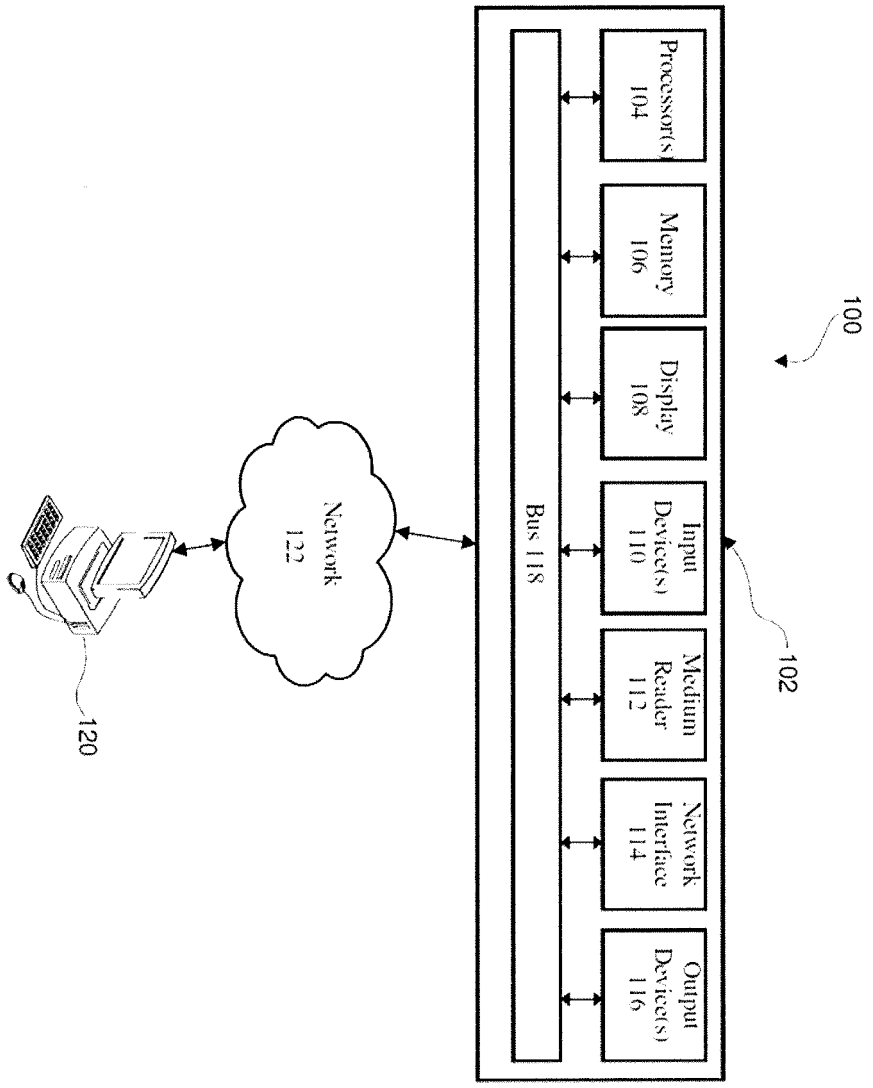

100
102
Processor(s) 104
Memory 106
Display 108
Input Device(s) 110
Medium Reader 112
Network Interface 114
Output Device(s) 116
Bus 118
Network 122
120

