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# Database Systems

## Concepts, Languages and Architectures

**Paolo Atzeni • Stefano Ceri • Stefano Paraboschi • Riccardo Torlone**



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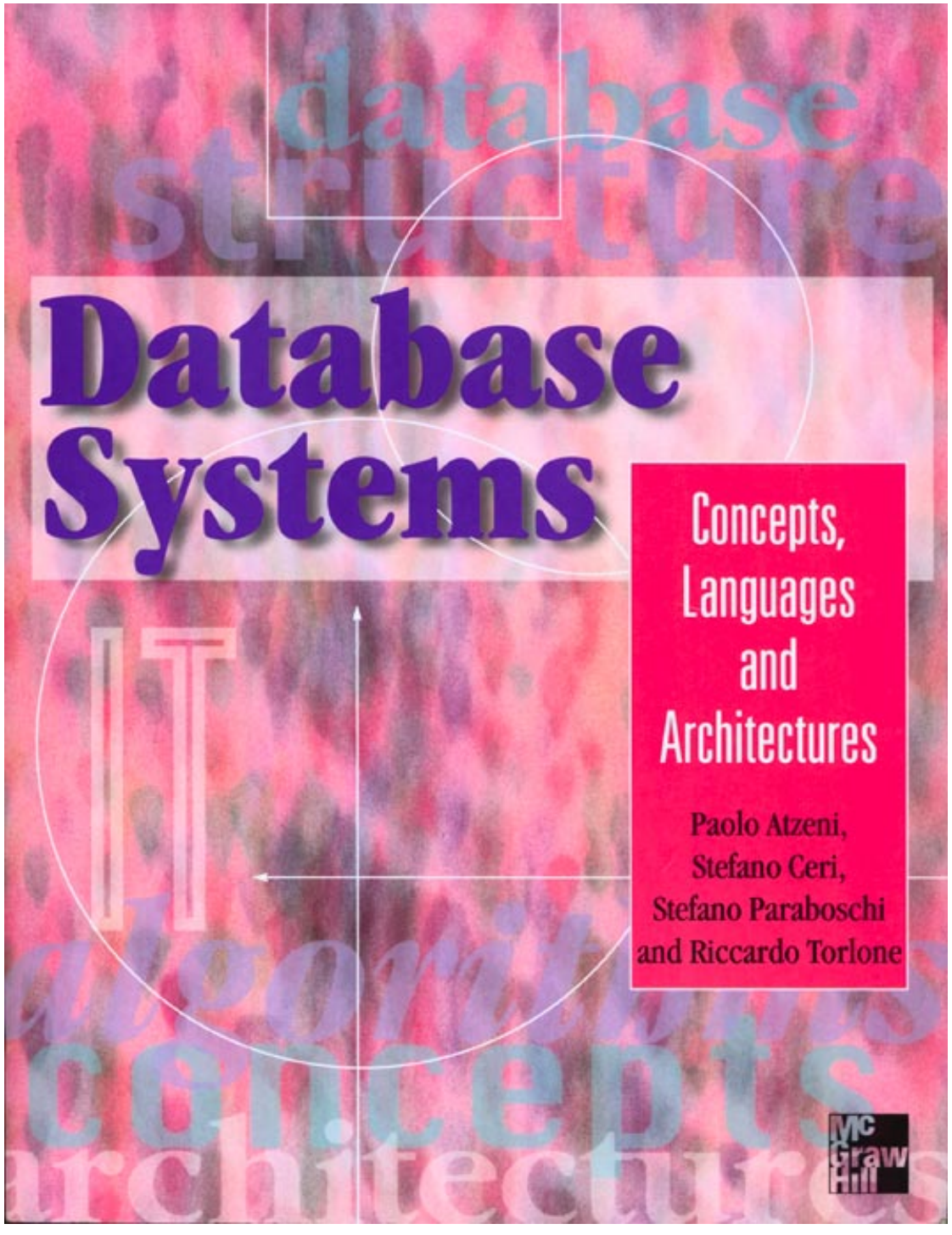
**Press the 'return' or 'enter' key to continue . . .**

