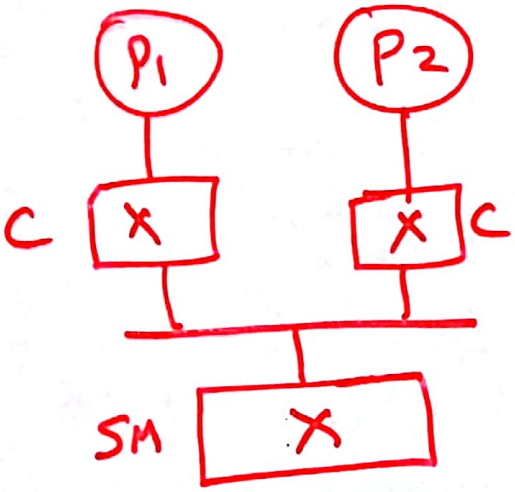
Data Sharing



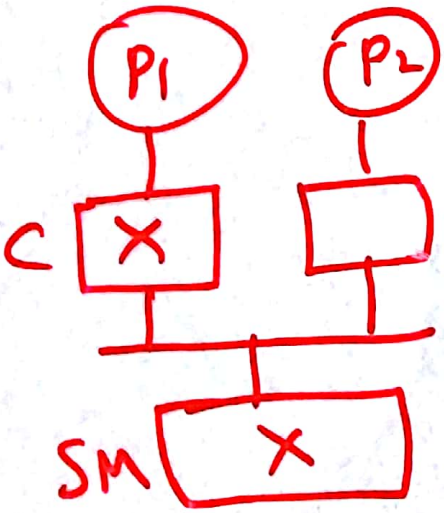
P_1 modifies data using write-through cache

$$\Rightarrow \begin{cases} SM \leftarrow x' \\ P_1\text{'s Cache} \leftarrow x' \\ P_2 \leftarrow x \end{cases}$$

if: Write back

$$P_1 \leftarrow x', \quad \left.\begin{matrix} SM \\ P_2 \end{matrix}\right\} \leftarrow x$$

Process Migration: process containing x migrates to P_2;



Before migration

Write through $P_1 \rightarrow P_2$

$P_1 \leftarrow x'$ $SM \leftarrow x'$

$P_2 \leftarrow x$

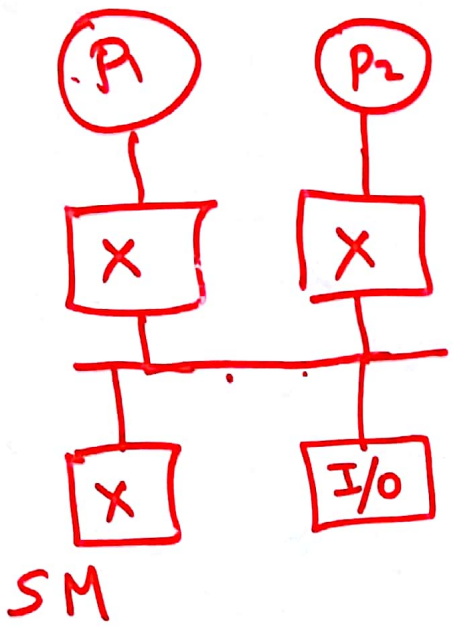
Write back $P_1 \xrightarrow{w(x)} P_2$

$P_1 \leftarrow x'$

$P_2 \leftarrow x$

$SM \leftarrow x$

I/O operation by-passing Caches



I/O → M

⇒ SM ← X'

P1, P2 ← X