FIG. 1

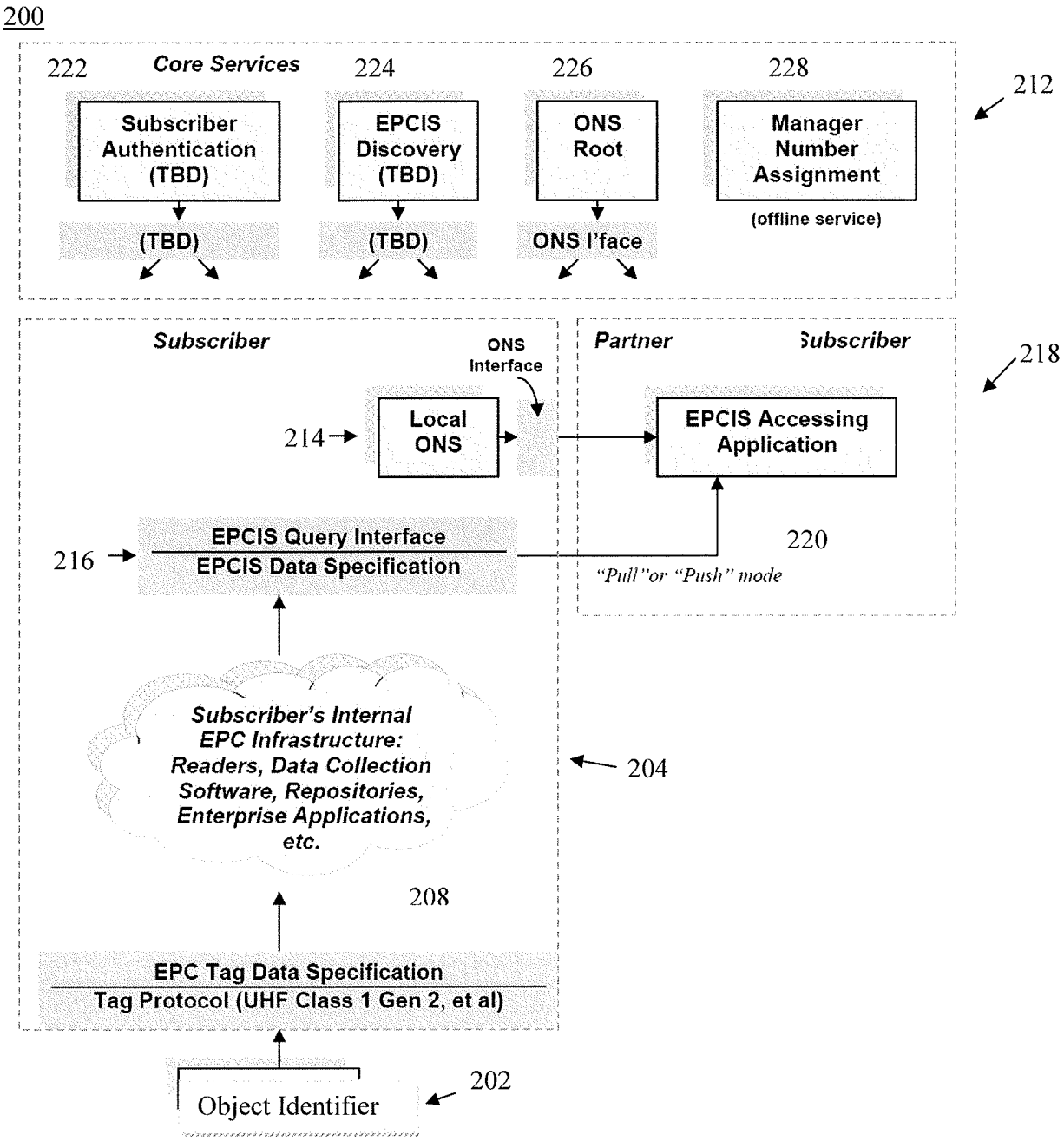

200
222
Core Services
224
226
228
212
Subscriber Authentication (TBD)
EPCIS Discovery (TBD)
ONS Root
Manager Number Assignment
(offline service)
(TBD)
(TBD)
ONS I'face
Subscriber
ONS Interface
Partner
Subscriber
218
214
Local ONS
EPCIS Accessing Application
216
EPCIS Query Interface
EPCIS Data Specification
220
"Pull" or "Push" mode
Subscriber's Internal EPC Infrastructure: Readers, Data Collection Software, Repositories, Enterprise Applications, etc.
204
208
EPC Tag Data Specification
Tag Protocol (UHF Class 1 Gen 2, et al)
Object Identifier
202

