L1 manual processing	L2 tool collaboration	L3 network automation	L4 network intelligentization	L5 fully autonomous network
based on experience and relying entirely on manual processing	a tool in a domain helps a person improve efficiency within the domain	an automated processing of network intention, partial system-assisted analysis, and human decision-making	the network is integrated with applications, uses technologies such as AI and ML to achieve intelligent processing of application intention, system-assisted analysis, and human decision-making	realizes a fully lights-out data center, wherein the system performs analysis and decision-making to achieve automated end-to-end autonomy

FIG. 1

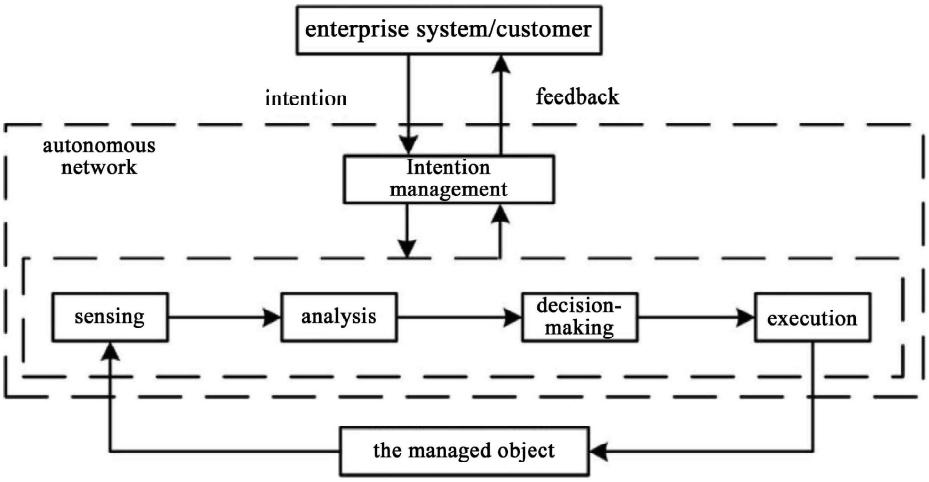

FIG. 2

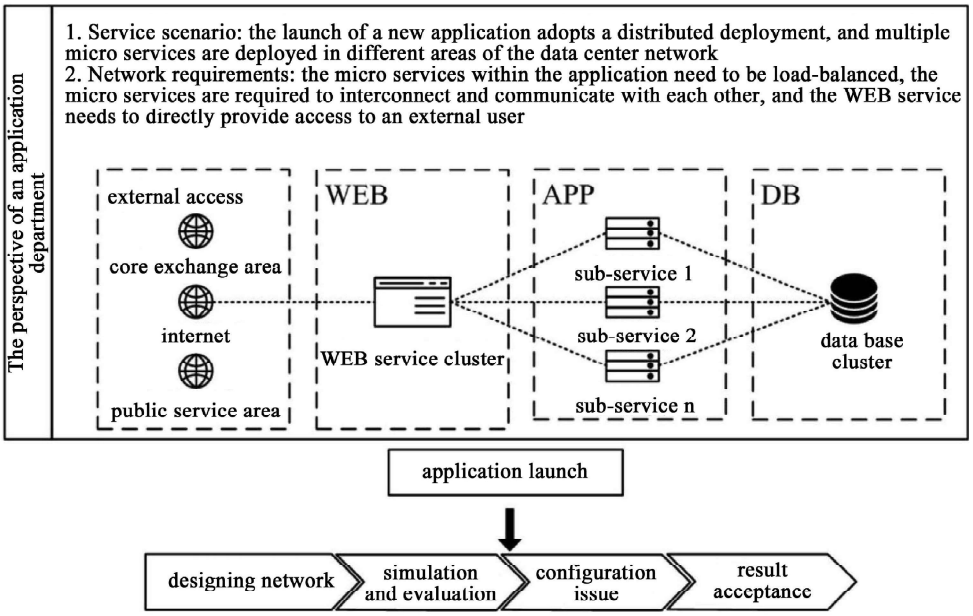

FIG. 3

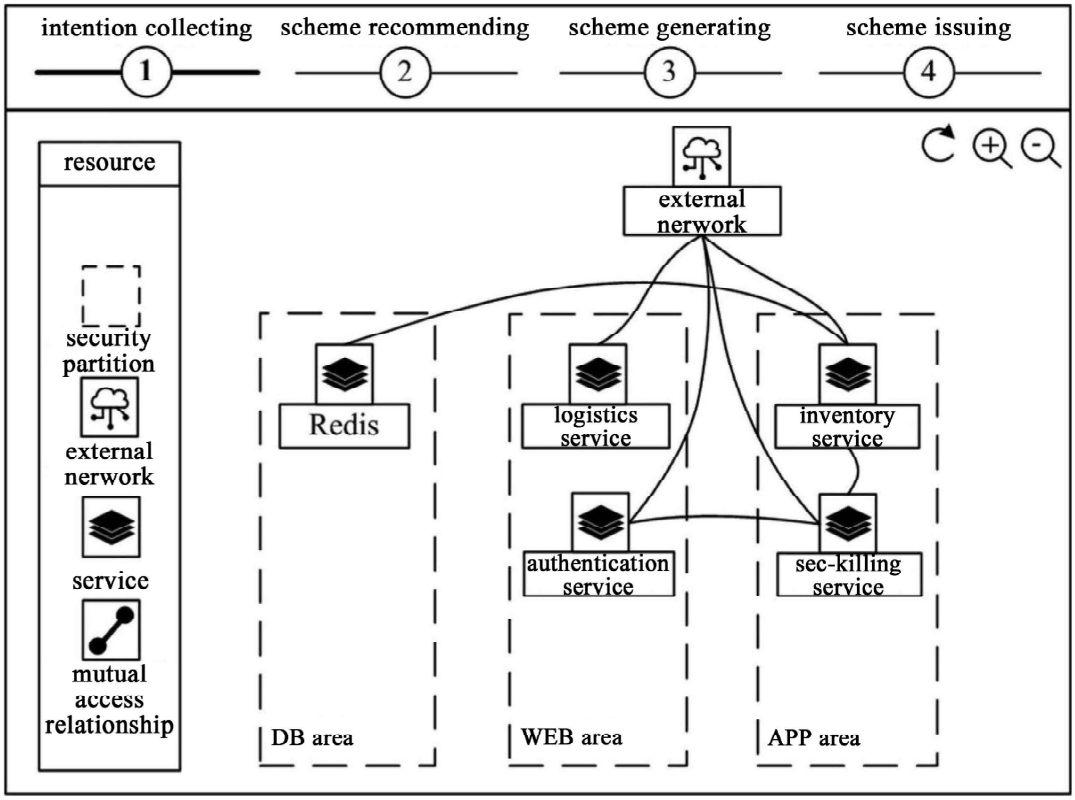
intention collecting
scheme recommending
scheme generating
scheme issuing
1
2
3
4
resource
security partition
external nerwork
service
mutual access relationship
external nerwork
Redis
logistics service
inventory service
authentication service
sec-killing service
DB area
WEB area
APP area

