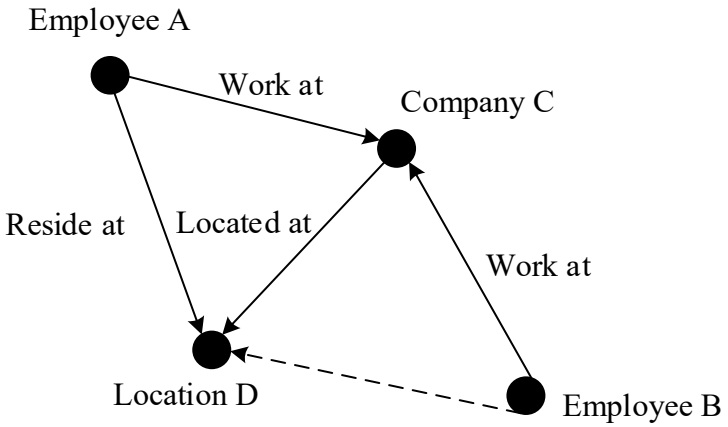


FIG. 1

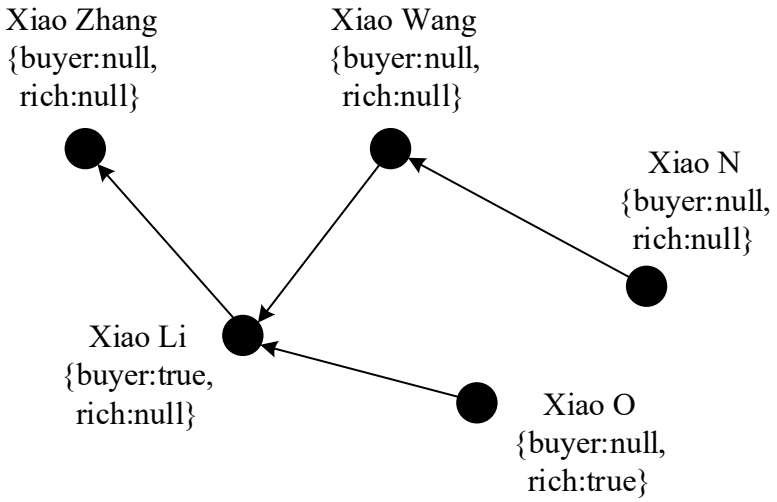


FIG. 2

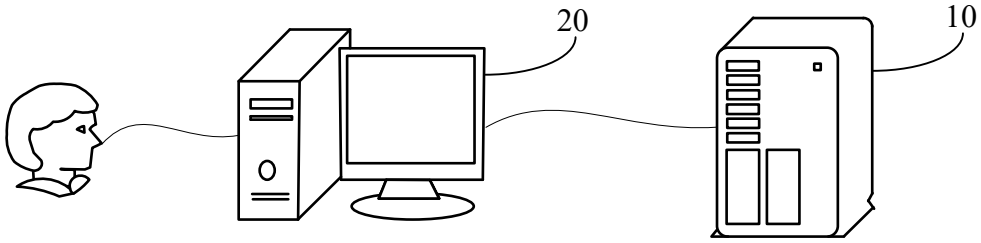


FIG. 3

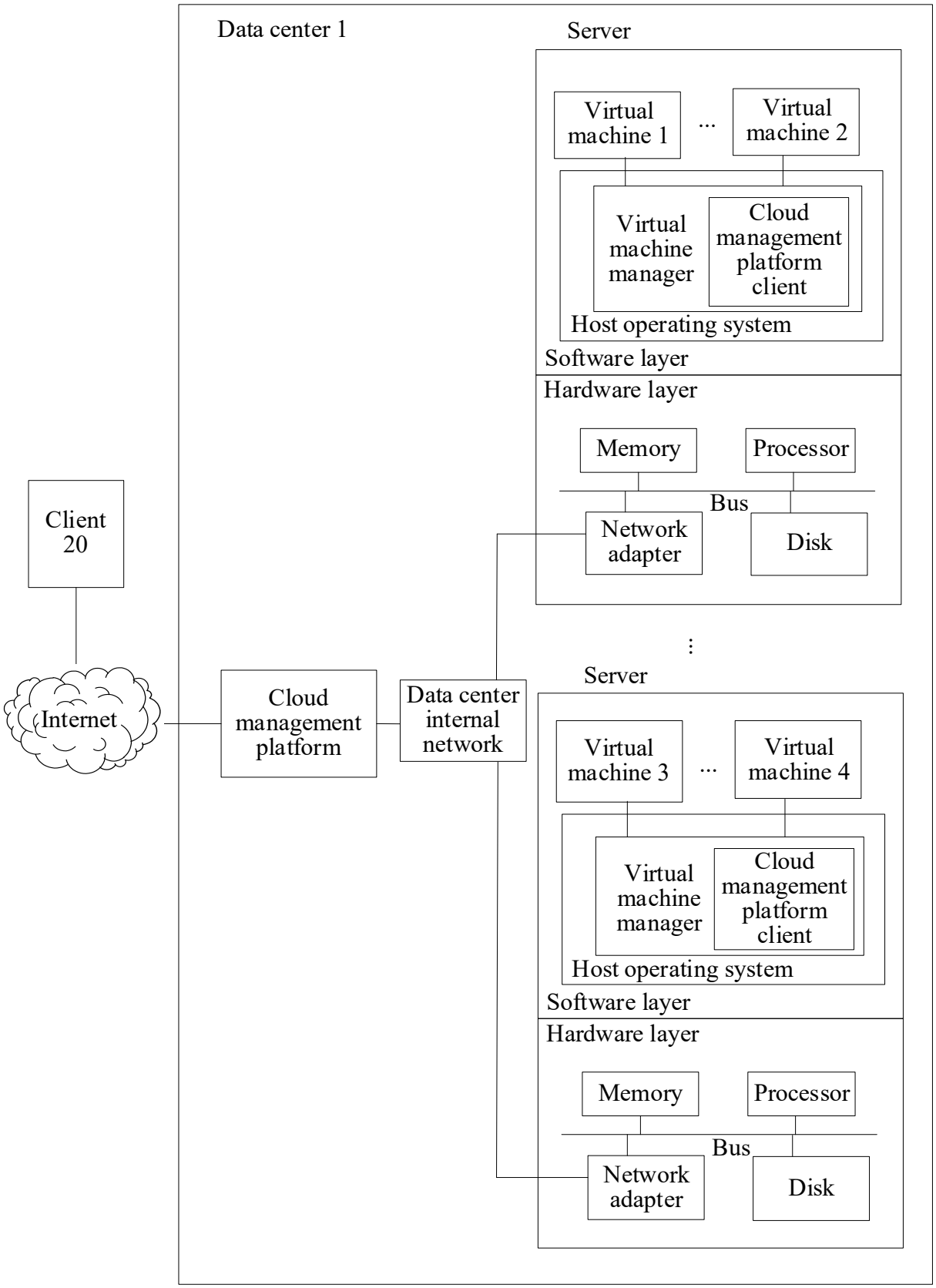

Data center 1
Server
Virtual machine 1
...
Virtual machine 2
Virtual machine manager
Cloud management platform client
Host operating system
Software layer
Hardware layer
Memory
Processor
Bus
Network adapter
Disk
Client 20
Internet
Cloud management platform
Data center internal network
Server
Virtual machine 3
...
Virtual machine 4
Virtual machine manager
Cloud management platform client
Host operating system
Software layer
Hardware layer
Memory
Processor
Bus
Network adapter
Disk