FIG. 2

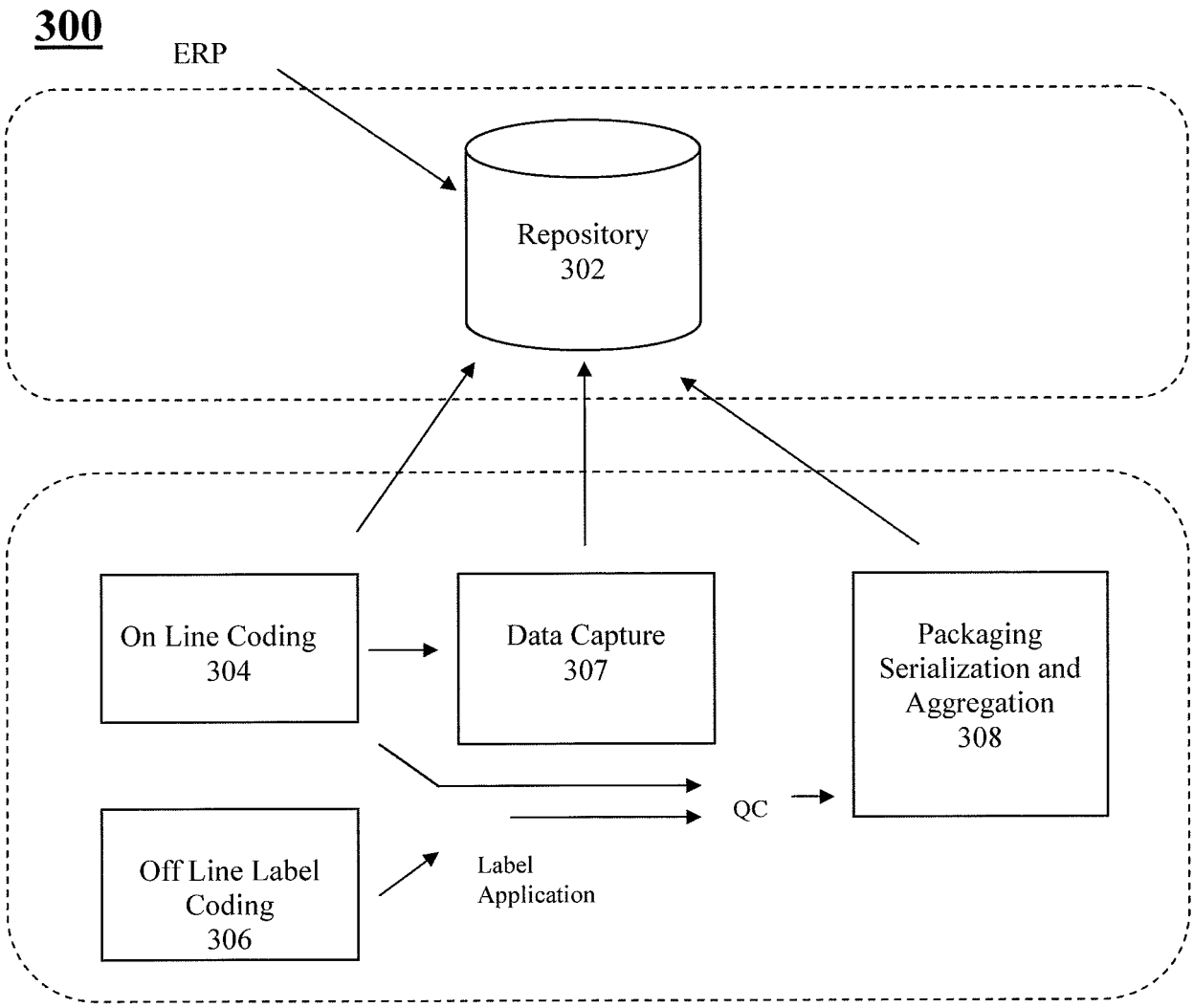

300
ERP
Repository
302
On Line Coding
304
Data Capture
307
Packaging
Serialization and
Aggregation
308
QC
Off Line Label
Coding
306
Label
Application

