# TVU Router SDK Lite Integration Guide

Author:kyleyang@tvunetworks.com

Date:2020-10-29

# Overview

The guide will help you integrate TVU Router Service SDK(iOS) into your application. Generally the Router Service SDK will aggregate WiFi and 4G network so that we could give your app a high bandwidth and reliable network environments.

# System Diagram
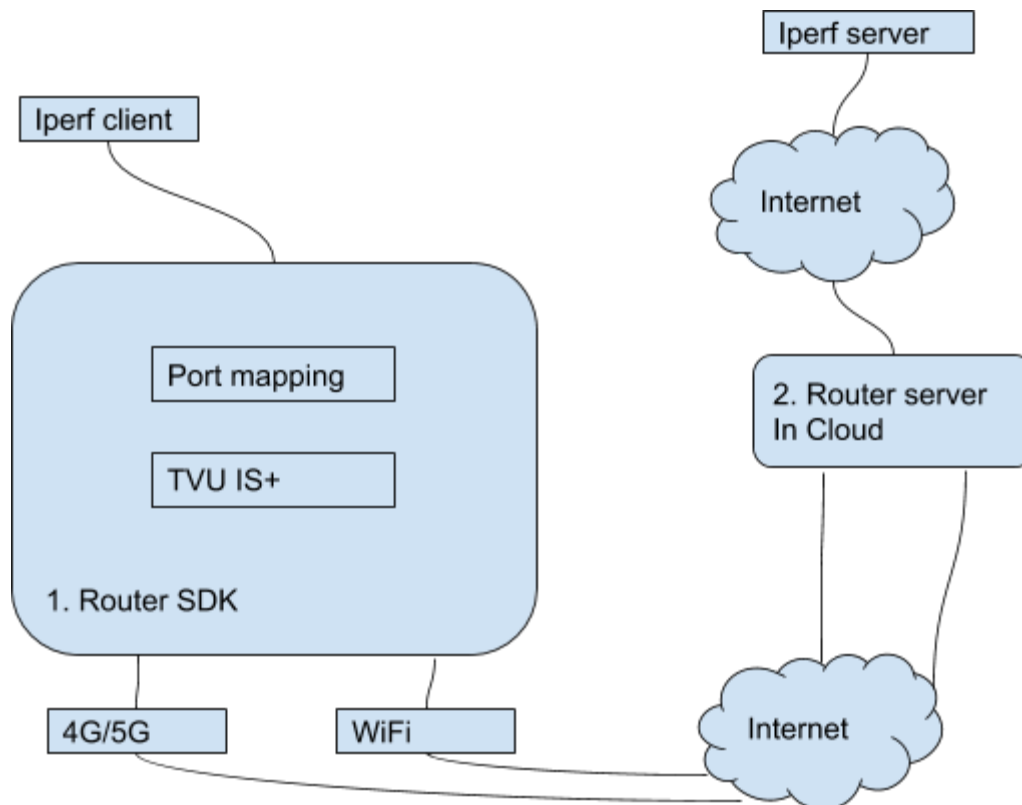


1. TVU Router SDK: which acts as proxy client to forward client app ip packets, then send it out or received by aggregate bandwidth on 5G/4G interface and WiFi interface.
2. TVU Router Server: which acts as a proxy server, can be deployed on all kinds of cloud (AWS, ALI), is responsible to forward ip packet between router client and remote site

# TVU Account

Before integrating with our SDK, you need apply username and secret for authentication, please contact TVU Networks to get the support.
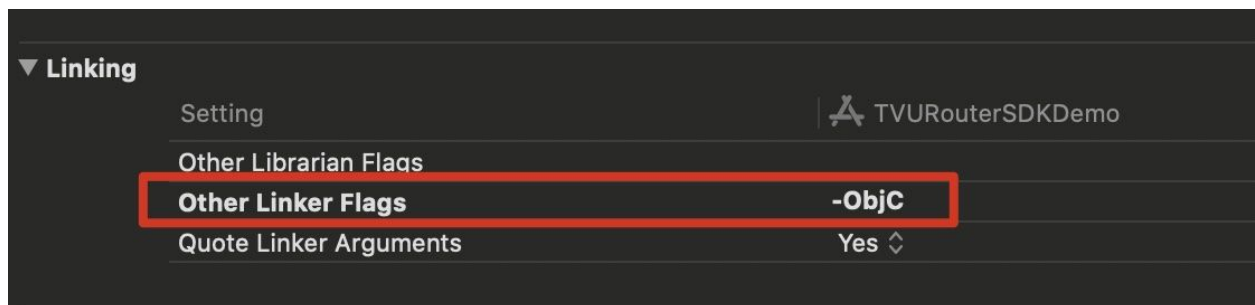
# Project Setting

