

## Analysing "Hello World" Roottask (cont)

How many seL4 syscalls does the "Hello world" roottask invoke?

- **seL4\_SetTLSBase** (set up the TLS region)
- **seL4\_DebugNameThread** (needed if built with debug configuration)
- **seL4\_DebugPutChar**

How to redirect those syscalls?

Modify the libseL4 to integrate our emulation library.

At which level?

Modify the raw syscall ASM wrappers (**syscalls\_syscall.h**) to achieve **minimal** modification in the original code. Take x86\_64 as an example:

<b>x64_sys_send</b>	invokes	<b>seL4emu_sys_send</b>
<b>x64_sys_reply</b>	invokes	<b>seL4emu_sys_reply</b>
<b>x64_sys_send_null</b>	invokes	<b>seL4emu_sys_send_null</b>
<b>x64_sys_recv</b>	invokes	<b>seL4emu_sys_recv</b>
<b>x64_sys_send_recv</b>	invokes	<b>seL4emu_sys_send_recv</b>
<b>x64_sys_nbsend_recv</b>	invokes	<b>seL4emu_sys_nbsend_recv</b>
<b>x64_sys_null</b>	invokes	<b>seL4emu_sys_null</b>