FIG. 4

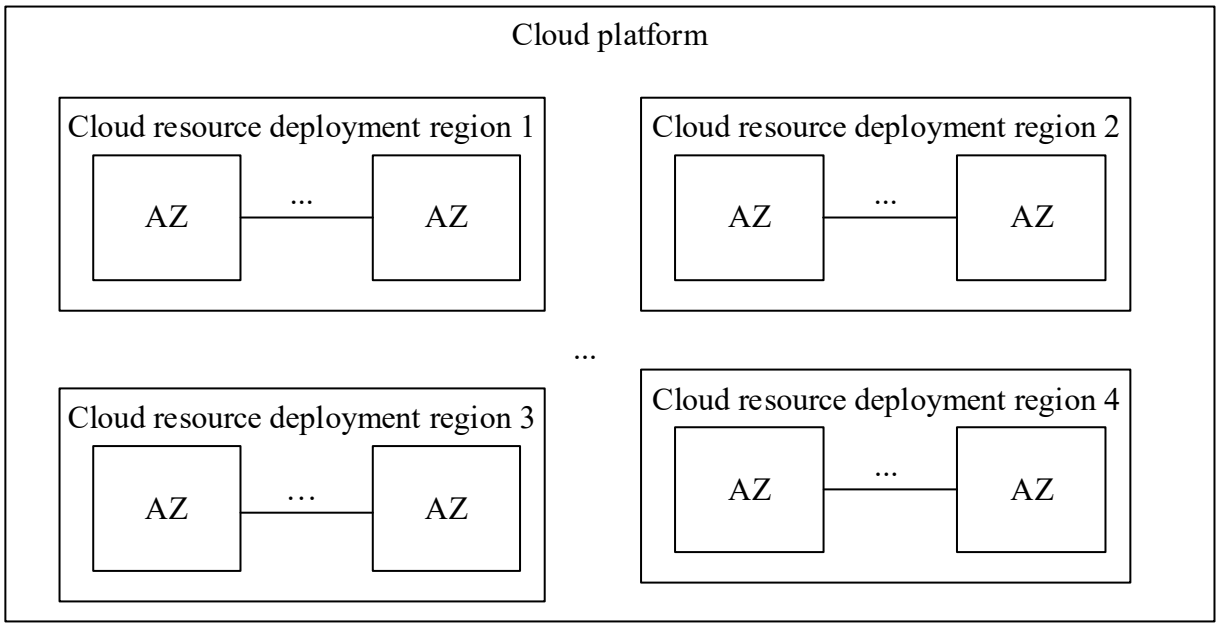


FIG. 5

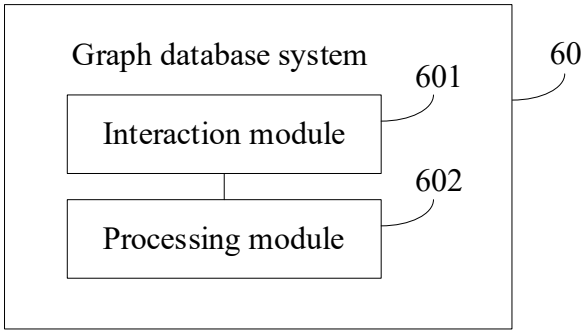


FIG. 6

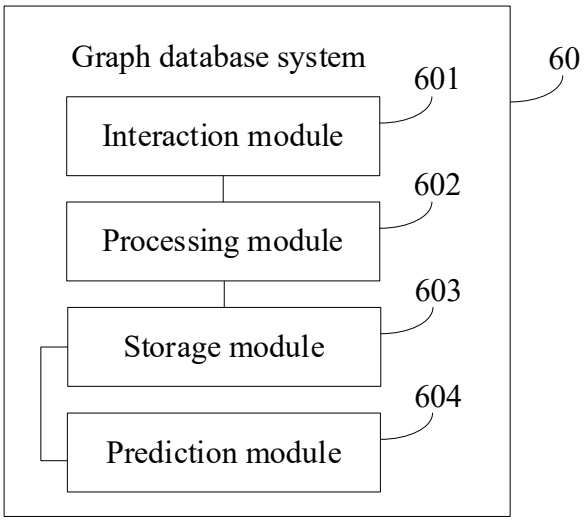


FIG. 7

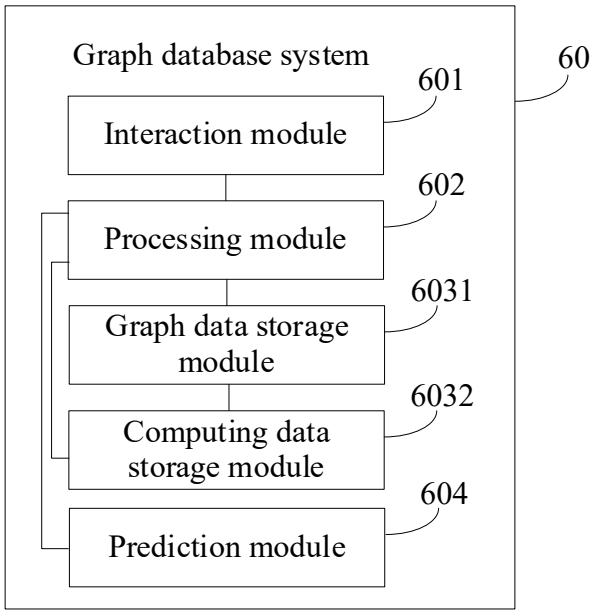

Graph database system
60
601
Interaction module
602
Processing module
6031
Graph data storage module
6032
Computing data storage module
604
Prediction module

