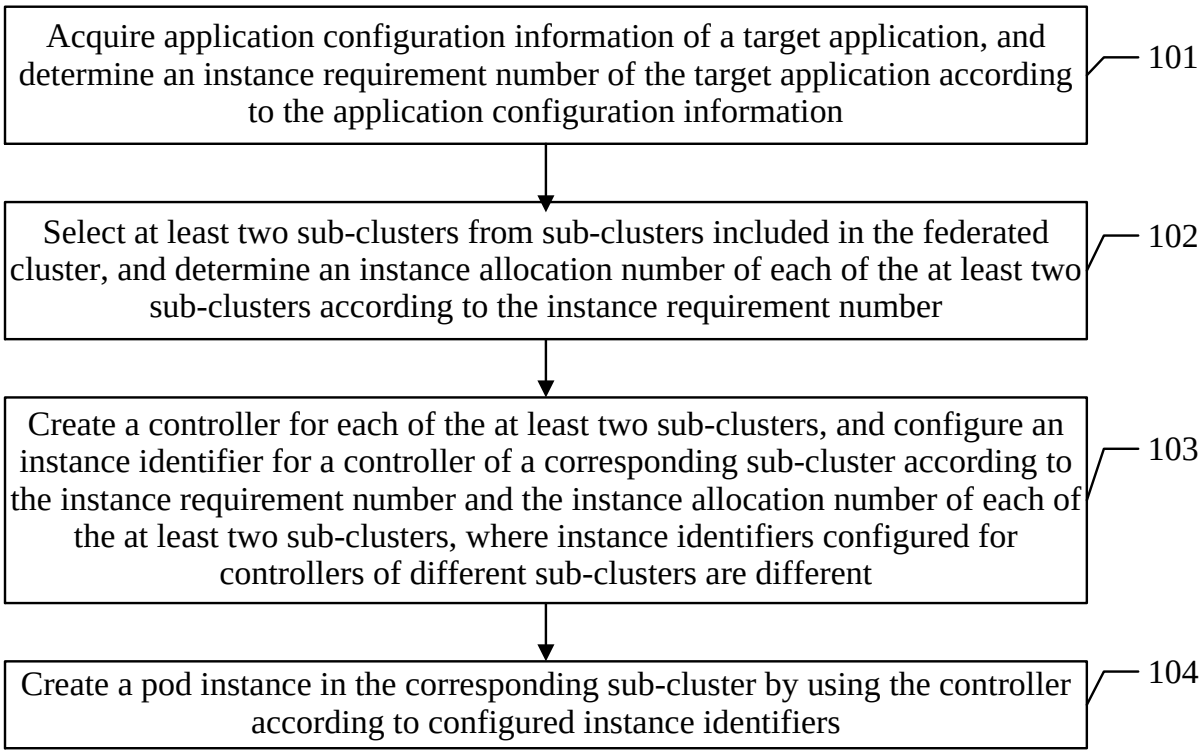
Acquire application configuration information of a target application, and determine an instance requirement number of the target application according to the application configuration information
101
Select at least two sub-clusters from sub-clusters included in the federated cluster, and determine an instance allocation number of each of the at least two sub-clusters according to the instance requirement number
102
Create a controller for each of the at least two sub-clusters, and configure an instance identifier for a controller of a corresponding sub-cluster according to the instance requirement number and the instance allocation number of each of the at least two sub-clusters, where instance identifiers configured for controllers of different sub-clusters are different
103
Create a pod instance in the corresponding sub-cluster by using the controller according to configured instance identifiers
104