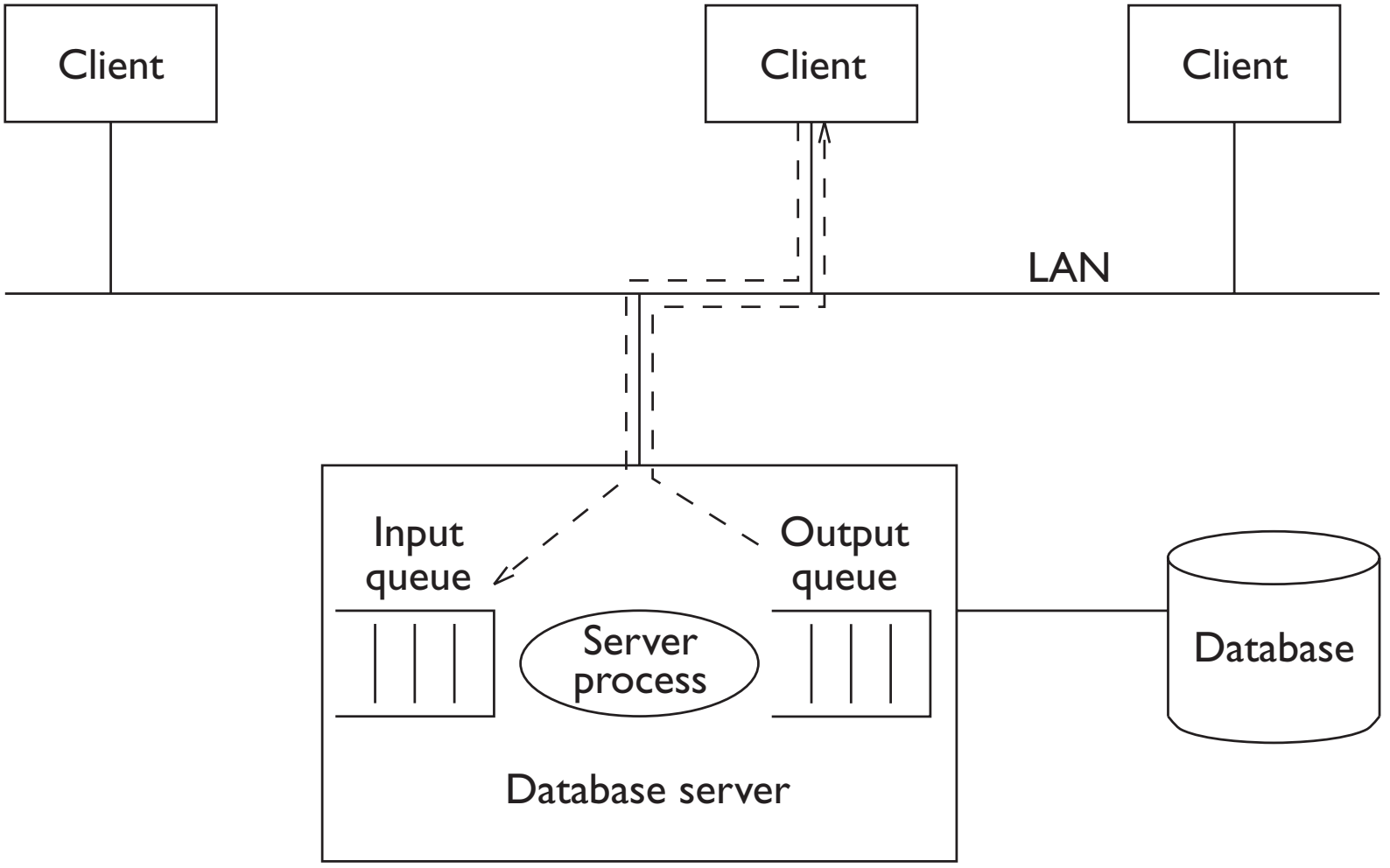



# Chapter 10

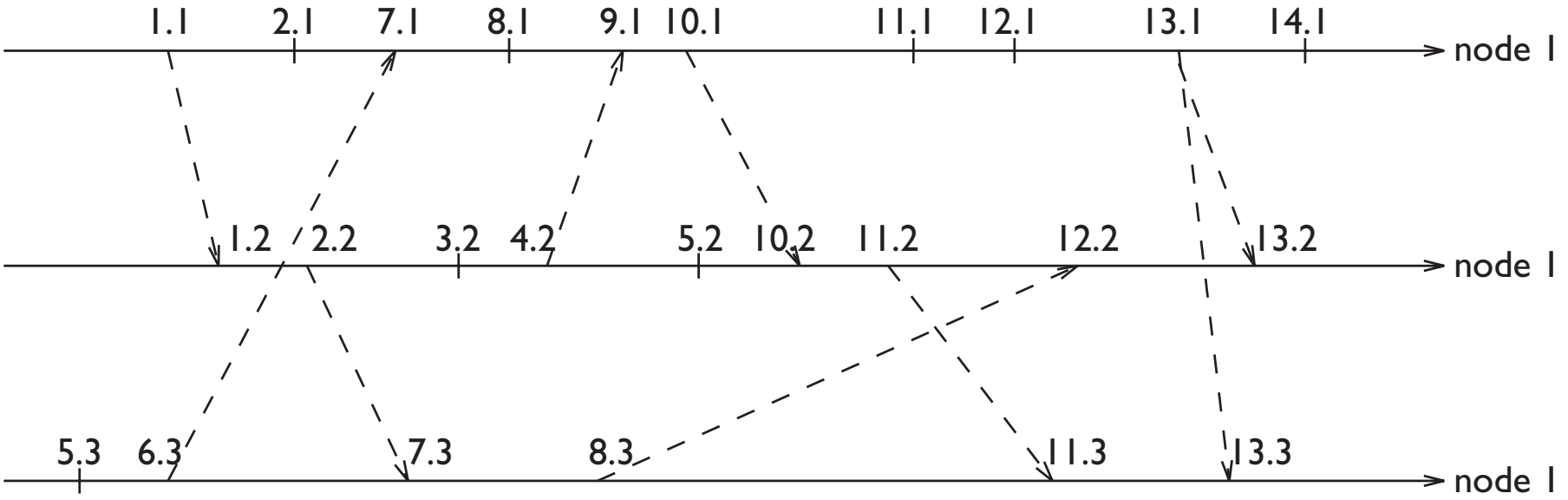
# Distributed architectures

Click here for help

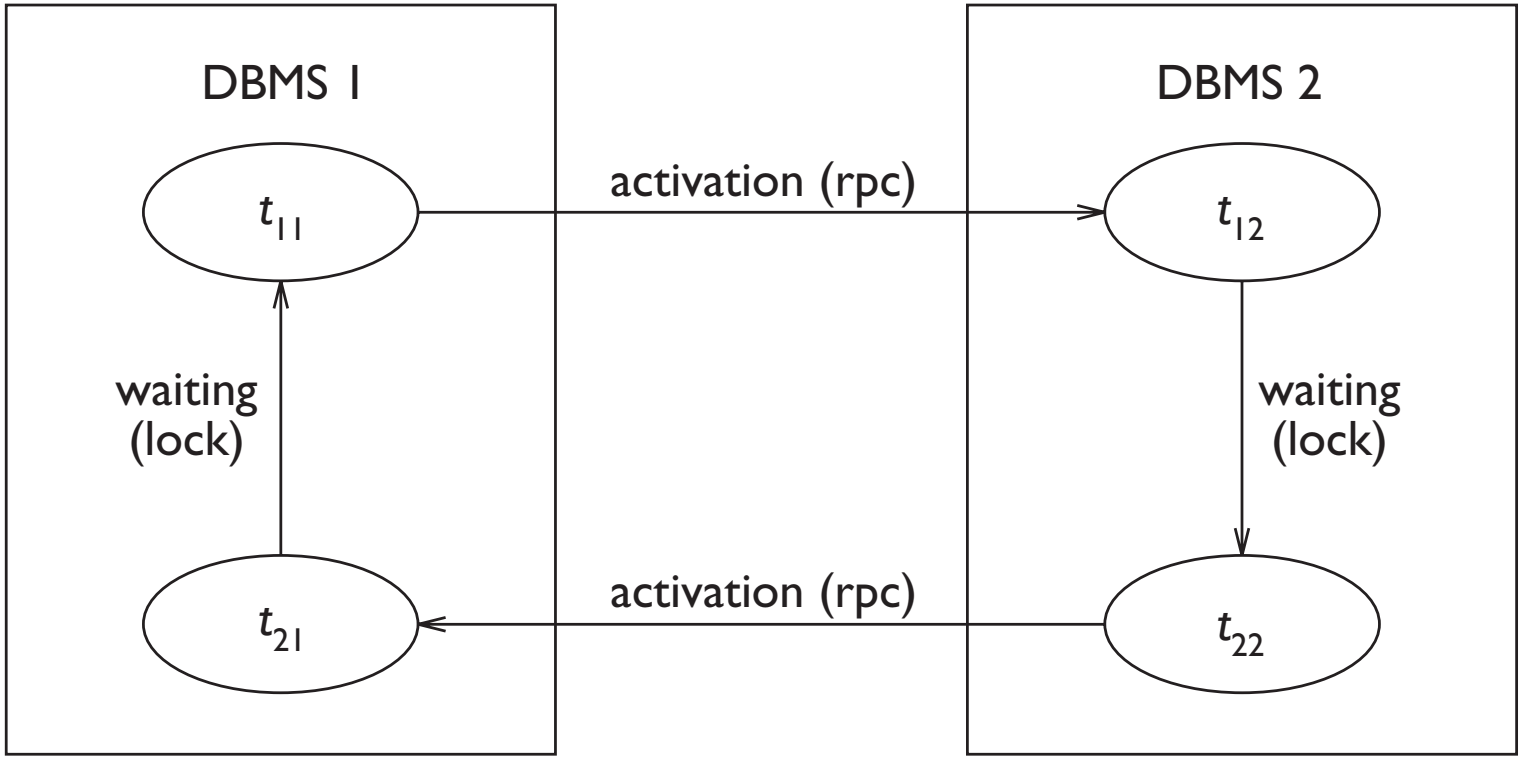
# Client-server architecture



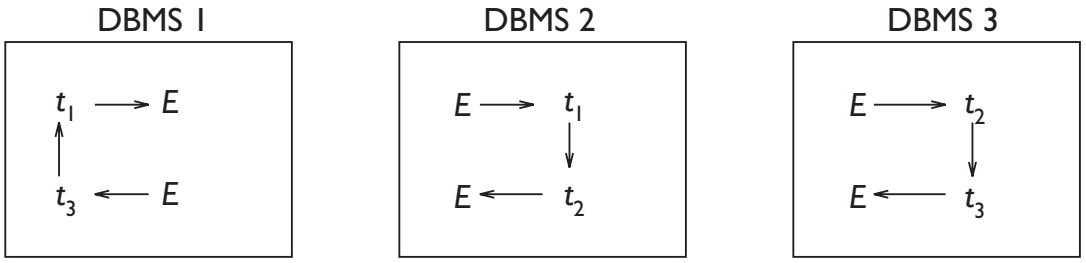
# Example of assignment of timestamps using the Lamport method



