Installing F-Secure® Linux Security (FSLS)

Last update: 9 Nov 2020

Please see also the [LISTSERV/F-Secure FAQ](#) for further information.

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Supported F-Secure Anti-Virus Versions

> **L-Soft can no longer guarantee an uninterrupted virus signature update path for versions of F-Secure Anti-Virus or F-Secure Linux Security which are older than those described in this document.** We therefore *strongly recommend* that sites running LISTSERV versions prior to LISTSERV 16.0-2017a should upgrade to the latest supported version of LISTSERV (currently 17.0), so that they can also install the latest version of FSLS.

The following F-Secure Anti-Virus versions are supported by LISTSERV 16.0-2017a and later.

Linux-x86 and Linux-x64:

NOTICE: Use of F-Secure Linux Security 11.10 and later requires, at minimum, LISTSERV version 15.0. LISTSERV version 16.0-2017a or later is recommended; the current version (17.0) is *STRONGLY RECOMENDED*.

Issue a SHOW VERSION command to LISTSERV to ascertain your product level BEFORE upgrading or installing FSAV. The current LISTSERV for Linux kits can be downloaded at http://www.lsoft.com/download/listserv.asp#unix .

Also: PLEASE read the "Supported Platforms and Languages" section of the [FSLS product download page](#) before attempting to install FSLS on your Linux server. Most, but not all, major Linux distributions are supported.

Installation kits:
For use with LISTSERV 15.0 and later:
F-Secure Linux Security (FSLS) 11.10
https://ftp.lsoft.com/F-Secure/fsls-11.10.68-rtm.tar.gz

Manuals:
F-Secure Linux Security 11.x documentation:
[F-Secure Linux Security Admin Guide](#)

We recommend upgrading LISTSERV to at least version 16.0-2017a (the current released version) because of an incompatibility with earlier versions of LISTSERV that is present in current versions of the F-Secure products. The incompatibility may result in occasional spurious reports from LISTSERV of out-of-date anti-virus signatures. **We have taken account of this incompatibility in LISTSERV version 16.0-2017a and later. To ensure that you have at least LISTSERV version 16.0-2017a, issue a SHOW LICENSE to your LISTSERV server. The build date reported should be 28 Feb 2017 or later.*

> *It should be noted that earlier versions of LISTSERV do not support, or do not completely support, the DMARC anti-spam standards currently in place with many large ISPs world-wide. For this reason also, **we strongly recommend** upgrading older versions of LISTSERV to the latest generally-available version, at time of writing, 17.0.*

In order to use LISTSERV®'s Anti-Virus features, F-Secure® Server Security or Anti-Virus must be installed on the same server as LISTSERV. If you already have F-Secure Server Security or Linux Security installed on the server, you should make sure that you are running the version supported by LISTSERV:

- For Linux: F-Secure Linux Security (FSLS) version 11.10

Recommended FSAV versions for LISTSERV 15.0 and following

- L-Soft strongly recommends that all such Linux-x86 and Linux-x86_64 LISTSERV sites upgrade to F-Secure Linux Security version 11.10 with all hotfixes for that version released to date.

Important: The F-Secure for Linux Servers license key provided by L-Soft is for a single stand-alone server only, running only the product's command-line scanner *without* real-time protection, integrity checking, web user interface or central management features. FSLS is certified for use with LISTSERV *only* when installed in command-line scanner mode.

The F-Secure key provided by L-Soft is valid only as long as your paid maintenance contract for LISTSERV is up-to-date. If you discontinue LISTSERV maintenance, you must uninstall the F-Secure Anti-Virus products you have installed as a condition of your LISTSERV maintenance agreement, or purchase a separate key for that purpose from F-Secure.

F-Secure Hotfixes Recommended

Given our own experience and that of customers who have reported problems to support, L-Soft strongly recommends that all currently-available hotfixes for FSAV be installed.

If available, hotfixes for F-Secure Linux Security can be downloaded from the F-Secure WebClub product page for the particular product in question. **Please check the F-Secure website regularly for any hotfixes that may be provided.**

F-Secure Linux Security Installation Instructions for Linux Servers

L-Soft is pleased to offer its Linux customers the ability to integrate F-Secure Linux Security (FSLS) 11.x into their LISTSERV 15.0 or later environment. (At this writing, the current version of FSLS is 11.10.)

