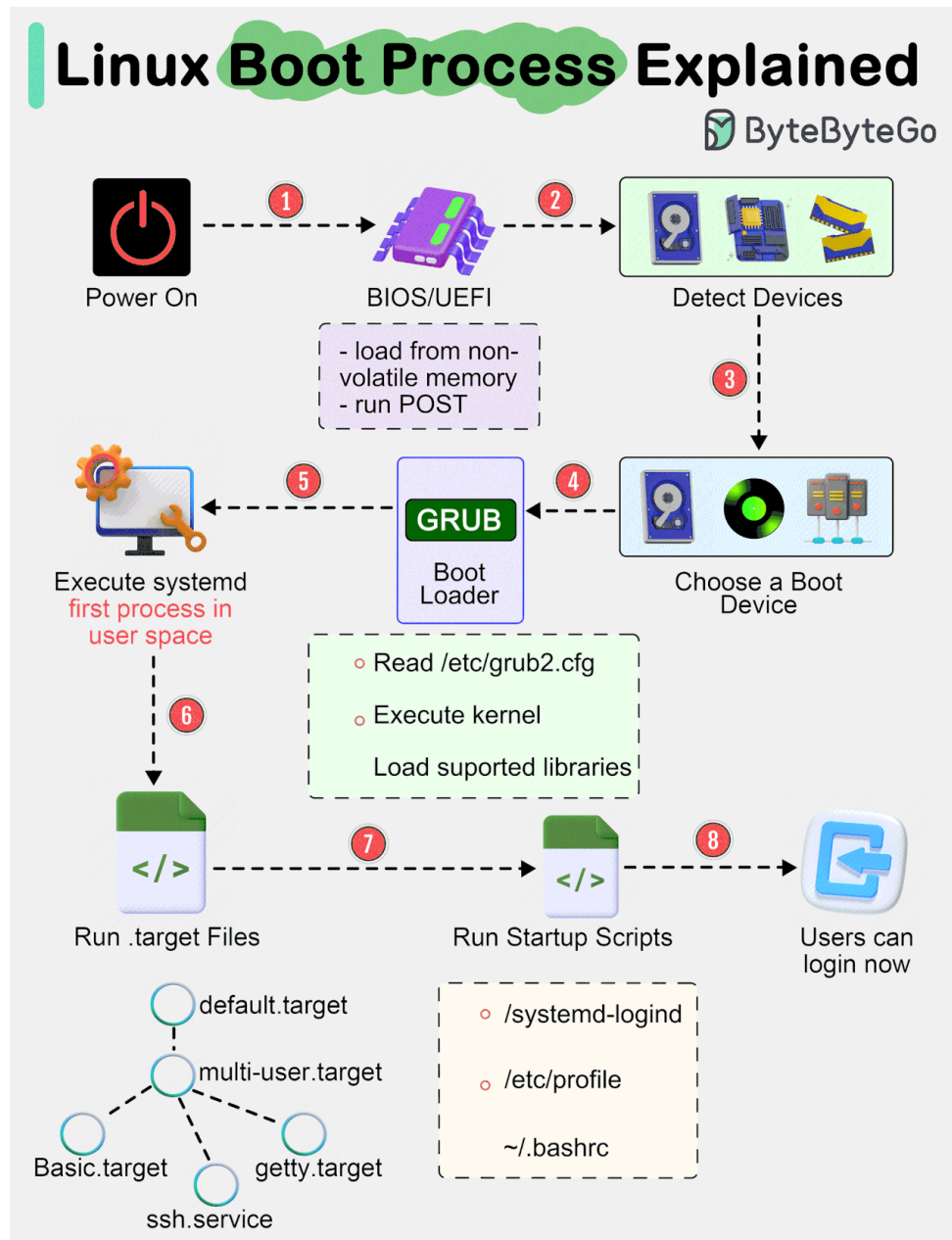# Linux Boot Process Illustrated

We've made a video (YouTube Link at the end).

The diagram below shows the steps.

Step 1 - When we turn on the power, BIOS (Basic Input/Output System) or UEFI (Unified Extensible Firmware Interface) firmware is loaded from non-volatile memory, and executes POST (Power On Self Test).

Step 2 - BIOS/UEFI detects the devices connected to the system, including CPU, RAM, and storage.

Step 3 - Choose a booting device to boot the OS from. This can be the hard drive, the network server, or CD ROM.

Step 4 - BIOS/UEFI runs the boot loader (GRUB), which provides a menu to choose the OS or the kernel functions.

Step 5 - After the kernel is ready, we now switch to the user space. The kernel starts up systemd as the first user-space process, which manages the processes and services, probes all remaining hardware, mounts filesystems, and runs a desktop environment.

Step 6 - systemd activates the default. target unit by default when the system boots. Other analysis units are executed as well.

Step 7 - The system runs a set of startup scripts and configures the environment.

Step 8 - The users are presented with a login window. The system is now ready.

Watch and subscribe here: https://lnkd.in/ezkZb5Wq