FIG. 8

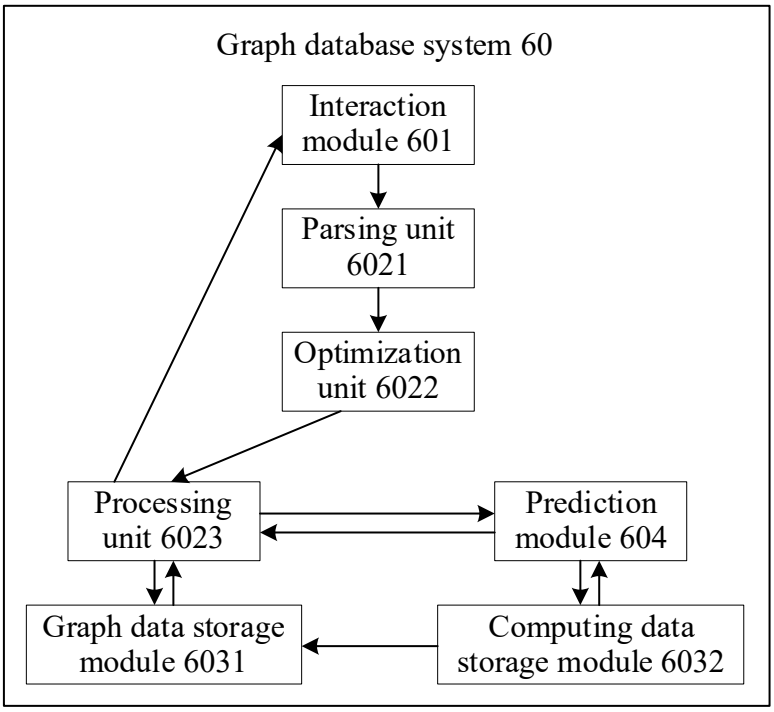

Graph database system 60
Interaction module 601
Parsing unit 6021
Optimization unit 6022
Processing unit 6023
Prediction module 604
Graph data storage module 6031
Computing data storage module 6032

FIG. 9

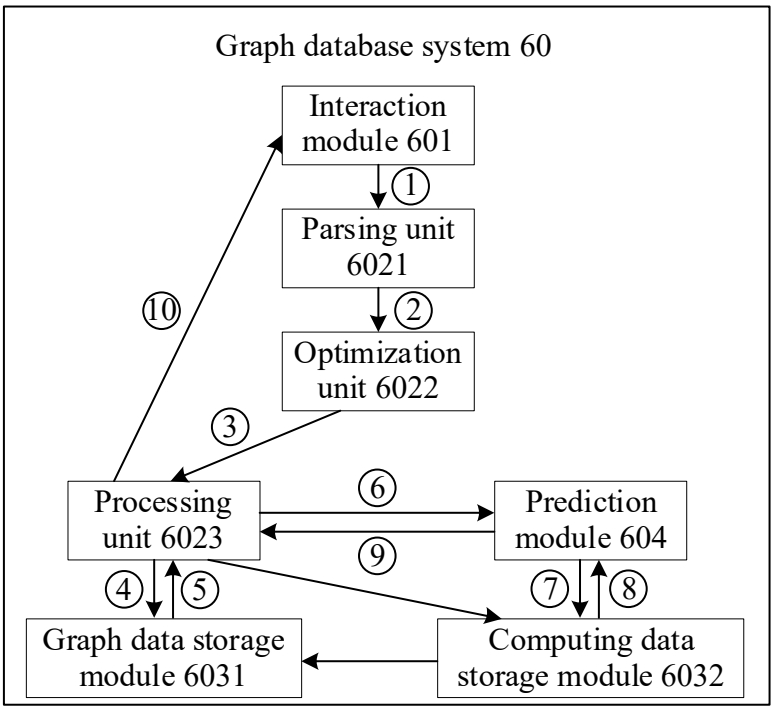

Graph database system 60
Interaction module 601
1
Parsing unit 6021
2
Optimization unit 6022
3
10
Processing unit 6023
6
9
Prediction module 604
4
5
7
8
Graph data storage module 6031
Computing data storage module 6032