FIG. 1

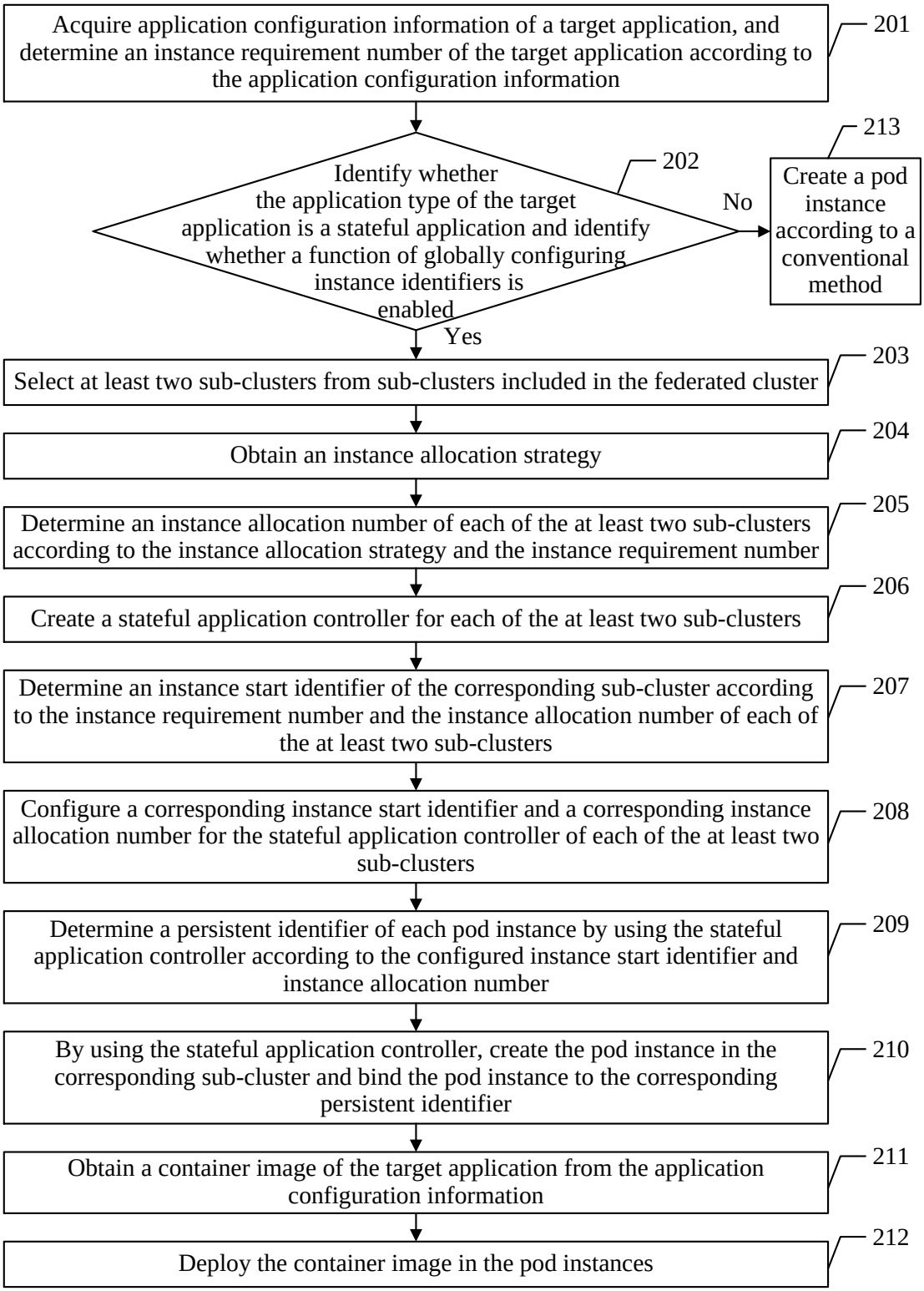
Acquire application configuration information of a target application, and determine an instance requirement number of the target application according to the application configuration information
201
Identify whether the application type of the target application is a stateful application and identify whether a function of globally configuring instance identifiers is enabled
202
No
Create a pod instance according to a conventional method
213
Yes
Select at least two sub-clusters from sub-clusters included in the federated cluster
203
Obtain an instance allocation strategy
204
Determine an instance allocation number of each of the at least two sub-clusters according to the instance allocation strategy and the instance requirement number
205
Create a stateful application controller for each of the at least two sub-clusters
206
Determine an instance start identifier of the corresponding sub-cluster according to the instance requirement number and the instance allocation number of each of the at least two sub-clusters
207
Configure a corresponding instance start identifier and a corresponding instance allocation number for the stateful application controller of each of the at least two sub-clusters
208
Determine a persistent identifier of each pod instance by using the stateful application controller according to the configured instance start identifier and instance allocation number
209
By using the stateful application controller, create the pod instance in the corresponding sub-cluster and bind the pod instance to the corresponding persistent identifier
210
Obtain a container image of the target application from the application configuration information
211
Deploy the container image in the pod instances
212

