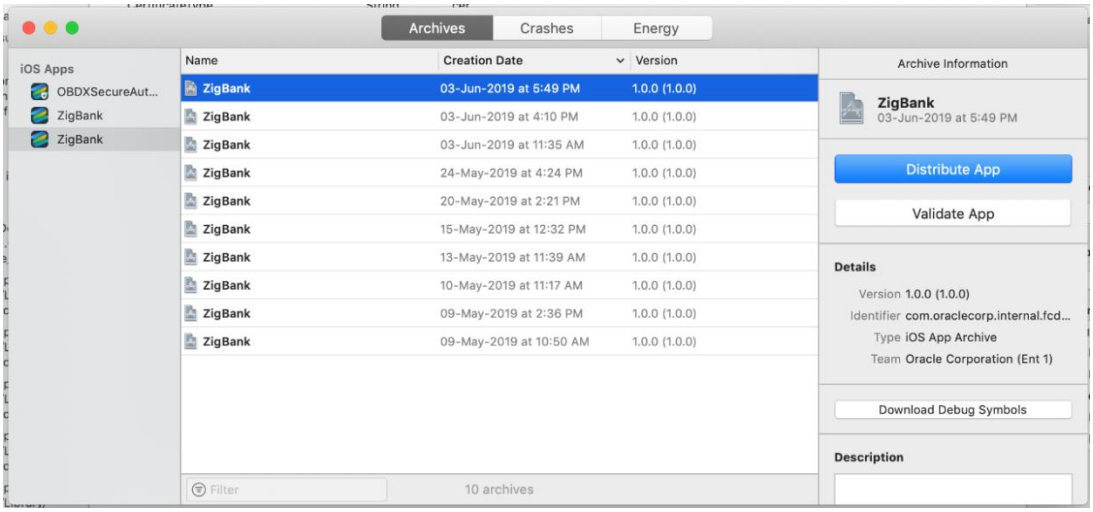
3. Archive and Export

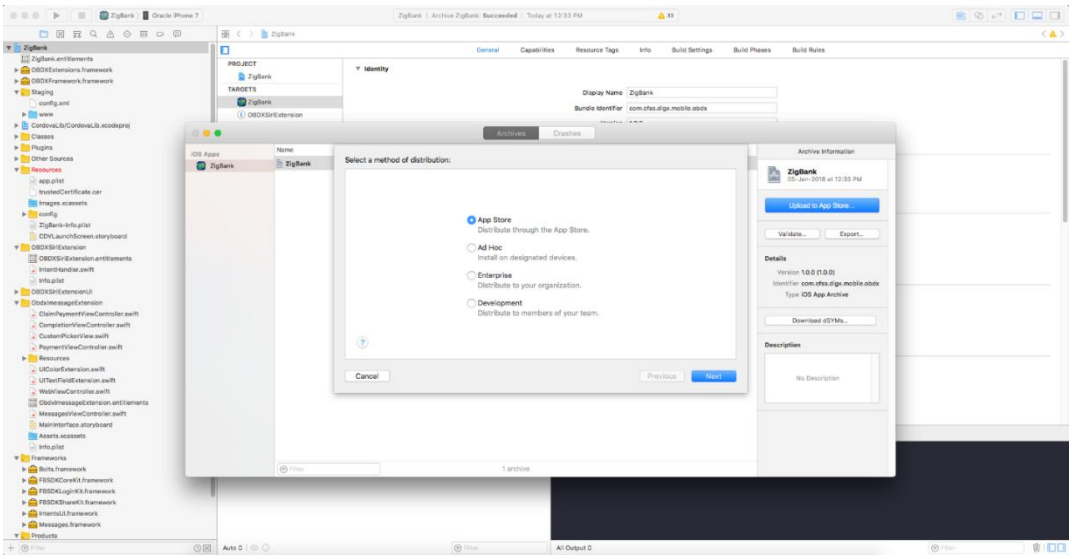
a. In the Menu bar click on **Product -> Archive (Select Generic iOS Device)**

