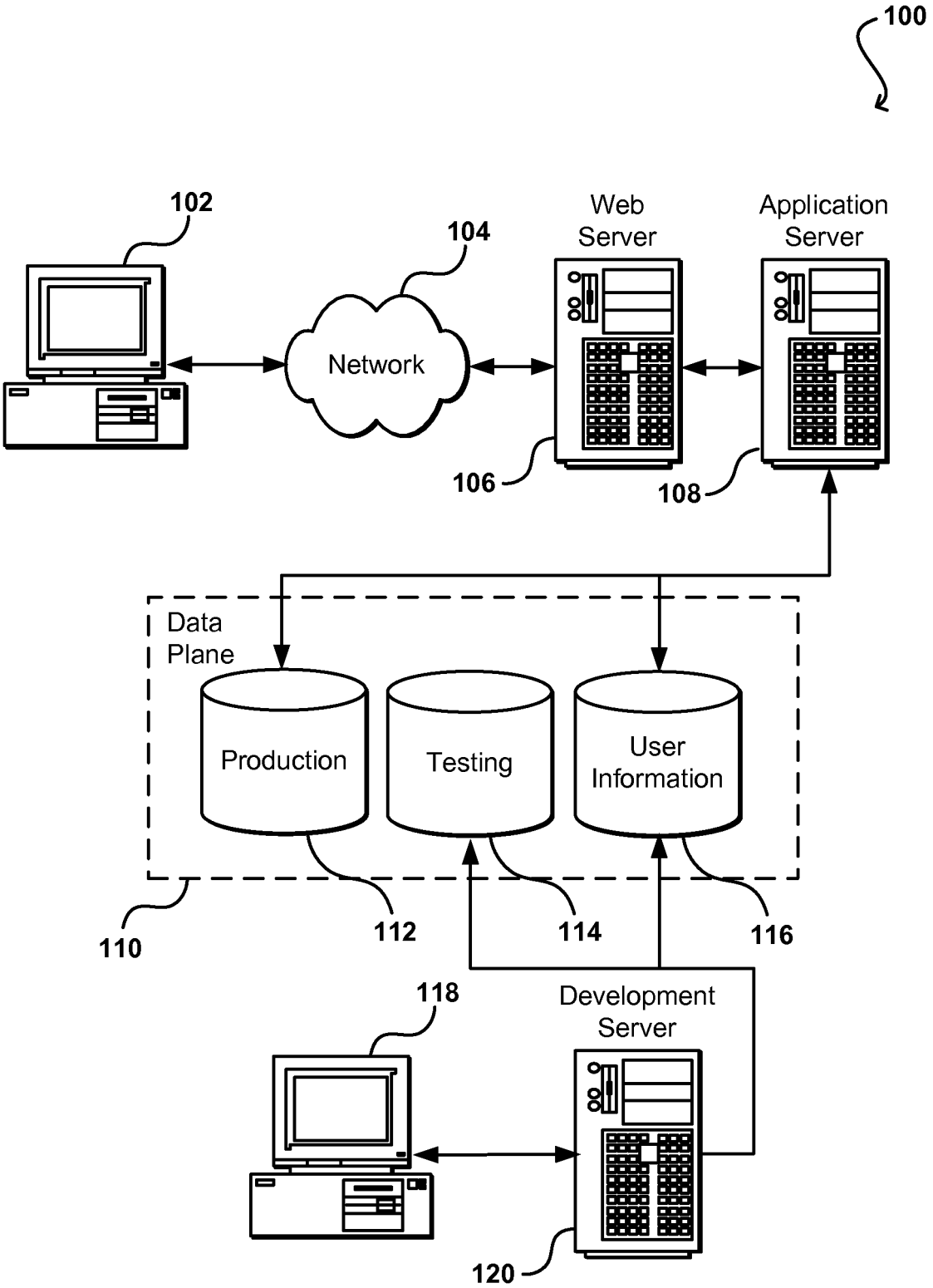
100
102
104
Web Server
Application Server
Network
106
108
Data Plane
Production
Testing
User Information
110
112
114
116
118
Development Server
120