FIG. 2

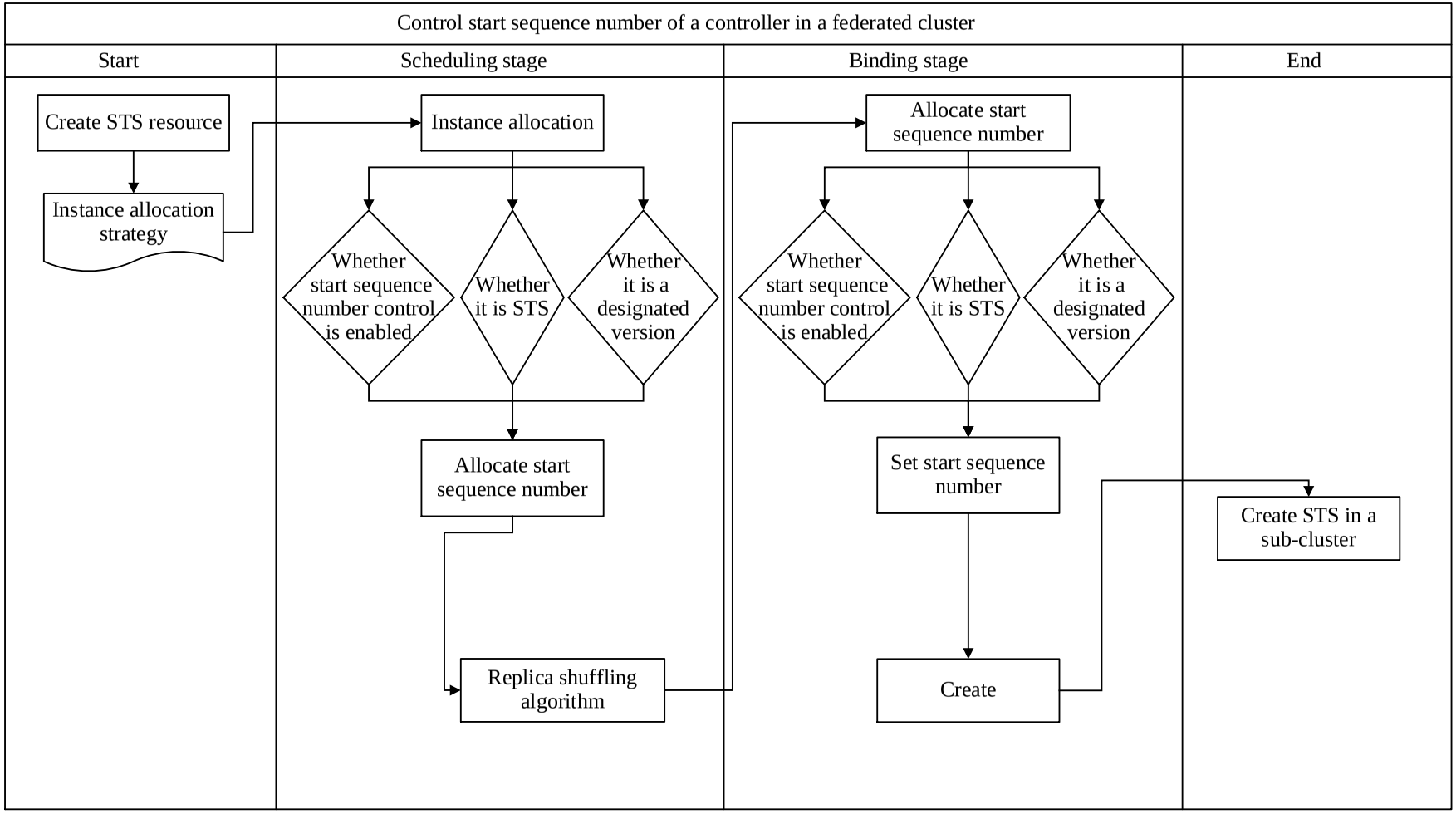
Control start sequence number of a controller in a federated cluster
Start
Scheduling stage
Binding stage
End
Create STS resource
Instance allocation strategy
Instance allocation
Whether start sequence number control is enabled
Whether it is STS
Whether it is a designated version
Allocate start sequence number
Replica shuffling algorithm
Allocate start sequence number
Whether start sequence number control is enabled
Whether it is STS
Whether it is a designated version
Set start sequence number
Create
Create STS in a sub-cluster

