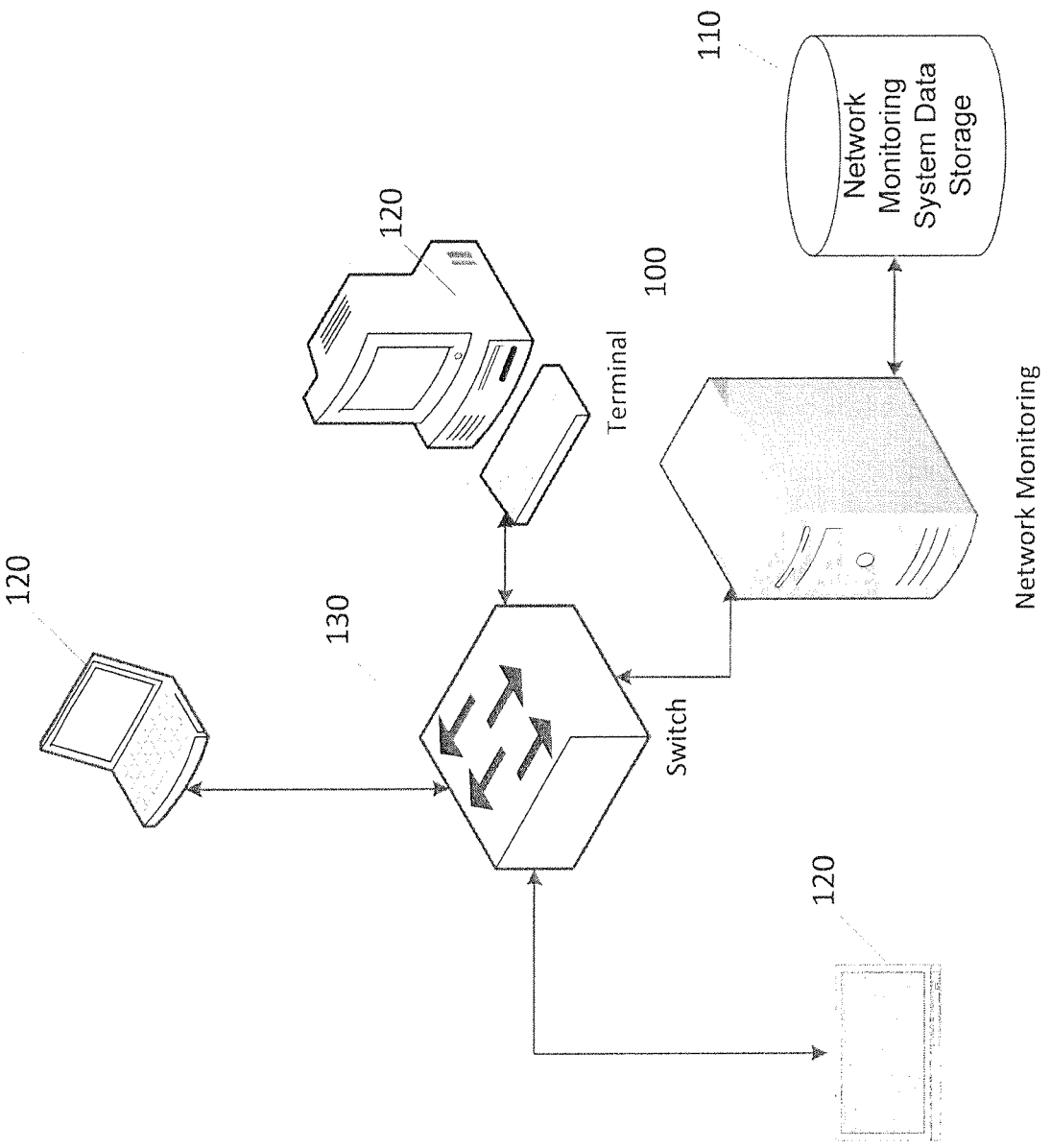
110
Network Monitoring System Data Storage
120
100
Terminal
120
130
Switch
Network Monitoring System
120