FIG. 3

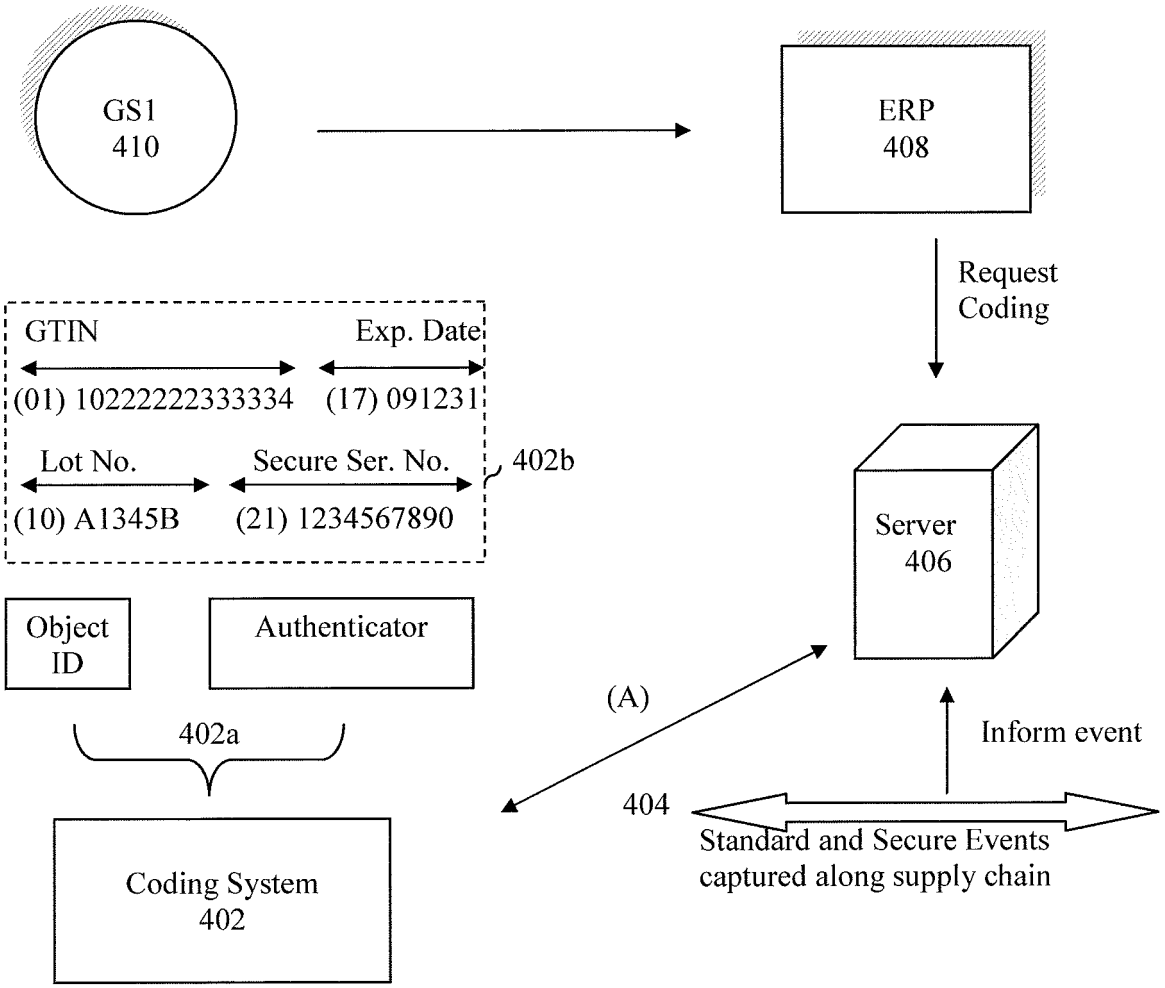

GS1
410
ERP
408
Request
Coding
GTIN
Exp. Date
(01) 10222222333334
(17) 091231
Lot No.
Secure Ser. No.
(10) A1345B
(21) 1234567890
402b
Server
406
Object
ID
Authenticator
(A)
402a
Inform event
404
Standard and Secure Events
captured along supply chain
Coding System
402