FIG. 10

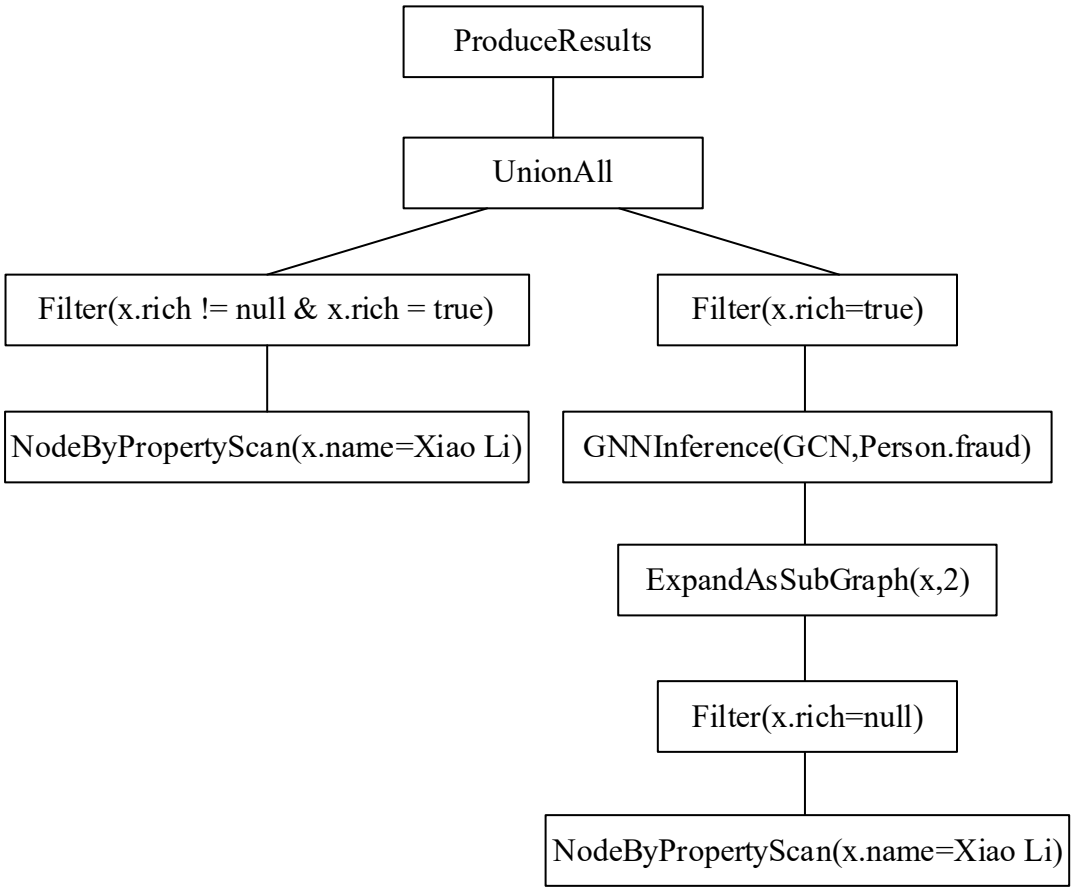

ProduceResults
UnionAll
Filter(x.rich != null & x.rich = true)
Filter(x.rich=true)
NodeByPropertyScan(x.name=Xiao Li)
GNNInference(GCN,Person.fraud)
ExpandAsSubGraph(x,2)
Filter(x.rich=null)
NodeByPropertyScan(x.name=Xiao Li)

FIG. 11

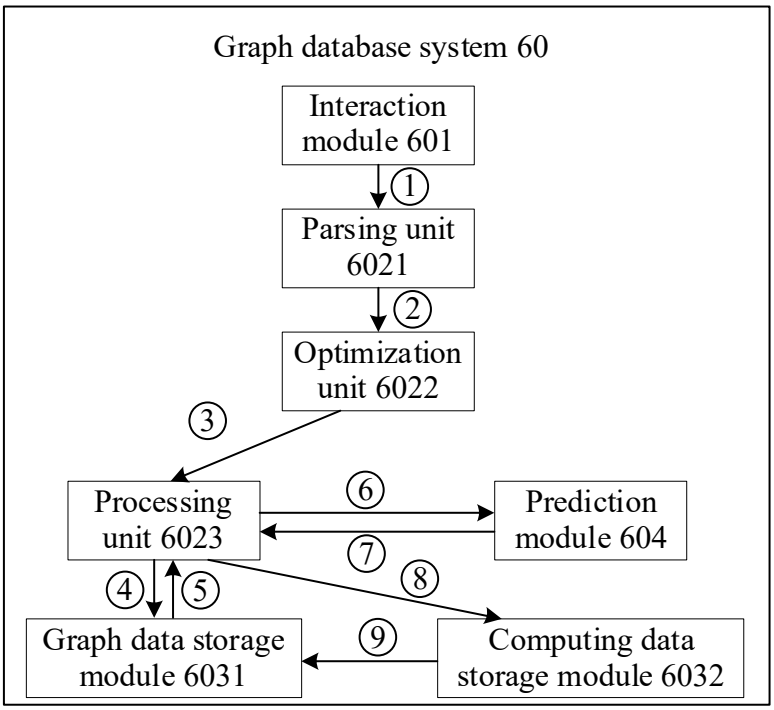

Graph database system 60
Interaction module 601
1
Parsing unit 6021
2
Optimization unit 6022
3
Processing unit 6023
6
7
Prediction module 604
4
5
8
Graph data storage module 6031
9
Computing data storage module 6032

FIG. 12

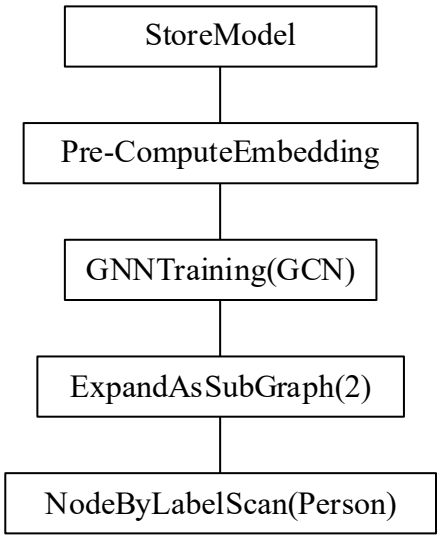

StoreModel
Pre-ComputeEmbedding
GNNTraining(GCN)
ExpandAsSubGraph(2)
NodeByLabelScan(Person)