Fig. 1

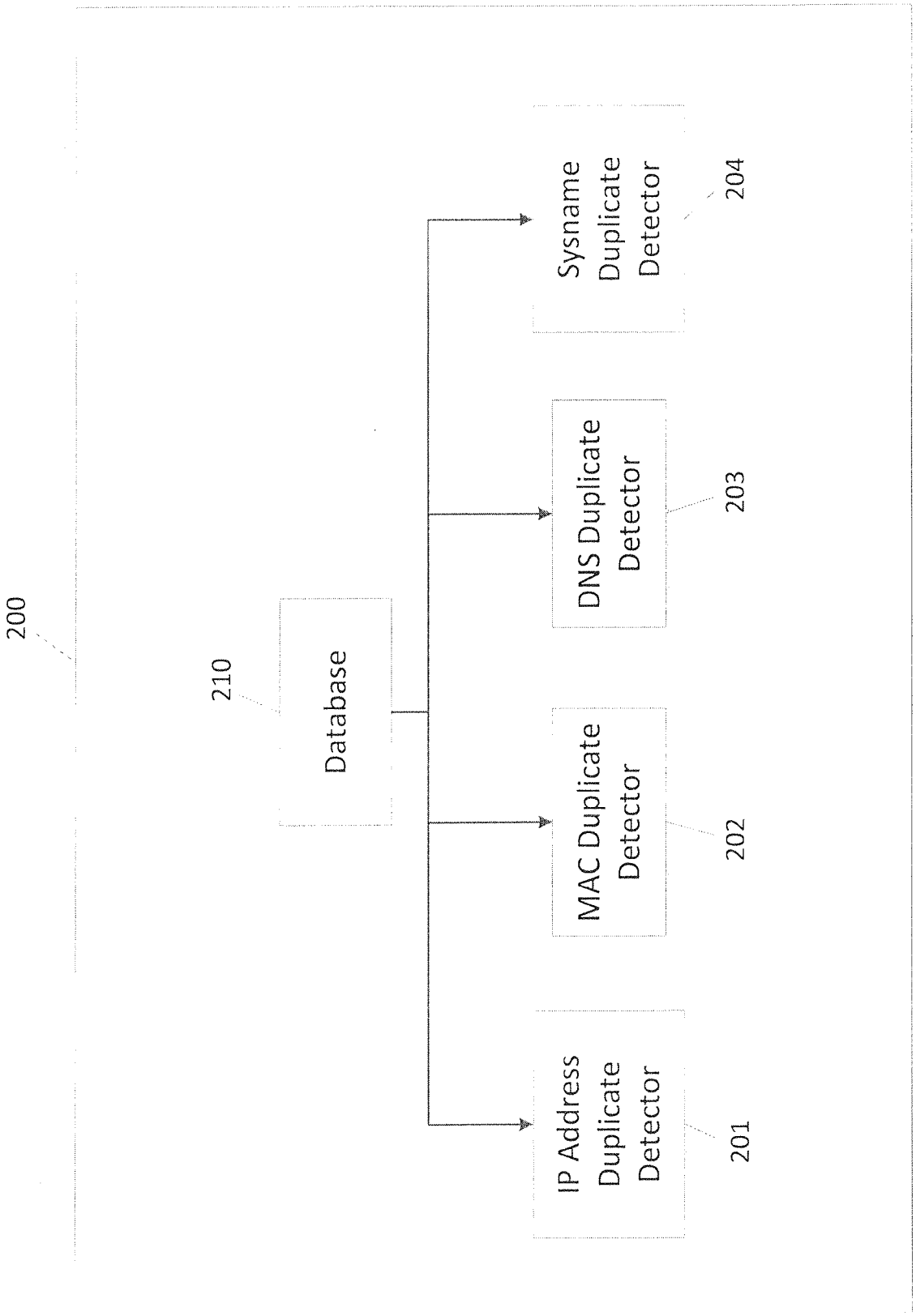
200
210
Database
IP Address Duplicate Detector
201
MAC Duplicate Detector
202
DNS Duplicate Detector
203
Sysname Duplicate Detector
204