FIG. 4

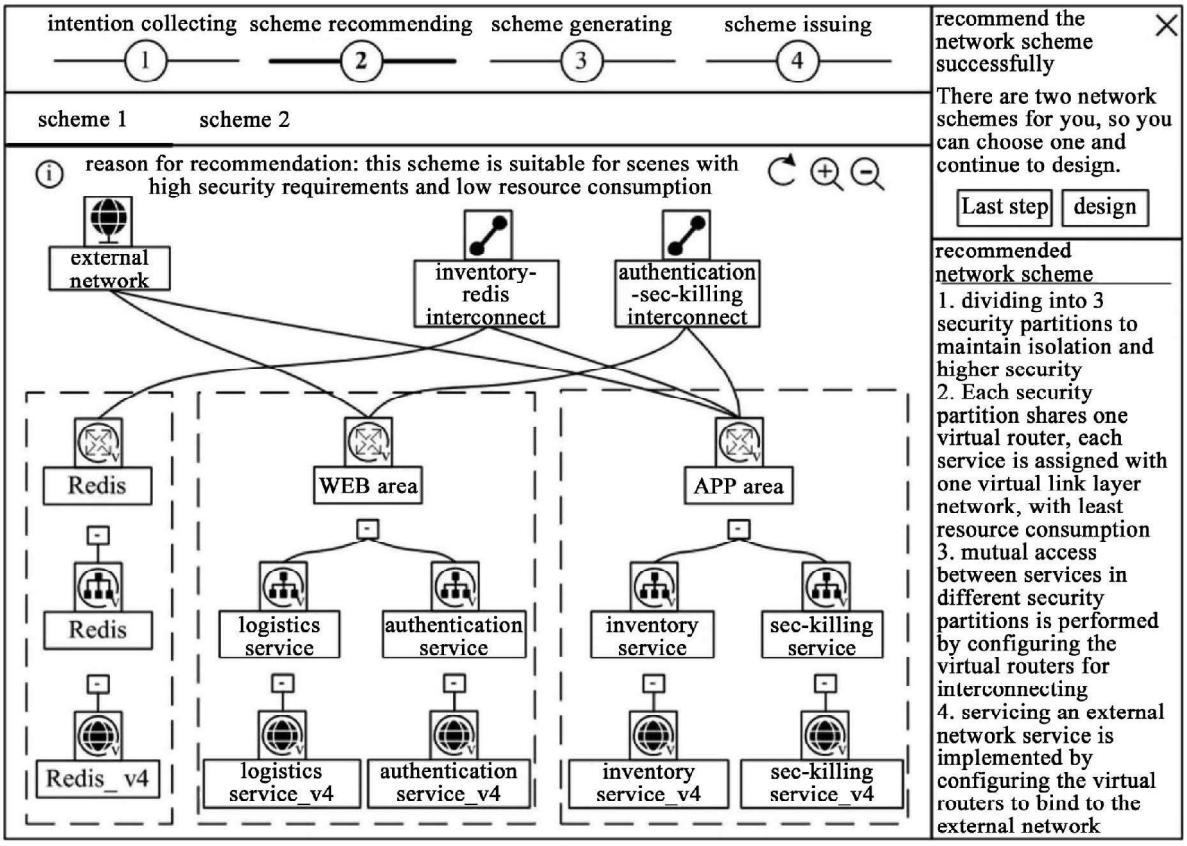
intention collecting
scheme recommending
scheme generating
scheme issuing
1
2
3
4
scheme 1
scheme 2
reason for recommendation: this scheme is suitable for scenes with high security requirements and low resource consumption
external network
inventory-redis interconnect
authentication -sec-killing interconnect
Redis
Redis
Redis_ v4
WEB area
logistics service
authentication service
logistics service_v4
authentication service_v4
APP area
inventory service
sec-killing service
inventory service_v4
sec-killing service_v4
recommend the network scheme successfully
There are two network schemes for you, so you can choose one and continue to design.
Last step
design
recommended network scheme
1. dividing into 3 security partitions to maintain isolation and higher security
2. Each security partition shares one virtual router, each service is assigned with one virtual link layer network, with least resource consumption
3. mutual access between services in different security partitions is performed by configuring the virtual routers for interconnecting
4. servicing an external network service is implemented by configuring the virtual routers to bind to the external network