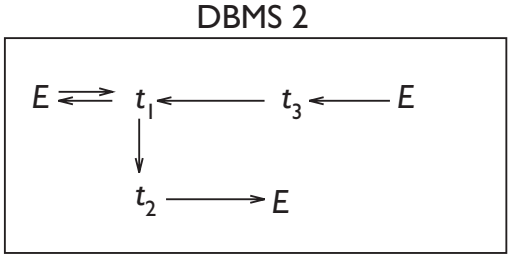
# Example of a distributed deadlock



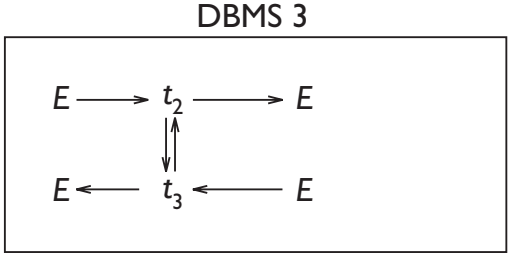
# Example of a distributed deadlock detection




a. initial situation

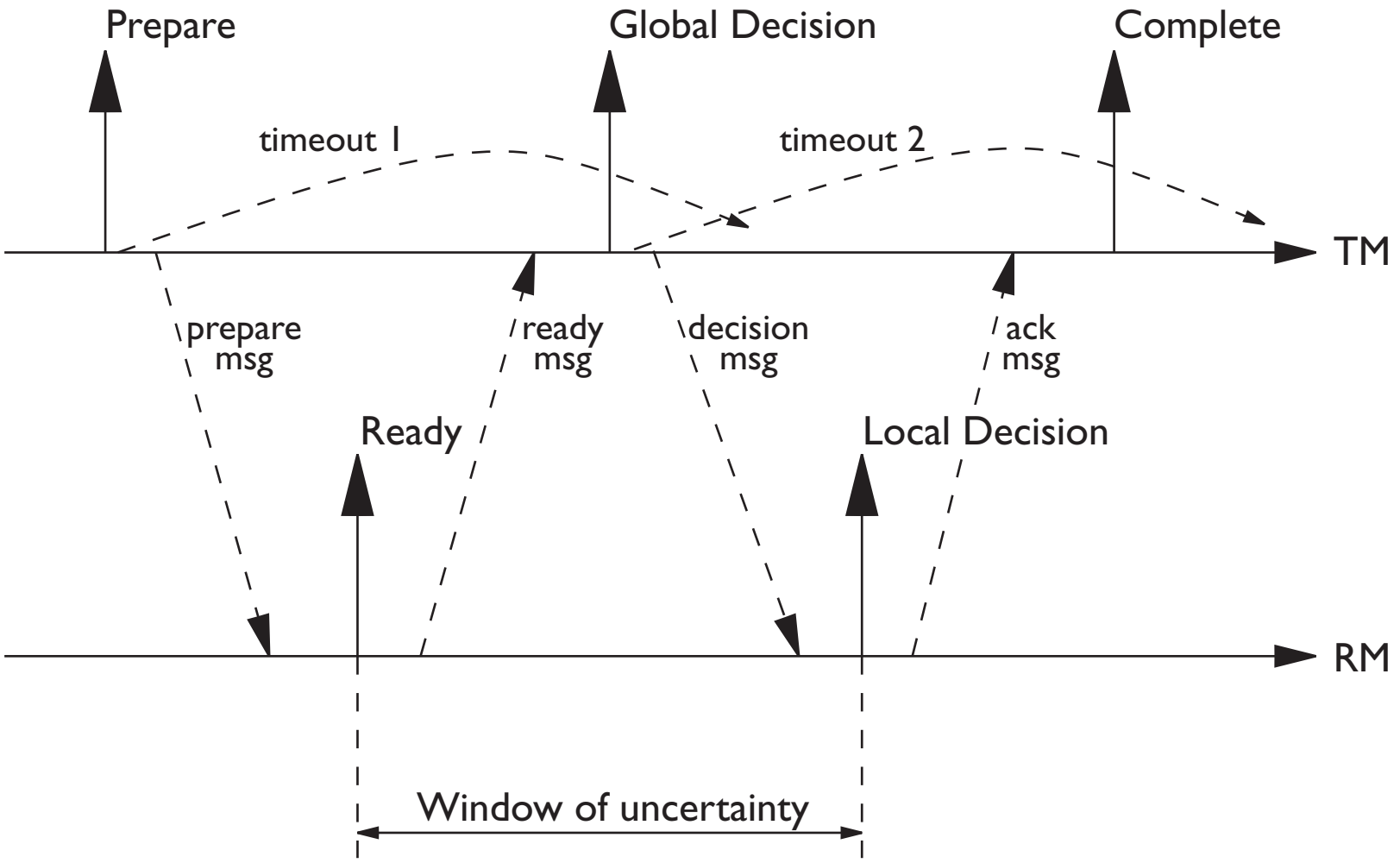



b. first pass of the algorithm