FIG. 1

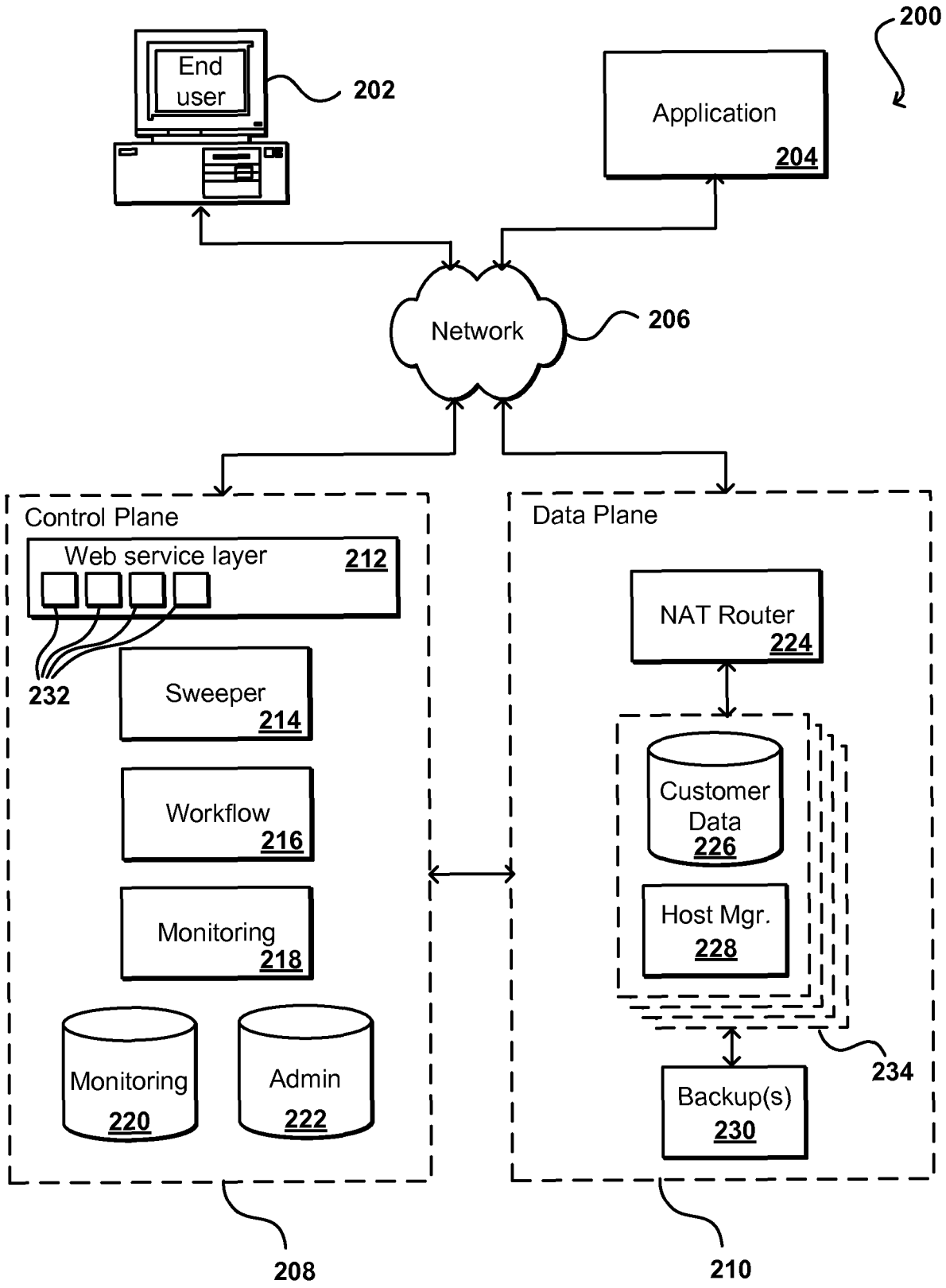
200
End user
202
Application
204
Network
206
Control Plane
Web service layer
212
232
Sweeper
214
Workflow
216
Monitoring
218
Monitoring
220
Admin
222
Data Plane
NAT Router
224
Customer Data
226
Host Mgr.
228
234
Backup(s)
230
208
210

