

File System

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1 Task description

Select a random (but interesting) path under /usr (not /usr/local!). At least at two level depth and at max four (e.g., /usr/something/here). Why is it there? Where is it documented and/or standardized? Is it the correct location for it? Are any of the parent directories part of the FHS or distribution-specific filesystem documentation?

2 First path

Chosen path:

`/usr/lib/openssh`

2.0.1 Description

This path provides executable files for openssh (program for establishing ssh connections) for additional tasks, such as:

- ssh-keysign, generating digital signature, which is required by host-based authentication
- ssh-sk-helper and ssh-pkcs-helper, to access keys generated by other programs

In manuals for each executable is written, that it SHOULD NOT be invoked directly by users.

Each executable mode permission is set to 755, thus they could not be written by members of group root or other users.

These conforms to FHS hierarchy standard. According to it's manual /usr/lib directory should contain:

Object libraries, including dynamic libraries, plus some executables which usually are not invoked directly. More complicated programs may have whole subdirectories there.

So:

- executable not intended to be directly invoked (these is written in manuals for each executable),
- more complicated programs could contain it's own subdirectory (it contains openssh)

According to systemd standard /usr/lib should contain program that are not intended to be invoked directly. Thus the researched also conforms to systemd file-hierarchy standard.