seL4 Kernel Recap

How does kernel access kernel objects?

use capability (**access rights + reference**) ⇒ memory reference ⇒ any kernel objects on the memory.

Kernel window mapping

The kernel has 1:1 physical memory mapped in the virtual memory.

- At the **fixed base** of the kernel window which is 2^64 - 2^39. (assume we are using the x86_64 architecture)

- Easily access any data on the physical memory by adding an **offset** to the physical address.

2^64	Kernel Device
2^64 - 2^30	Kernel ELF
2^64 - 2^31	Physical Memory
2^64 - 2^39	