FIG. 3

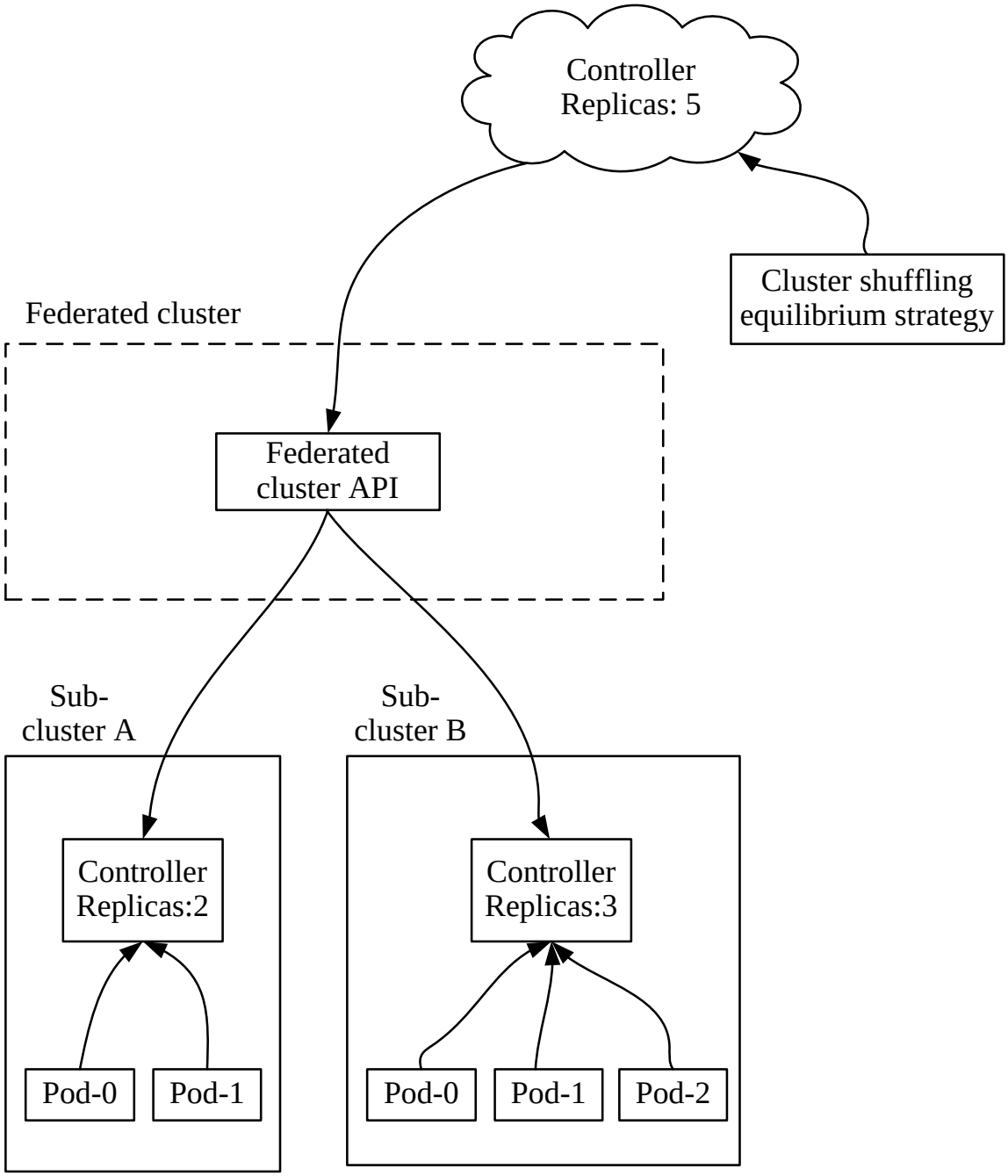
Controller
Replicas: 5
Cluster shuffling
equilibrium strategy
Federated cluster
Federated
cluster API
Sub-
cluster A
Sub-
cluster B
Controller
Replicas:2
Controller
Replicas:3
Pod-0
Pod-1
Pod-0
Pod-1
Pod-2