FIG. 5

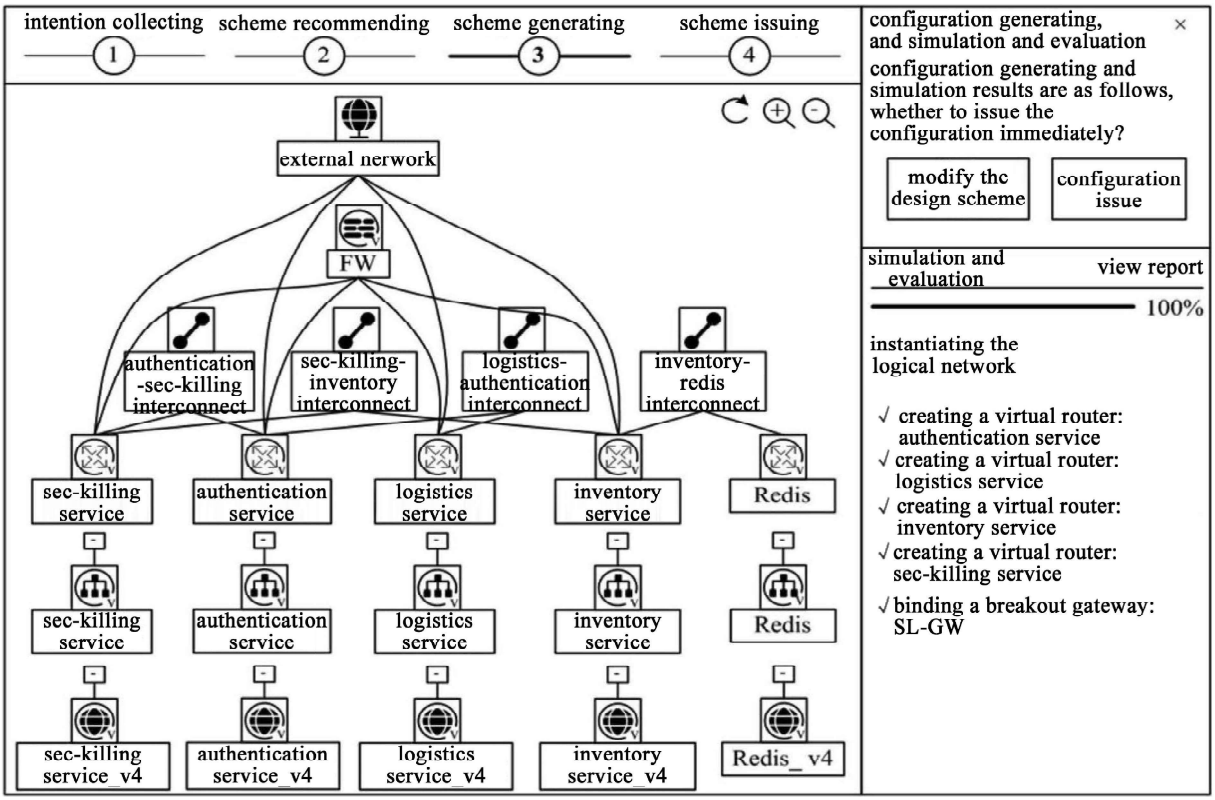

FIG. 6

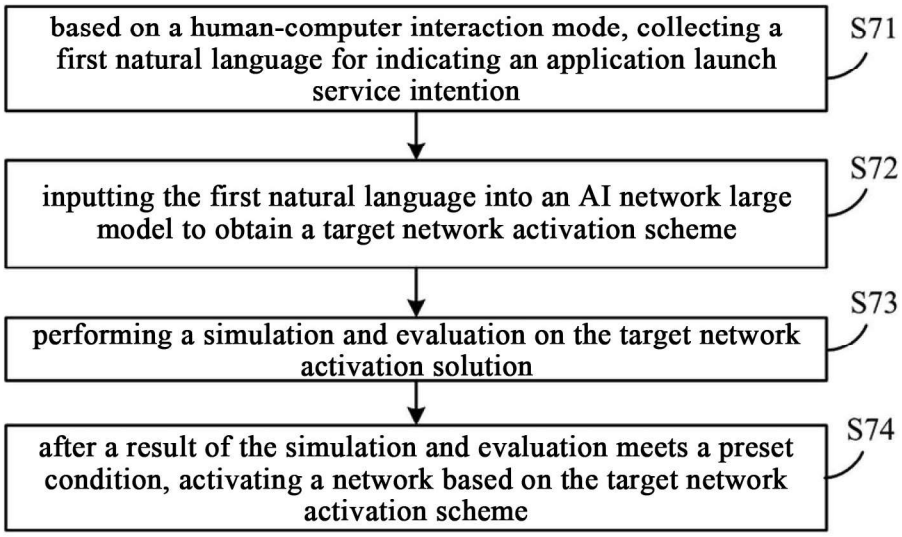

FIG. 7

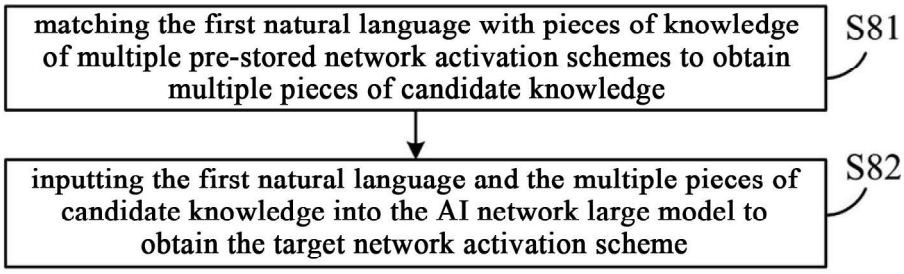

FIG. 8

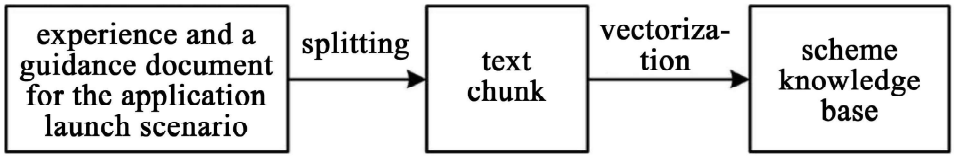

FIG. 9

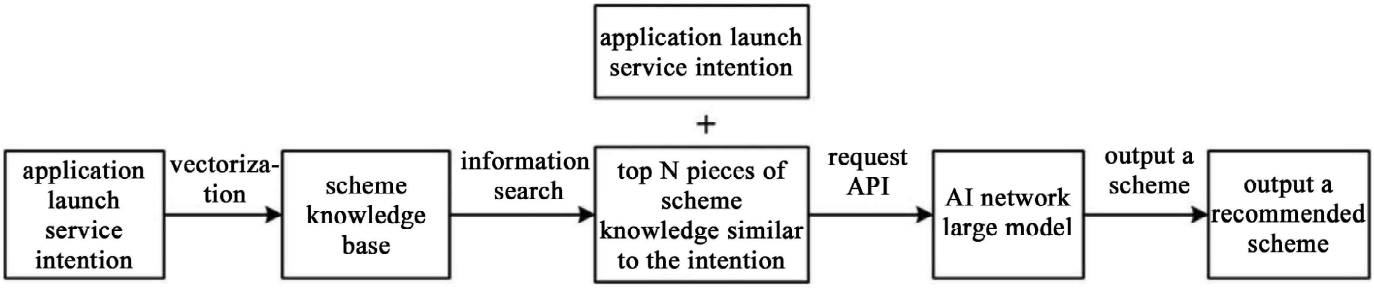

FIG. 10

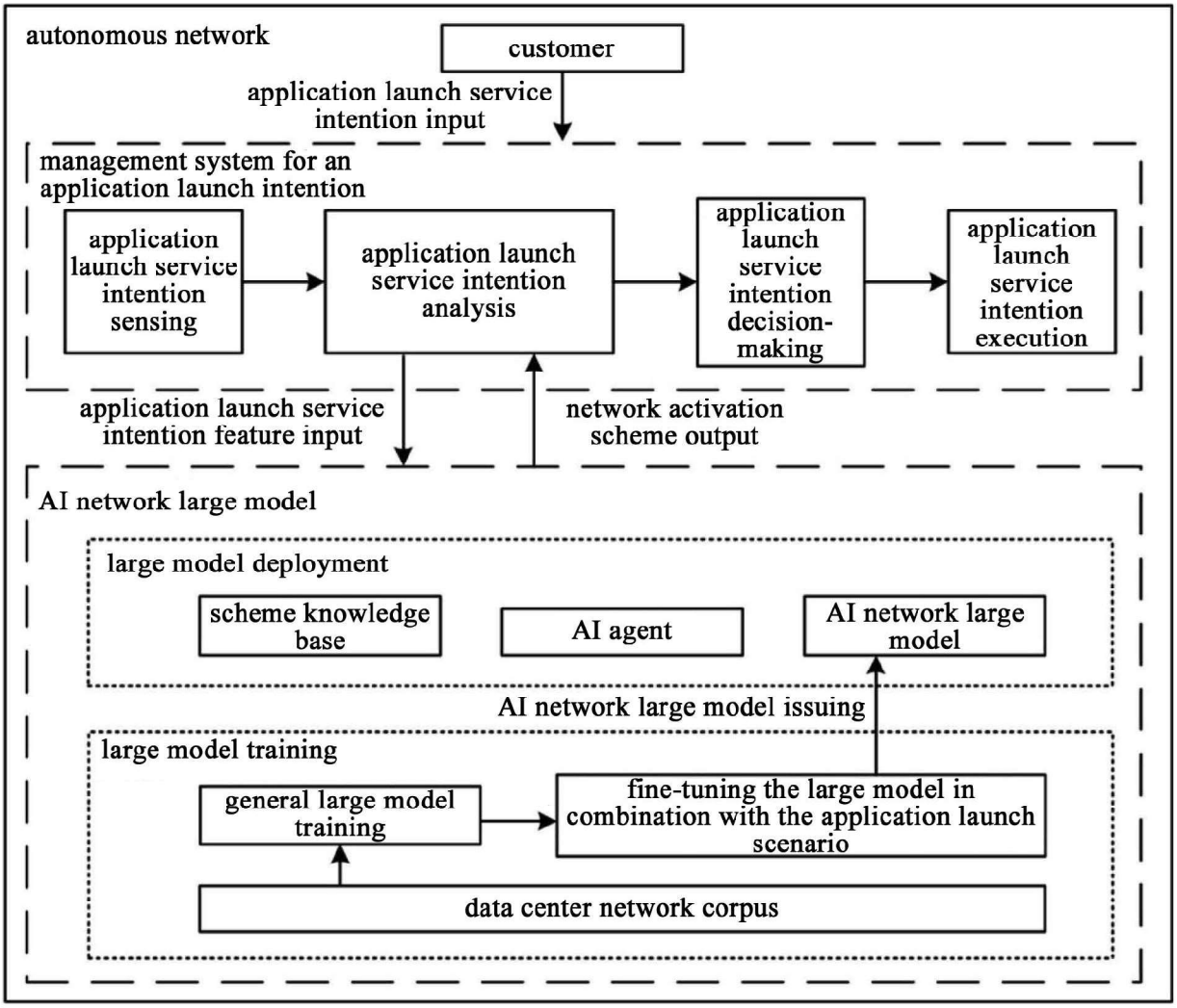

FIG. 11

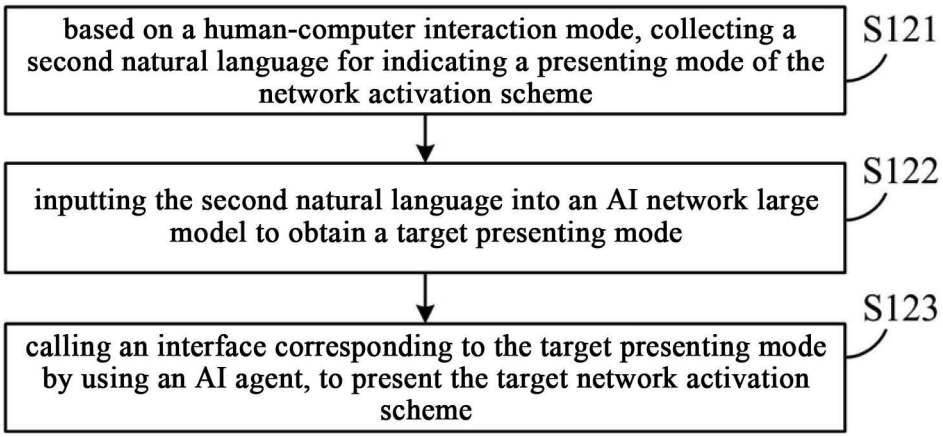

FIG. 12

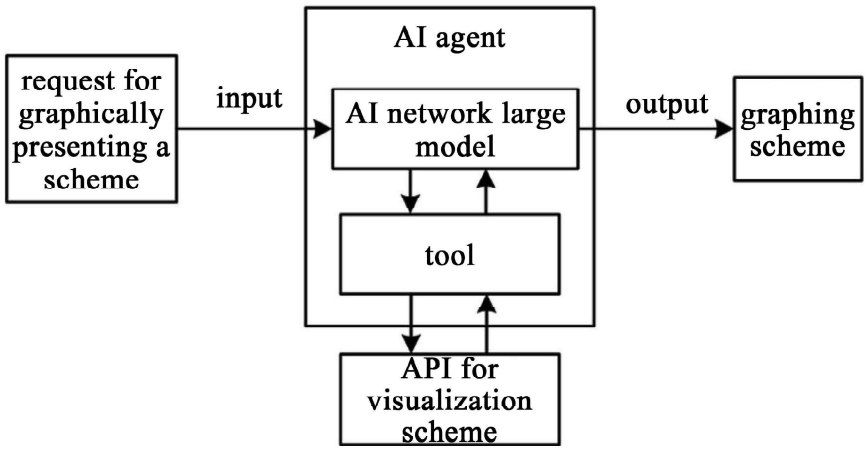

FIG. 13

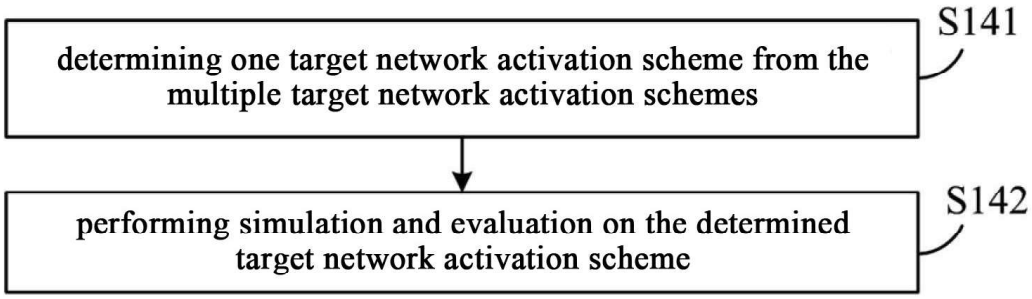

FIG. 14

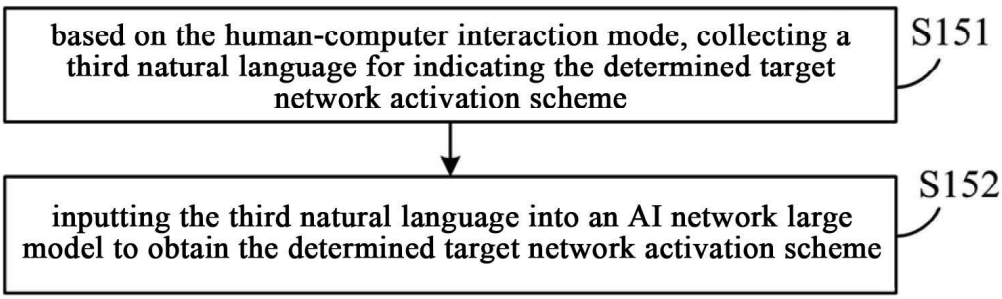

FIG. 15

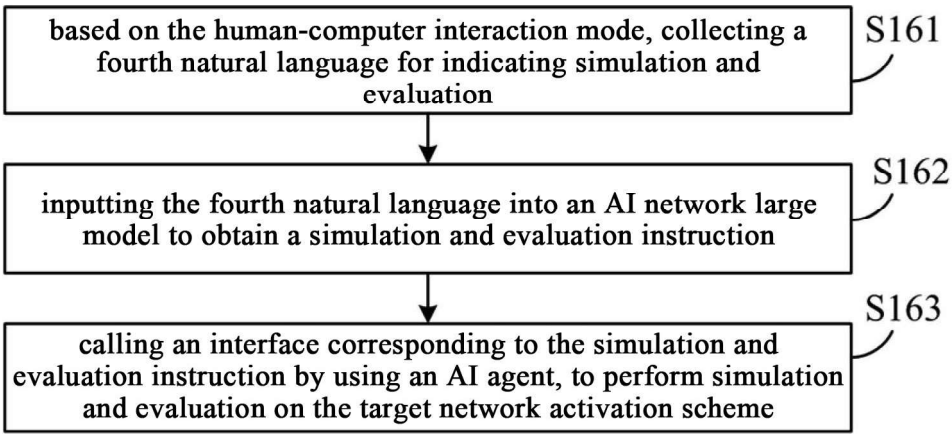

FIG. 16

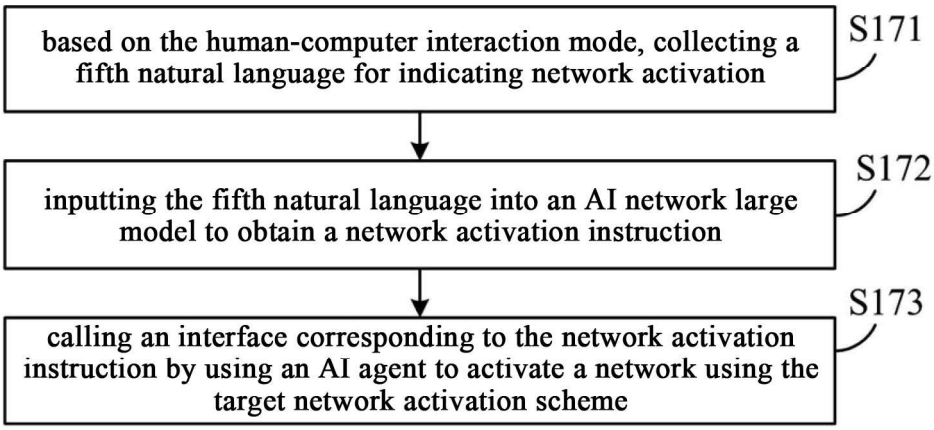

FIG. 17

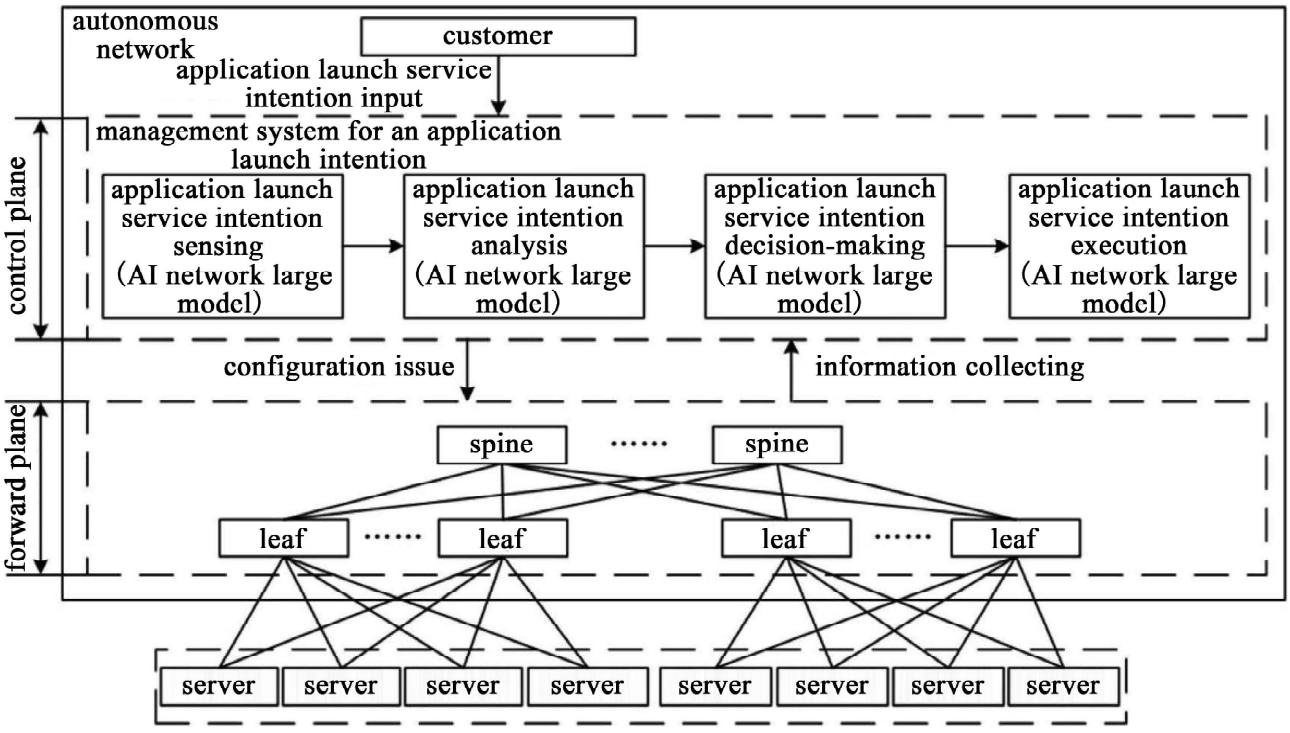

FIG. 18

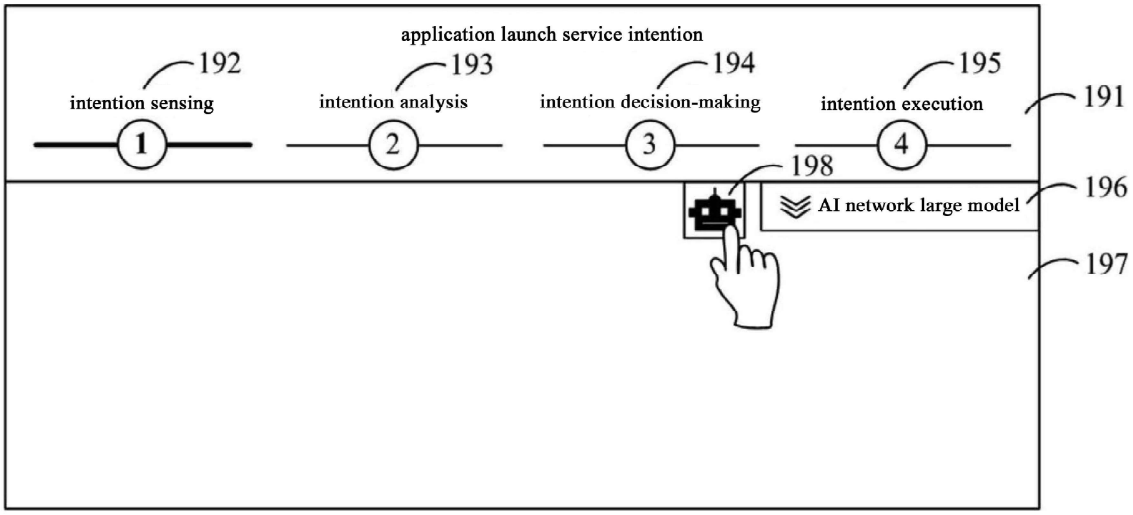

FIG. 19a

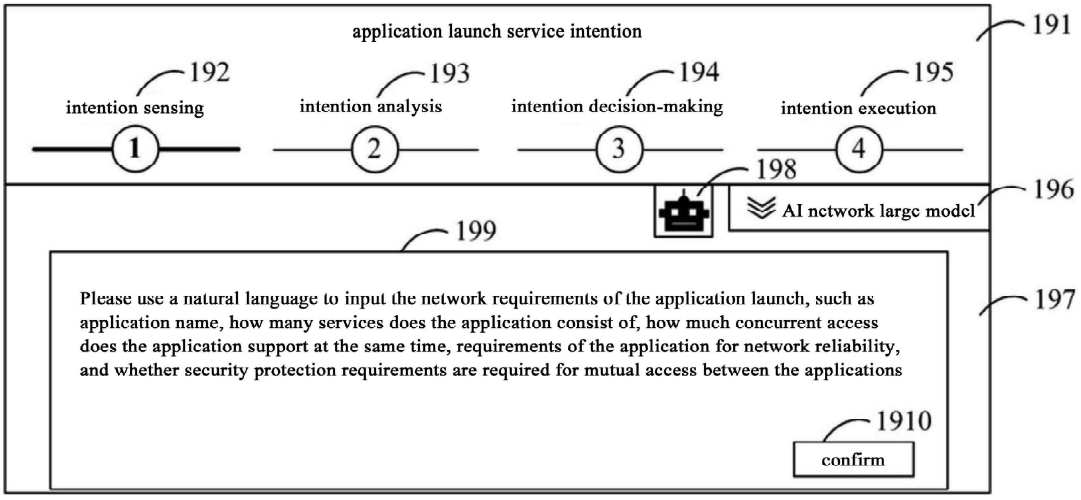

FIG. 19b

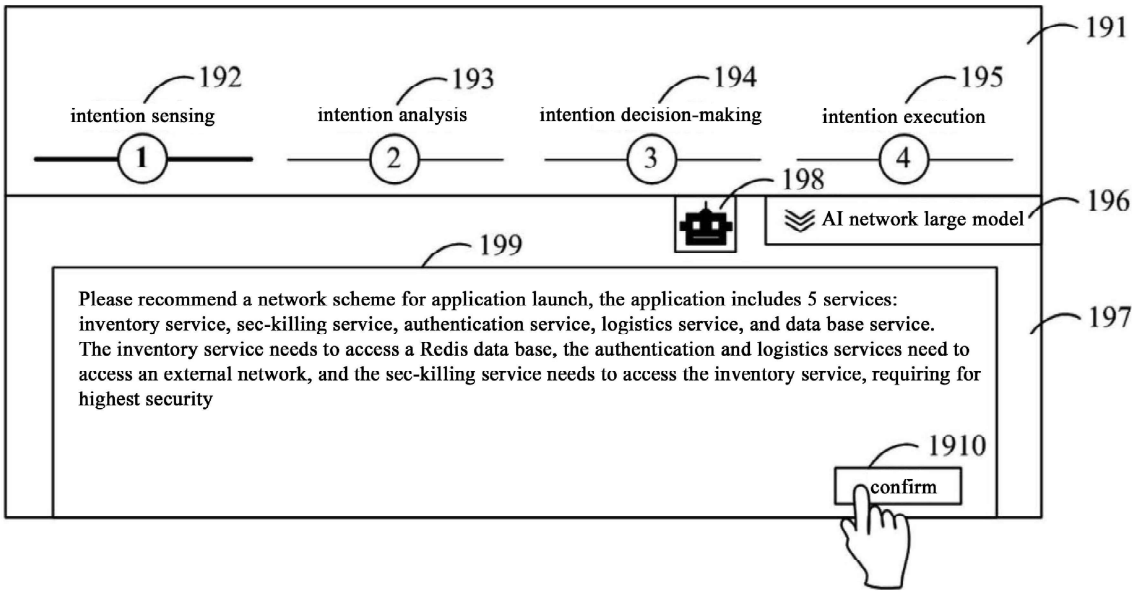

FIG. 19c

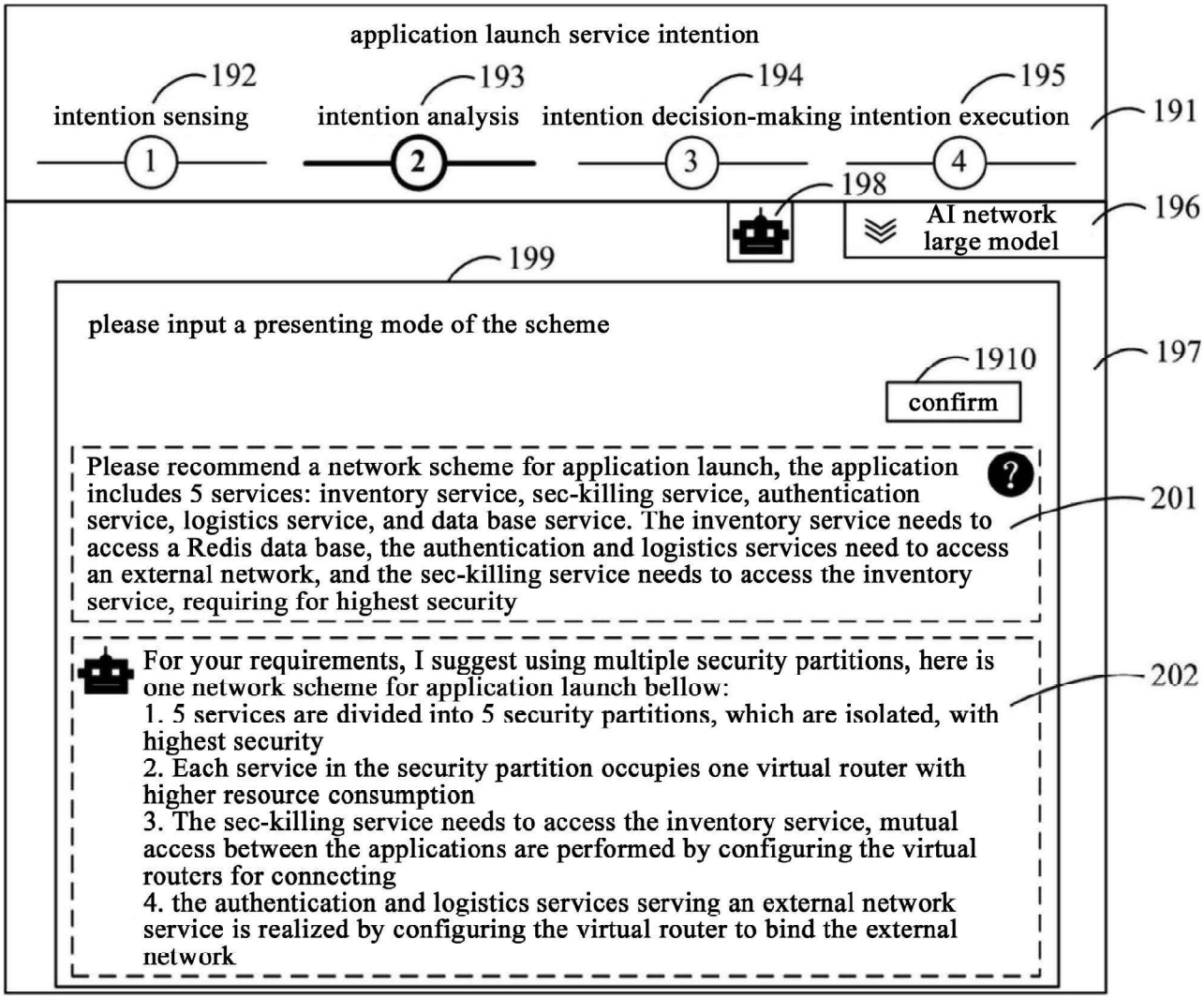
application launch service intention
192
