




Containers, Kubernetes

Containers Deep Dive

 linkedin.com/company/red-hat

 facebook.com/redhatinc

 youtube.com/user/RedHatVideos

 twitter.com/RedHat

What is a Container Image?

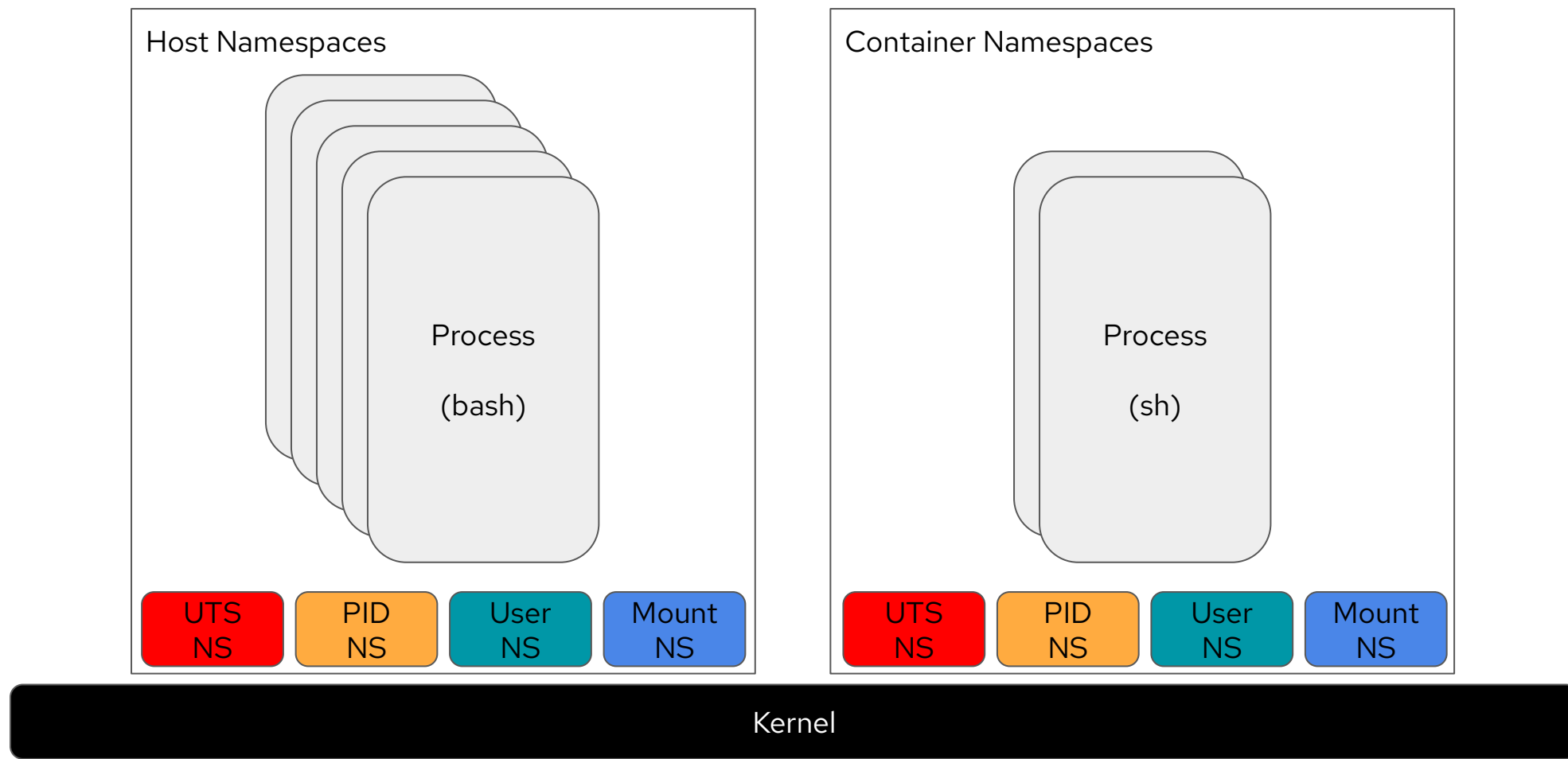


http/https

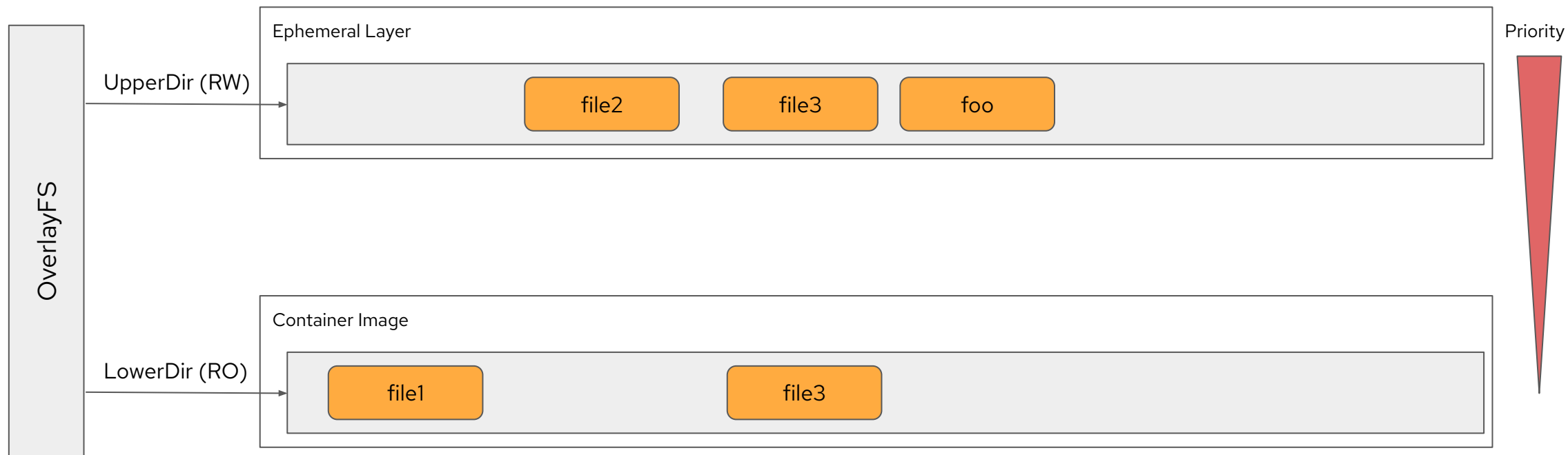
1. manifest (json)
2. config (json)
3. layers (tar(s))

```
sdavies@sdavies-thinkpadt14sgen2i:~$ podman pull docker.io/library/busybox
Trying to pull docker.io/library/busybox:latest...
Getting image source signatures
Copying blob a46fbb00284b done |
Copying config 27a71e19c9 done |
Writing manifest to image destination
27a71e19c95622dce4d60d4a3760707495c9875f5c5322c5bd535214799593ce
sdavies@sdavies-thinkpadt14sgen2i:~$
```