FIG. 4

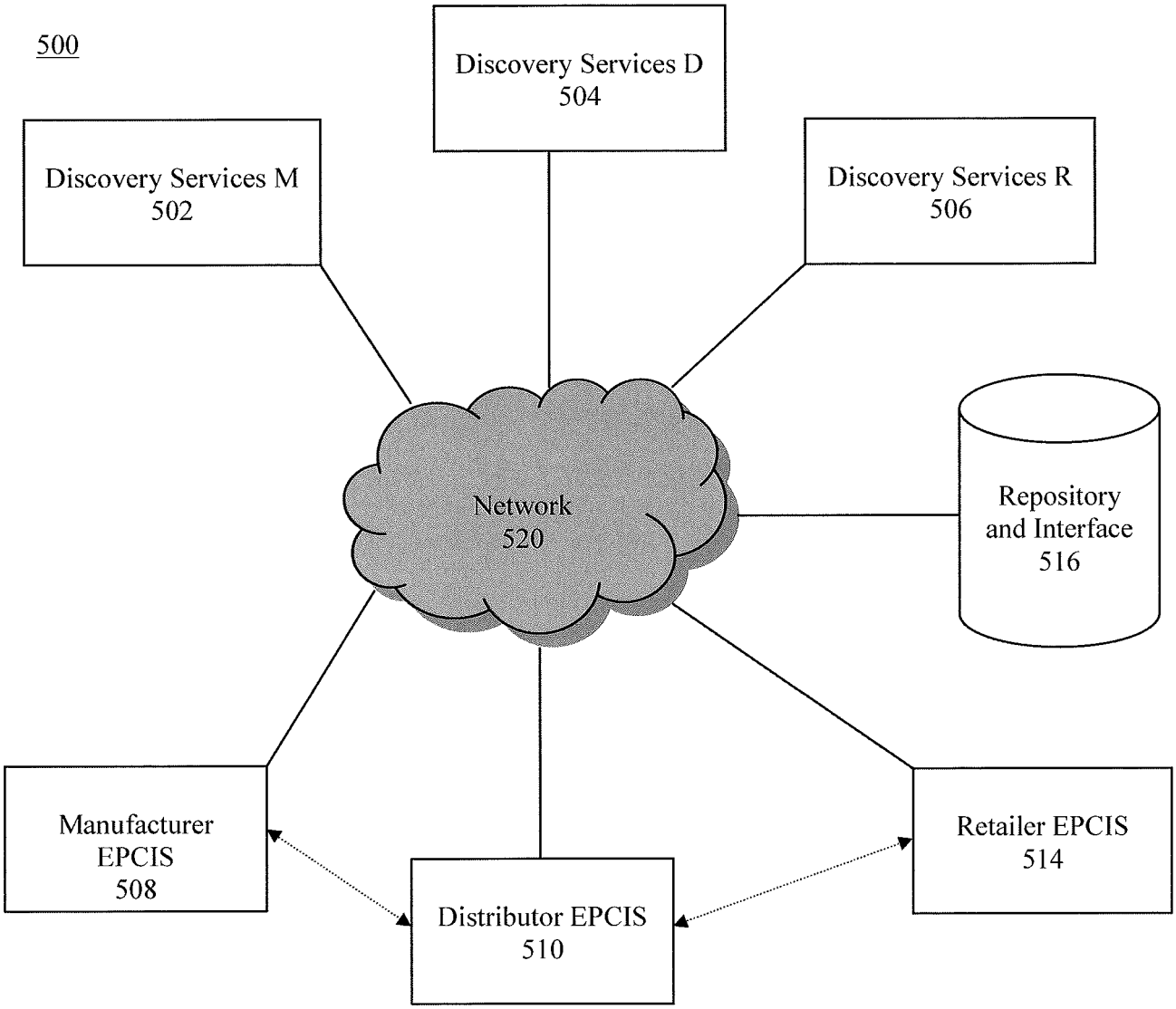

500
Discovery Services D
504
Discovery Services M
502
Discovery Services R
506
Network
520
Repository
and Interface
516
Manufacturer
EPCIS
508
Distributor EPCIS
510
Retailer EPCIS
514