FIG. 13

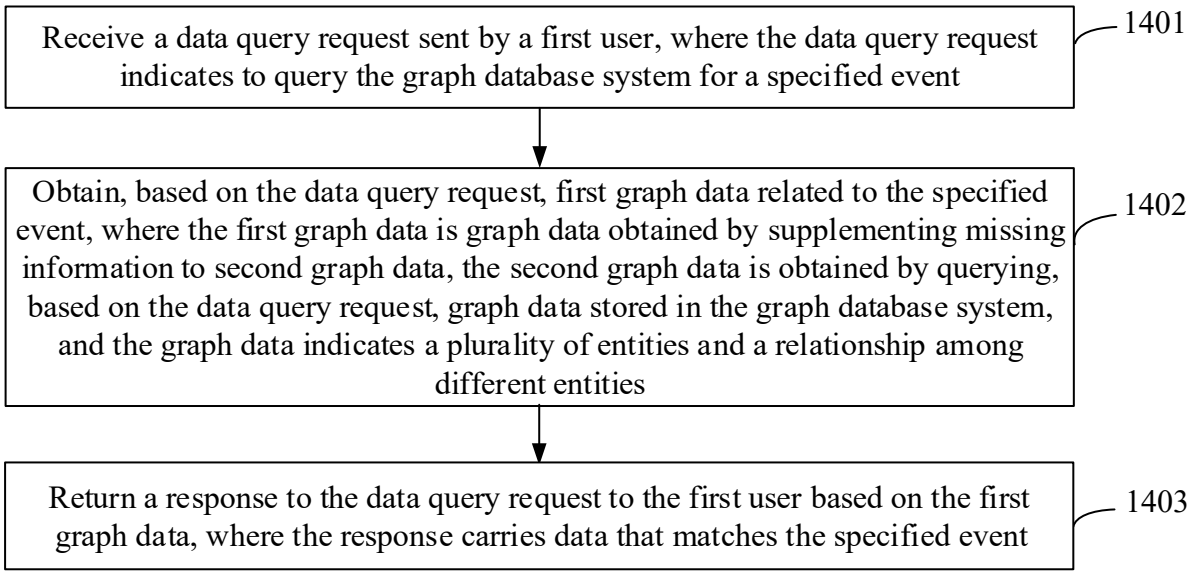

Receive a data query request sent by a first user, where the data query request indicates to query the graph database system for a specified event
1401
Obtain, based on the data query request, first graph data related to the specified event, where the first graph data is graph data obtained by supplementing missing information to second graph data, the second graph data is obtained by querying, based on the data query request, graph data stored in the graph database system, and the graph data indicates a plurality of entities and a relationship among different entities
1402
Return a response to the data query request to the first user based on the first graph data, where the response carries data that matches the specified event
1403

