

How OpenRC Works

/etc/inittab

Init needs a configuration file that specifies what actions need to be taken. This configuration file is `/etc/inittab`

sysinit

init's first action is to mount all file systems. This is defined in the following line from `/etc/inittab`. `si::sys init: /sbin/ - openrc sysinit`

bootwait

init's second action is to execute all scripts that had symbolic links in `/etc/runlevels/-boot/`. This is defined in the following line from `/etc/inittab`. `rc::bootwait :/sbin /openrc boot`

initdefault

init checks its configuration file to see what runlevel it should run. To decide this, it reads the following line from `/etc/inittab`. `id :3: init default:`

runlevel

In this case the runlevel id is 3. Using this information, init checks what it must run to start runlevel 3. `l3:3:wait :/sbin /openrc default`. The line that defines level 3, again, uses the openrc script to start the services (now with argument default)

How OpenRC Works (cont)

consoles

init decides what virtual consoles it should activate and what commands need to be run at each console.

```
c1:12345:respawn:/sbin/agetty 38400
tty1 linux
c2:12345:respawn:/sbin/agetty 38400
tty2 linux
c3:12345:respawn:/sbin/agetty 38400
tty3 linux
c4:12345:respawn:/sbin/agetty 38400
tty4 linux
c5:12345:respawn:/sbin/agetty 38400
tty5 linux
c6:12345:respawn:/sbin/agetty 38400
tty6 linux
```

Configuration

`/etc/rc.conf`

Runlevels

sysinit

shutdown

reboot

boot

default

nonetwork

single

Initscripts

Working with initscripts

The scripts that the openrc process starts are called init scripts. Each script in `/etc/init.d/` can be executed with the arguments start, stop, restart, zap, status, ineed, iuse, iwant, needsme, usesme, or wantsme.

Start a service

`/etc/init.d/postfix start`

Stop a service, but not the services that depend on it

`/etc/init.d/postfix --nodeps stop`

See what status a service has

`/etc/init.d/postfix status`

Ask what dependencies the service has

`/etc/init.d/postfix ineed`

Ask what services require the service

`/etc/init.d/postfix needsme`

Configuring services

/etc/conf.d

Every init script that can be configured has a file in `/etc/conf.d/`. For instance, the apache2 init script (called `/etc/init.d/apache2`) has a configuration file called `/etc/conf.d/apache2`, which can contain the options to give to the Apache 2 server when it is started. Such a configuration file contains only variables.



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Replacing default runlevel

Replace runlevel

Add a new entry in the bootloader configuration for the desired runlevel. In that entry, add `softlevel=desired` as a boot parameter.

Working with runlevel

Change to nonnetwork runlevel	<code>rc nonetwork</code>
Change to default runlevel	<code>rc default</code>
Change to shutdown runlevel	<code>rc shutdown</code>
Change to reboot runlevel	<code>rc reboot</code>
Show status info about runlevels	<code>rc-status [runlevel]</code>
Locate and run an OpenRC service	<code>rc-service service cmd [...]</code>
Adding services	<code>rc-update add postfix default</code>
Removing services	<code>rc-update del postfix default</code>
Showing services	<code>rc-update show</code>



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