intention sensing
193
intention analysis
194
intention decision-making
195
intention execution
191
1
2
3
4
198
AI network large model
196
199
please input a presenting mode of the scheme
1910
confirm
197
Please recommend a network scheme for application launch, the application includes 5 services: inventory service, sec-killing service, authentication service, logistics service, and data base service. The inventory service needs to access a Redis data base, the authentication and logistics services need to access an external network, and the sec-killing service needs to access the inventory service, requiring for highest security
201
For your requirements, I suggest using multiple security partitions, here is one network scheme for application launch bellow:
1. 5 services are divided into 5 security partitions, which are isolated, with highest security
2. Each service in the security partition occupies one virtual router with higher resource consumption
3. The sec-killing service needs to access the inventory service, mutual access between the applications are performed by configuring the virtual routers for connecting
4. the authentication and logistics services serving an external network service is realized by configuring the virtual router to bind the external network
202

FIG. 20a

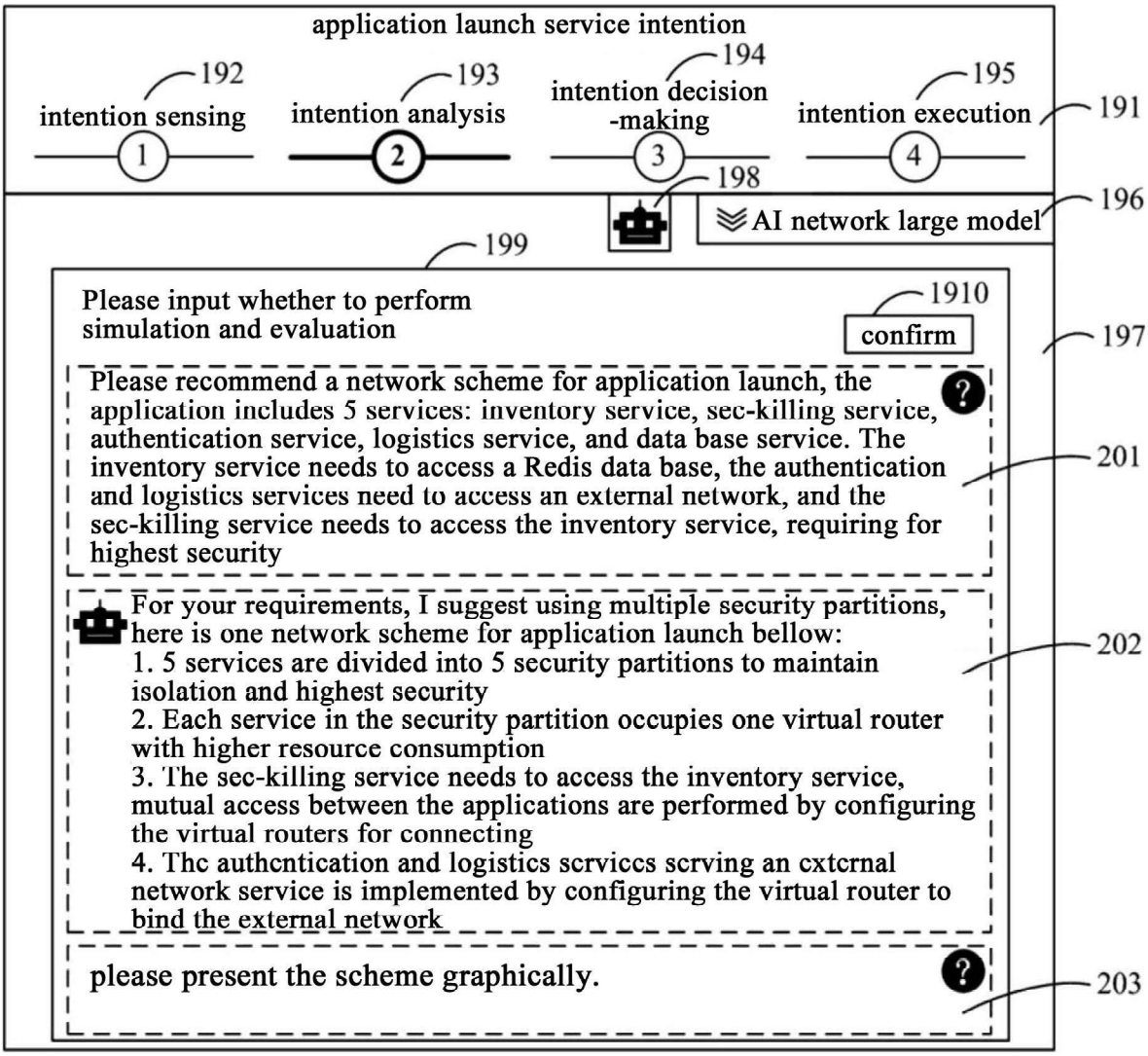
application launch service intention
192
intention sensing
1
193
intention analysis
2
194
intention decision -making
3
195
intention execution
4
191
198
AI network large model
196
199
Please input whether to perform simulation and evaluation
1910
confirm
197
Please recommend a network scheme for application launch, the application includes 5 services: inventory service, sec-killing service, authentication service, logistics service, and data base service. The inventory service needs to access a Redis data base, the authentication and logistics services need to access an external network, and the sec-killing service needs to access the inventory service, requiring for highest security
201
For your requirements, I suggest using multiple security partitions, here is one network scheme for application launch bellow:
1. 5 services are divided into 5 security partitions to maintain isolation and highest security
2. Each service in the security partition occupies one virtual router with higher resource consumption
3. The sec-killing service needs to access the inventory service, mutual access between the applications are performed by configuring the virtual routers for connecting
4. The authentication and logistics services serving an external network service is implemented by configuring the virtual router to bind the external network
202
please present the scheme graphically.
203