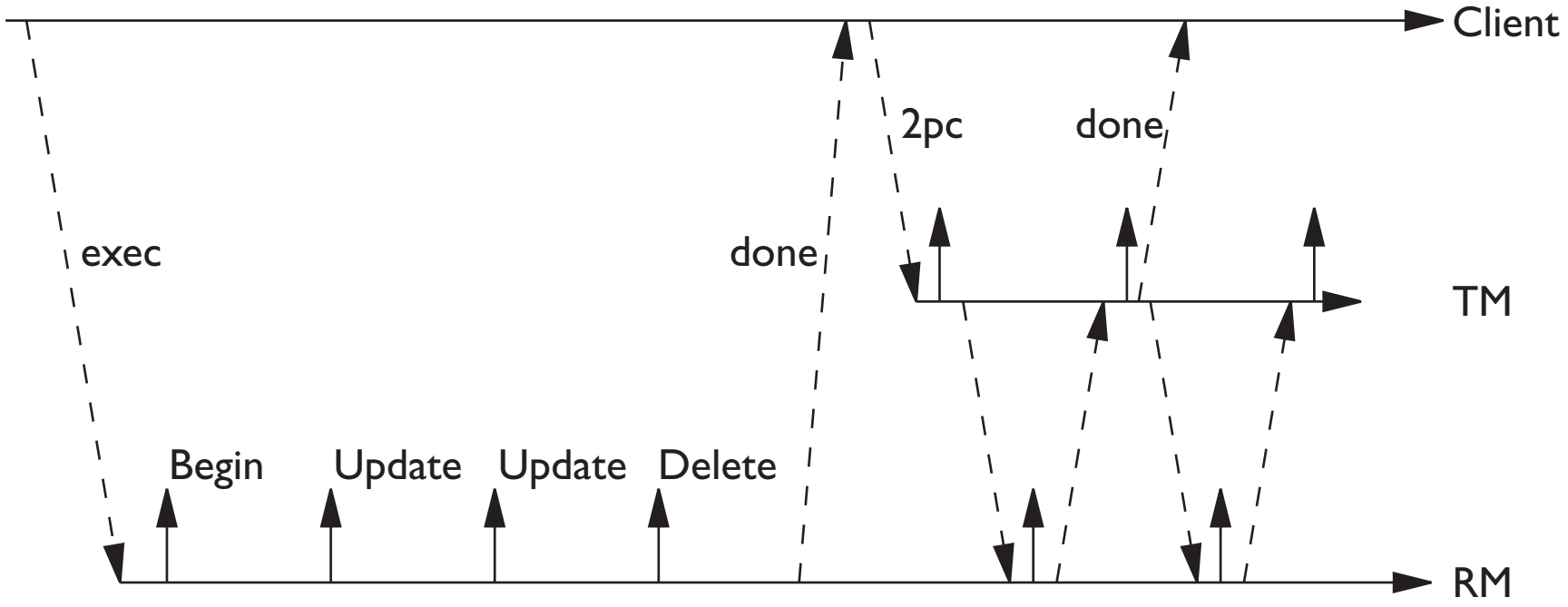



c. second pass of the algorithm

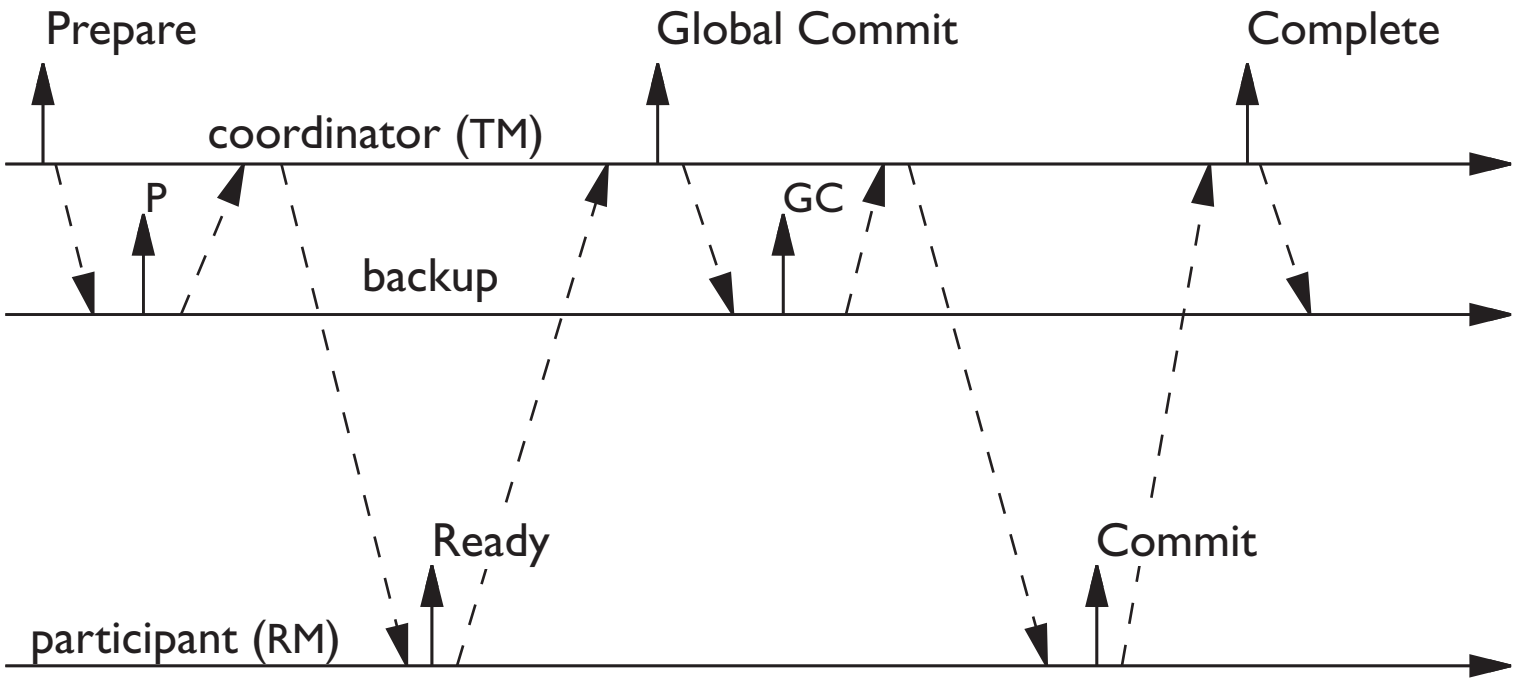
# Two-phase commit protocol



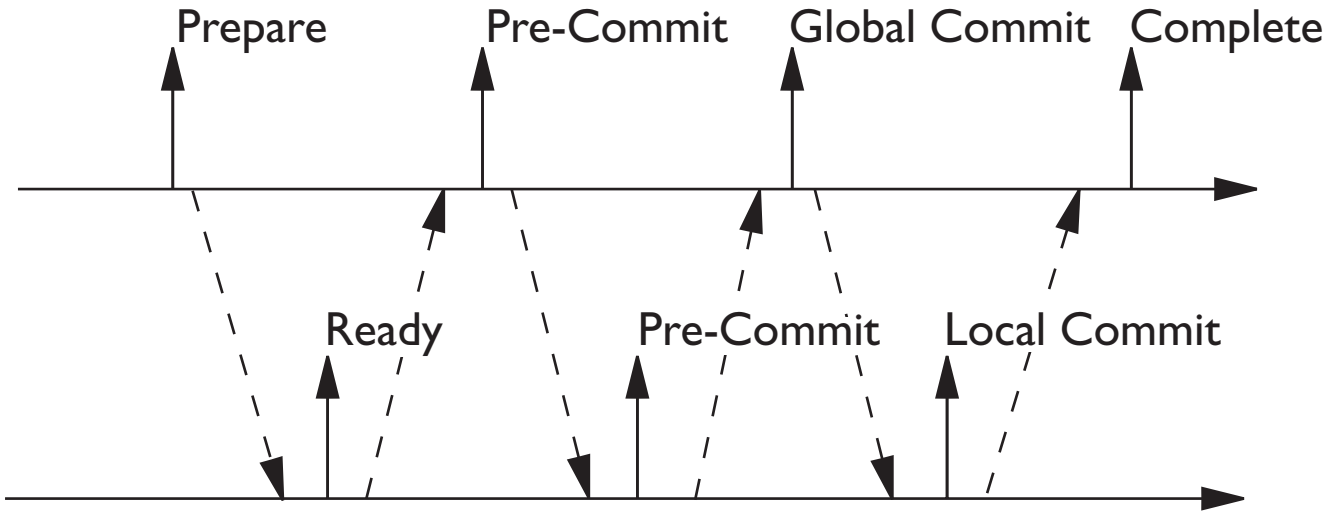
# Two-phase commit protocol in the context of a transaction