## 1.plist file setting

Add 'Privacy - Location Always and When In Use Usage Description' in plist file.
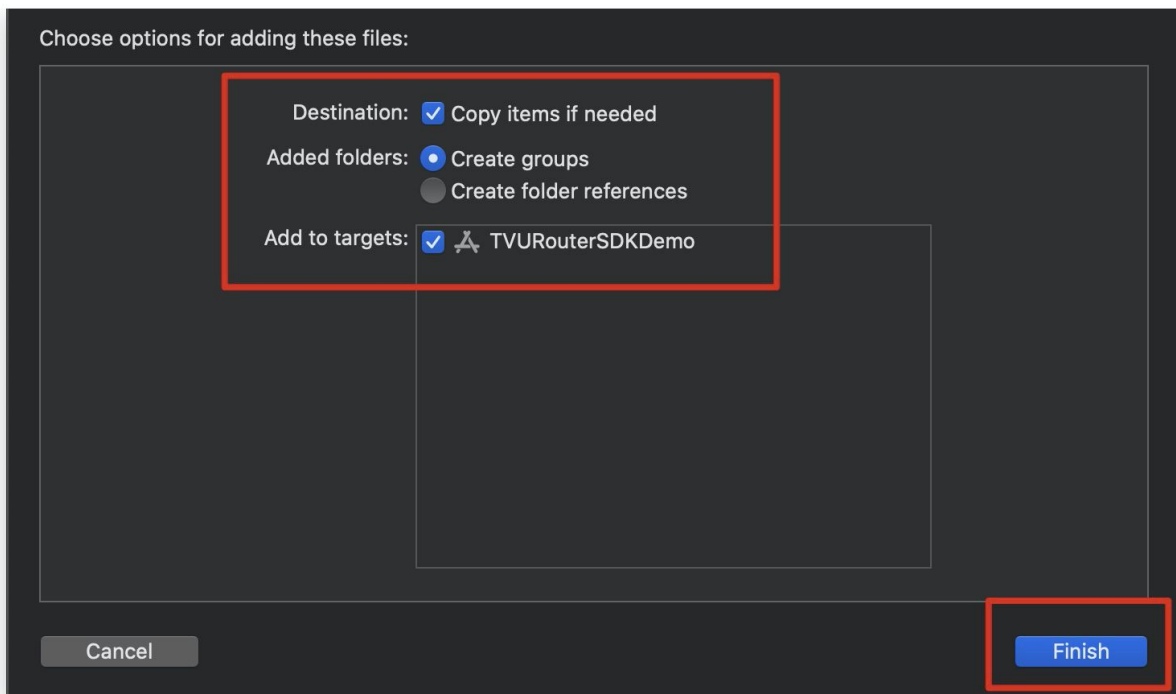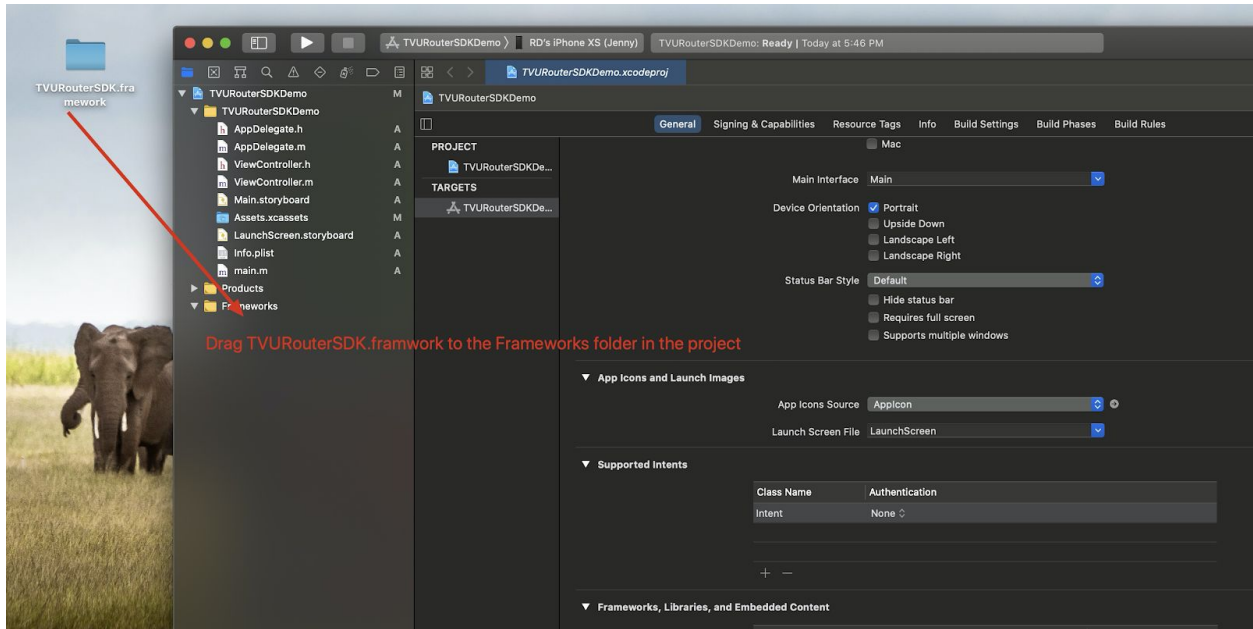
## 2.build settings