FIG. 2

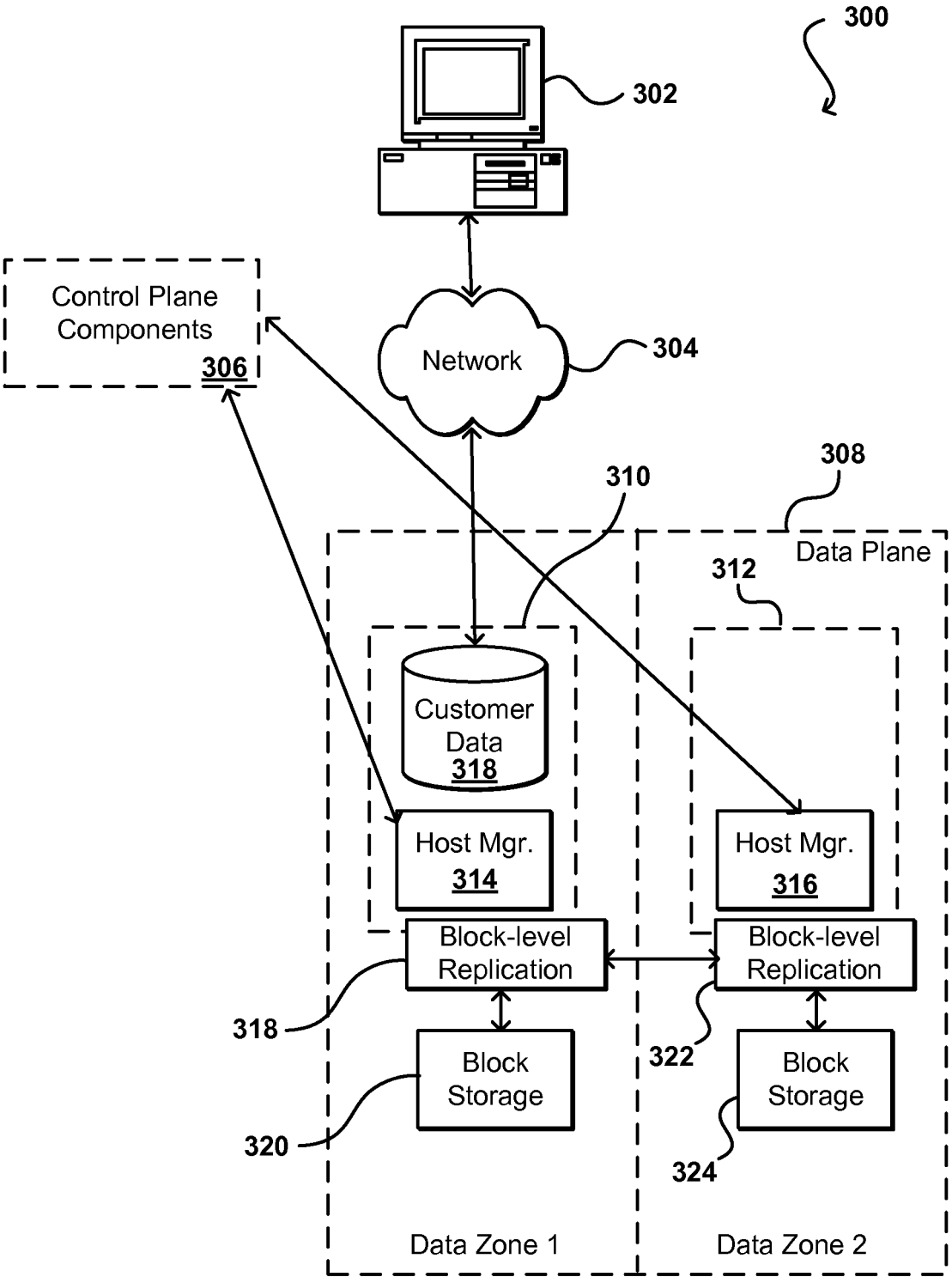
300
302
Control Plane Components
306
Network
304
308
310
Data Plane
312
Customer Data
318
Host Mgr.
314
Host Mgr.
316
Block-level Replication
Block-level Replication
318
322
Block Storage
Block Storage
320
324
Data Zone 1
Data Zone 2

