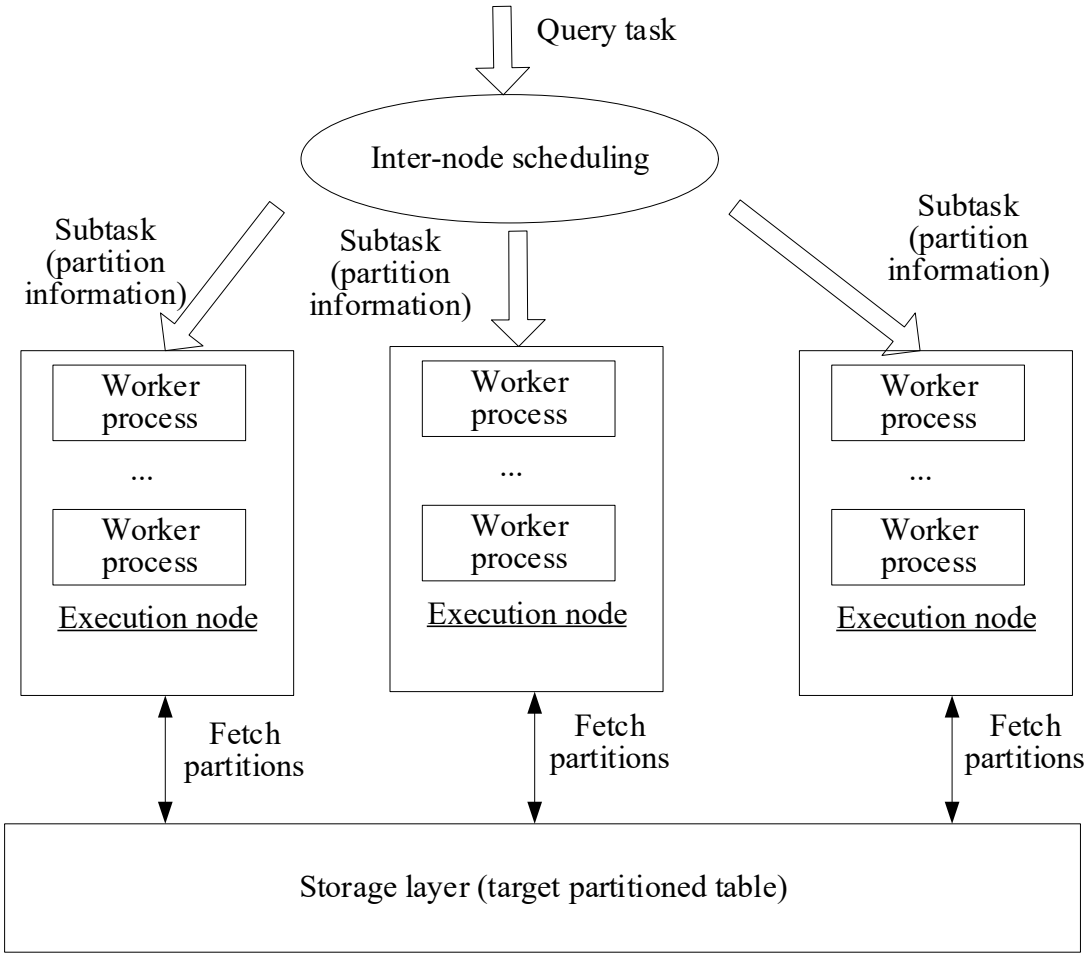

Query task
Inter-node scheduling
Subtask (partition information)
Subtask (partition information)
Subtask (partition information)
Worker process
...
Worker process
Execution node
Worker process
...
Worker process
Execution node
Worker process
...
Worker process
Execution node
Fetch partitions
Fetch partitions
Fetch partitions
Storage layer (target partitioned table)

