Design for Dev Tun Mobile VPN Solution

# Requirements

## Supported Platforms

Android

iOS

## Supported VPN Protocols

OpenVPN

WireGuard

IKEv2

# Architecture Design

## Components

### User Center (UC)

UC is built for User authentication, authorization and usage statistics.

Language: Typescript + Express.js + MongoDB

## Administration Console

This is a page used by solution administrator to manage users and VPN servers as well as usage statistics.

Language: React.js

In-App purchase

## VPN Server

<https://github.com/OpenVPN/openvpn> C

<https://github.com/angristan/wireguard-install>

<https://github.com/hwdsl2/setup-ipsec-vpn/blob/master/docs/ikev2-howto.md>

## Client

### Windows Desktop

<https://github.com/OpenVPN/openvpn-gui>

<https://github.com/WireGuard/wireguard-windows>

### Linux

<https://github.com/OpenVPN/openvpn3-linux>

<https://github.com/WireGuard/wireguard-linux.git>

### Android

<https://github.com/schwabe/ics-openvpn.git> C/Java/Shell/Kotlin

<https://github.com/WireGuard/wireguard-android> Kotlin/Java

### iOS

<https://github.com/AnhTVc/OpenVPN-IOS.git> C/Perl

<https://github.com/deneraraujo/openvpnclient-ios.git> Swift

<https://github.com/vdeville/openvpn-ios-client.git> Swift

<https://github.com/WireGuard/wireguard-apple.git> Swift/C

# Milestones

## ML1. Deploy VPN servers for test

Build and deploy Separate VPN servers for each of 3 protocols and test using Windows or Linux client.

Deliverable: Windows VPN clients with configuration files which works separately.

Period: 3d

## ML2. Build Android client

Build Android client which supports 3 protocols without any user authorization or authentication.

We will merge several open-source projects.

Period: 8d

## ML3. Build iOS client

Build iOS client which supports 3 protocols without any user authorization or authentication.

We will merge several open-source projects.

Period: 9d

## ML4. Create User Center (backend API server)

User center for authorization, authentication, paywall and user & server management and statistics.

Period: 7d

## ML5. Integrate Paywall into clients.

Integrate Authorization/Authentication/in-app purchase into Android and iOS clients.

Period: 8d

## ML6. Admin Page

Front-End Admin Console to manage users & servers and view statistics

Period: 7d

## ML7. Test and Publish

Period: 3d

## Estimated Budget

$30/hour \* 8 hour/day \* 45d = $10800