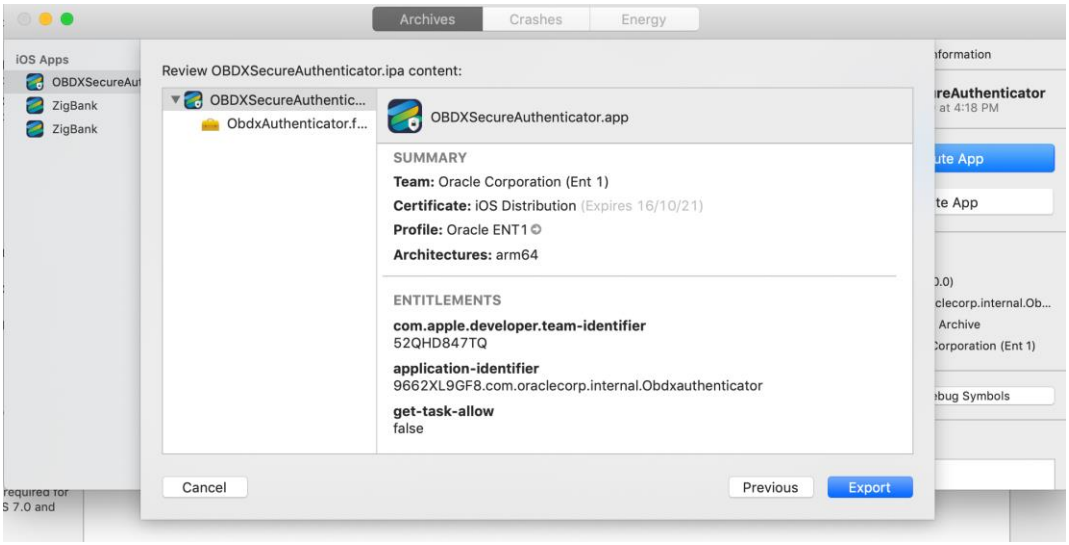


b. After archiving has successfully completed. Following popup will appear

c. Click on Export in the right pane of the popup -> Click **Distribute App -> Choose Provisioning Profile ->** select **Export one app for all Compatible Devices -> Next -> Next and generate the ipa**.



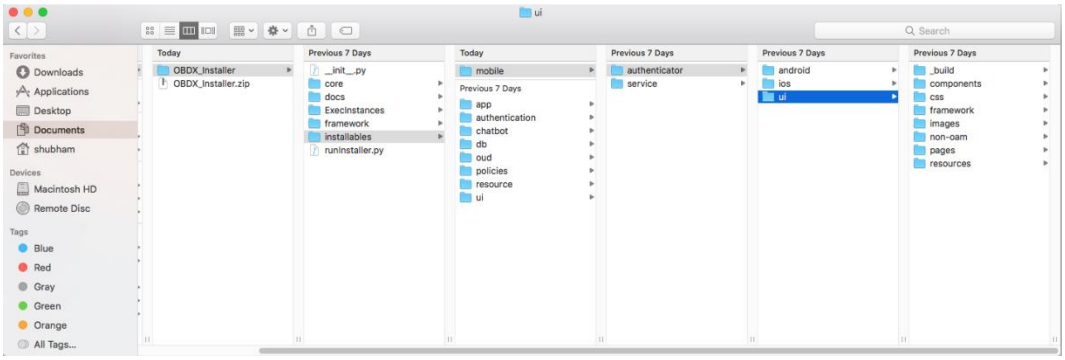

Archives
Crashes
Select a method of distribution:
App Store
Distribute through the App Store.
Ad Hoc
Install on designated devices.
Enterprise
Distribute to your organization.
Development
Distribute to members of your team.
Cancel
Previous
Next


Archives
Crashes
Energy
iOS Apps
ZigBank
ZigBank
Review OBDXSecureAuthenticator.ipa content:
OBDXSecureAuthentic...
ObdxAuthenticator.f...
OBDXSecureAuthenticator.app
SUMMARY
Team: Oracle Corporation (Ent 1)
Certificate: iOS Distribution (Expires 16/10/21)
Profile: Oracle ENT1
Architectures: arm64
ENTITLEMENTS
com.apple.developer.team-identifier
52QHD847TQ
application-identifier
9662XL9GF8.com.oraclecorp.internal.Obdxauthenticator
get-task-allow
false
Cancel
Previous
Export

