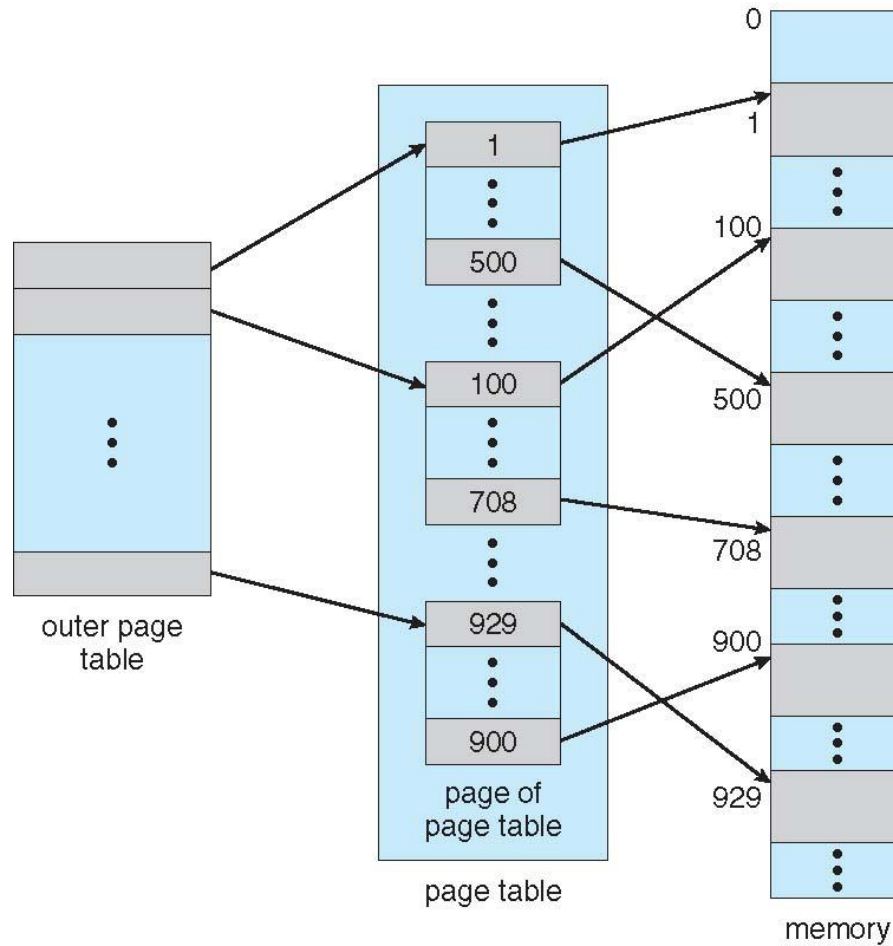


2-Level Paging

Operating System

Two-Level Page-Table Scheme

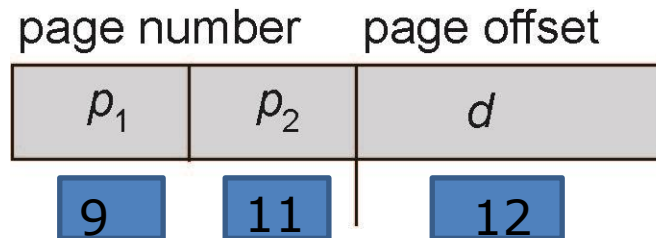


Example

- Physical address space= 256 MB
- Logical address space= 4GB
- Frame size=4KB
- Page table Entry= 2B

Two-Level Paging Example

- A logical address (on 32-bit machine with 4K page size) is divided into:
 - a page number consisting of 20 bits
 - a page offset consisting of 12 bits
- Since the page table is paged, the page number is further divided into:
 - a 9-bit page number
 - a 11-bit page offset



- where p_1 is an index into the outer page table, and p_2 is the displacement within the page of the inner page table

Address-Translation Scheme