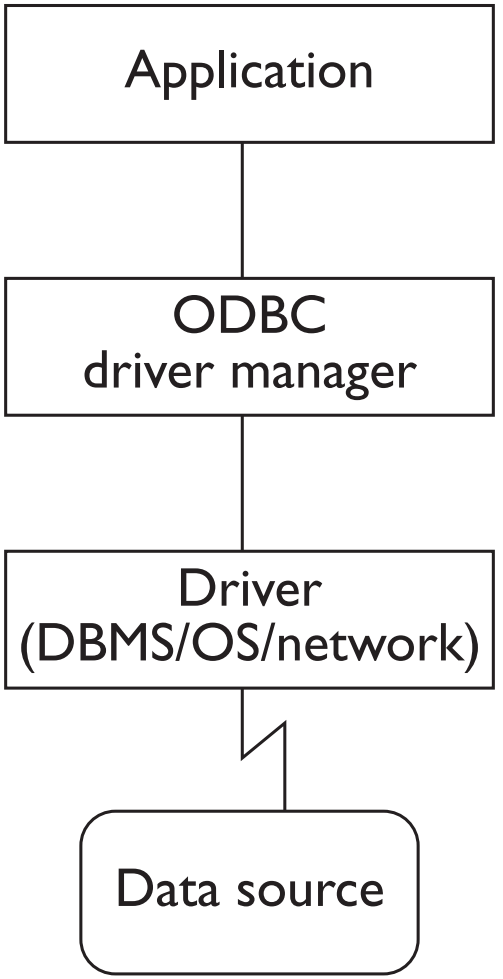
# Four-phase commit protocol



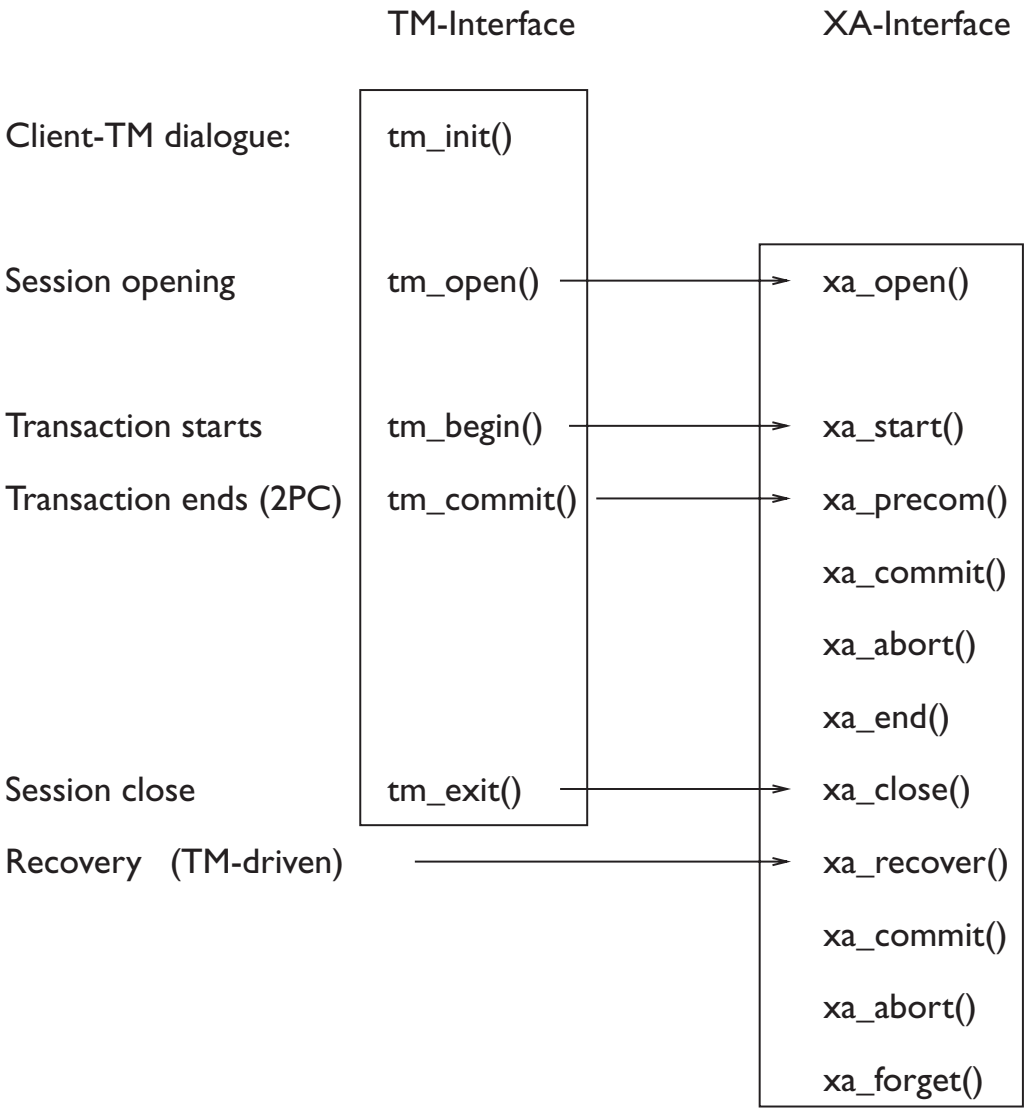
# Three-phase commit protocol



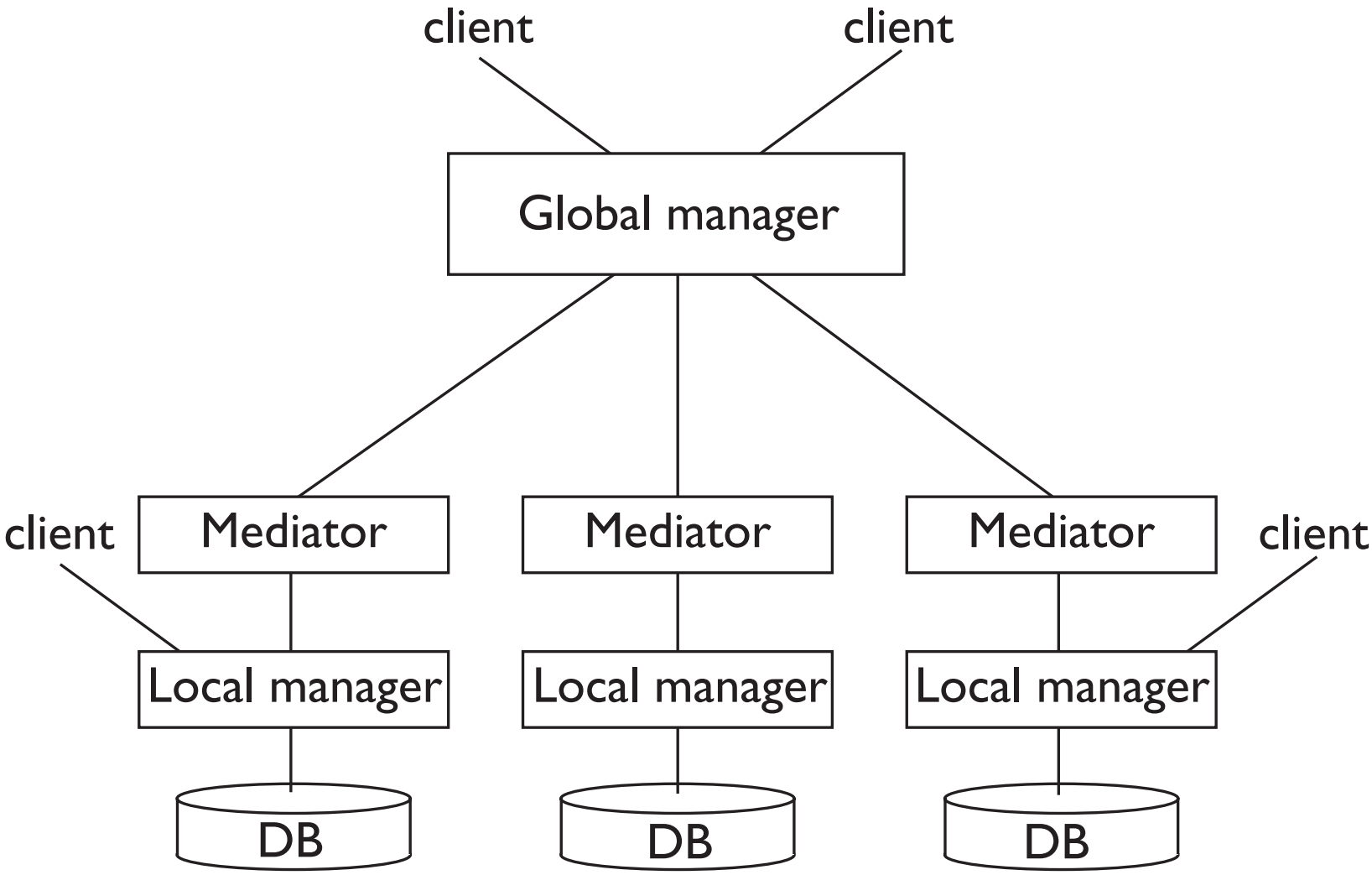
# Architecture of ODBC



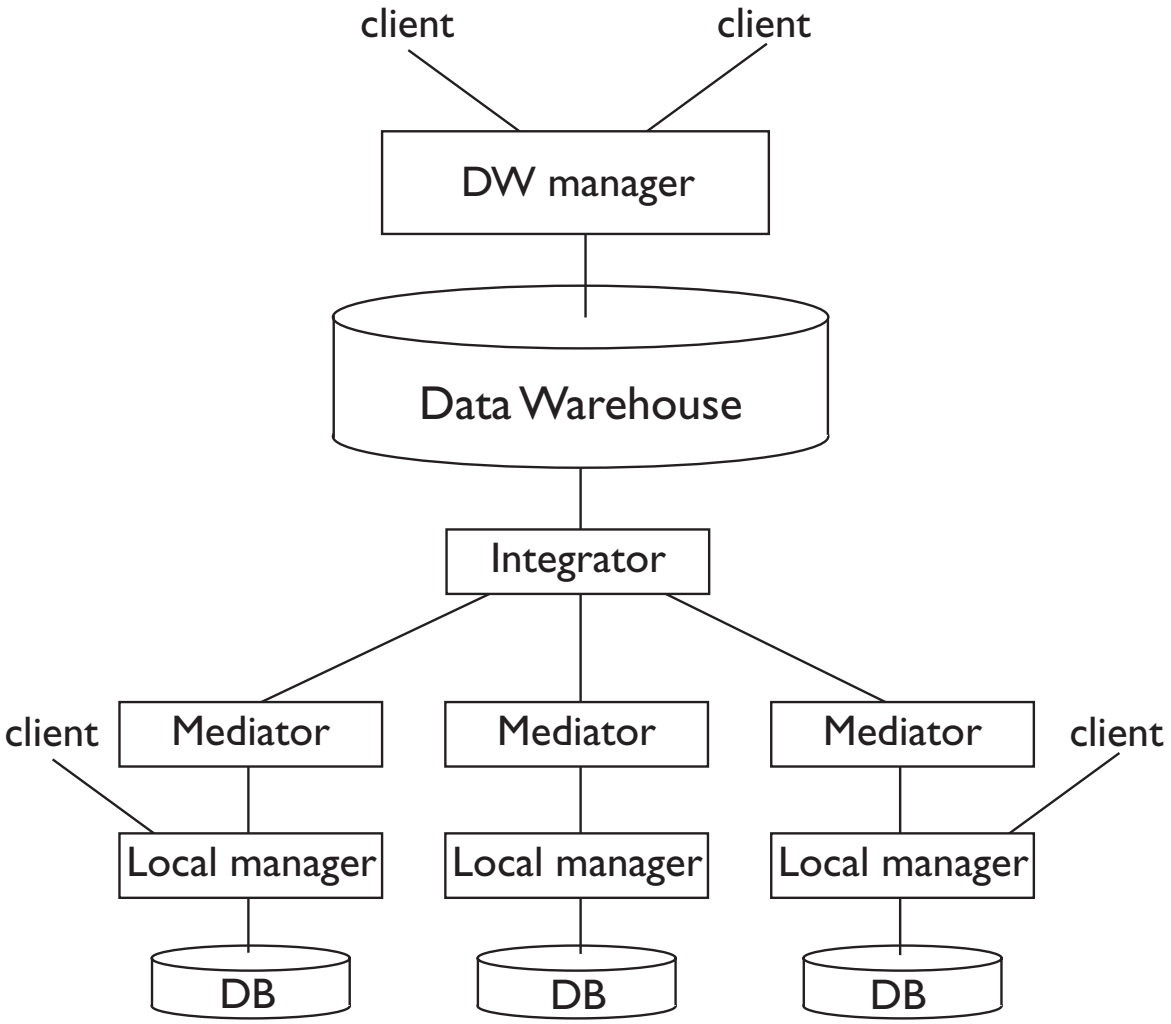
# Interactions among client, TM and server with the X-OPEN DTP protocol



