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Operating System AI-602

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DEMAND SEGMENTATION

Demand Segmentation

• Operating system also uses *demand segmentation*, which is similar to demand paging.

 Operating system to uses demand segmentation where there is *insufficient* hardware available to implement 'Demand Paging'.

Demand Segmentation

• The *segment table* has a valid bit to specify if the segment is already in physical memory or not.

• If a segment is not in physical memory then *segment fault* results, which traps to the operating system and brings the needed segment into physical memory, much like a page fault.

Demand Segmentation

• Demand segmentation allows for pages that are often referenced with each other to be brought into memory together, this decreases the number of page faults.

Homework

Cache memory organization

References

- 1. Silberschatz, Galvin and Gagne, "Operating Systems Concepts", Wiley.
- 2. William Stallings, "Operating Systems: Internals and Design Principles", 6th Edition, Pearson Education.
- D M Dhamdhere, "Operating Systems: A Concept based Approach", 2nd Edition, TMH.