FIG. 3

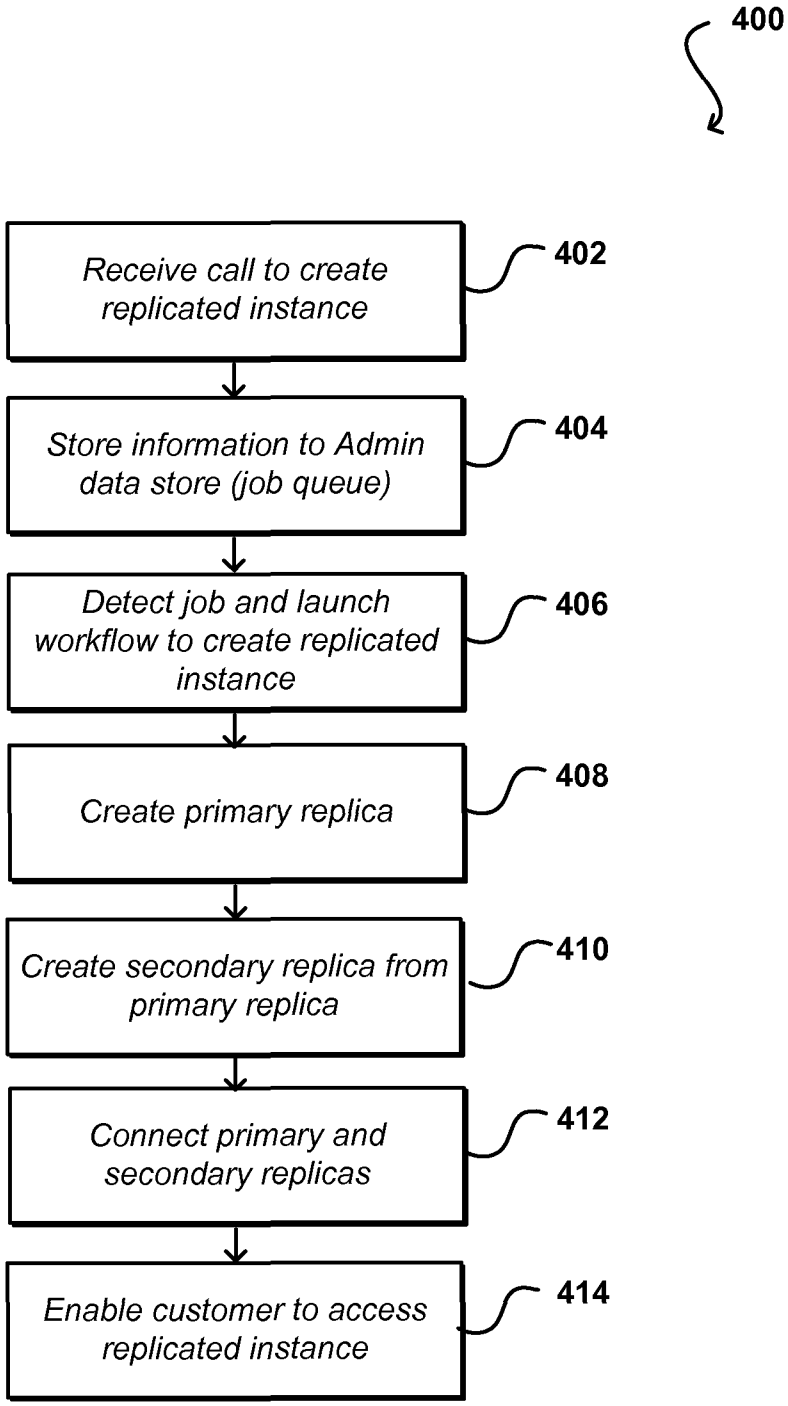
400
Receive call to create replicated instance
402
Store information to Admin data store (job queue)
404
Detect job and launch workflow to create replicated instance
406
Create primary replica
408
Create secondary replica from primary replica
410
Connect primary and secondary replicas
412
Enable customer to access replicated instance
414

