LESSON 10



UNIX

init · SMF · launchd

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UNIX OS

LESSON 10

Processes, Boot and Service Management Across UNIX

ps differences, SysV init and run levels, BSD rc, SMF, launchd and systemd compared

ps: Two Dialects



- System V systems use ps dash ef, while BSD systems use ps aux, without a dash. Linux …
- kill, nice and renice work the same everywhere, and top or prstat shows live usage.

01

System V init and Run Levels



- Classic System V UNIX boots with init, reading slash etc slash inittab. Run levels define …
- Scripts in slash etc slash rc3 dot d start with S to start or K to kill services, in …

02

BSD rc and the service Command



- BSD systems skip run levels. At boot, rc reads rc dot conf and runs the scripts in slash ...
- The service command and sysrc make management simple and consistent.

03

Modern Service Managers

System	List	Restart	Why broken?
Solaris	`svcs`	`svcadm restart`	`svcs -x`
AIX	`lssrc -a`	`stopsrc / startsrc`	`errpt`
macOS	`launchctl list`	`launchctl kickstart -k`	`log show`
Linux	`systemctl`	`systemctl restart`	`journalctl -u`

- Newer systems replaced scripts with managers that track dependencies and restart crashed …
- The commands differ, but every one of them can list, start, stop, enable and diagnose …

04

Shutting Down Safely

System	Reboot now
Linux, macOS, BSD	`shutdown -r now`
Solaris	`shutdown -y -g0 -i6`
AIX	`shutdown -Fr`
HP-UX	`shutdown -ry 0`

- Never just cut the power on a UNIX server: buffers must be written to disk and services …
- shutdown is the portable command, but its options vary: check its man page on each system.

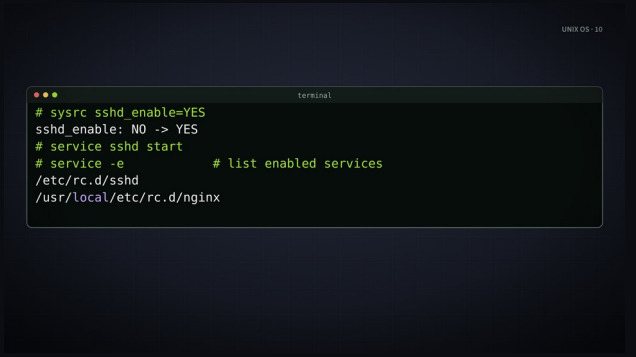
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Sources and Further Reading





Thank you for watching

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