systemd: Management Tools, Unit Files, and Targets

Although complicated in its own ways, `systemd` got it right by creating a single command used to manage just about everything related to managing a `systemd` system. The options and arguments can be long but the command supports a very robust tab completion system. This means entire options do not have to be typed out (similar to a Cisco IOS environment) as long as the characters that are typed are unique. You can also double tap tab at any point to quickly get a list of available options without having to consult the man page. The command is called `systemctl`.

When managing units with the `systemctl` command, if the type of unit is not specified, then it is assumed that the unit type is a service. For example, `systemctl status httpd` is the same as `systemctl status httpd.service`. To learn more about the `systemctl`, refer to the following man page:

- `man 1 systemctl`

Commands	Actions
`systemctl start|stop|restart <name>`	Start, stop, or restart a service
`systemctl status <name>`	Get service status
`systemctl list-units --type service --all`	List all available services
`systemctl enable|disable <name>`	Enable/Disable a service
`systemctl set-default <target>`	Set default target
`systemctl get-default`	Get default target
`systemctl list-unit-files –t service`	Determine what services are configured to start on boot

systemd: Unit Files

Unit Type	Description	Man page
Service	Start and control daemons and the processes they consist of.	`man 5 systemd.service`
Socket	Encapsulate local IPC or network sockets in the system, useful for socket-based activation.	`man 5 systemd.socket`
Target	Used to group units together during boot-up.	`man 5 systemd.target`
Device	Expose kernel devices in systemd and implement device-based activation.	`man 5 systemd.device`
Mount	Control mount points.	`man 5 systemd.mount`
Automount	Provide automount capabilities.	`man 5 systemd.automount`
Snapshot	And temporarily save the state of the set of systemd units.	`man 5 systemd.snapshot`
Timer	For triggering activation of other units based on timers.	`man 5 systemd.timer`
Swap	Which are similar to mount units and encapsulate memory swap partitions or files for the operating system.	`man 5 systemd.swap`
Path	Are used to activate other services when filesystem objects change or are modified.	`man 5 systemd.path`
Slice	Group units which manage system processes in a hierarchical tree for resource management purposes.	`man 5 systemd.slice`
Scope	Similar to service units, but manage foreign processes instead of starting them.	`man 5 systemd.scope`

systemd: Targets

Runlevel	Target
0	poweroff.target
1	rescue.target
2	multi-user.target
3	multi-user.target
4	multi-user.target
5	graphical.target
6	reboot.target