Cache Misses: Solution

① Compulsory Misses: 预热,

② Capacity Misses :   扩容

③ Conflict Misses :   改变关联方式

$$S_p = \frac{T_{old}}{T_{new}} = \frac{(1-\eta)+\eta}{(1-\eta)+\eta/S} \quad , S>1$$

a

Name Space ✓

missing item fault

Processor

fault handler

a

Addr Trans Mechanism

$\emptyset$

Main Memory → Secondary Memory

a'

physical address

OS performs this transfer

va ^{31} 0

vp#   displacement (offset)

Trans   copy

                    } pa

PP# (内核外)

Cache 拿到 va. pa 分别对应的情形:

① Core —va→ $ —miss→ va → OS → VM

② Core —va→ Trans —pa→ $ —miss→ M