4. OBDX Authenticator Application

4.1 Building Authenticator UI

1. Extract OBDX_Installer.zip. It contains **OBDX_Installer/installables/mobile/authenticator/ui** folder. The folder structure is as shown :



(a) OAM based Authentication

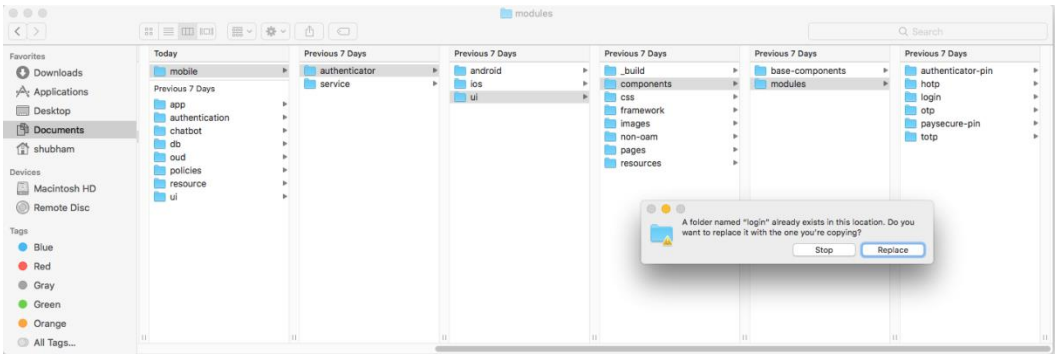
2. Open Terminal at *"_build"* level.
3. Run following command :

```
sudo npm install -g grunt-cli

sudo npm install

node render-requirejs/render-requirejs.js

grunt authenticator --verbose
```

4. After running above commands and getting result as "*Done, without errors.*" a new folder will be created at "_build" level with name as "dist".

(b) NON-OAM Based Authentication

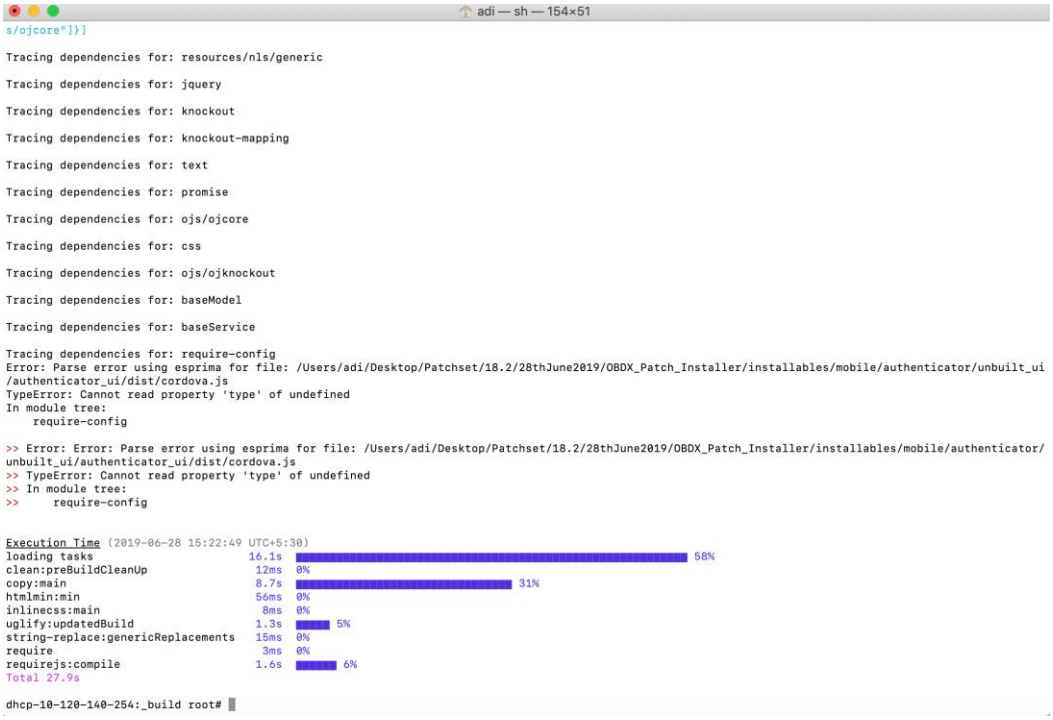
1. Copy "*non-oam/login"* folder and Replace it at location "*components/modules/" [in ui folder]* location. This will replace existing "*login*" folder.

