Object LRU chain
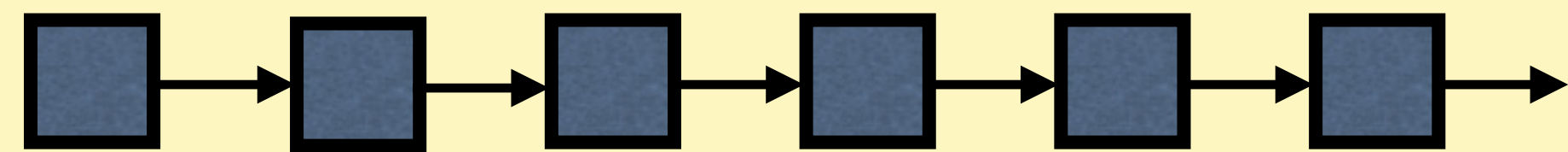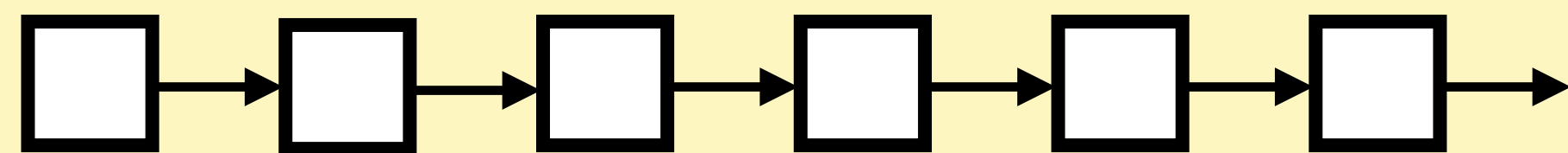

Free chunk chain
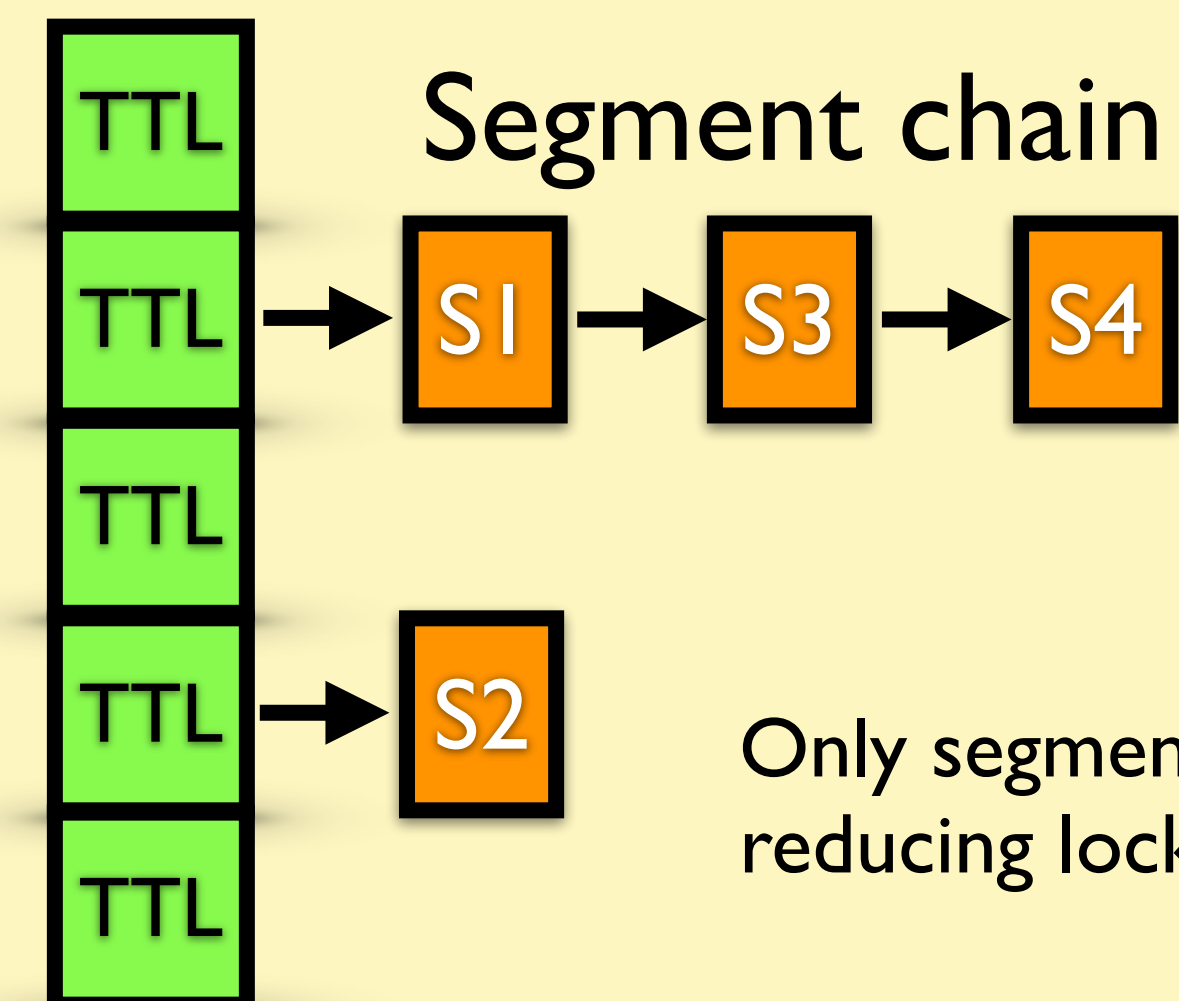

Every get/insert/eviction/deletion/
expiration operation needs locking

Memcached

1000s - 10,000s objects

Expiration and eviction happen on the segment level

Segment chain

TTL → S1 → S3 → S4

TTL → S2

Only segment chain changes need locking:
reducing locking frequency by 10,000s times

Segcache