System Calls Using Subroutines

System Calls Using Lookup Tables
System Calls Using the Trap Instruction

Traps and Interrupts and Exceptions (Oh my!)

- **Trap** - caused by executing a "trap" instruction. Used to perform system calls. Also called a "syscall" or "synchronous trap."

- **Interrupt** - caused by a hardware device when it needs service. Also called an "asynchronous trap."

- **Exception** - caused when an illegal operation is attempted.

With all three, the processor response is the same - an "Indirect subroutine call" through the vector table, along with a change from user to kernel mode.