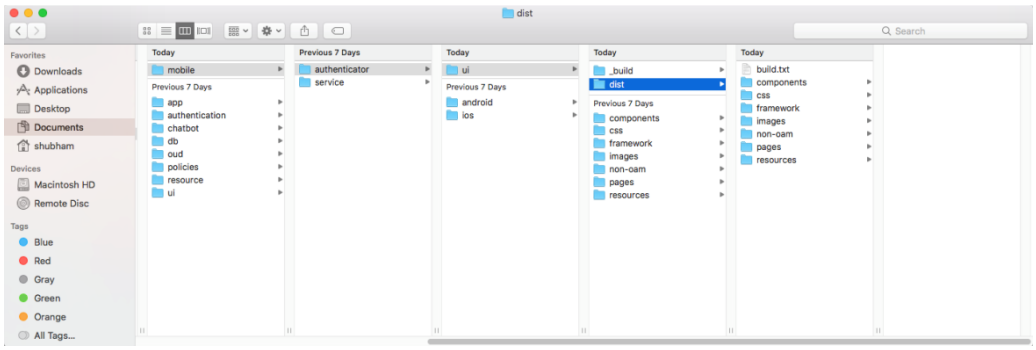


2. Open Terminal at “_build” level.
3. Run following command :

```
sudo npm install -g grunt-cli

sudo npm install

node render-requirejs/render-requirejs.js

grunt authenticator --verbose
```

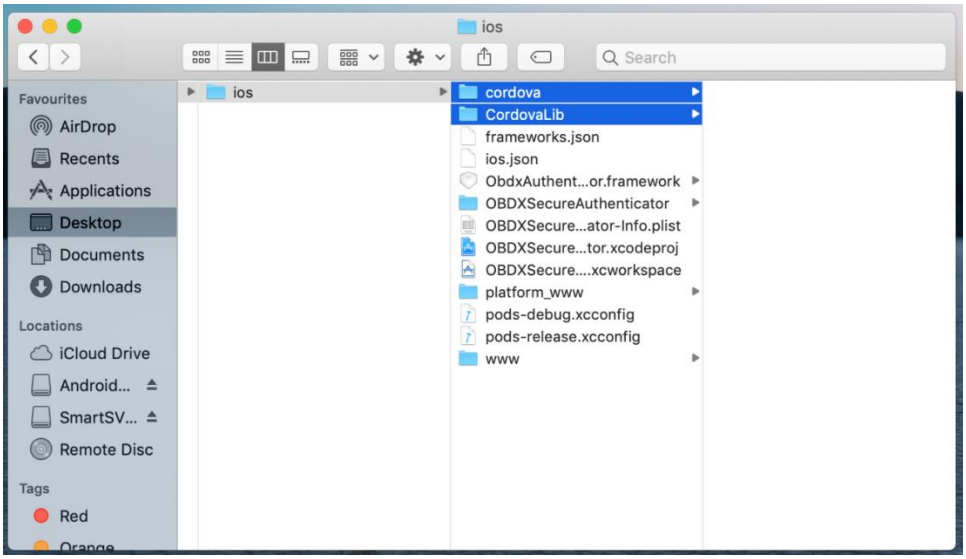
4. After running above commands and getting below result. This error can be ignored and a new folder will be created in “ui” folder with name as “dist”.




