4.5.4 Shutdown Facts

Turning off the power without executing the proper shutdown procedure to a computer can result in data loss and file system corruption. Linux provides several different shutdown options.

This lesson covers the following topics:

- Shutdown process
- Common shutdown commands

Shutdown Process

When using the **shutdown** command to shut down the computer, the system does the following:

- Sends a SIGTERM message to open programs to allow them to close.
- Notifies logged on users that the shutdown process has initiated and the length of time before shut down.
- Blocks users from logging into the system.
- Shuts down all running processes and then the system.

Common Shutdown Commands

The table below shows common commands for shutting down the system:

Command	Function	Examples
shutdown -h now **halt** **init 0** **systemctl isolate poweroff.target** **systemctl isolate runlevel0.target**	Shuts the system down immediately. For the shutdown command: - **-h** specifies that the system halt or power off after shutdown. - **now** forces the system to shut down without a delay. ⓘ Any of these commands shuts the system down immediately.	

shutdown -r now reboot init 6 systemctl isolate reboot.target systemctl isolate runlevel6.target	Shuts the system down immediately and reboot. ⓘ Any of these commands reboots the system immediately.	
shutdown -h *time message* **shutdown -r** *time message*	Shuts the system down in the designated amount of time and send a message.	**shutdown -h +5 System is going down** sends a message and shuts the system down in five minutes. **shutdown -h 22:00** shuts the system down at 10:00 p.m. **shutdown -r +15** reboots the system in 15 minutes. **shutdown -r 24:00 System is going down at Midnight** sends a message and reboots the system at midnight.
shutdown -c Ctrl+c	Cancels a pending shutdown.	
shutdown -rf *time*	The **-r** parameter issues the reboot command. The **-f** parameter stands for reboot fast and skips the fsck utility on reboot.	**shutdown -rf** reboots the system and skips **fsck**. **shutdown -r +15** reboots the system in 15 minutes and uses **fsck**.
shutdown -k *message*	Sends a warning message, but does not shut down the system.	**shutdown -k Please log out of the system** sends the message to logged in users, but does not actually shut the system down.