FIG. 5

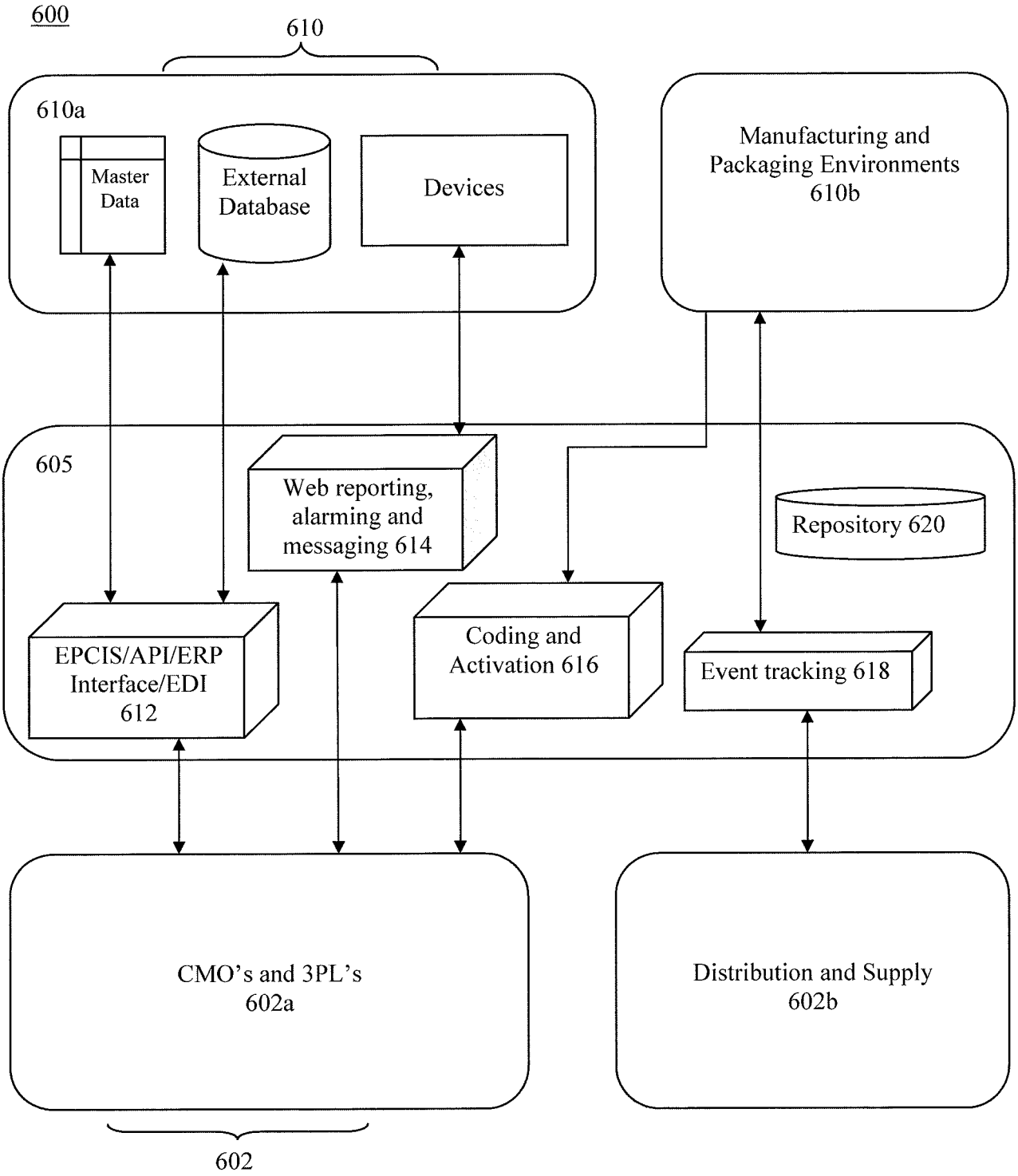

600
610
610a
Master Data
External Database
Devices
Manufacturing and Packaging Environments 610b
605
Web reporting, alarming and messaging 614
Repository 620
EPCIS/API/ERP Interface/EDI 612
Coding and Activation 616
Event tracking 618
CMO's and 3PL's 602a
Distribution and Supply 602b
602

FIG. 6

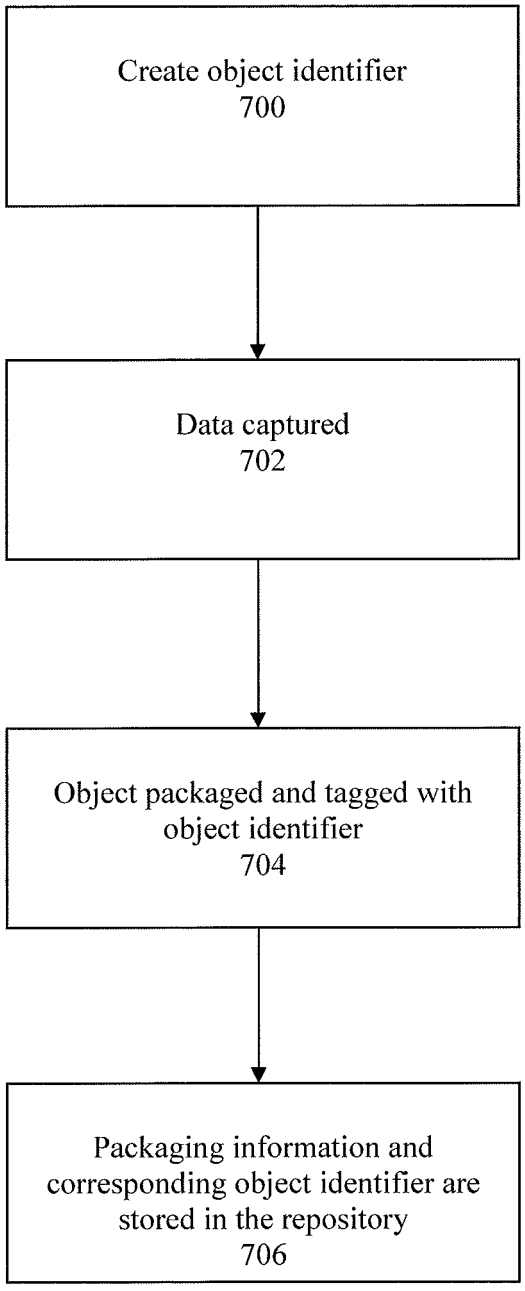

Create object identifier
700
Data captured
702
Object packaged and tagged with object identifier
704
Packaging information and corresponding object identifier are stored in the repository
706