Please be aware that L-Soft provides a license for the "command-line" version of F-Secure Linux Security. The "command-line" version does not include the real-time protection, integrity checking, web user interface or central management features provided in the full version.

Before starting to install FSLS 11.x, make sure that you have your FSLS installation key from your sales representative. The FSLS key is normally sent with your LISTSERV LAK(s) but may be obtained separately if you have not previously received it.

Please note that the support department does not have access to, nor can it provide, either LISTSERV LAKs or FSLS keys. They must be obtained from your sales representative.

IMPORTANT: Required LISTSERV Version

F-Secure Linux Security 11.x and later works with LISTSERV 15.0 and later. However, we strongly recommend upgrading any older installation of LISTSERV with the current generally-available version, which at time of writing was LISTSERV 17.0.

THIS IS AN ABSOLUTE REQUIREMENT. FSLS 11.x WILL NOT WORK AT ALL WITH LISTSERV VERSIONS THAT REPORT AS BEING EARLIER THAN VERSION 15.0, AND MAY NOT UPDATE ANTI-VIRUS SIGNATURES PROPERLY WITH VERSIONS EARLIER THAN VERSION 16.0-2017a.

Please visit the LISTSERV documentation page to read the LISTSERV release notes.

Please visit the LISTSERV product download page to download the current LISTSERV kit.

For 64-bit Linux versions

If installing F-Secure Linux Security 11.x under a 64-bit Linux operating system, please be aware that you must also install the Linux 32-bit compatibility packages appropriate for your Linux distribution. This is because FSLS is a 32-bit application and, as such, will not be able to use 64-bit common libraries.

In some cases 32-bit compatibility packages may be installed by default. Should you have any question about the 32-bit compatibility packages, please contact your OS vendor. **L-Soft is unable to assist in the installation of these packages.**

Please read F-Secure's pre-installation checklist for 64-bit systems before installing.

Upgrading F-Secure Linux Security

Upgrading to the latest version of F-Secure Linux Security uses the same procedure as installing it for the first time.

However, it should be noted that with the release of F-Secure Linux Security 11.x, it is not possible to upgrade an F-Secure Linux Security installation earlier than version 10.x. If you are

still running version 9 or earlier, you will have to uninstall the earlier version first. This is accomplished by running (as root)

```
/opt/f-secure/fsav/bin/uninstall-fsav
```

After successfully uninstalling the earlier version, you may proceed to install the latest version.

Installing F-Secure Linux Security

This procedure assumes that you are installing FSLS 11.10, the version current when this document was updated. However, these instructions should work with any 11.x version.

1. Login as (or 'su' to) 'root' and download the FSLS installation kit from the URL indicated in the table above. We recommend creating a scratch directory somewhere in your filesystem and downloading the file to that location.

   Note that you can download FSLS 11.x directly from the F-Secure website, but the manufacturer's kit does *not* include the L-Soft-supplied fsavd-config.sh file used in step 9.

2. We recommend making a scratch directory, perhaps called `fsls-11-10.68`, and then copying the installation kit into that directory. You then cd into that directory and expand the downloaded archive:

   ```
   zcat fsls-11.10.68-rtm.tar.gz | tar xvf -
   ```

   This leaves the following files in the directory `fsls-11.10.68` :

   ```
   fsavd-config.sh
   fsav_linux_1110_mib.jar
   fsls-11.10.68
   ```

   The file called `fsls-11.10.68` should have execute permission. (If it does not, chmod it appropriately.)

   Execute (still as root) the following command:

   ```
   ./fsls-11.10.68 --command-line-only
   ```

   <div style="border:1px solid black;">
   It is very important that the `--command-line-only` flag be appended to this command! If it is not, you will install an evaluation copy of the full version of the product, for which you are not licensed. You will then have to uninstall the product and reinstall it in command-line mode.
   </div>

3. The installation script will first ask you to view and accept the F-Secure license agreement.

   ```
   [home]root:~/fsls-11.10.68 # ./fsls-11.10.68 --command-line-only
   F-Secure Linux Security installation
   Copyright (c) 1999-2016 F-Secure Corporation. All Rights Reserved.

   Preparing...



   You must accept following F-Secure license agreement
   to install F-Secure Linux Security.
   ```

```
 Press enter to view license agreement.
```

Simply press enter and then use the space bar to page down. At the end of the license agreement you will be asked:

```
Do you accept this license agreement?
```

Type "y" or "Y" or some form of "yes" to continue.