FIG. 1

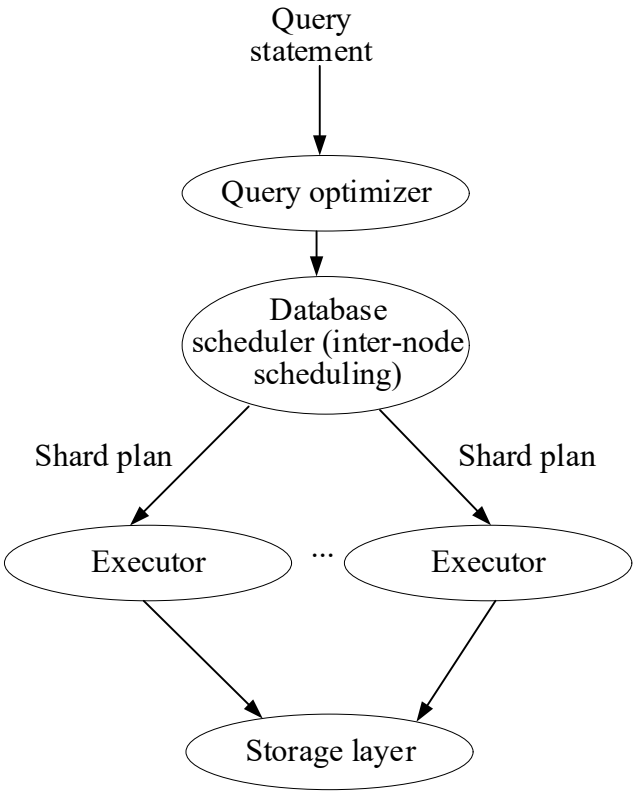

Query statement
Query optimizer
Database scheduler (inter-node scheduling)
Shard plan
Shard plan
Executor
...
Executor
Storage layer

FIG. 2

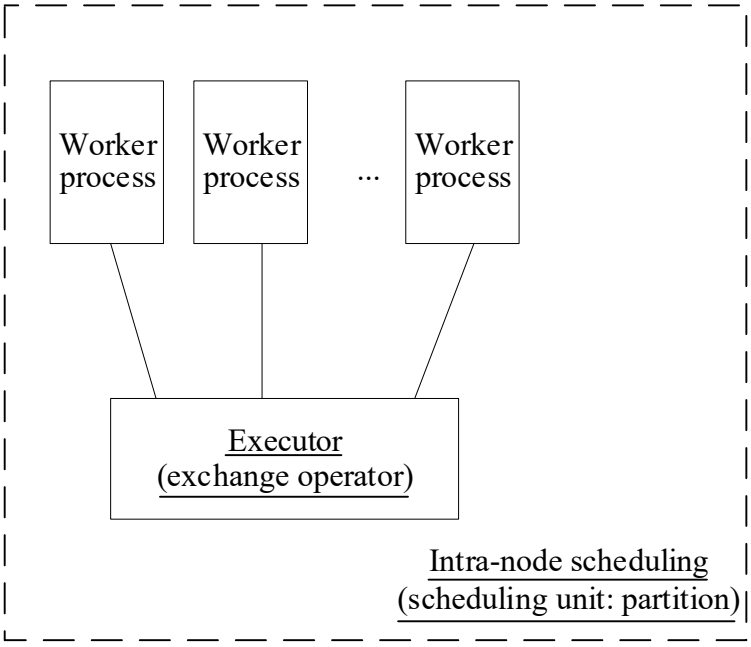

Worker process
Worker process
...
Worker process
Executor (exchange operator)
Intra-node scheduling (scheduling unit: partition)