1.Enable Bitcode:TARGETS -> Build Settings -> Enable Bitcode



2.Other Linker Flags:TARGETS -> Build Settings -> Other Linker Flags

# 3.import framework

# TVURouterSDK API Usage

we will provide a demo app to illustrate the API usage.

## 1.init

```
+ (TVURouterManager *)manager;
```

## 2.register

```
- (void)registerEngineWithConfiguration:(RouterRegisterConfiguration *
_Nullable)config;
```

## 3.service configuration

```
- (void)setConfiguration:(RouterServiceConfiguration * _Nullable)config
delegate:(id<TVURouterSDKDelegate> _Nullable)delegate;
```

## 4.start router

```
- (void)startServiceWithCompletionHandler:(void (^ _Nullable)(BOOL isSuccess,
NSString * _Nullable errorCode, NSString * _Nullable
errorInfo))completionHandler;
```

## 5.stop router

```
- (void)stopServiceWithCompletionHandler:(void (^ _Nullable)(BOOL isSuccess,
NSString * _Nullable errorCode, NSString * _Nullable
errorInfo))completionHandler;
```

## 6.destroy

```
- (void)destroy;
```

## 7.peerid

```
- (NSString * _Nullable)getPeerId;
```

## 8.router status

```
typedef NS_ENUM(int, TVURouterStatus) {
```

```objc
    TVURouterStatusDisconnected = 0,
    TVURouterStatusDisconnecting,
    TVURouterStatusConnecting,
    TVURouterStatusConnected
};

@protocol TVURouterSDKDelegate <NSObject>

- (void)routerStatusChanged:(TVURouterStatus)status;

@end
```

## 9.log level

```objc
typedef NS_ENUM(int, TVURouterLogLevel) {
    TVURouterLogFatalLevel = 0,
    TVURouterLogErrorLevel,
    TVURouterLogWarnLevel,
    TVURouterLogInfoLevel,
    TVURouterLogDebugLevel
};

- (void)setLogLevel:(TVURouterLogLevel)logLevel;
```

# TVURouter API Index

## 1.enum

### 1.1 TVURouterStatus

```objc
typedef NS_ENUM(int, TVURouterStatus) {
    TVURouterStatusDisconnected = 0,
    TVURouterStatusDisconnecting,
    TVURouterStatusConnecting,
    TVURouterStatusConnected
```

```
};
```

## 1.2 TVURouterLogLevel

```objc
typedef NS_ENUM(int, TVURouterLogLevel) {
    TVURouterLogFatalLevel = 0,
    TVURouterLogErrorLevel,
    TVURouterLogWarnLevel,
    TVURouterLogInfoLevel,
    TVURouterLogDebugLevel
};
```

## 1.3 TVURouterEnvironment

```objc
typedef NS_ENUM(int, TVURouterEnvironment) {
    TVURouterEnvironment_US = 0,  // United States environment
    TVURouterEnvironment_CN,      // China  environment
};
```

# 2.delegate

```objc
@protocol TVURouterSDKDelegate <NSObject>

- (void)routerStatusChanged:(TVURouterStatus)status;

@end
```

# 3.struct

## 3.1 RouterRegisterConfiguration

```objc
typedef struct RouterRegisterConfiguration {
    NSString *appKey;
    NSString *appSecret;
```

```
    NSString *userName;
    NSString *passWord;
}RouterRegisterConfiguration;
```

## 3.2 RouterServiceConfiguration

```
typedef struct RouterServiceConfiguration {
    NSString *ip;
    NSString *port;
    NSString *protocol;
    NSString *uniqueName;
}RouterServiceConfiguration;
```