FIG. 14

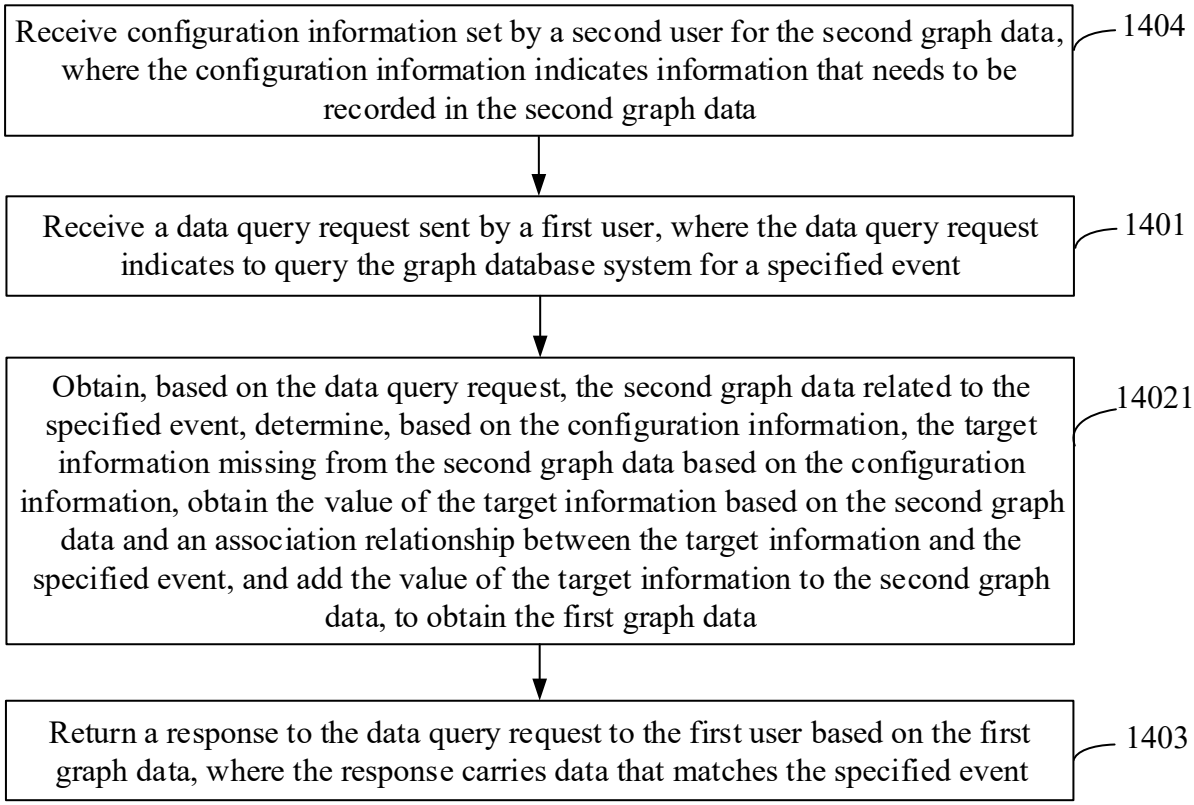

Receive configuration information set by a second user for the second graph data, where the configuration information indicates information that needs to be recorded in the second graph data
1404
Receive a data query request sent by a first user, where the data query request indicates to query the graph database system for a specified event
1401
Obtain, based on the data query request, the second graph data related to the specified event, determine, based on the configuration information, the target information missing from the second graph data based on the configuration information, obtain the value of the target information based on the second graph data and an association relationship between the target information and the specified event, and add the value of the target information to the second graph data, to obtain the first graph data
14021
Return a response to the data query request to the first user based on the first graph data, where the response carries data that matches the specified event
1403

FIG. 15

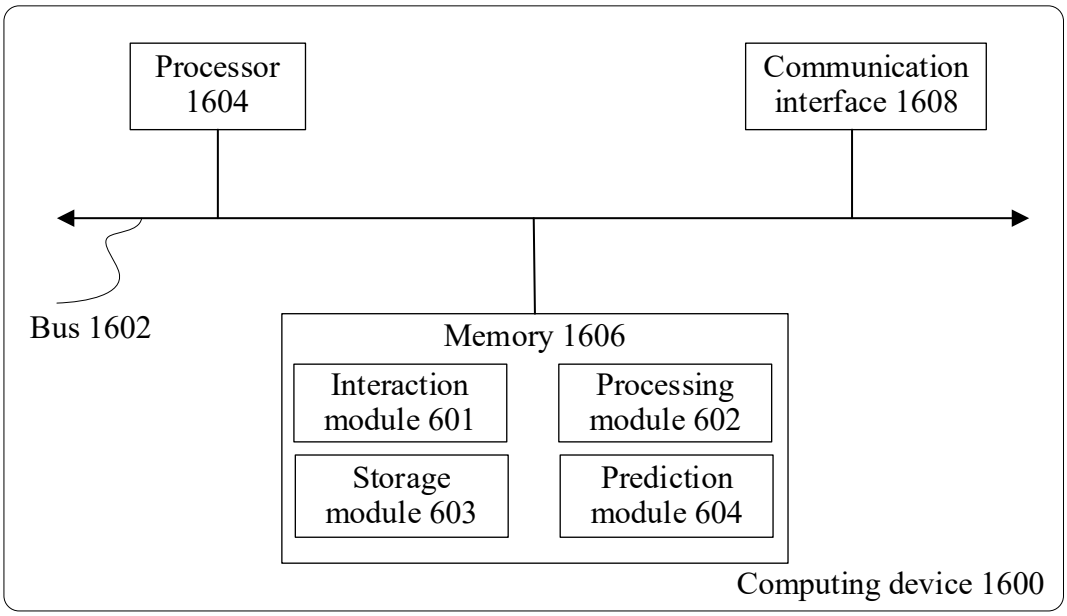

Processor
1604
Communication
interface 1608
Bus 1602
Memory 1606
Interaction
module 601
Processing
module 602
Storage
module 603
Prediction
module 604
Computing device 1600