FIG. 3

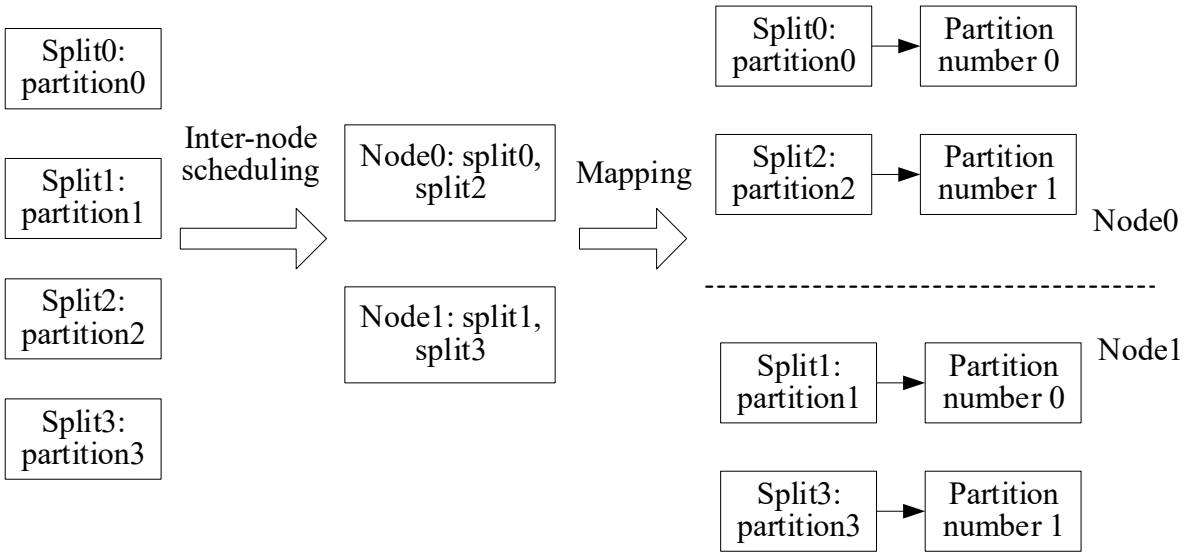

Split0: partition0
Split1: partition1
Split2: partition2
Split3: partition3
Inter-node scheduling
Node0: split0, split2
Node1: split1, split3
Mapping
Split0: partition0
Partition number 0
Split2: partition2
Partition number 1
Node0
Split1: partition1
Partition number 0
Split3: partition3
Partition number 1
Node1

FIG. 4

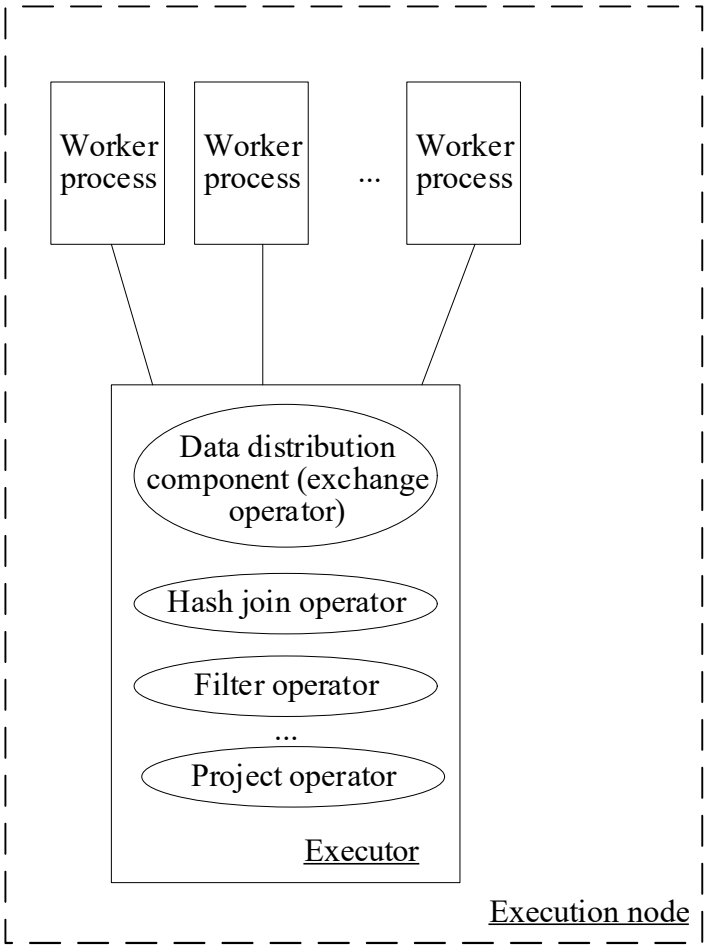

Worker process
Worker process
...
Worker process
Data distribution component (exchange operator)
Hash join operator
Filter operator
...
Project operator
Executor
Execution node