FIG. 20b

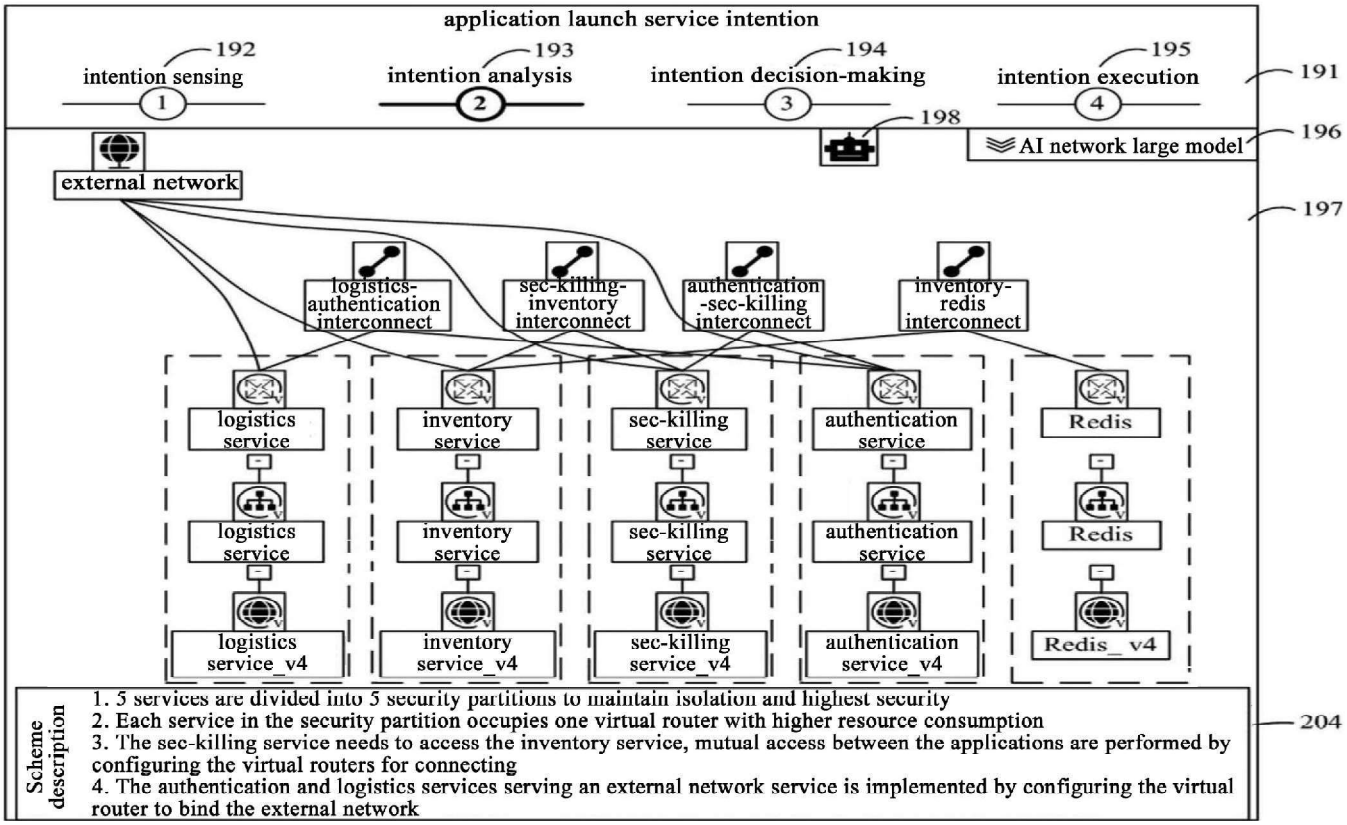
application launch service intention
192
intention sensing
1
193
intention analysis
2
194
intention decision-making
3
195
intention execution
4
191
198
AI network large model
196
external network
197
logistics-authentication interconnect
sec-killing-inventory interconnect
authentication-sec-killing interconnect
inventory-redis interconnect
logistics service
logistics service
logistics service_v4
inventory service
inventory service
inventory service_v4
sec-killing service
sec-killing service
sec-killing service_v4
authentication service
authentication service
authentication service_v4
Redis
Redis
Redis_ v4
Scheme description
1. 5 services are divided into 5 security partitions to maintain isolation and highest security
2. Each service in the security partition occupies one virtual router with higher resource consumption
3. The sec-killing service needs to access the inventory service, mutual access between the applications are performed by configuring the virtual routers for connecting
4. The authentication and logistics services serving an external network service is implemented by configuring the virtual router to bind the external network
204

