Filename: comptia-linuxxk0004-4-4-1-filesystem_hierarchy_standard
Show Name: CompTIA Linux+ (XK0-004)
Topic: Managing Storage
Episode Name: Filesystem Hierarchy Standard
Description: In this episode, Zach and Don explain how the Filesystem Hierarchy Standard defines the folder names found in most Linux systems. They then walk the users through several of the most important folders and explain their purpose. They wrap up by demonstrating a few commands that can be used to locate files in the event you cannot remember which folder they should be in.

Filesystem Hierarchy Standard (FHS)

[?] Who created the FHS?

- [The Linux Foundation (https://www.linuxfoundation.org/)](https://www.linuxfoundation.org/)

[?] Where can we view the official standard?

- [Filesystem Hierarchy Standard (FHS) (http://www.pathname.com/fhs/)](http://www.pathname.com/fhs/)

[?] Do all Linux distributions adhere to the FHS?

- Most conform, but almost all deviate in one way or another
- Typically when it comes to binaries

    - Links are often used to preserve compatibility

- [Official Red Hat Documentation (https://access.redhat.com/documentation/en-US/Red_Hat_Enterprise_Linux/7/html/Storage_Administration_Guide/ch-filesystem.html#s1-filesystem-fhs)](https://access.redhat.com/documentation/en-US/Red_Hat_Enterprise_Linux/7/html/Storage_Administration_Guide/ch-filesystem.html#s1-filesystem-fhs)

    - `/sbin/` is linked to `/usr/sbin`

[?] Where would we normally find applications?

- `/bin/`

    - Essential user command binaries
    - Available to all users

- `/sbin/`

    - System binaries
    - Required for the system to boot

- `/usr/bin/`

    - Most user commands

- `/usr/sbin/`

    - Non-essential standard system binaries

- `/opt/`

    - Contains software not included with the installation

[?] What are some of the other key folders we need to be familiar with?

- `/boot/` - Contains boot files and the Linux kernel
- `/dev/` - Contains device nodes representing hardware
- `/etc/` - Contains configuration files
- `/mnt/` - Contains temporary mount points for media
- `/proc/` - Virtual file system containing data files for processes on the system
- `/sys/` - Virtual file system containing data for hot plug devices. Similar to `/proc/`
- `/usr/` - Contains binaries and data sharable between users

- Mounted read-only per FHS

- `/var/` - Contains variable data for programs in `/usr/`

[?] Do we really need to have all these folders memorized?

- For the exam, certainly
- In real-life you can cheat a bit

    - `which <command>`
    - `whereis <command>`
    - `locate`
    - `find`