

03 Installing And Running FEAT VPN

03 Installing And Running FEAT VPN

Permissions

On installation, FEAT VPN asks for five permissions. Here's what they are and why FEAT VPN requires them:

INTERNET, which enables network communication. We use this permission to establish the L2TP connection with the built-in L2TP client as well as the OpenVPN tunnel with the remote OpenVPN server.

RECEIVE_BOOT_COMPLETED, which allows an app to detect when the Android device was switched on or rebooted. We need this permission, because FEAT VPN can be configured to automatically start on boot.

WAKE_LOCK, which allows an app to prevent the device from sleeping. FEAT VPN uses this permission to prevent the device from turning off the screen when running automated tests. See the section **Initial FEAT VPN Setup** for details on these tests.

READ_LOGS, which allows an app to access the Android system log. We use this permission to read the system log entries of the built-in L2TP client. If you report a problem with FEAT VPN, we ask you to send us the FEAT VPN log, which also contains said system log entries. This helps us to track down the problem.

WRITE_EXTERNAL_STORAGE, which allows an app to write to the SD card. When you send us the FEAT VPN log, it is compressed with gzip and then attached to an automatically generated email. The compressed log is written to the SD card and later deleted. This is why we need this permission.

Startup

When FEAT VPN is started, it goes through a few basic checks to make sure that it works as intended on your device. Here are the things that can come up at this point:

Duplicate Installation. If you are upgrading from FEAT VPN Lite to the commercial version, it is best to uninstall FEAT VPN Lite first. FEAT VPN Lite and the commercial version cannot coexist on the same device. If you start FEAT VPN and it indicates that both versions are installed, please uninstall FEAT VPN Lite. Then start the commercial version again.

Crash. If you restart the FEAT VPN app after it crashed, it asks you to send us the FEAT VPN log. Please do not ignore this. Please send us the log. It helps us to make FEAT VPN more robust.

Device Problems. A tiny number of devices comes with a broken L2TP implementation in the built-in L2TP client. Here are the problems that are detected by FEAT VPN at startup and their associated error codes:

- **Code M01.** The built-in L2TP client is incomplete. It claims that it supports L2TP, but L2TP is not implemented. In technical terms: The device vendor forgot to compile the Linux kernel with support for L2TP. Unfortunately, L2TP is essential for FEAT VPN. So, this means that your device cannot run FEAT VPN at all. Maybe your device vendor provides an upgrade that

03 Installing And Running FEAT VPN

Published on FEAT VPN (<http://www.featvpn.com>)

installs a newer version of Android on your device? Chances are, that a newer version does not have this bug. In any case, please let us know which device this is, so that we can warn other users. Please also take a look at the section **Support And Refunds** to find out how to get a refund for the commercial version of FEAT VPN.

- **Code M02.** Although FEAT VPN does not support IPv6, it prefers the device to be IPv6-ready. This error code indicates that your Linux kernel does not support IPv6. This can theoretically have an impact on DNS resolution, but only if your OpenVPN server does not push a DNS server to the client. So, if your OpenVPN server pushes a DNS server to the client, then you are fine. This also means that you can work around this problem by pushing a DNS server to the client. If you do not have a DNS server to push, you may want to contemplate pushing one of the following, which are open to the public:
 - **Google DNS Servers** - 8.8.8.8 or 8.8.4.4
(see http://en.wikipedia.org/wiki/Google_Public_DNS)
 - **OpenDNS DNS Servers** - 208.67.222.222 or 208.67.220.220
(see <http://en.wikipedia.org/wiki/OpenDNS>)

But before you try to work around this problem, find out whether it really affects you. Technically, the problem behind this error code is that on some devices TCP-based DNS lookups may fail. The vast majority of DNS lookups, however, is UDP-based. DNS uses TCP only for large DNS responses of 512 bytes and more and domains with DNS responses that large are very rare. So, simply go ahead and surf a little with an established VPN tunnel. If you encounter problems with DNS, i.e., if your browser tells you that a certain website cannot be found, then try to work around the problem. If this does not help, then please let us know in our support forum. Also, your device vendor may be offering an upgrade to a newer Android version that adds support for IPv6 and makes this problem go away.

- **Code M04.** Android devices store certain system settings in something called the system property table. On some devices this table can only hold a relatively limited number of settings. The problem behind this error code is that the system property table already holds the maximal number of settings. This potentially breaks the built-in L2TP client as it needs to add a few of its own settings to the system property table. To fix this problem we theoretically need to remove a few settings from the system property table to free up some space. However, Android does not allow removal from the system property table. So, the only thing that we can do is to prevent that the system property table fills up in the first place. Here are a few Android components that store settings in the system property table:
 - GPS
 - WLAN
 - GPRS, 3G data, or any other mobile data
 - Bluetooth

Turn off any of the above components that you do not absolutely need. Then restart your device. Now the disabled components do not store any settings in the system property table of your device, leaving space for the settings of the built-in L2TP client. When you now start FEAT VPN, this error code should not appear again. If it does, then please let us know in our support forum. Also, your device vendor may be offering an upgrade to a newer Android version that increases the size of the system property table and makes this problem go away.

- **Code M08.** FEAT VPN is unable to write to your phone storage. Please uninstall FEAT VPN. Then reinstall FEAT VPN. When you now start FEAT VPN, this error code should not appear again. If it does, then please let us know in our support forum.

[Print Section](#)
[Print All Sections](#)
[Export Section](#)
[Export All Sections](#)

Source URL: <http://www.featvpn.com/03-installing-and-running-feat-vpn>

03 Installing And Running FEAT VPN

Published on FEAT VPN (<http://www.featvpn.com>)
