VOLUME B - CONTROL COMPONENT SOFTWARE

Chapter 4: Operating System Nucleus

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4.1 FUNCTIONS OF THE OPERATING SYSTEM NUCLEUS

The Support Operating System (SOS)[10] consists of several layers. The nucleus is the lowest layer of SOS. The nucleus performs the following tasks:

- allocates resources to the processes making up SOS and to the processes running under SOS
- provides communication among these processes
- creates, controls, and removes these processes

The facilities implemented and used by the nucleus to accomplish these inter-related tasks include:

- queues
- the store allocator
- pools
- modules
- processes
- timing facilities
- the interrupt system
- the SOS message system
- the SOS scheduler
- synchronization and mutual exclusion primitives

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[10] The acronym SOS is pronounced "sauce."