**MOTIVI DISTRIBUTED CACHES:**

* Velocita accesso dati > soluzioni DB
* Grandi quantita dati (superano capacita singola RAM) (cache in process non sufficienti)
* Scalabilita (N Macchine processano dati in parallelo)
* Replica (Failover) sicurezza

**TERMINOLOGIA:**

**Basic features:**

1. Cache vs Maps
2. Invalidation (Update)
3. Automatic load for cache miss
4. Statistics

**Cache Metrics:**

1. **Cache Miss:**Data not found in cache and loaded from underliyng datasource
2. **Cache Hit:**Usually a counter.  
   Record retrieved from Cache, instead that from underliyng datasource.
3. **Cache Hit ratio**CacheHits/TotalRequests
4. **Storage Cost** (spazio entry in cache)
5. **Load Cost** (tempo per caricarla da datasource)
6. **Replacement policy**   
   Policy of automatic eviction to be performed on insert on full cache.

**TIPI DI CACHES**

Middleware:

* Memacached
* Redis
* Zookeeper

Lib:

* Hazelcast