dist
Search
Favorites
Downloads
Applications
Desktop
Documents
shubham
Devices
Macintosh HD
Remote Disc
Tags
Blue
Red
Gray
Green
Orange
All Tags...
Today
mobile
Previous 7 Days
app
authentication
chatbot
db
oud
policies
resource
ui
Previous 7 Days
authenticator
service
Today
ui
Previous 7 Days
android
ios
Today
_build
dist
Previous 7 Days
components
css
framework
images
non-oam
pages
resources
Today
build.txt
components
css
framework
images
non-oam
pages
resources

4.2 Authenticator Application Workspace Setup

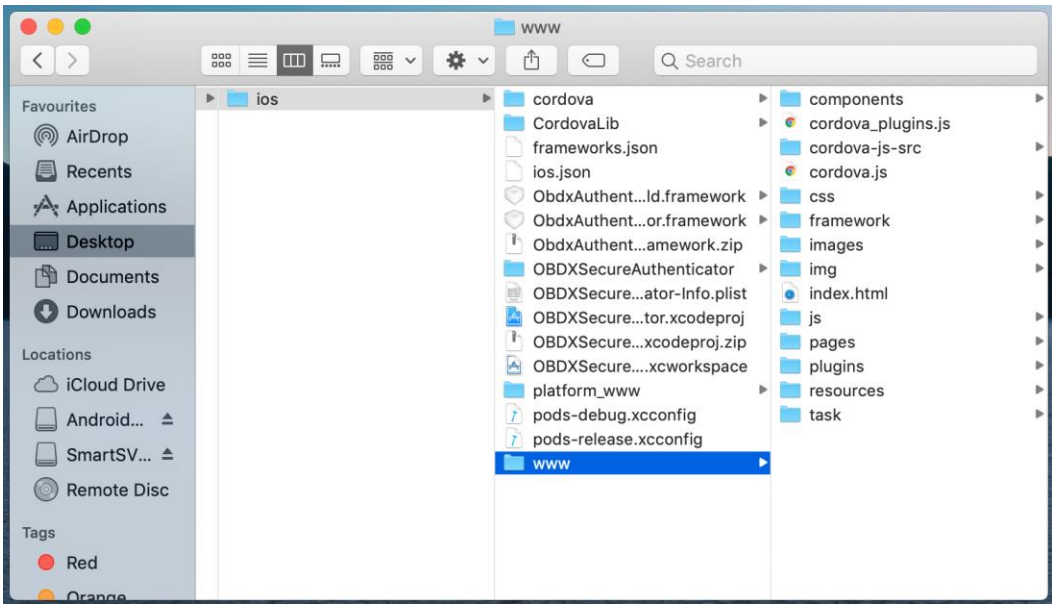
1. Unzip and navigate to iOS workspace as shipped in installer.



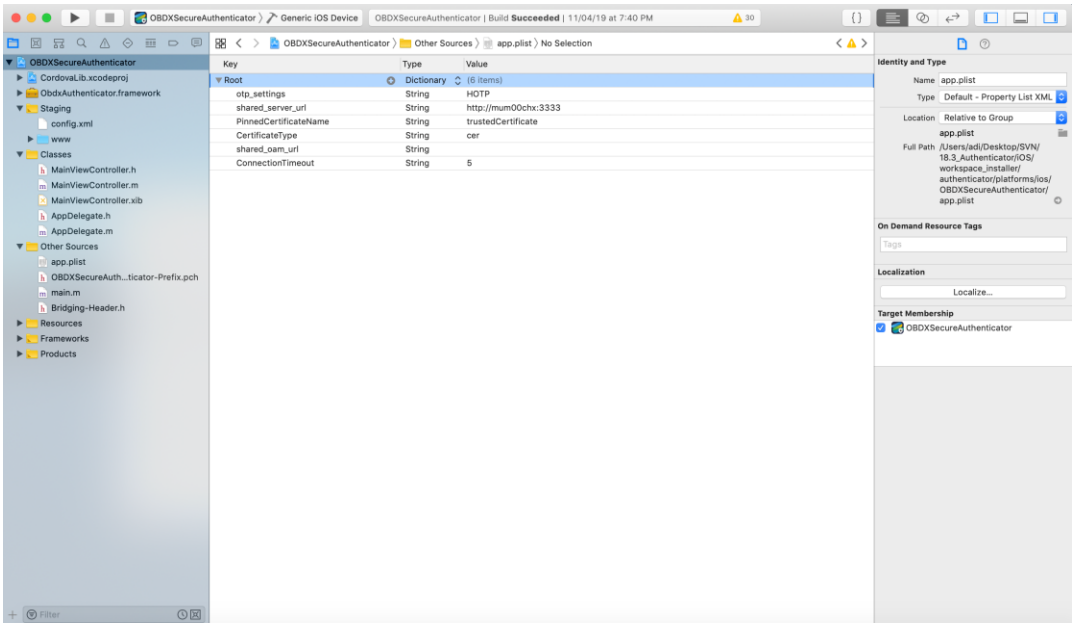
2. Open the "**OBDX_Installer/installables/mobile/authenticator/ui/ios/www**" folder in the finder and paste and replace the following generated UI files from "*ui/dist*" folder :

