Modularity and Scalability in Calvin
Calvin is a...

Transaction Scheduling

Replication Management
Lower Inter-Partition Transaction Coordination Costs
Rearranged Transaction Execution Pipeline

1) Logging
2) Scheduling
3) Execution
Log is Ultimate Source of Truth
Advantages

1) Near-Linear Scalability
No Distributed Commit Protocols Are Required
Advantages

1) Near-Linear Scalability

2) Strong Consistent Replication
Once a transaction is written to the log, no further inter replica coordination required to sync.
Advantages

1) Near-Linear Scalability
2) Strong Consistent Replication
3) Highly Modular System Architecture
Calvin provides other system components with a declarative specification of the concurrency control.
1) Log
2) Scheduler
3) Storage Back End
Advantages

1) Near-Linear Scalability

2) Strong Consistent Replication

3) Highly Modular System Architecture

4) Main-Memory OLTP performance over disk-resident data
All relevant data will be memory-resident once the transaction begins executing
Calvin

1) Deterministic
2) Highly Scalable
3) Good backup/replication when crash
4) Highly modular