**Test Plan**

OpenVPN Connect – Fast & Save SSL VPN Client

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| **Version** | **Author** | **Date** | **Change** |
| 1.0 | Eva Hsu | 2018/6/9 | First draft |
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# Introduction

This test plan describes the testing approach of OpenVPN Connect Android application. The following chapters will include:

* Brief introduction on OpenVPN Connect app to explain their target clients and their products
* Test cases of OpenVPN Connect app for Private Tunnel and OVPN Profiles

The scope of this test plan is to cover VPN features for individual use only, due to resource limitation.

# 2. Project Overview

OpenVPN Connect is a VPN application for Android developed by OpenVPN, Inc. This application includes the full suite of OpenVPN products to target different groups of users:

* Private Tunnel
* Access Server
* OVPN Profiles

Private Tunnel is mainly for individual use. OpenVPN provides list of more than 50 VPN clouds in 12 countries. These VPN clouds are legitimate servers maintained by OpenVPN, they provide private, secure and stable access for users. It offers 7-day free trial, after that, it costs $6 per month.

The second product, Access Server, provides VPN server solution as a service to business clients. Five common use platforms are available, such as Amazon AWS, Microsoft Azure, etc. OpenVPN customizes a VPN server for clients based on their business scale, business management and business resource. Since the scope of this test plan is VPN service for individual use, Access Server is not included for testing.

Lastly, OVPN Profiles is for self-hosted servers. Users provide .opvn files and the product will establish connection to that server. There are some VPN server resources available online. EasyOVPN, another application of OpenVPN, Inc., gathers nearly a hundred of free access VPN servers all around the world for free charge. It includes 27 other countries that Private Tunnel doesn’t provide. Users can select a VPN server in EasyOVPN then use OVPN Profiles to access that server. However, the sources of those online VPN servers are unknown, users are very likely to be attacked.

# 3. Test Scenario

In OpenVPN Connect app, the two products that will be tested are Private Tunnel and OVPN Profiles. Testing platform includes Android 5.0 and above. Device should have stable internet connection, either Wi-Fi or mobile internet when testing.

## 3.1 Installation

Name: Download and install on Android phone

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| --- | --- | --- | --- | --- |
| ID | Priority | Severity | Steps | Expected Results |
| 1 | High | Critical | 1. Login to Google Play Store app  2. Search “OpenVPN”  3. Tap “Install” button  4. Tap the app | 1. User logged in  2. OpenVpn Connect app showed up  3. Application has been downloaded and installed, app icon has been created on screen  4. OpenVPN has launched to home screen |

## 3.2 Private Tunnel

Name: Register

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| ID | Priority | Severity | Steps | Expected Results |
| 2 | High | Critical | 1. Launch OpenVPN  2. Tap Private Tunnel  3. Tap Register  4. Go through the create account process  5. Login to Private Tunnel  6. Select country A  7. Launch web browser, go to ip2location to check current location | 1. OpenVPN has launched to home screen  2. Login page appeared  3. Launch a web browser which linked Private Tunnel register page  4. Account created  5. Directed to country selection page  6. VPN connection established to country A  7. Information showed on ip2location matched current VPN connection |

Name: Login

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| --- | --- | --- | --- | --- |
| ID | Priority | Severity | Steps | Expected Results |
| 3 | High | Critical | 1. Launch OpenVPN  2. Tap Private Tunnel  3. Enter valid username and password to login  4. Select country A  5. Launch web browser, go to ip2location to check current location | 1. OpenVPN has launched to home screen  2. Login page appeared  3. User logged in. Directed to country selection page  4. Connection established and connected to country A, green VPN icon appeared at notification bar at the top of the screen. IP and protocol showed at the bottom  5. Information showed on ip2location matched current VPN connection |

Name: Change region

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| ID | Priority | Severity | Steps | Expected Results |
| 4 | High | High | 1. Launch OpenVPN  2. Tap Private Tunnel  3. Select country A  4. Launch web browser, go to ip2location to check current location  5. Tap VPN Gateway  6. Change to B country  7. Tap OK  8. Launch web browser, go to ip2location to check current location | 1. OpenVPN has launched to home screen  2. Directed to country selection page  3. Connection established and connected to A country  4. Information showed on ip2location matched current VPN connection  5. Directed to country selection page  6. A confirmation window popped up  7. Connection to B country established, country, IP and protocol showed at the bottom of the screen  8. Information showed on ip2location matched current VPN connection |