FIG. 4

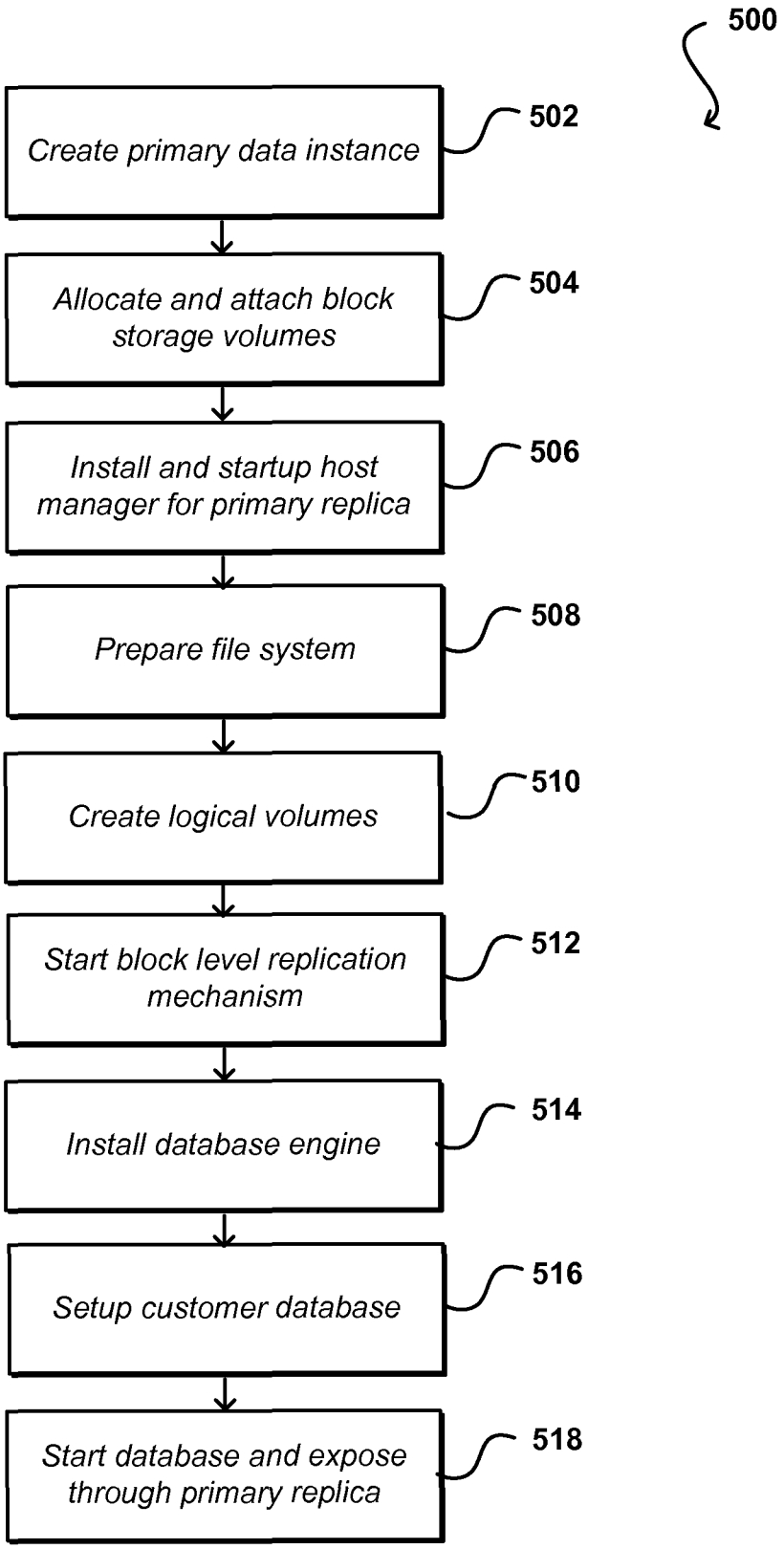
500
Create primary data instance
502
Allocate and attach block storage volumes
504
Install and startup host manager for primary replica
506
Prepare file system
508
Create logical volumes
510
Start block level replication mechanism
512
Install database engine
514
Setup customer database
516
Start database and expose through primary replica
518