Fig. 2

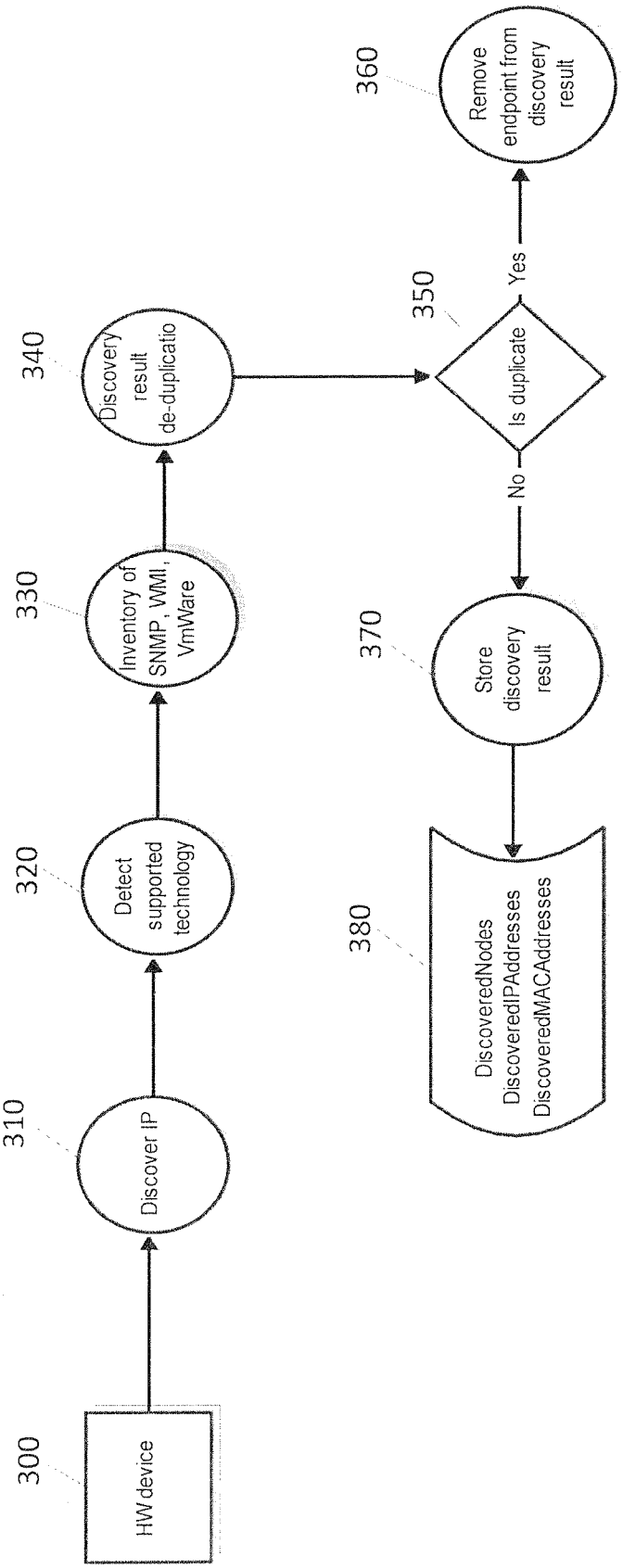
300
HW device
310
Discover IP
320
Detect supported technology
330
Inventory of SNMP, WMI, VmWare
340
Discovery result de-duplicatio
350
Is duplicate
No
Yes
360
Remove endpoint from discovery result
370
Store discovery result
380
DiscoveredNodes
DiscoveredIPAddresses
DiscoveredMACAddresses

