Two basic approaches:

* Directory schemes:

Attractive in large multiprocessor system -> store state of each block of main memory:

Dirty bit, pointer to container cache.

Directory beside Main memory.

Centralized information

Tangs method:

Allow clean block exist in many caches

Disallow dirty block exist in more than one cache (like most snoopy)

On read miss:

Central directory check for other caches:

If dirty -> copy dirty block to mem before supplying data

If clean -> supply form main mem

On write miss:

If dirty -> flush to main mem before supplying data

If clean -> invalidate block in caches(or remove)

On write hit:

If dirty -> write immediately

If clean -> notify central to invalidate other.

Censier and Featurier method:

* Snoopy cache

Store the state of each block of cache data in cache directories distributedly.

Multi read, one write.

Rely on low latency broadcast bus.

Cache coherency = cache consistency

Two snoopy problem:

Limited scalability

Interference with processor cache write path

Dir base adv -> container cache is known and don’t need broadcast