FIG. 5

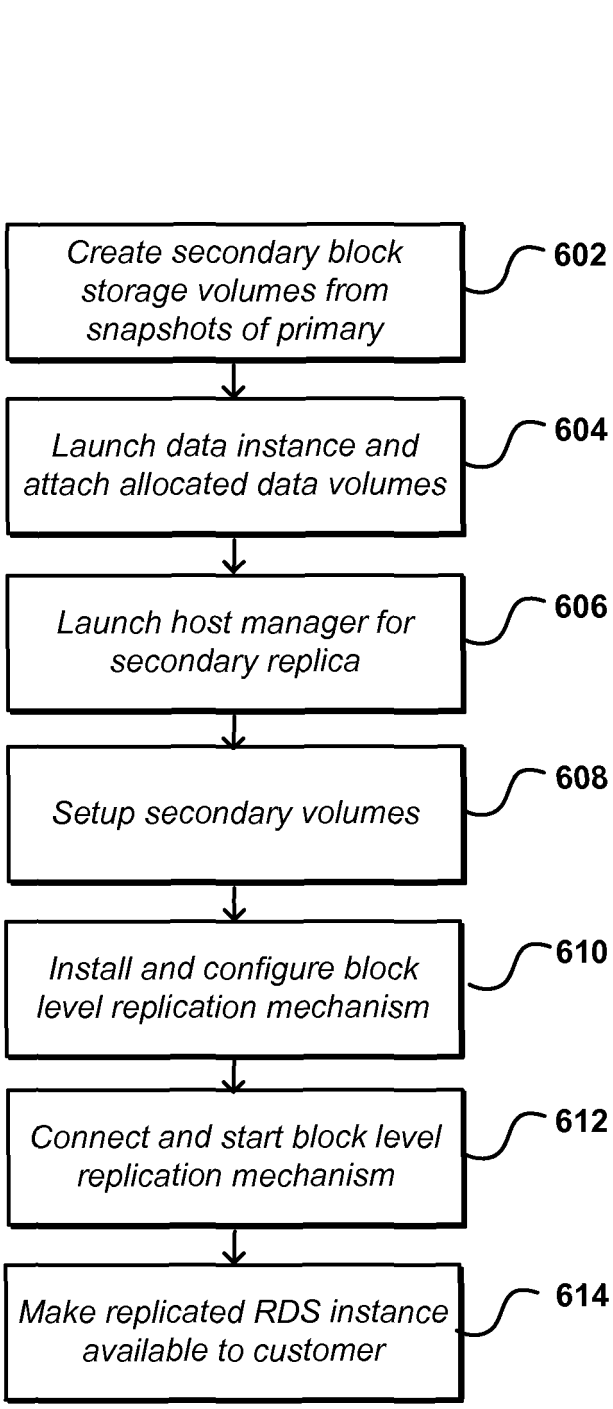
600
Create secondary block storage volumes from snapshots of primary
602
Launch data instance and attach allocated data volumes
604
Launch host manager for secondary replica
606
Setup secondary volumes
608
Install and configure block level replication mechanism
610
Connect and start block level replication mechanism
612
Make replicated RDS instance available to customer
614

FIG. 6