FIG. 4

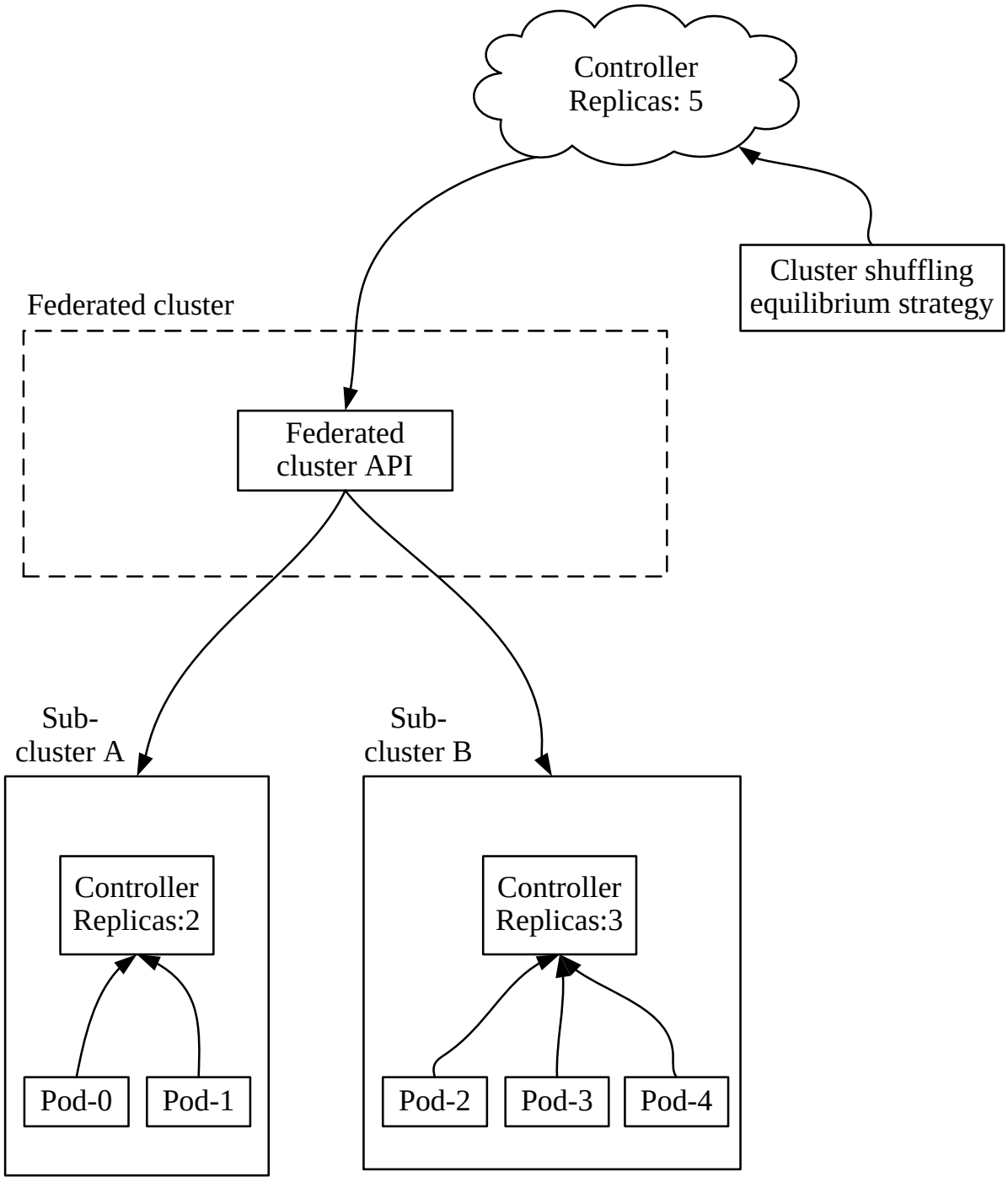
Controller
Replicas: 5
Cluster shuffling
equilibrium strategy
Federated cluster
Federated
cluster API
Sub-
cluster A
Sub-
cluster B
Controller
Replicas:2
Controller
Replicas:3
Pod-0
Pod-1
Pod-2
Pod-3
Pod-4