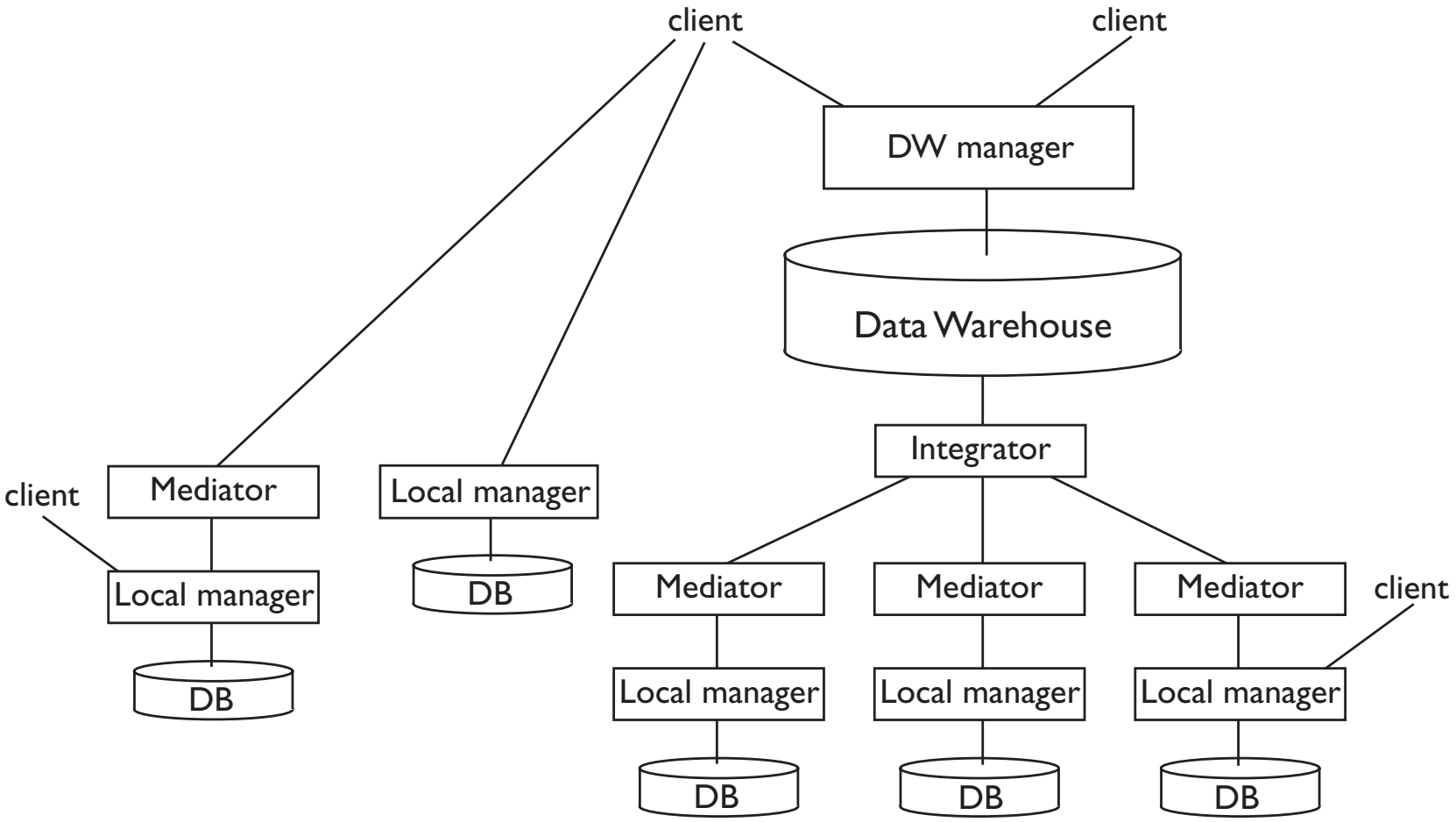
# Architecture of a multi-database system



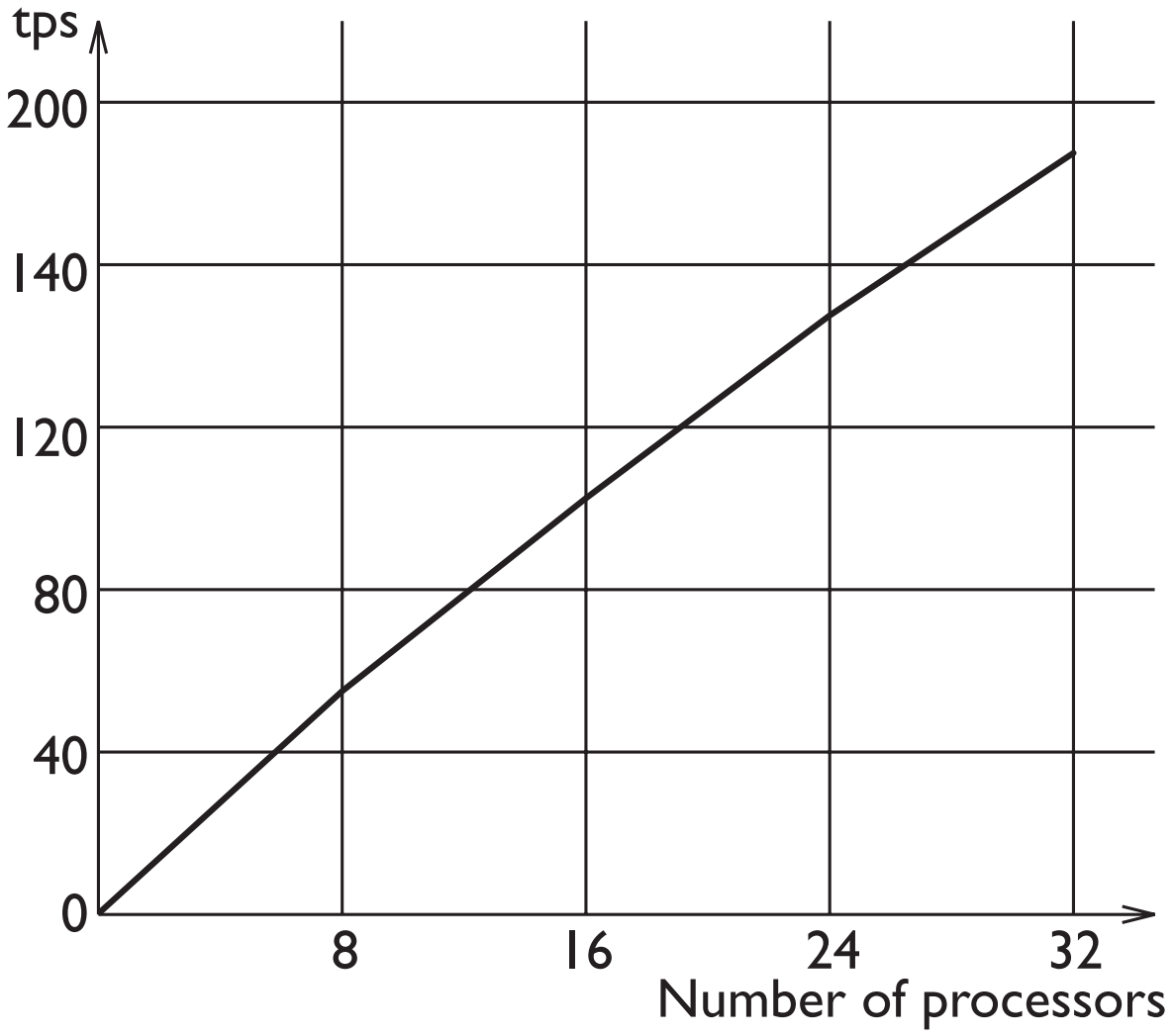
# Architecture for data warehouse systems