FIG. 7A

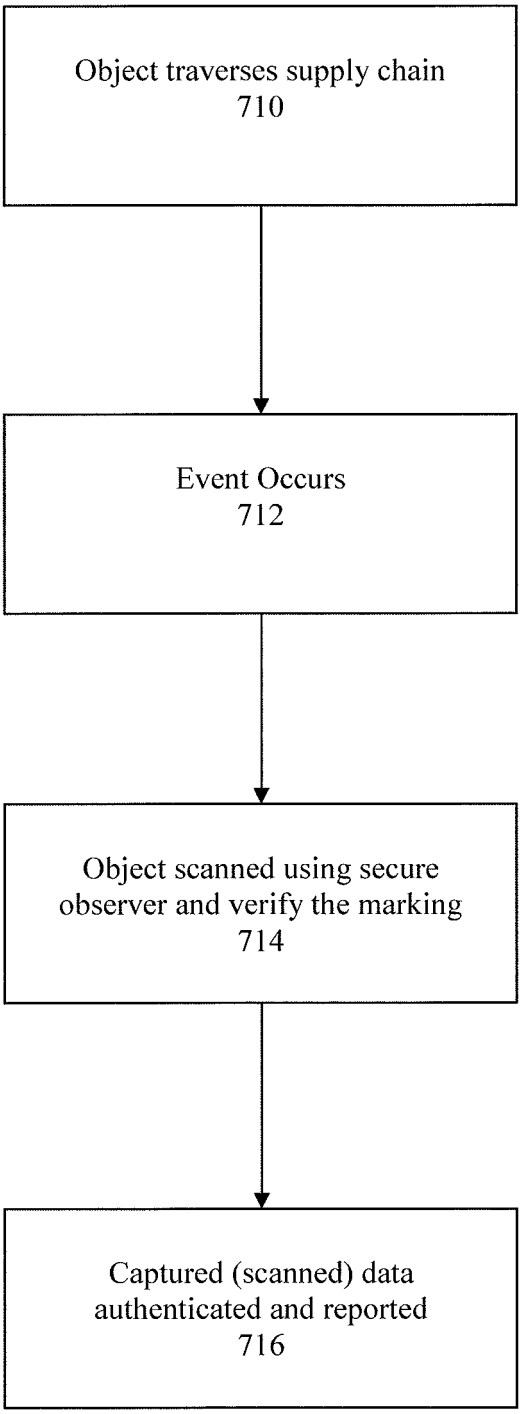

Object traverses supply chain
710
Event Occurs
712
Object scanned using secure observer and verify the marking
714
Captured (scanned) data authenticated and reported
716

