Containers From Scratch

Namespaces

PID Namespace

PID Namespace

- Isolates process ID number space.
- It enables functions such as suspending/resuming processes within the namespace
- System calls:
  - **clone**: This system call actually creates a new process. But with the aid of the *flags* argument, the new process will create its own new namespaces (***fork** syscall simply call clone() with different arguments*)
  - **setns:** This system call allows the running process to join an existing namespace.
  - **unshare:** This system call is actually the same as clone but the difference is that clone spawns a new process inside a new set of namespaces, and unshare moves the current process inside a new set of namespaces
  - **Flags**: CLONE_NEWCGROUP, CLONE_NEWIPC, CLONE_NEWNET, CLONE_NEWNS, CLONE_NEWPID, CLONE_NEWTIME, CLONE_NEWUSER, CLONE_NEWUTS
- /proc/[pid]/ns: process namespaces

Architecture