After accepting the license agreement, the product will install and create a default configuration.

```
The license agreement text is available at /opt/f-secure/fsav/LICENSE.


Installing RPM packages, please wait...

Running configuration
.....
```

You will then be asked to provide the F-Secure license key (and please note that the key shown is only for illustration; it is not a valid key). Type in the key and then hit return.

```
Keycode for F-Secure Linux Security
To install the licensed version of the product, please enter the keycode you
have received with your purchase or press enter to install the fully functional
30-day evaluation version.
keycode: 1234-5678-90AB-CDEF-GHIJ
```

4. The remainder of the installation looks like the following.

```
Keycode accepted.
Configuring

Note: The Virus Definition Databases are now being updated to the newest
versions in the background. You can check the date of the current the
databases by typing 'fsav --version'.


[home]root:~/fsls-11.10.68 #
```

5. There is no need to install a cron entry to update the virus signatures. An F-Secure automatic update agent is provided as part of the installation and will download the new signatures in the background as they become available.

6. **After installation, there are two minor change that MUST be made to the default FSLS configuration.** The default behavior of FSLS is first to try to disinfect, and then to try to rename the file upon detection. Because LISTSERV expects the anti-virus scanner only to report when it detects a virus, and not otherwise change or delete the file, this behavior must be changed. The change is made by opening the FSLS configuration file, normally found at /etc/opt/f-secure/fssp/fssp.conf, in a text editor, looking for the following blocks of text, and changing the values of the two variables in those blocks of text as follows:

```
#
# Specify the primary action to take when an infection is detected.
#
# Possible values:
#   0 - Do nothing
#   1 - Report only
```

```
#    2 - Disinfect
#    3 - Rename
#    4 - Delete
#    5 - Abort scan
#    6 - Custom
#
odsFilePrimaryActionOnInfection 2
```

Change the first variable setting (highlighted in yellow) to

```
odsFilePrimaryActionOnInfection 1
```

```
#
# Specify the secondary action to take when an infection is detected and the
# primary action has failed.
#
# Possible values:
#    0 - Do nothing
#    1 - Report only
#    2 - Disinfect
#    3 - Rename
#    4 - Delete
#    5 - Abort scan
#    6 - Custom
#
odsFileSecondaryActionOnInfection 3
```

Change the second variable setting (highlighted in blue) to

```
odsFileSecondaryActionOnInfection 0
```

Then save the file.

> **Please note carefully that this element of the installation is required. If you skip it, FSLS will end up disinfecting or renaming infected files, and LISTSERV will not receive the return code that tells it to reject the message. There is no need for FSLS to delete or rename the file. LISTSERV itself will delete the file when it receives the correct return code.**

7. After restarting LISTSERV, you should see an entry similar to the following in the log:

```
28 Feb 2016 12:38:39 F-Secure Anti-Virus 11.10 activated, explicit file scan.
```

8. Finally, run (as 'root') the fsavd-config.sh script (provided by L-Soft) which installs a modified 'fsavd' daemon startup script into /etc/init.d , registers it as a system "service", and starts it. This script allows you to ensure that the fsavd daemon starts when your machine is rebooted, and that it runs under the 'listserv' UID. This is required in order for LISTSERV to be able to "see" FSAV when it starts up.

   Note that you may have to issue the shell command chmod u+x fsavd-config.sh to make the shell script executable.

> **If you downloaded FSLS 11.x from the F-Secure website, you will not have this file. It can be downloaded from https://ftp.lsoft.com/f-secure/tools/fsavd-config.sh if needed.**

   fsavd-config.sh makes one change to the fsavd startup script, altering

```
fsavuser=fsav
```

to

```
fsavuser=listserv
```

Please note carefully that this element of the installation is *required*. If you skip it, LISTSERV will not see FSAV at startup and LISTSERV's AV scanning feature will be disabled. It should be noted that this will NOT affect how fsavd reacts to requests from other users. F-Secure normally recommend that the fsavd daemon should run under a non-privileged UID to begin with.

If you have installed LISTSERV to start under a different UID (not common), you will have to manually change the fsavuser= line in `/etc/init.d/fsavd` to the correct UID value and then stop and restart the 'fsavd' daemon. You can stop and restart the daemon from the shell prompt with "/sbin/service fsavd restart".