   - components
   - css
   - framework
   - images
   - pages
   - resources

Finally the **Installer/installables/mobile/authenticator/ui/ios/www** folder must look like:



3. Double click on OBDXSecureAuthenticator.xccodeproj to open the project in Xcode



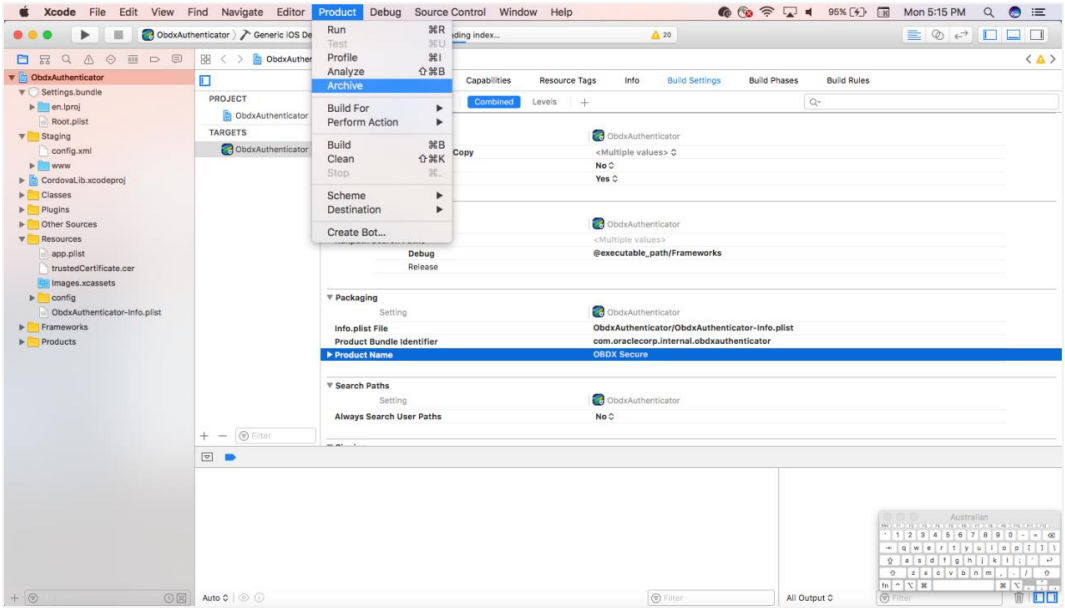
Update HOTP or TOTP in above screenshots and update the server URL.

4. The application can be archived using steps in Section 4.3 for running on device

5. To run the application on simulator, copy & replace the framework from simulator/ObdxAuthenticator.framework to /authenticator/platforms/ios/

4.3 Building Authenticator Application

1. Set the simulator to *Generic iOS* device. Then go to *Product -> Archive*.



2. Choose your Archive and then click "*Export*". .ipa file will be generated