Useful SystemD commands (hints for systemctl or systemctl vs chkconfig and service)

List all running services

```
# systemctl
```

Start/stop or enable/disable services

Activates a service immediately:

```
# systemctl start foo.service
```

Deactivates a service immediately:

```
# systemctl stop foo.service
```

Restarts a service:

```
# systemctl restart foo.service
```

Shows status of a service including whether it is running or not:

```
# systemctl status foo.service
```

Enables a service to be started on bootup:

```
# systemctl enable foo.service
```

Disables a service to not start during bootup:

```
# systemctl disable foo.service
```

Check whether a service is already enabled or not:

```
# systemctl is-enabled foo.service; echo $?
```

0 indicates that it is enabled. 1 indicates that it is disabled

How do I change the runlevel?

systemd has the concept of targets which is a more flexible replacement for runlevels in sysvinit.

Run level 3 is emulated by multi-user.target. Run level 5 is emulated by graphical.target. runlevel3.target is a symbolic link to multi-user.target and runlevel5.target is a symbolic link to graphical.target.

You can switch to ‘runlevel 3′ by running

```
# systemctl isolate multi-user.target (or) systemctl isolate runlevel3.target
```

You can switch to ‘runlevel 5′ by running

```
# systemctl isolate graphical.target (or) systemctl isolate runlevel5.target
```

How do I change the default runlevel?

systemd uses symlinks to point to the default runlevel. You have to delete the existing symlink first before creating a new one

```
# rm /etc/systemd/system/default.target
```

Switch to runlevel 3 by default

```
# ln -sf /lib/systemd/system/multi-user.target
/etc/systemd/system/default.target
```

Switch to runlevel 5 by default

```
# ln -sf /lib/systemd/system/graphical.target /etc/systemd/system/default.target
```

systemd does not use /etc/inittab file.

List the current run level

runlevel command still works with systemd. You can continue using that however runlevels is a legacy concept in systemd and is emulated via ‘targets’ and multiple targets can be active at the same time. So the equivalent in systemd terms is

```
# systemctl list-units --type=target
```

Powering off the machine

You can use

```
# poweroff
```

Some more possibilities are: `halt -p`, `init 0`, `shutdown -P now`

Note that `halt` used to work the same as `poweroff` in previous Fedora releases, but systemd distinguishes between the two, so `halt` without parameters now does exactly what it says – it merely stops the system without turning it off.

Service vs. systemd

```
# service NetworkManager stop
```

(or)

```
# systemctl stop NetworkManager.service
```

Chkconfig vs. systemd

```
# chkconfig NetworkManager off
```

(or)

```
# systemctl disable NetworkManager.service
```

Readahead

systemd has a built-in readahead implementation is not enabled on upgrades. It should improve bootup speed but your mileage may vary depending on your hardware. To enable it:

```
# systemctl enable systemd-readahead-collect.service
# systemctl enable systemd-readahead-replay.service
```

SystemD cheatsheet

service foobar start	systemctl start foobar.service	Used to start a service (not reboot persistent)
service foobar stop	systemctl stop foobar.service	Used to stop a service (not reboot persistent)
service foobar restart	systemctl restart foobar.service	Used to stop and then start a service
service foobar reload	systemctl reload foobar.service	When supported, reloads the config file without interrupting pending operations.
service foobar condrestart	systemctl condrestart foobar.service	Restarts if the service is already running.
service foobar status	systemctl status foobar.service	Tells whether a service is currently running.
ls /etc/rc.d/init.d/	ls /lib/systemd/system/*.service /etc/systemd/system/*.service	Used to list the services that can be started or stopped
chkconfig foobar on	systemctl enable foobar.service	Turn the service on, for start at next boot, or other trigger.
chkconfig foobar off	systemctl disable foobar.service	Turn the service off for the next reboot, or any other trigger.
chkconfig foobar	systemctl is-enabled foobar.service	Used to check whether a service is configured to start or not in the current environment.
chkconfig foobar –list	ls /etc/systemd/system/*.wants/foobar.service	Used to list what levels this service is configured on or off
chkconfig foobar –add		Not needed, no equivalent.

References