AV-Comparatives

F-Secure Freedome

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Introduction

As mobile phone network coverage is not universal, and data tariffs tend to be expensive, it is often very useful to connect a smartphone to the Internet using a WLAN hotspot. Especially when abroad, users can be entirely reliant on such a connection. Using public networks is not without its risks, however. F-Secure Freedome 1.0.38.1076 provides protection against any attacks on your personal data in public networks.
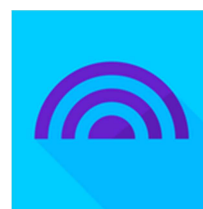
Freedome is a very easy-to-use product that protects the user when surfing the web, and offers WLAN security, along with invisibility and anonymity while using a smartphone. The central point is the use of a VPN (virtual private network) provided by F-Secure to hide the user's IP address.

Functionality

Connecting to the Internet requires a device to have an IP address assigned, with which it is identified. When opening any website, the device identifies itself to the hosting server using the IP address. Using this address, the server can roughly identify the device's location. This obviously reduces the user's anonymity on the Internet. This is where the VPN connection comes in. When the app is activated, the user's device makes a connection to a server provided by F-Secure. From this point on, the device is in the F-Secure network. Any connections to websites now go via the F-Secure server.   Any web server the user connects to now sees only the F-Secure server address, not that of the user's device. This procedure means not only that it is possible to hide the user's location, but also that the user can now access content not available in his or her own country. Additionally, F-Secure checks the URLs the user tries to connect to, and blocks any malware or phishing sites that represent a threat to the user.
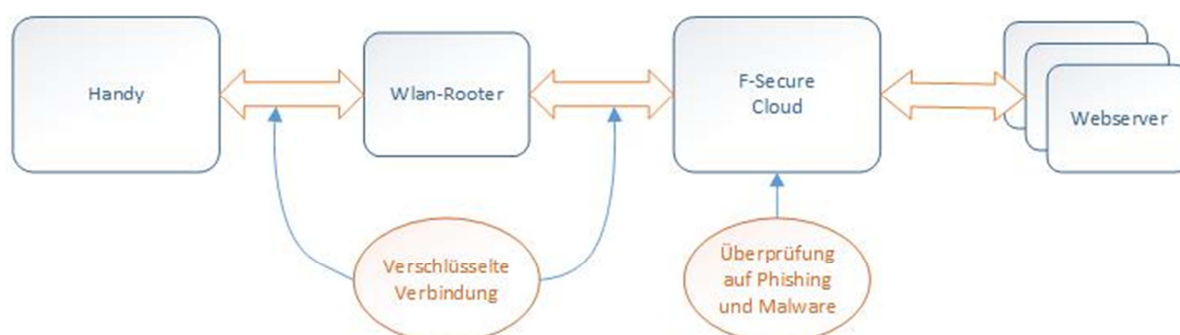
As the communication between the user's device and the F-Secure server is encrypted, the user is protected against attacks in insecure public wireless networks. An attacker who manages to intercept the user's data traffic in such a network will not be able to extract any readable information from it. In our test, we determined that F-Secure by default uses a UDP-based VPN connection. The UDP packets are encrypted and so cannot be read by potential attackers. If UDP is not available, e.g. the WLAN isn't supporting it, the App can fall-back to the TCP protocol.

F-Secure also blocks tracking cookies, e.g. from advertising networks that use them to personalise advertising displayed to the user. This means the user will still see advertising, but that this will not be based on his or her surfing habits. At this point it has to be mentioned that F-Secure has no influence on Android's own location service, which uses WLAN and GPS. As apps that use this service have to be granted permission location, which can easily be removed, this does not strike us as a problem. It is in fact sensible, as the service is used by apps such as Google's Device Manager to locate the phone in the event that it gets lost.

The App

The app is available for Android an iOS and can be downloaded from the respective app stores as a free trial version. This runs for seven days, after which the user has the choice of a monthly subscription for €4.49 or a yearly subscription of €26.99.