FIG. 16

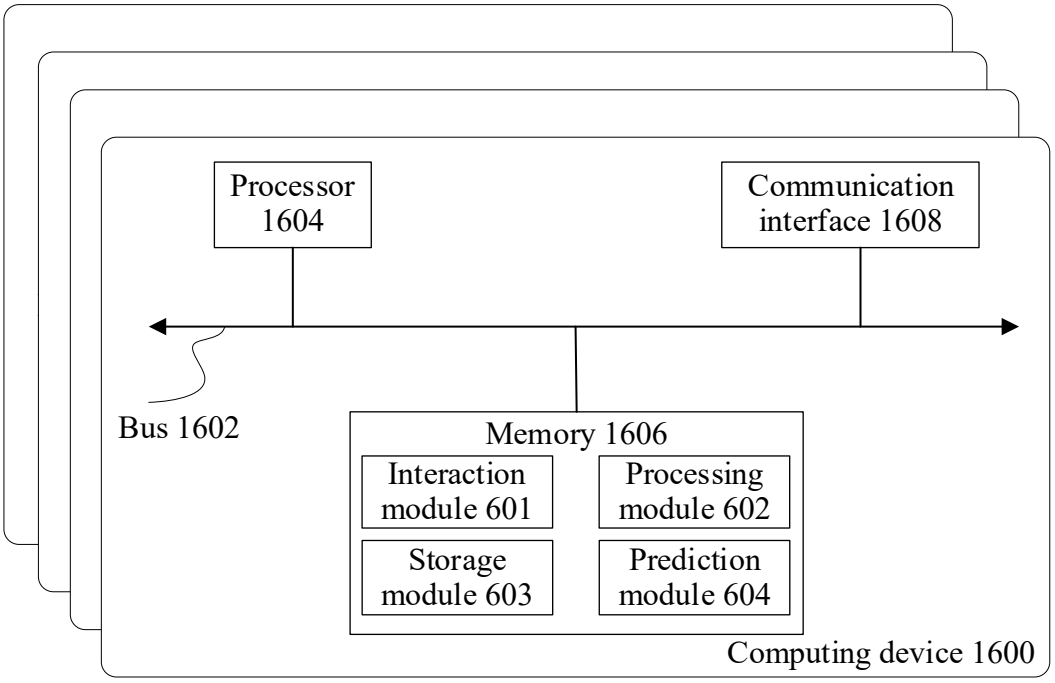

Processor
1604
Communication
interface 1608
Bus 1602
Memory 1606
Interaction
module 601
Processing
module 602
Storage
module 603
Prediction
module 604
Computing device 1600

FIG. 17

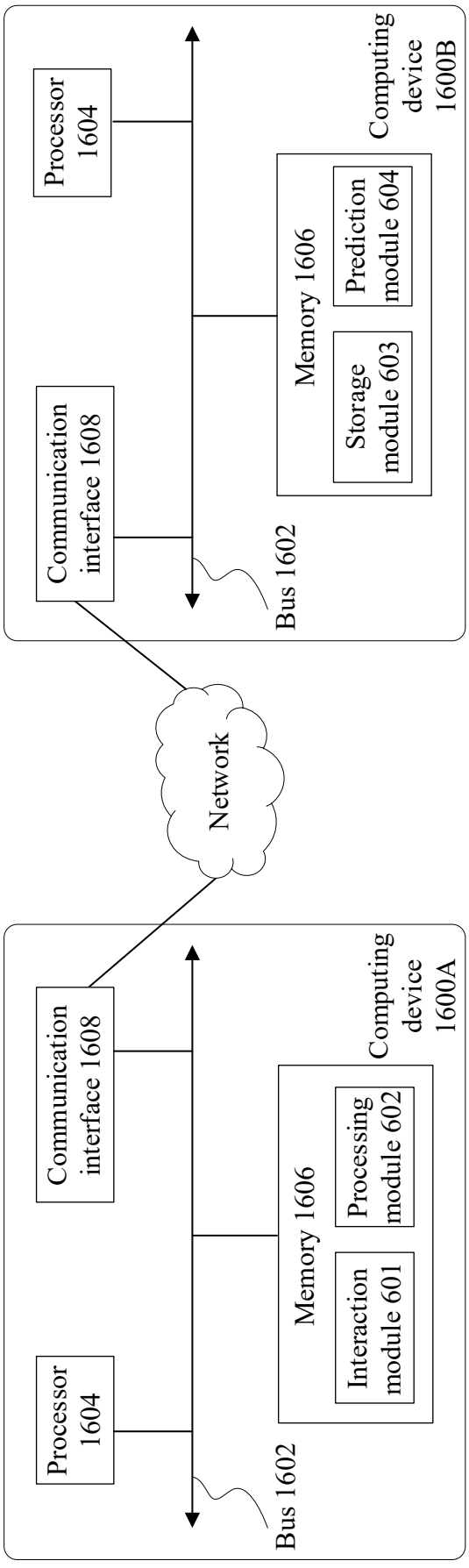

Computing device 1600B
Processor 1604
Communication interface 1608
Memory 1606
Storage module 603
Prediction module 604
Bus 1602
Network
Computing device 1600A
Processor 1604
Communication interface 1608
Memory 1606
Interaction module 601
Processing module 602
Bus 1602

FIG. 18