FIG. 5

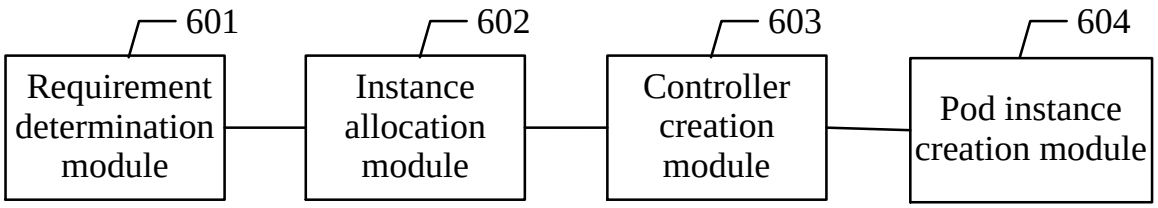
601
602
603
604
Requirement determination module
Instance allocation module
Controller creation module
Pod instance creation module

FIG. 6

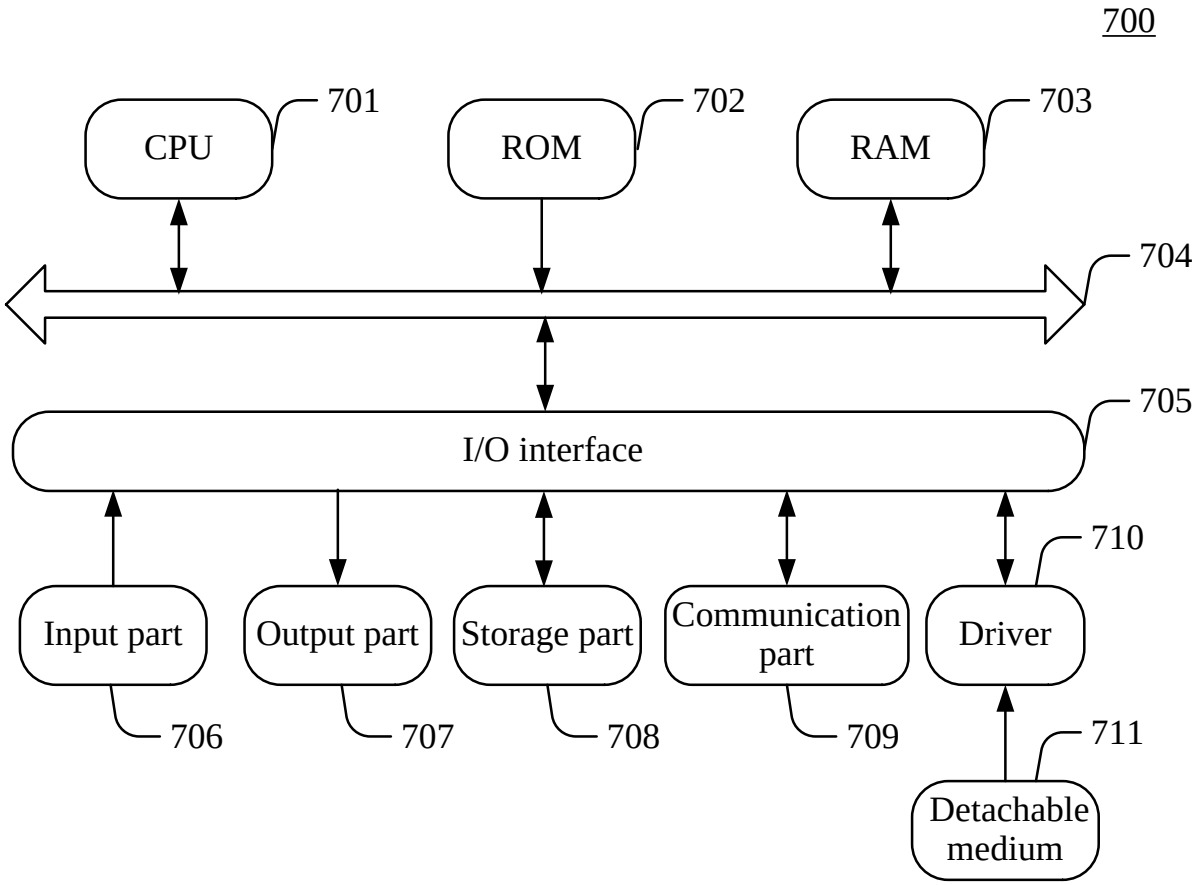
700
CPU
701
ROM
702
RAM
703
704
I/O interface
705
Input part
706
Output part
707
Storage part
708
Communication part
709
Driver
710
Detachable medium
711

FIG. 7