Fig. 3

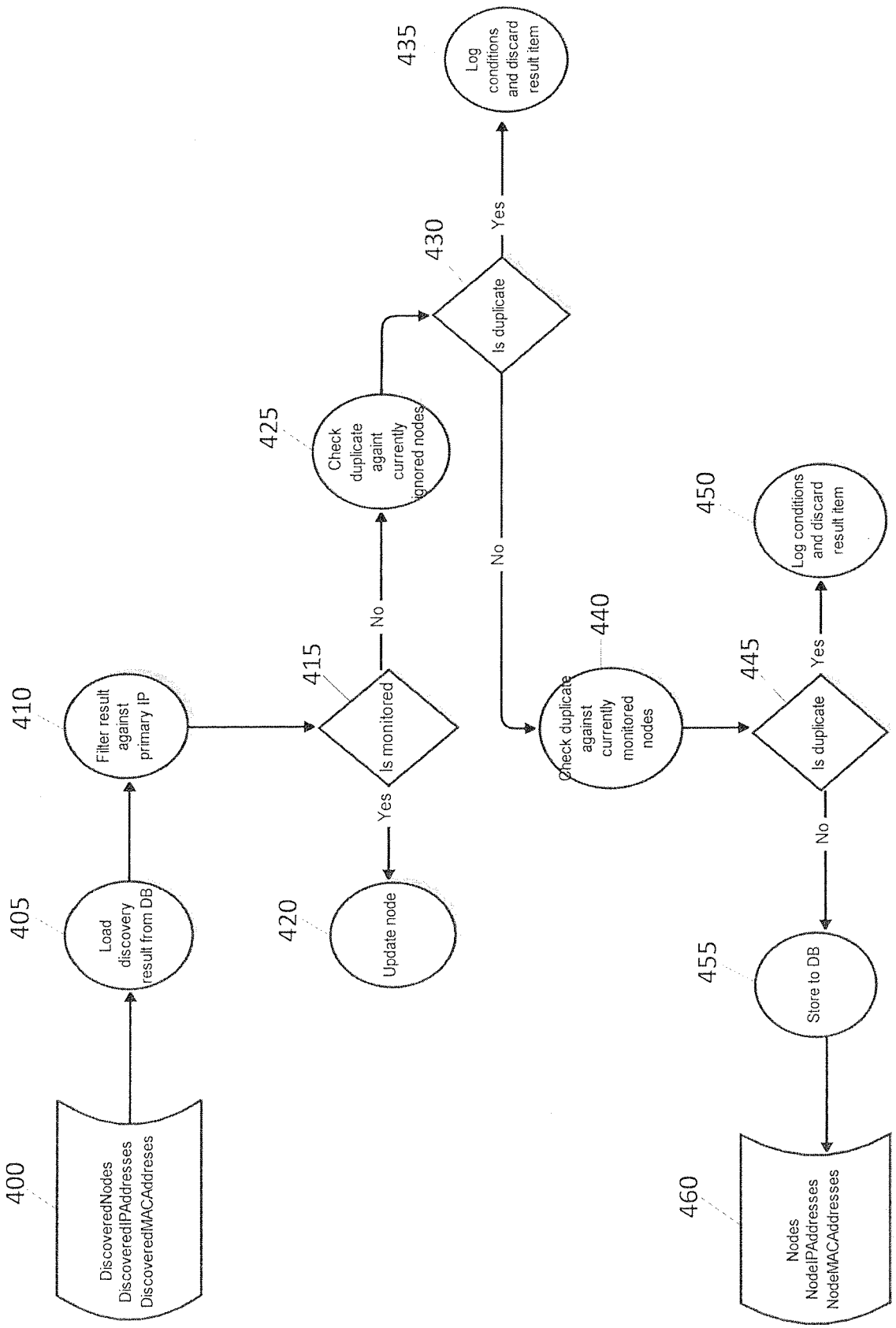
400
DiscoveredNodes
DiscoveredIPAddresses
DiscoveredMACAddreses
405
Load discovery result from DB
410
Filter result against primary IP
415
Is monitored
Yes
420
Update node
No
425
Check duplicate againt currently ignored nodes
430
Is duplicate
Yes
435
Log conditions and discard result item
No
440
Check duplicate against currently monitored nodes
445
Is duplicate
Yes
450
Log conditions and discard result item
No
455
Store to DB
460
Nodes
NodeIPAddresses
NodeMACAddresses