Name: Disconnection

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| ID | Priority | Severity | Steps | Expected Results |
| 5 | High | High | 1. Launch OpenVPN  2. Tap Private Tunnel  3. Select country A  4. Tap disconnect button (green ON button)  5. Tap Yes | 1. OpenVPN has launched to home screen  2. Directed to country selection page  3. Connection established and connected to A country  4. A confirmation window popped up  5. Connection disconnected, no VPN icon on notification bar |

Name: Edit subscription

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| --- | --- | --- | --- | --- |
| ID | Priority | Severity | Steps | Expected Results |
| 6 | Medium | Medium | 1. Launch OpenVPN  2. Tap Private Tunnel  3. Tap menu button  4. Tap My Subscription  5. Login with valid username and password  6. Edit subscription, cancel it | 1. OpenVPN has launched to home screen  2. Directed to connection page  3. Menu launched  4. Web browser launched, linked to Private Tunnel login page  5. Page showed subscription details  6. Page showed the subscription cancelled date and the amount charged |

Name: Logout

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| ID | Priority | Severity | Steps | Expected Results |
| 7 | Medium | Low | 1. Launch OpenVPN  2. Tap Private Tunnel  3. Tap menu button  4. Logout  5. Tap Yes  6. Tap Private Tunnel | 1. OpenVPN has launched to home screen  2. Directed to connection page  3. Menu launched  4. A confirmation window popped up  5. Directed to OpenVPN home page  6. Directed to login page |

Name: Invalid login

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| --- | --- | --- | --- | --- |
| ID | Priority | Severity | Steps | Expected Results |
| 8 | Low | Low | 1. Launch OpenVPN  2. Tap Private Tunnel  3. Enter invalid username and/or password | 1. OpenVPN has launched to home screen  2. Directed to login page  3. Error message appeared |

Name: Lost WI-FI/mobile internet and reconnect

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| --- | --- | --- | --- | --- |
| ID | Priority | Severity | Steps | Expected Results |
| 9 | Medium | Medium | 1. Launch OpenVPN  2. Tap Private Tunnel  3. Connect to a VPN cloud  4. Turn off WI-FI or mobile internet  5. Scroll down the notification bar  6. Turn on WI-FI or mobile internet | 1. OpenVPN has launched to home screen  2. Directed to connection page  3. Connection established  4. Connection button became orange with “connecting” notice.  5. VPN icon is green and its status is “pausing (waiting for network)”  6. Connection established again |

## 3.3 OVPN Profiles

Name: Import files from EasyOVPN

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| ID | Priority | Severity | Steps | Expected Results |
| 10 | High | Critical | Precondition: Install EasyOVPN on mobile  1. Launch EasyOVPN, select a VPN server from a country  2. Tap OK  3. Change the VPN title, add it  4. Tap on the VPN to connect | 1. A import confirmation window popped up  2. Message showed file imported successfully.  3. The VPN is added  4. Connection established successfully |

Name: Connect from previous imported OpenVPN profile

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| --- | --- | --- | --- | --- |
| ID | Priority | Severity | Steps | Expected Results |
| 11 | High | Critical | 1. Launch OpenVPN  2. Tap OVPN Profiles  3. Connect to previous imported VPN | 1. OpenVPN has launched to home screen  2. Directed to OVPN Profiles page  3. Connection established successfully |

Name: Connect from OVPN file stored in phone

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| ID | Priority | Severity | Steps | Expected Results |
| 12 | High | Critical | Precondition: Store a valid .opvn file in the phone  1. Launch OpenVPN  2. OVPN Profiles  3. Tap “+” button  4. Select the .opvn file to import  5. Tap the VPN to connect | 1. OpenVPN has launched to home screen  2. Directed to OVPN Profiles page  3. Directed to import profile page  4. VPN imported successfully  5. Connection established successfully |

Name: Connect when private tunnel is connected

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| ID | Priority | Severity | Steps | Expected Results |
| 13 | Medium | Medium | 1. Launch OpenVPN  2. Tap Private Tunnel  3. Connect VPN  4. Go to OVPN Profiles page  5. Tap the imported VPN to connect  6. Tap Yes | 1. OpenVPN has launched to home screen  2. Directed to connection page  3. Connection established successfully  4. Directed to OVPN Profiles page  5. A confirmation window popped up  6. Connection to imported VPN established successfully |

Name: Switch connection from A imported VPN to B imported VPN

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| --- | --- | --- | --- | --- |
| ID | Priority | Severity | Steps | Expected Results |
| 13 | Medium | Medium | 1. Launch OpenVPN  2. Tap OVPN Profiles  3. Connect to A imported VPN  4. Tap on B VPN to connect | 1. OpenVPN has launched to home screen  2. Directed to connection page  3. Connection established successfully  4. Connection to A VPN ended. Connection to B VPN established successfully |