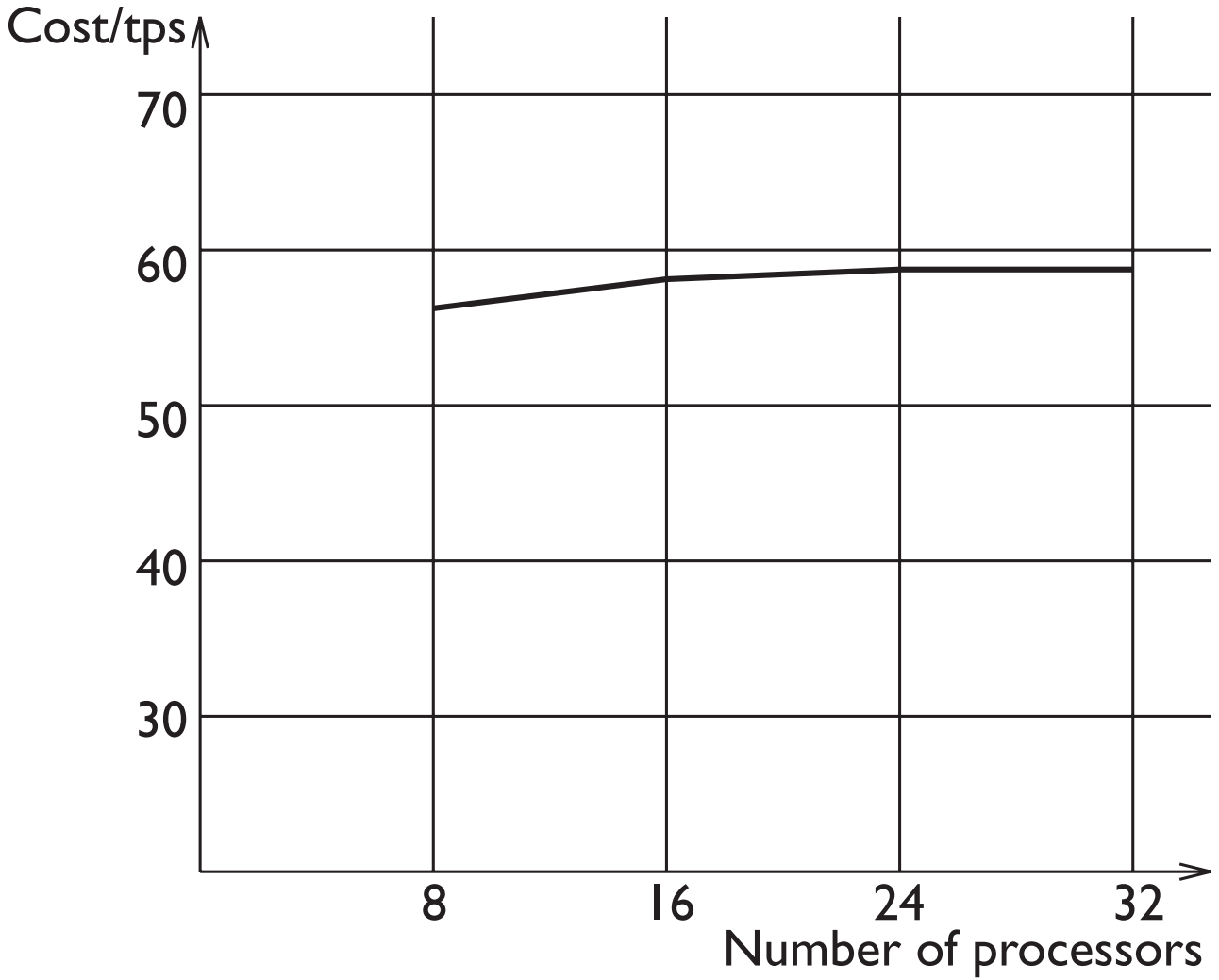
# Architecture with external data access



