

NAME

dracut-shutdown.service – unpack the initramfs to /run/initramfs

SYNOPSIS

dracut-shutdown.service

DESCRIPTION

This service unpacks the initramfs image to /run/initramfs. systemd pivots into /run/initramfs at shutdown, so the root filesystem can be safely unmounted.

The following steps are executed during a shutdown:

- The system starts to shut down
- “\$prefix/lib/systemd/system/sysinit.target.wants/dracut-shutdown.service“ gets its “ExecStop“ target triggered.
- “dracut-shutdown.service“ executes “/usr/lib/dracut/dracut-initramfs-restore“ which unpacks the initramfs to “/run/initramfs“
- systemd kills all processes
- systemd tries to unmount everything and mounts the remaining read-only
- systemd checks if there is a “/run/initramfs/shutdown“ executable
- if yes, it does a pivot_root to “/run/initramfs“ and executes “./shutdown“. The old root is then mounted on “/oldroot“. “/usr/lib/dracut/modules.d/[0-9][0-9]shutdown/shutdown.sh“ is the shutdown executable.
- shutdown will try to unmount every “/oldroot“ mount and calls the various shutdown hooks from the dracut modules

This ensures, that all devices are disassembled and unmounted cleanly.

To debug the shutdown process, you can get a shell in the shutdown procedure by injecting “rd.break=pre-shutdown rd.shell” or “rd.break=shutdown rd.shell”.

```
# mkdir -p /run/initramfs/etc/cmdline.d
# echo "rd.break=pre-shutdown rd.shell" > /run/initramfs/etc/cmdline.d/50-debug.conf
# touch /run/initramfs/.need_shutdown
```

In case the unpack of the initramfs fails, dracut-shutdown-onfailure.service executes to make sure switch root doesn't happen, since it would result in switching to an incomplete initramfs.

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SEE ALSO

dracut(8)