Fig. 4

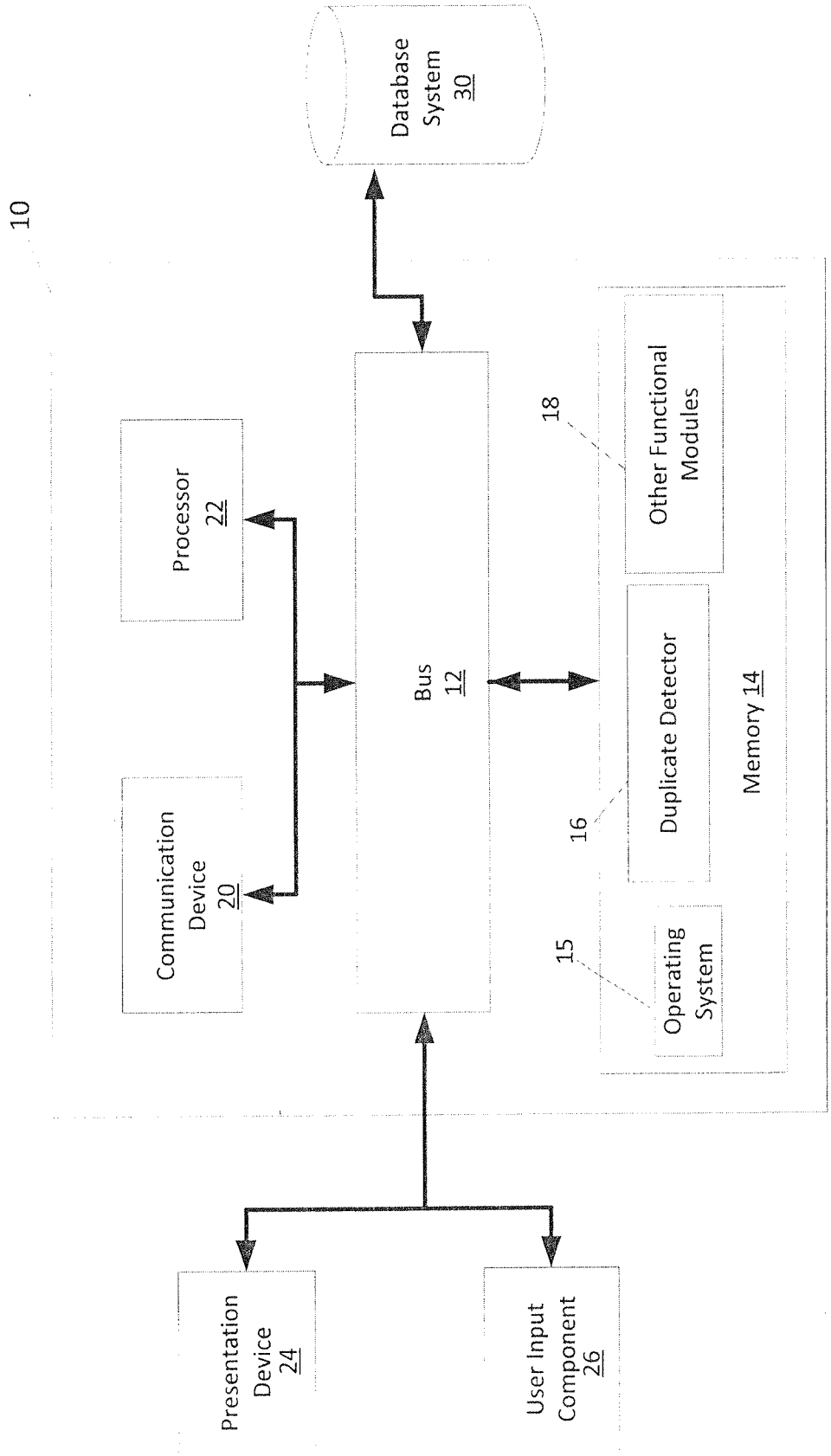
10
Database System 30
Processor 22
Communication Device 20
Bus 12
18
Other Functional Modules
Duplicate Detector
16
Memory 14
15
Operating System
Presentation Device 24
User Input Component 26