Installation and permissions

The Android version of Freedome can be downloaded for free from the Google Play Store. The app requires full access to the network and permissions to see the network connections. Access to the Google payment system, and permission to start when the smartphone is switched on, are also required.

First Start

When the program is first started, a tutorial takes the user through the functionality of Freedome. This can be skipped if the user so chooses.

Layout

The app is very easy to use. There is a single button to switch the VPN on or off. Additionally there is a menu, which appears in the form of a sidebar on the left, and can be used to configure the product and find functions such as help and payment. The settings can be used to deactivate the automatic startup of the app when the smartphone is booted, and deactivate the Freedome status icon. It is also possible to deactivate the sending of anonymous user statistics. Other available functions are buying a subscription, providing feedback, inviting friends to test the app, starting the tutorial or visiting the F-Secure forum, and reading the licence agreement. There is also a button that closes the app completely. If the user exits the app by using the back button, the app will continue to run in the background. Dragging the on/off button up or down displays information on the status of the active protection components or protection history. The individual protection components tracking, browser, virus and connection can be deactivated individually. The connection protection component is essential for the functioning of the other components. In a beta-version of the App, which can also be found in the Google Play Store, the new feature App security is introduced. According to the description in the store, F-Secure tries to check the safety of an app by his reputation in the cloud. Only if an App is unknown it will be uploaded to the cloud for scanning. In a small test we could confirm the functionality.
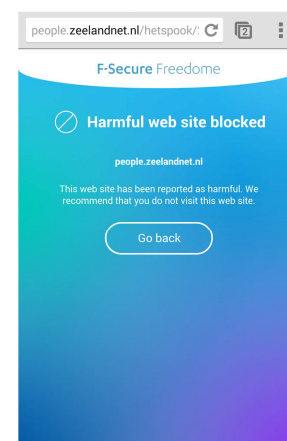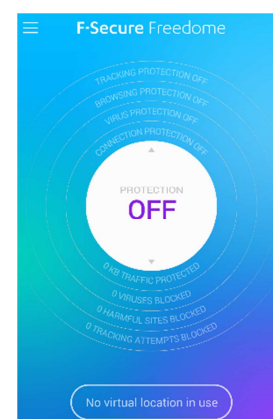
Country	Details	Download	Upload
Germany	Sachsony	11,99	14,84
Finland	Espoo	12,23	8,41
France	Paris	9,51	11,43
Hong Kong	Hong Kong	5,73	3,40
Italy	Milan	12,58	13,58
Canada	Toronto	10,84	14,25
Netherlands	Amsterdam	11,24	11,67
Sweden	Stockholm	9,10	9,64
Singapur	Singapur	6,79	6,06
Spain	Madrid	11,82	12,46
USA	East coast	10,68	12,14
USA	West coast	10,42	9,45
UK	London	8,30	7,11

Usage

When the user wants VPN access, it can be activated by simply pressing the on/off button on the start screen. If the VPN connection is active, this is shown by a key icon in the status bar. If the user only wants to use the VPN for purposes of hiding the location, the choice of server can be left to F-Secure. In this case, F-Secure chooses the nearest server, in order to provide the best possible connection. However, if the user wants to use the VPN to view content that is only available in specific countries, he or she can manually select a location. A table with the currently available locations and estimated transfer speeds is shown below.

In our tests, we had no difficulty watching a YouTube video that is not available in Austria, via the Canadian VPN access. In such cases, a VPN connection has to be high-performance, as otherwise it can become the bottleneck of the Internet connection. In our test, we reached speeds of up to 10 Mbps, which is more than adequate. To watch a YouTube video in HD quality, 2 Mbps would be enough.

The app was also convincing in blocking malware sites. It identified 111 of 125 malicious URLs, which is 88.9%.

Summary

F-Secure's Freedome is a well-designed security product that impresses through its performance and ease of use. The ability to access content normally reserved for users in other countries can be very useful, and the app is a sensible means of protecting one's private sphere and anonymity whilst surfing the Internet.

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