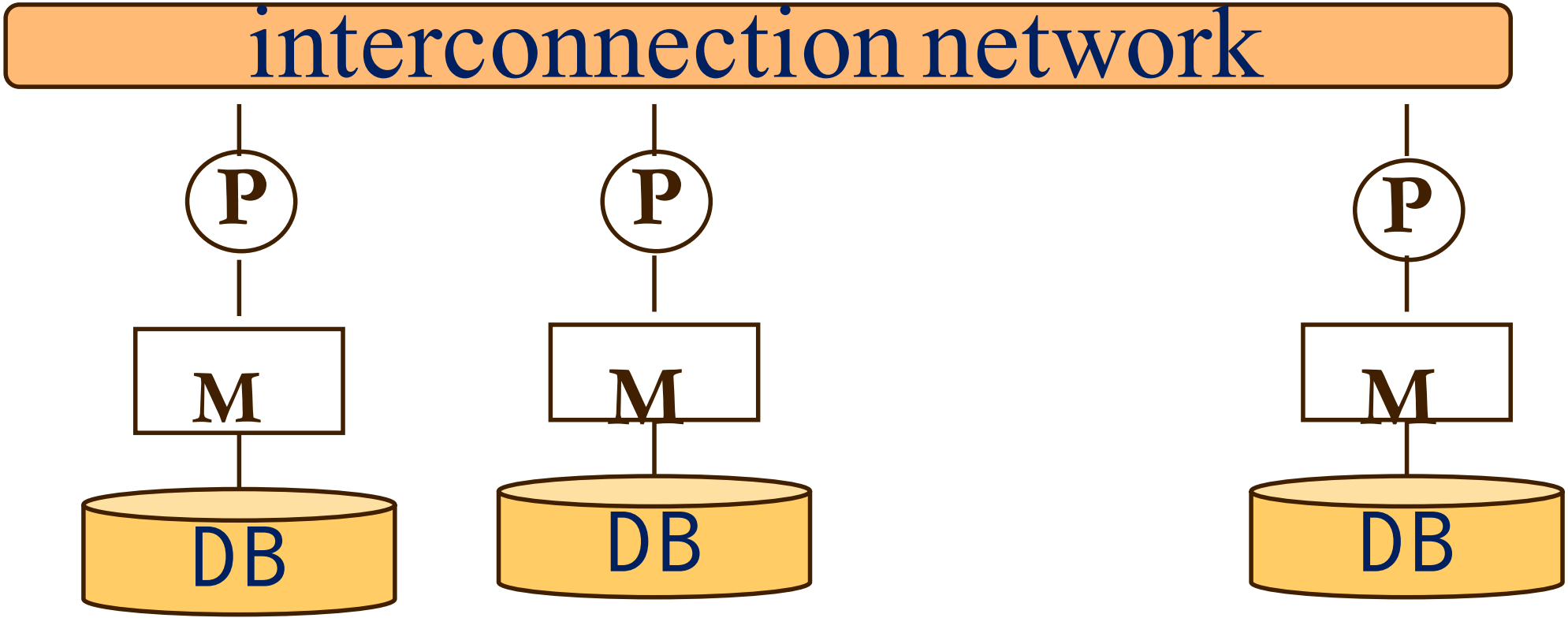
Common Wisdom

5

- Parallel query processing

- Indexing


interconnection network
P
P
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DB
DB
DB

Assuming linear scalability, using 50,000 processors

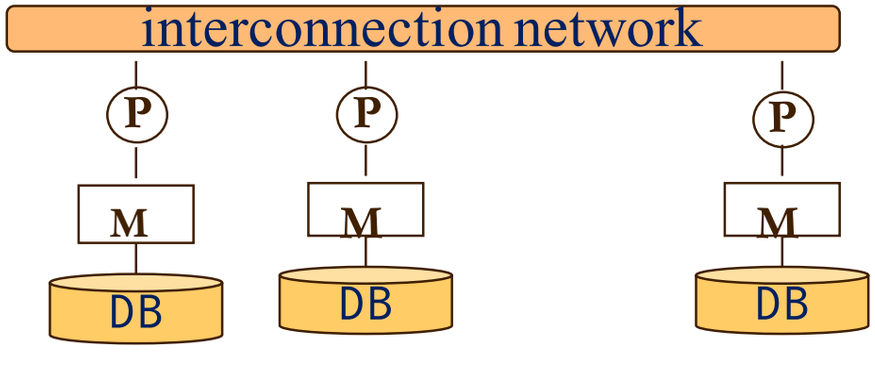
- 2,020 mins is reduced to 2.4s

the best we can hope for

1. typically using **key-value** systems instead of DBMS for horizontal scalability
   - efficiency of SQL@KV is far from good *(much slower than DBMS)*
2. not every computation is parallel scalable
   - up to a point, adding more processors doesn't help
3. a privilege of big companies (costly)

Common Wisdom

- Parallel query processing



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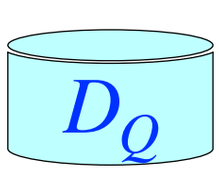
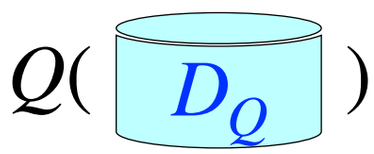
Bounded Query Processing





- D_Q is **bounded** (independent of D)
- the **bound** is known before execution
- $Q(D)$ can be **restored** by computing $Q(D_Q)$