Fig. 5

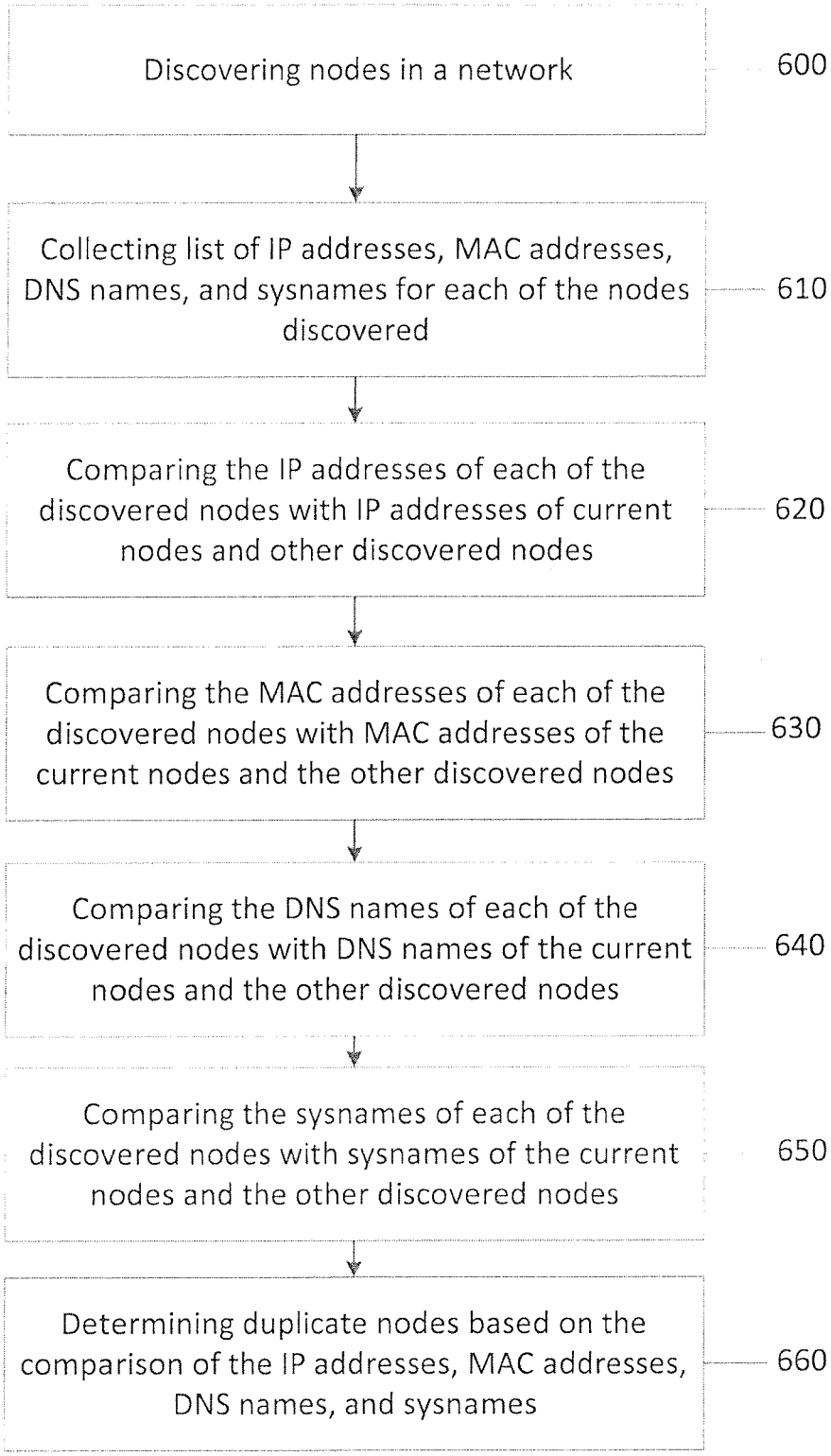
Discovering nodes in a network
600
Collecting list of IP addresses, MAC addresses, DNS names, and sysnames for each of the nodes discovered
610
Comparing the IP addresses of each of the discovered nodes with IP addresses of current nodes and other discovered nodes
620
Comparing the MAC addresses of each of the discovered nodes with MAC addresses of the current nodes and the other discovered nodes
630
Comparing the DNS names of each of the discovered nodes with DNS names of the current nodes and the other discovered nodes
640
Comparing the sysnames of each of the discovered nodes with sysnames of the current nodes and the other discovered nodes
650
Determining duplicate nodes based on the comparison of the IP addresses, MAC addresses, DNS names, and sysnames
660

Fig. 6