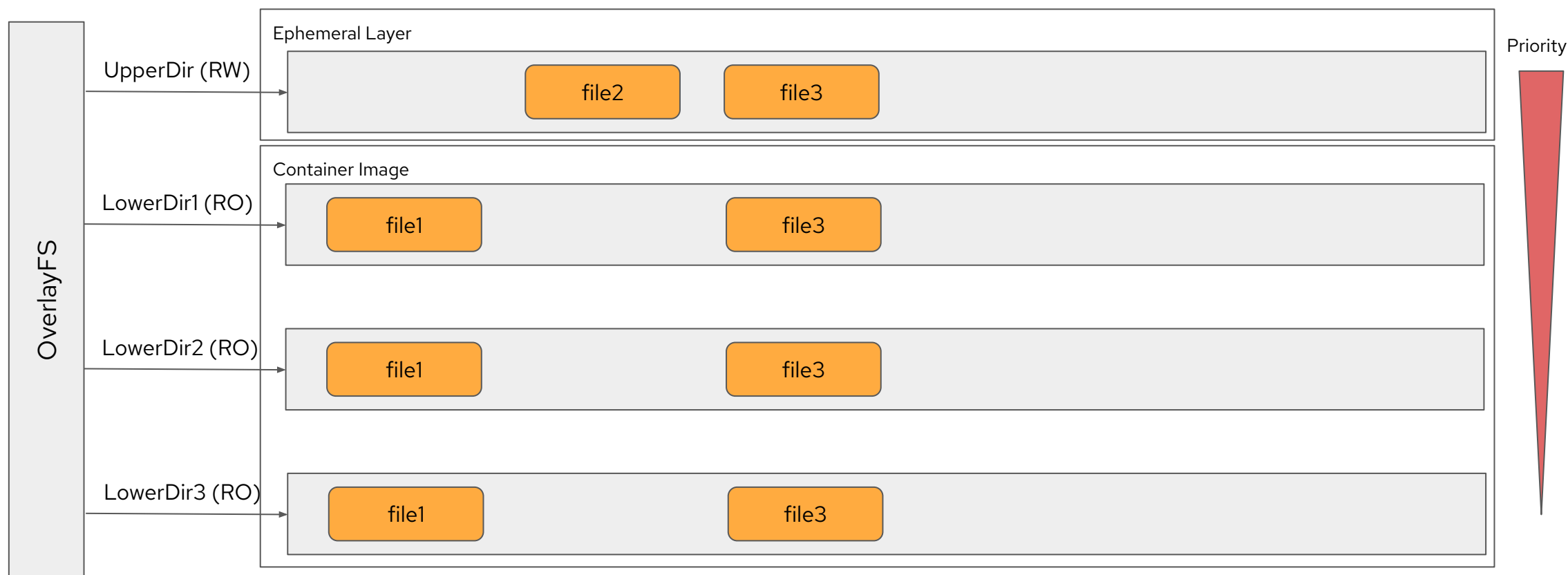
Namespaces



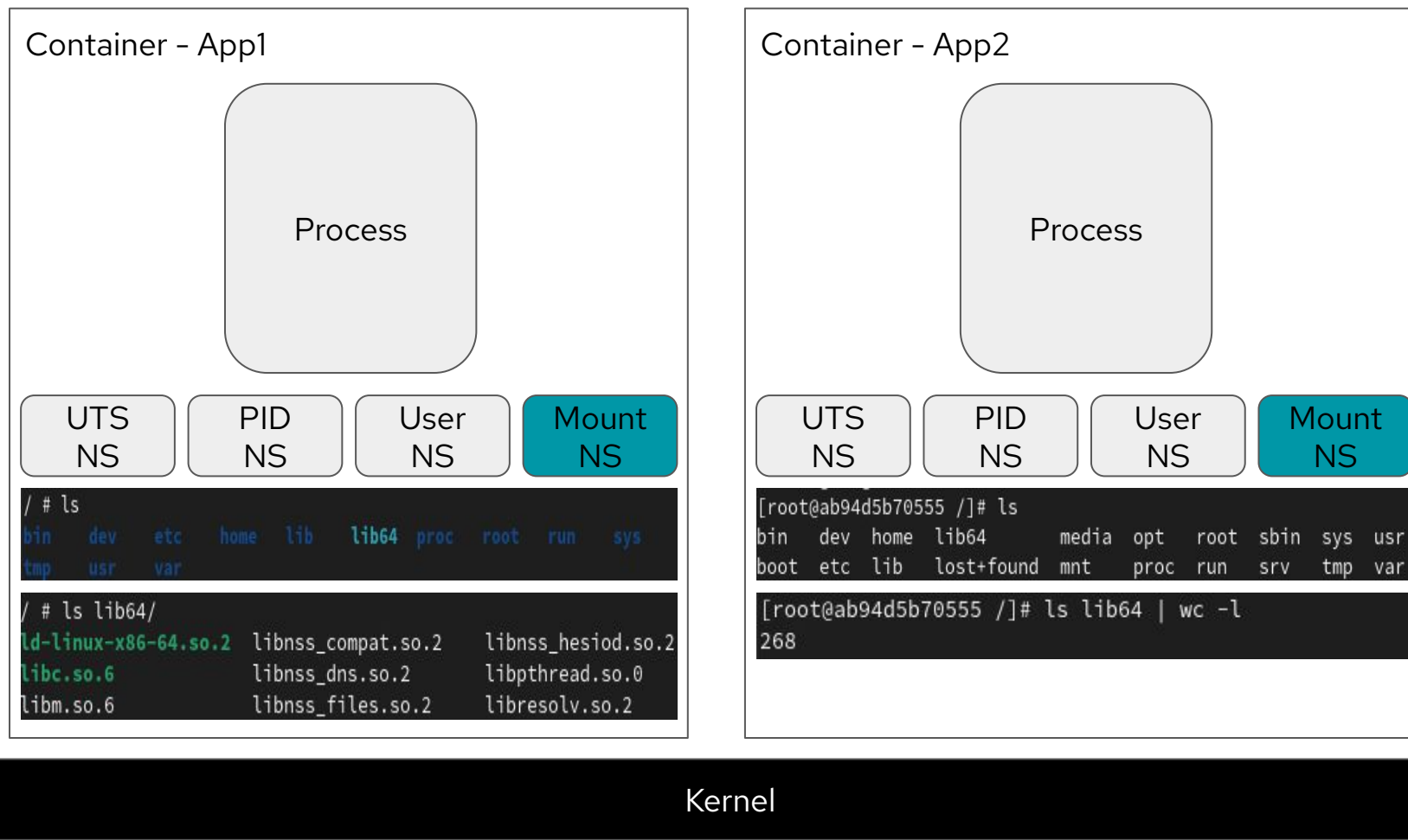
Overlay File System



Overlay File System - Multi RO Layers



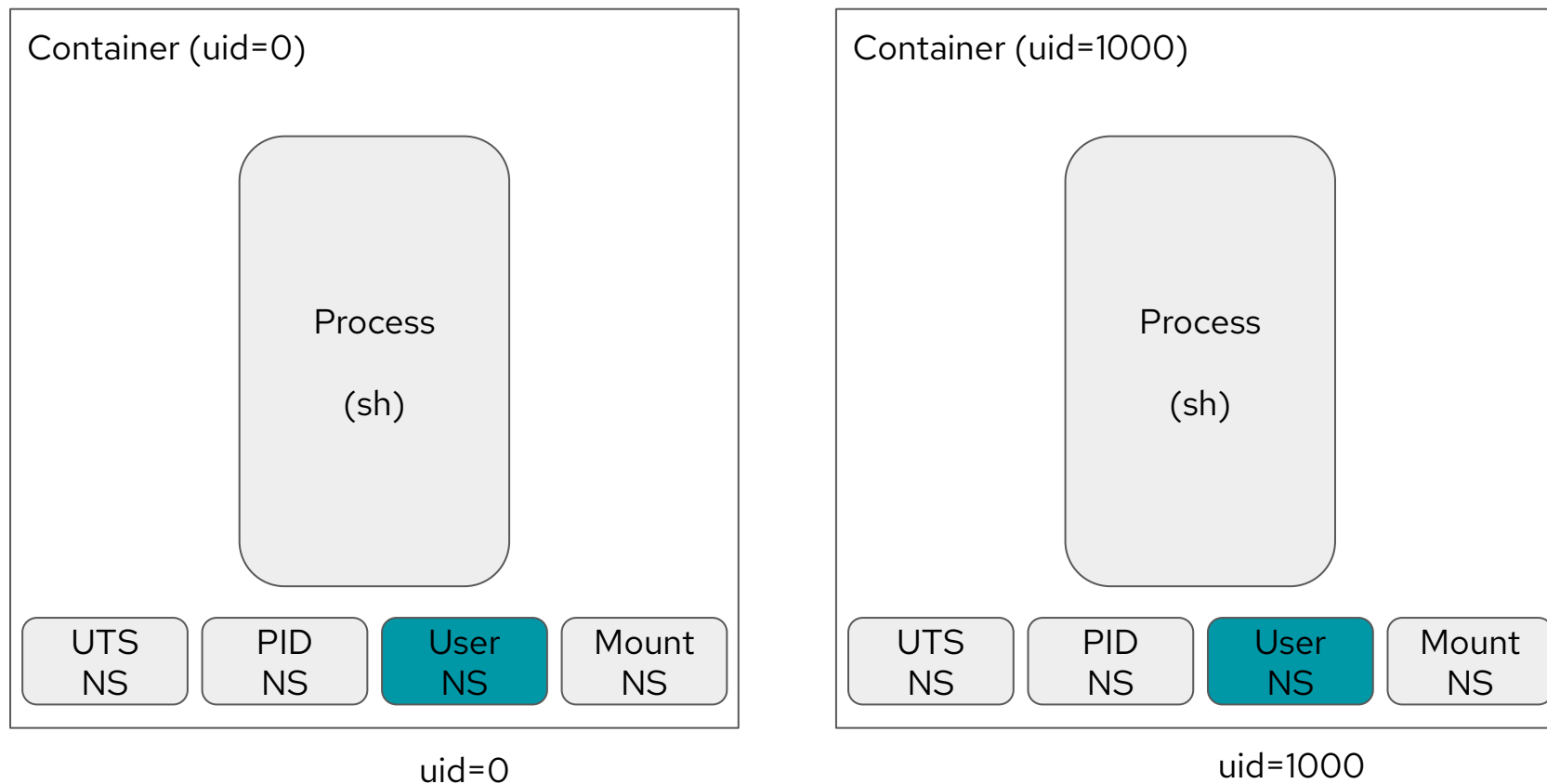
Why Containers?



Summary

- A Container Image is:
 - JSON metadata
 - JSON config
 - TAR file(s) containing files
- A Container is:
 - Linux Process
 - Isolated from the host via namespaces
 - File system uses directory overlays

Podman – Rootful Containers



Kernel

Podman – Rootless Containers

