

seL4 Thread Emulation Implementation

To emulate the seL4 threads, we have two implementation options:

- Map each one to a Linux user space **thread**.
- Map each one to a Linux user space **process**.

Trade-offs of mapping to threads

- By default, we share the address spaces. ✓, but we can't isolate them. (can't emulate different vspaces) ✗
- Creation/Deletion are relatively light weighted. ✓
- Introduce implementation complexity. (concurrency issues, signal handlings, etc.) ✗
- pthread library already uses TLS, which seL4 is using as well. ✗

Trade-offs of mapping to process

- Can emulate different vspaces. ✓
- Simpler to implement. ✓
- Process creation/deletion is relatively heavy. ✗