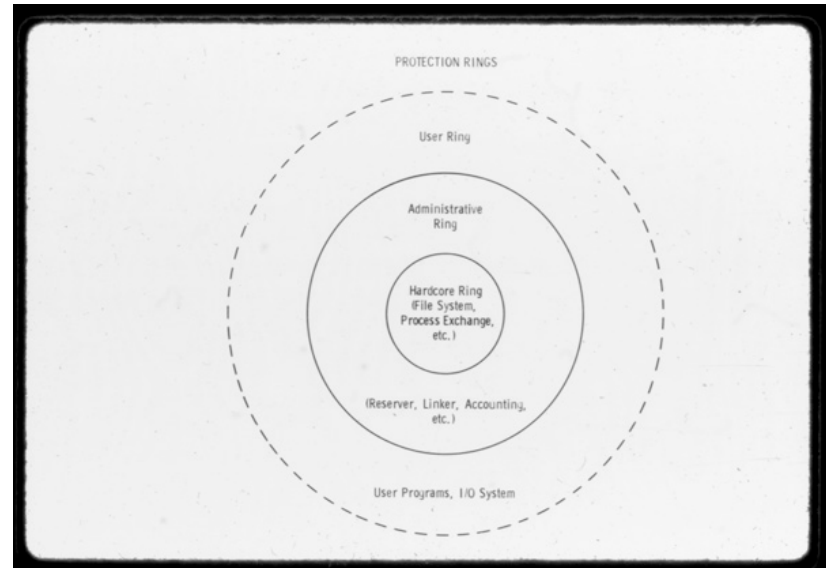


1

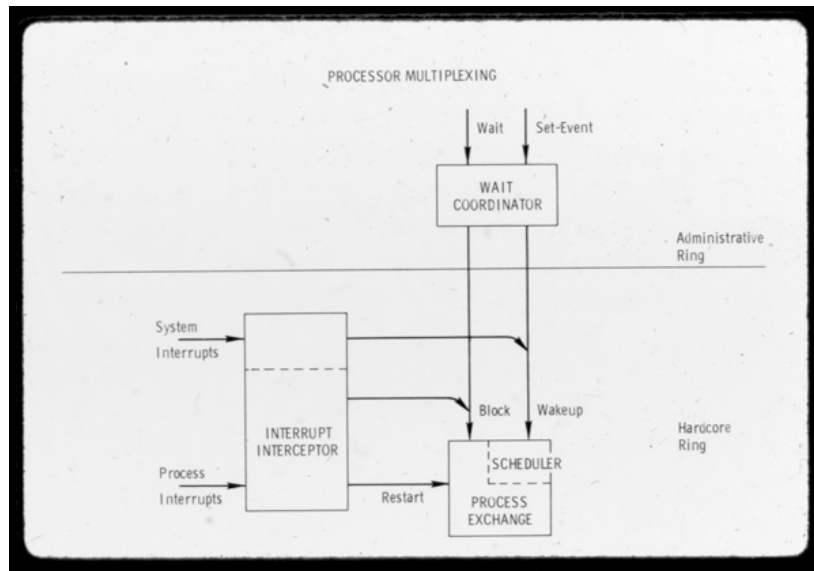
MULTICS CENTRAL SUPERVISOR

1. Protection rings
2. Processor multiplexing
3. Dynamic linking/search
4. Dedicated resource management
5. User process groups

2



3



4

DYNAMIC LINKING

Function: To postpone intersegment reference binding until execution of the reference.

Reasons:

1. The intersegment reference may not be made during this invocation of the procedure.
2. The identity of the segment to be referred to may be computed by the procedure just before the reference is made.

Method: Assemble a fault-causing tag into an indirect word.

5

LINKAGE FAULT
(Handled by Linker)

1. Associate a tree name with the abbreviated segment name appearing in the linkage block. (Make an entry in the Segment Name Table.)
2. Associate a segment number with the tree name. (Make an entry in the known segment table, and in the descriptor segment.)
3. "Snap" the link by placing the segment number in it and remove fault tag.

6

MISSING-SEGMENT FAULT
(Handled by Segment Control)

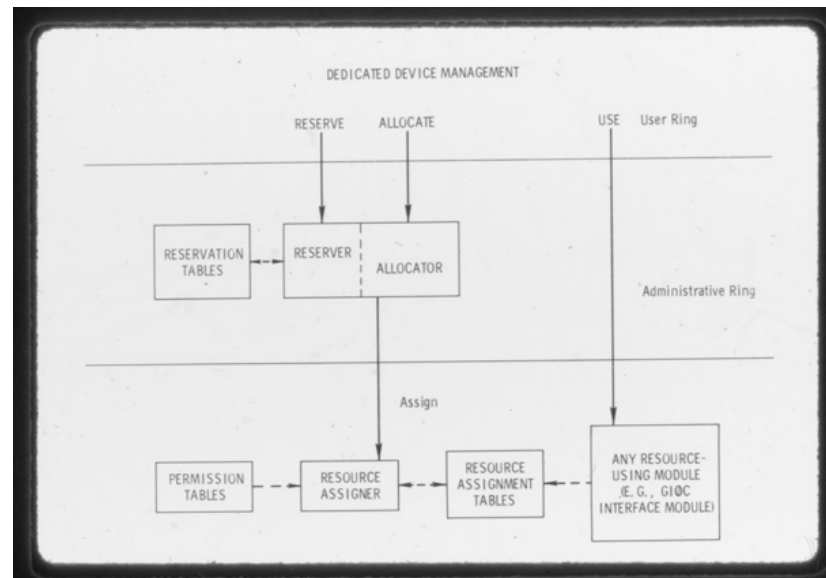
1. Associate the segment number with secondary memory physical location information. (Make entry in the active segment table.)
2. Associate a page table with the segment number. (Adjust entry in descriptor segment.)

7

MISSING-PAGE FAULT
(Handled by Page Control)

1. Associate a block of core memory with the page number. (Make an entry in the page table.)
2. Read page of information from secondary storage into core memory.

8



9

