File System

Daniel R. Cender

Grand Canyon University: CST-221-O500

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**Exploring the Linux File System**

The heading above would be used if you want to have your paper divided into sections based on content.

**Base Directories**

Below is a table of descriptions for the most common base directories in a Linux file system.

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| **Directory** | **Purpose** |
| / | This is the root directory. |
| /bin | This directory holds many executable programs. They may be native to the kernel, or a part of an extended command-line program or utility. |
| /dev | The utilities found in this directory correspond to devices, both real and abstract. There may be a program that interfaces with a SATA drive, or a programming utility like /dev/null/, which discards all output piped into it (Hoffman, 2016). |
| /etc | The files here are configuration files. They configure settings on a system-wide basis, but user-level settings are set in the usr/ directories, respectively (Hoffman, 2016). |
| /lib | The */lib* directory contains libraries needed by the binaries in the */bin* directory (Hoffman, 2016). |
| /boot | This is a crucial directory, since it holds all the needed files for booting up the operating system. All GRUB boot loader files sit in here, as well as the Linux kernel(s) (Hoffman, 2016). |
| /home | This directory holds the home folders for every user on the Linux system. The corresponding user has “write” access to this folder, so they must login as the “root” user to augment other system files outside this folder (Hoffman, 2016). |
| /mnt | This directory holds temporary mount points. Although you can mount temporary file systems anywhere in the system, this is where administrators will oftentimes do so. |
| /proc | This directory is similar to the */dev* directory in that it holds files for running kernel and program processes. Not traditionally edited directly by the user. |
| /tmp | This directory is where apps store temporary files, which can be deleted when the system is rebooted or shut down. Open applications seem to use this space to store data that it doesn’t need immediately in RAM, but wants available in a smaller indexed space than the entire hard drive. |
| /usr | This directory contains all user-specific programs and settings. It may hold user-specific binary executable programs which aren’t essential to kernel operations. It is also where user-level programs, like a game installed from the internet, might be installed to (Hoffman, 2016). |
| /var |  |
| /sbin |  |
| /kernel |  |

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References

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Hoffman, C. (2016, September 22). The Linux Directory Structure, Explained. Retrieved February 14, 2020, from https://www.howtogeek.com/117435/htg-explains-the-linux-directory-structure-explained/