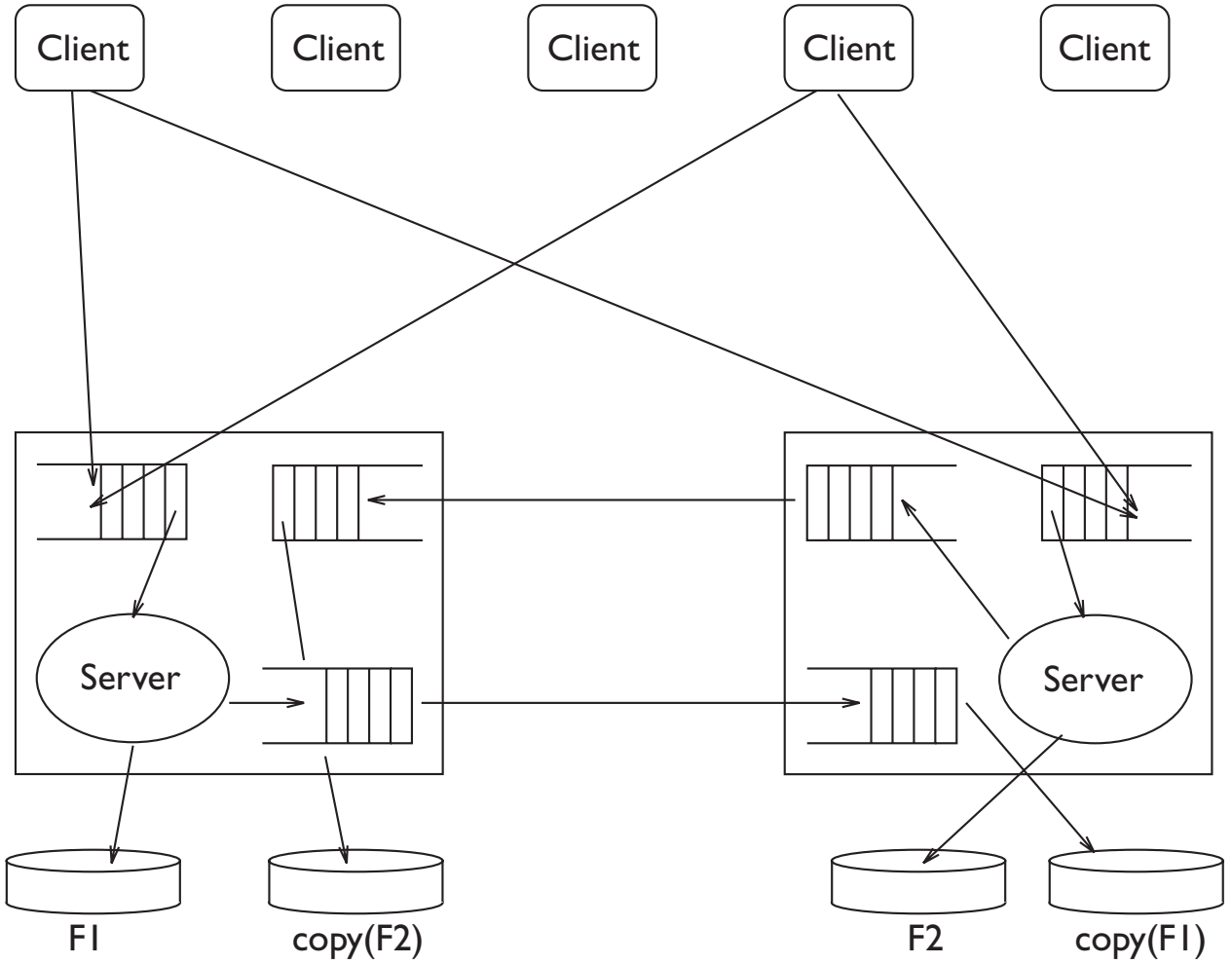
# Speed-up in a parallel system



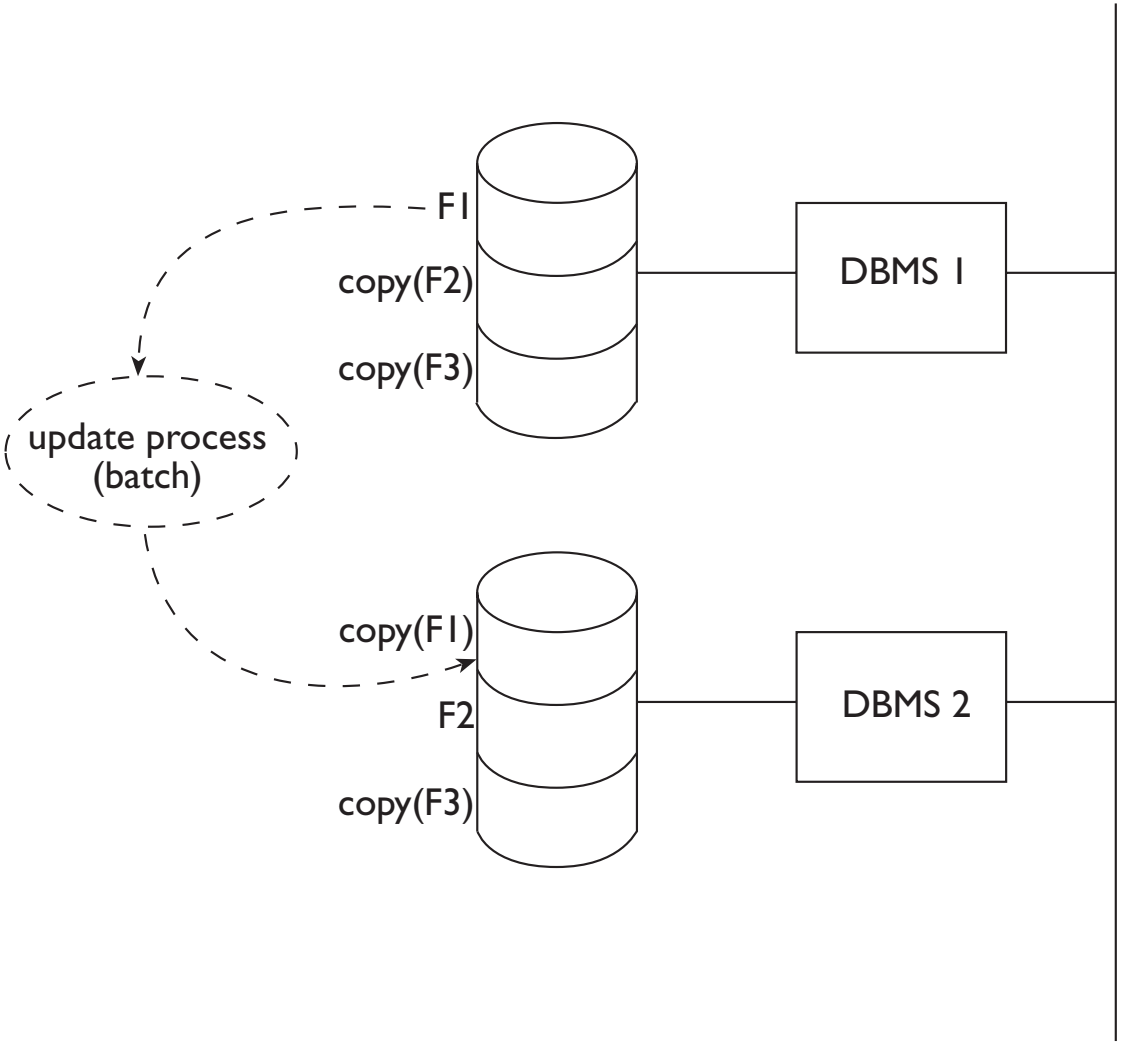
# Scale-up in a parallel system



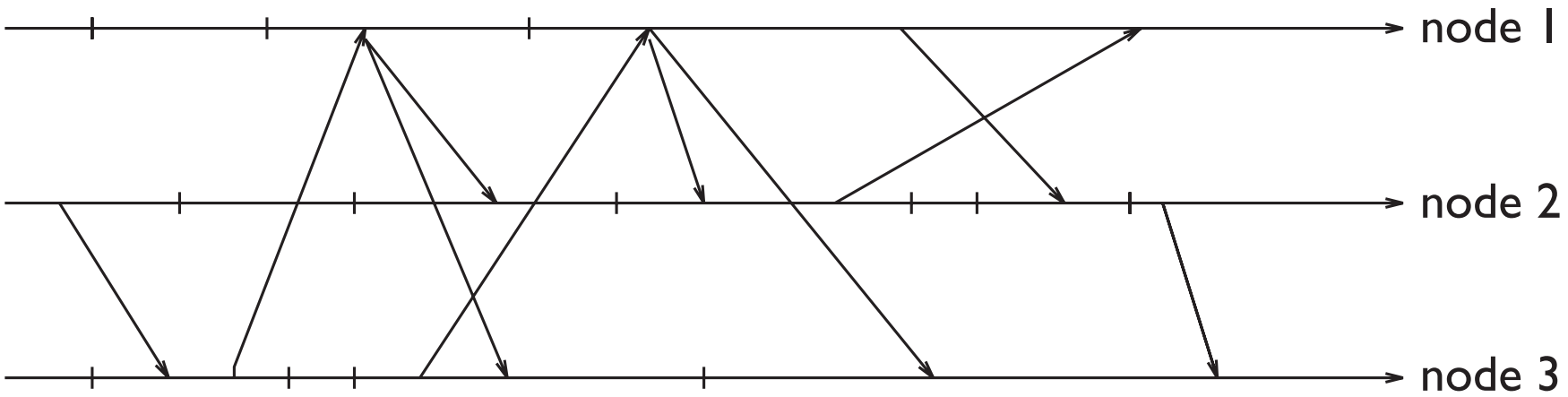
# Example of architecture with replicated data



# Tandem information system

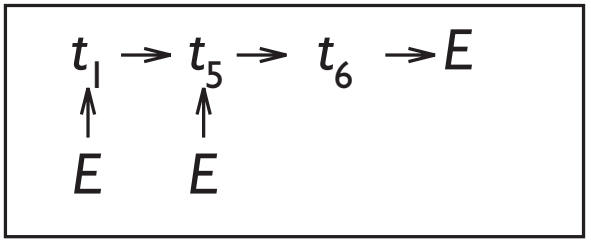


# A possible event description

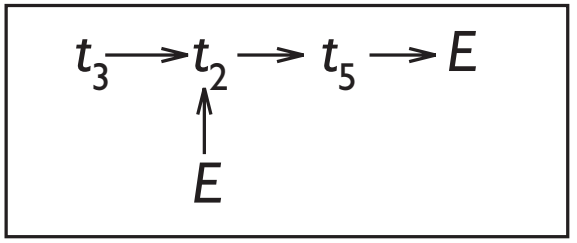


# Possible distributed wait conditions

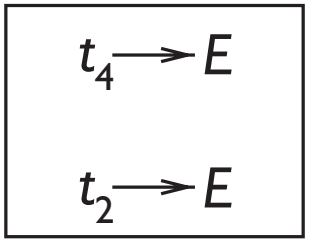
DBMS 1



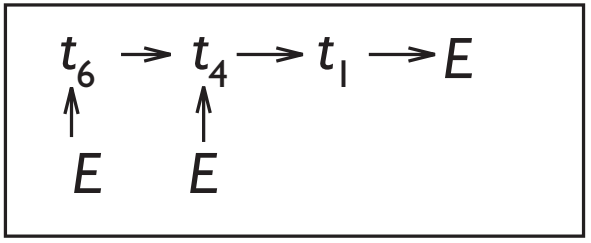

DBMS 2




DBMS 3




DBMS 4, version 1




DBMS 4, version 2