FIG. 7B

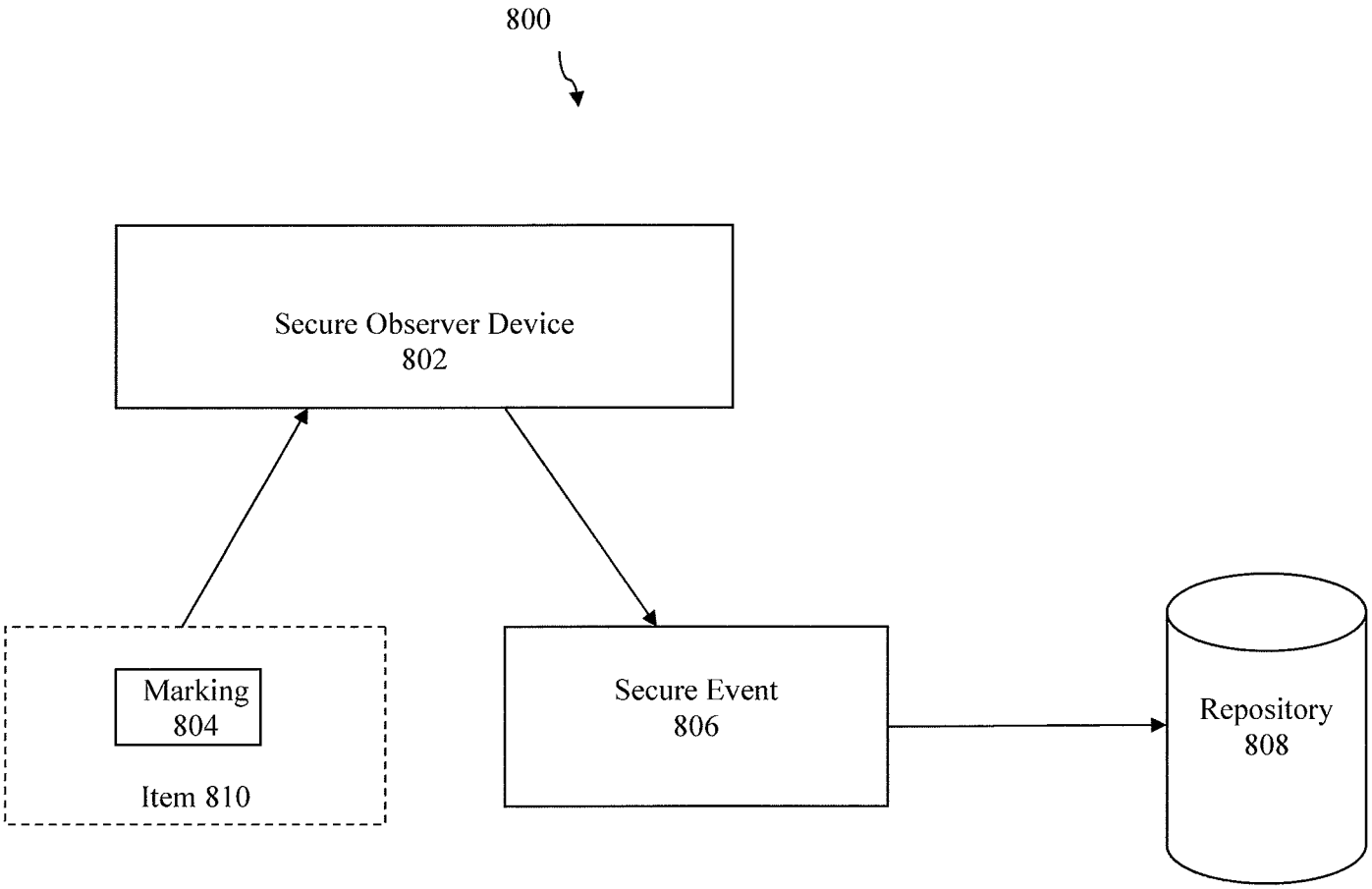

800
Secure Observer Device
802
Marking
804
Item 810
Secure Event
806
Repository
808

FIG. 8

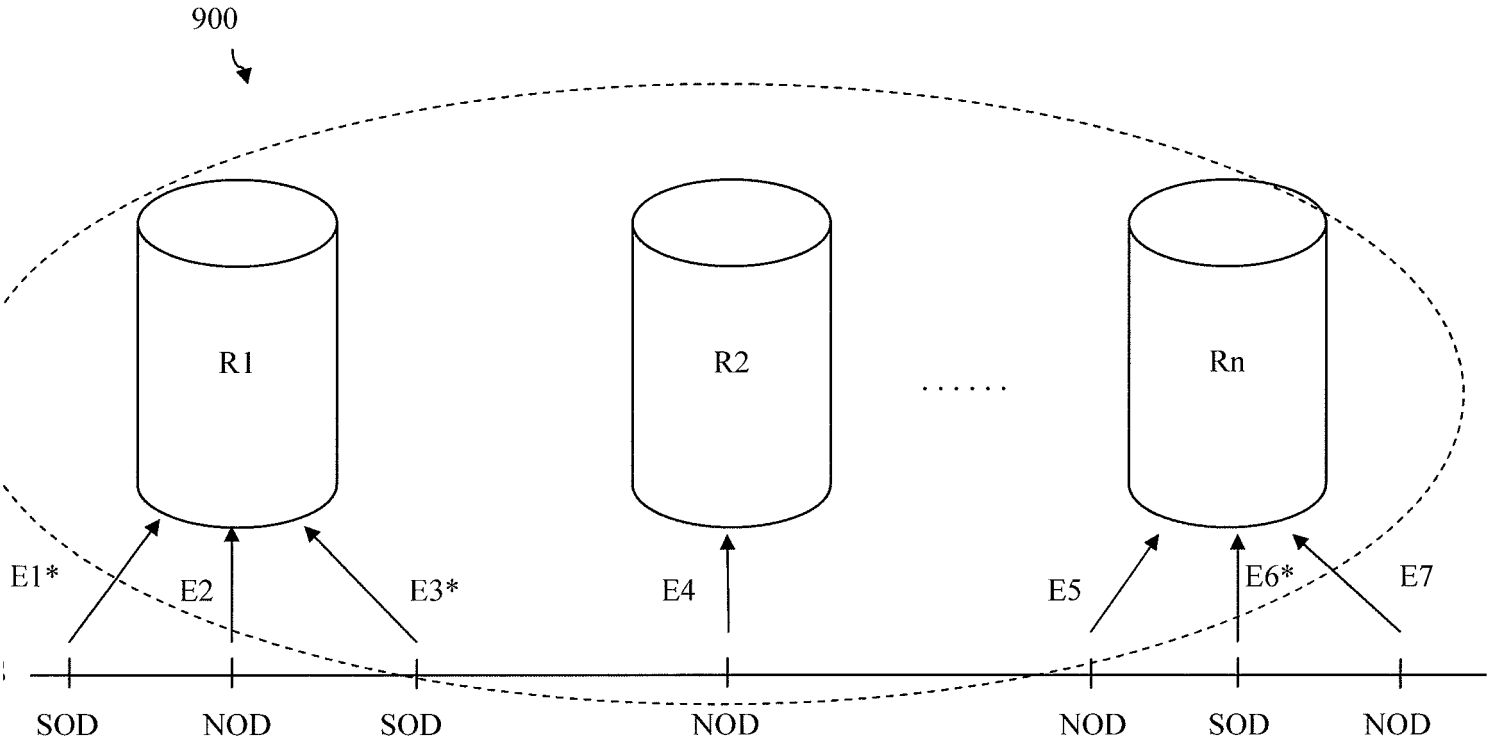


FIG. 9