FIG. 5

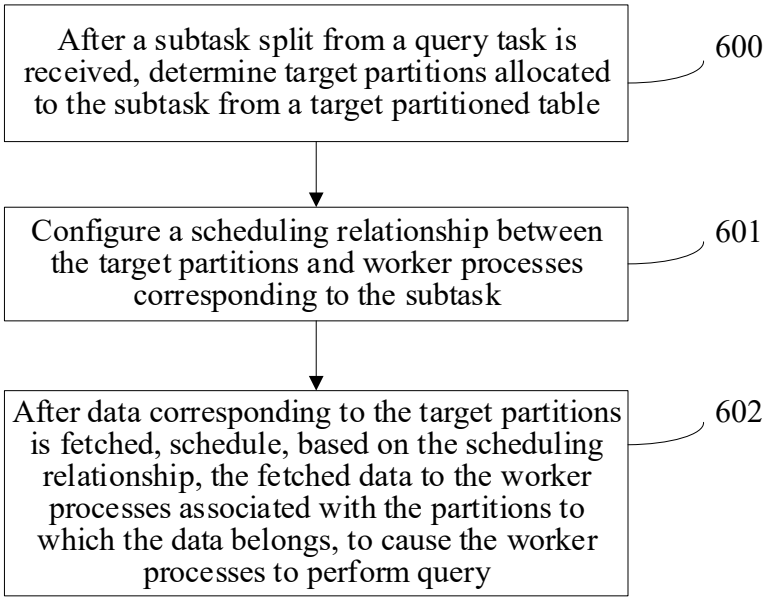

After a subtask split from a query task is received, determine target partitions allocated to the subtask from a target partitioned table
600
Configure a scheduling relationship between the target partitions and worker processes corresponding to the subtask
601
After data corresponding to the target partitions is fetched, schedule, based on the scheduling relationship, the fetched data to the worker processes associated with the partitions to which the data belongs, to cause the worker processes to perform query
602

FIG. 6

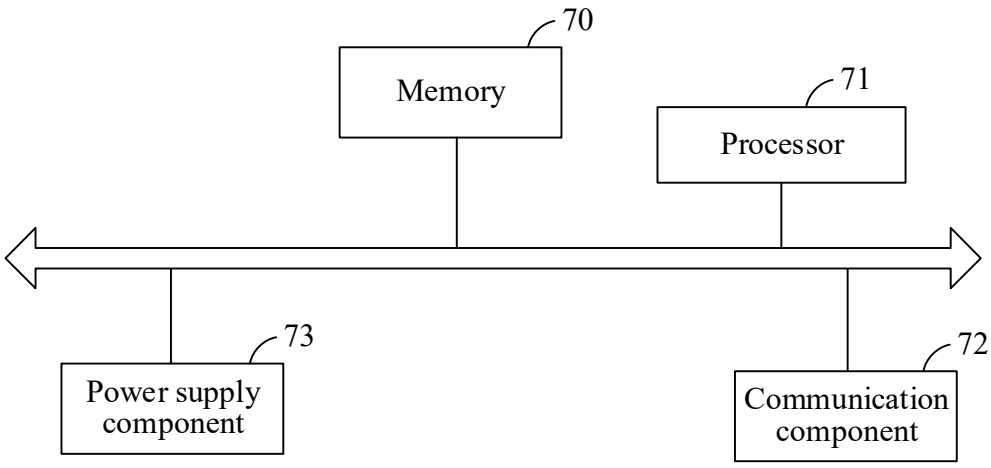

70
Memory
71
Processor
73
Power supply component
72
Communication component

FIG. 7