FIG. 20c

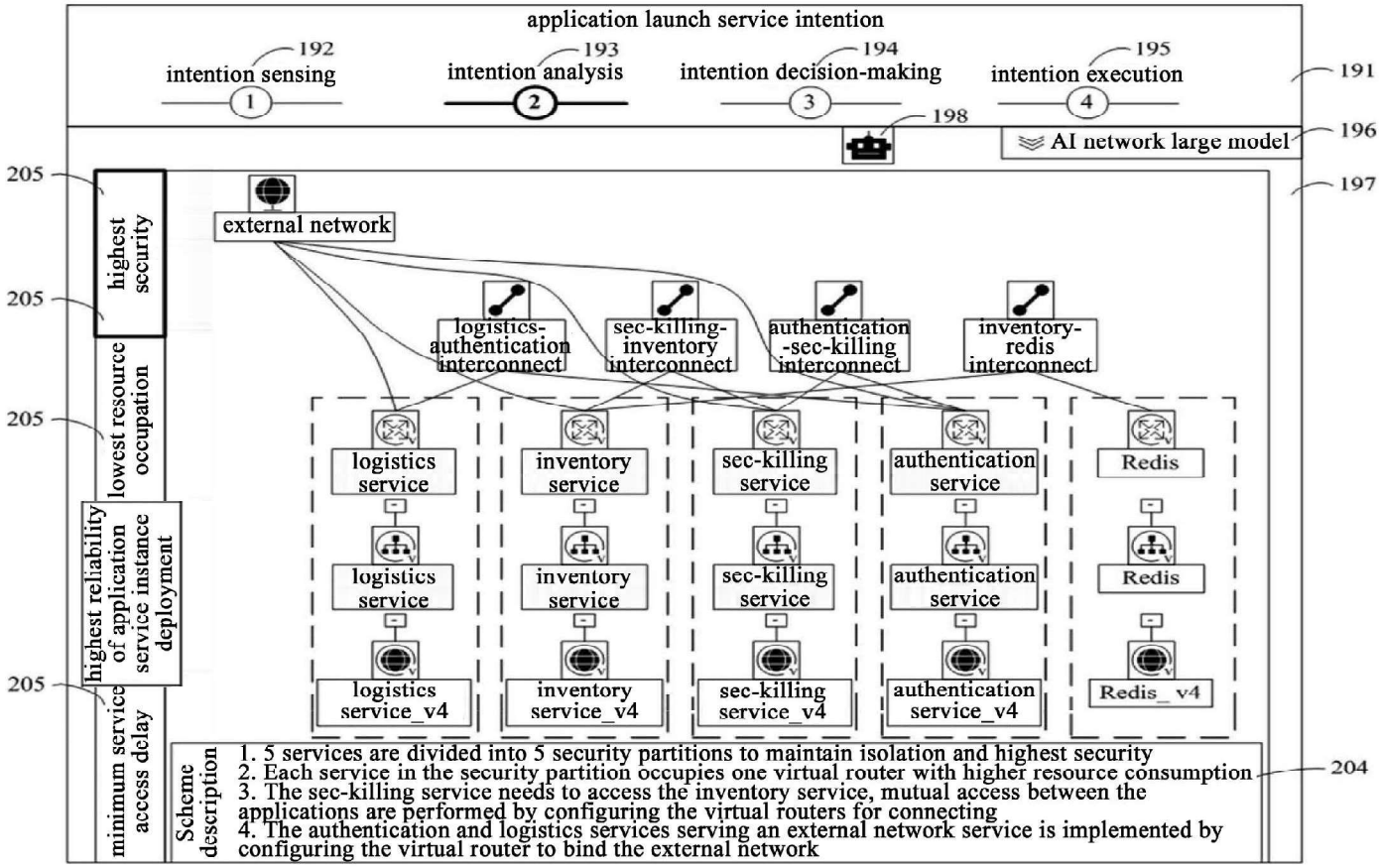

FIG. 20d

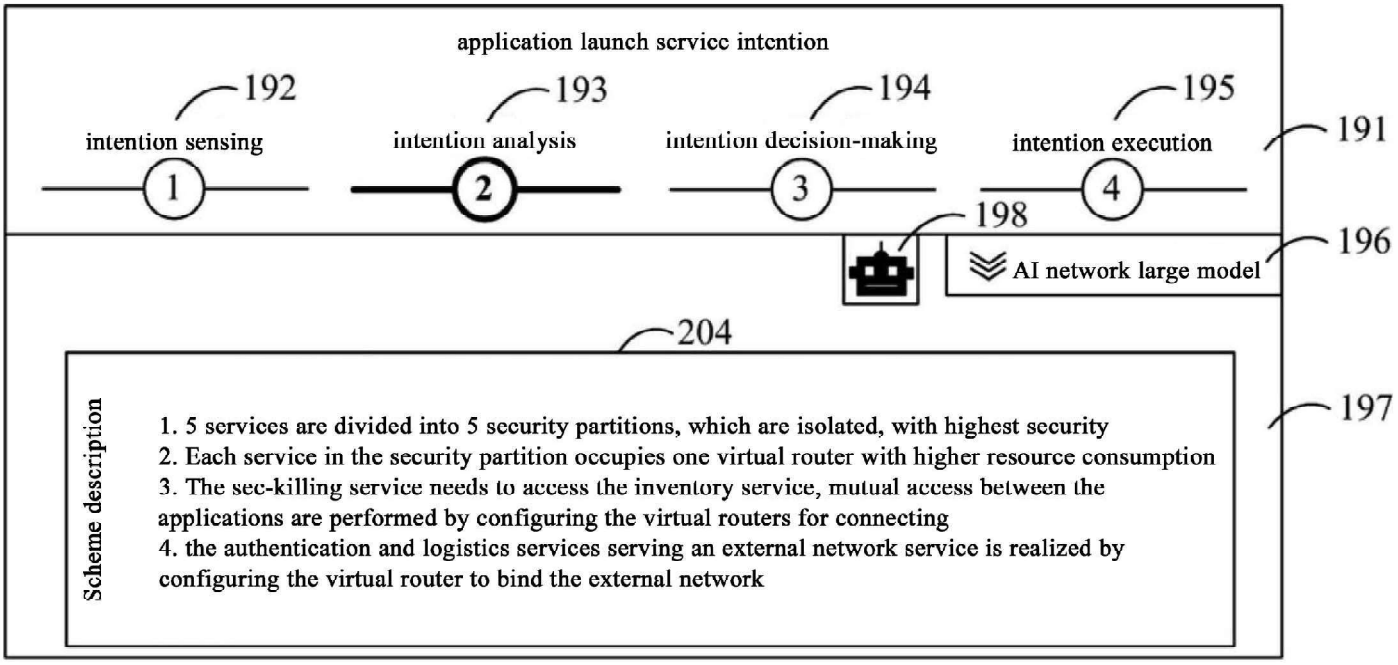

FIG. 20e

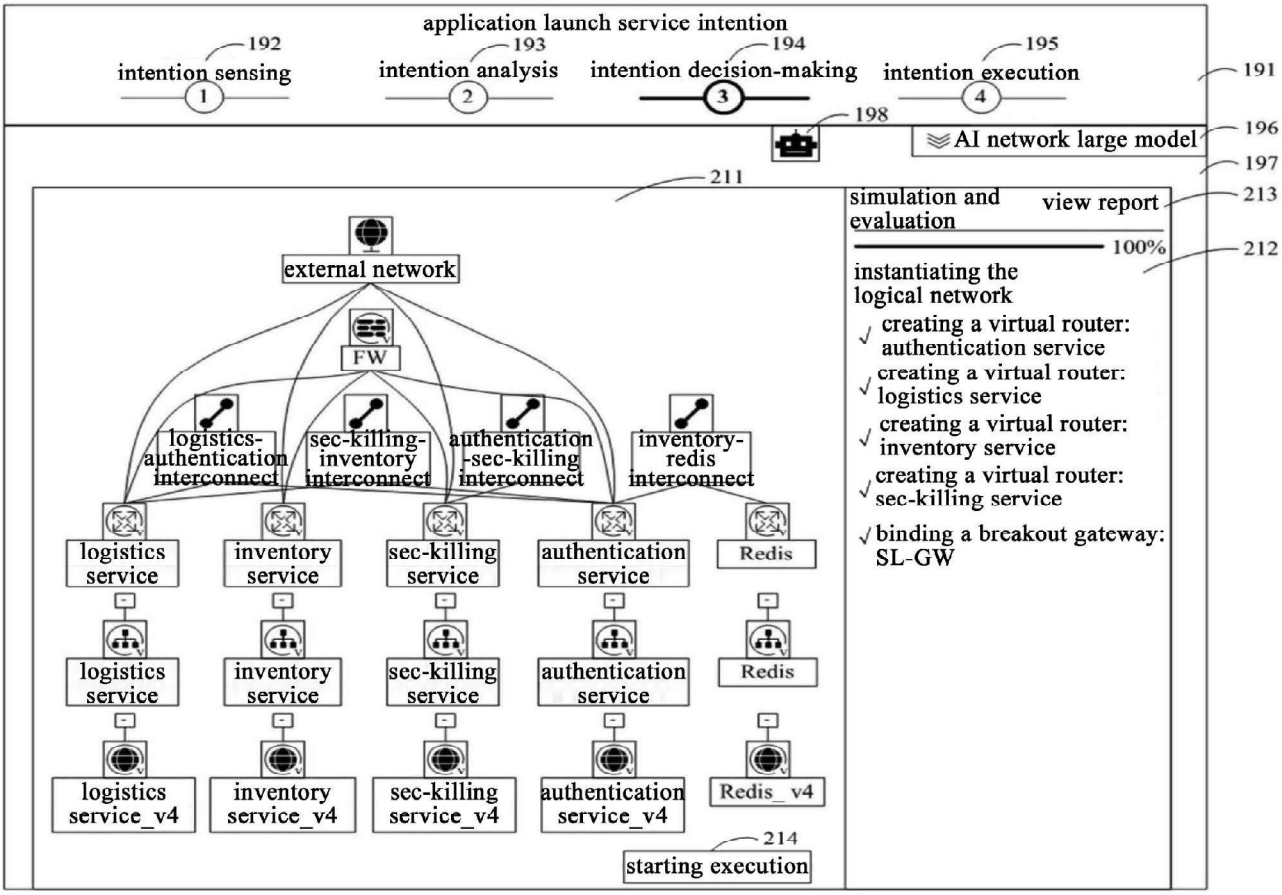

FIG. 21

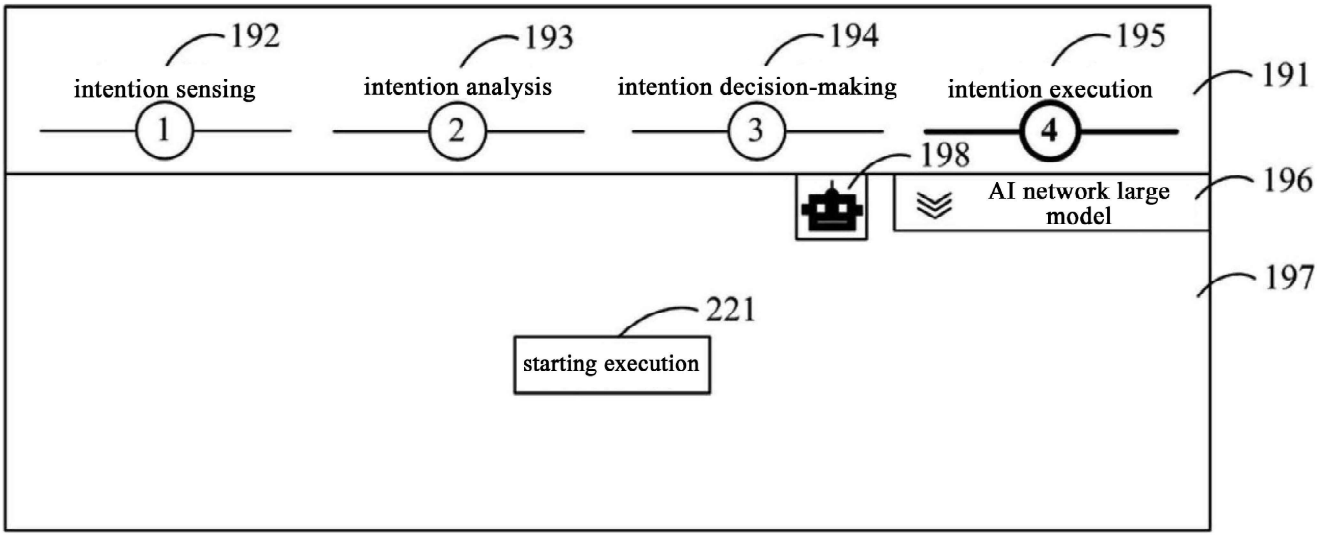

FIG. 22a

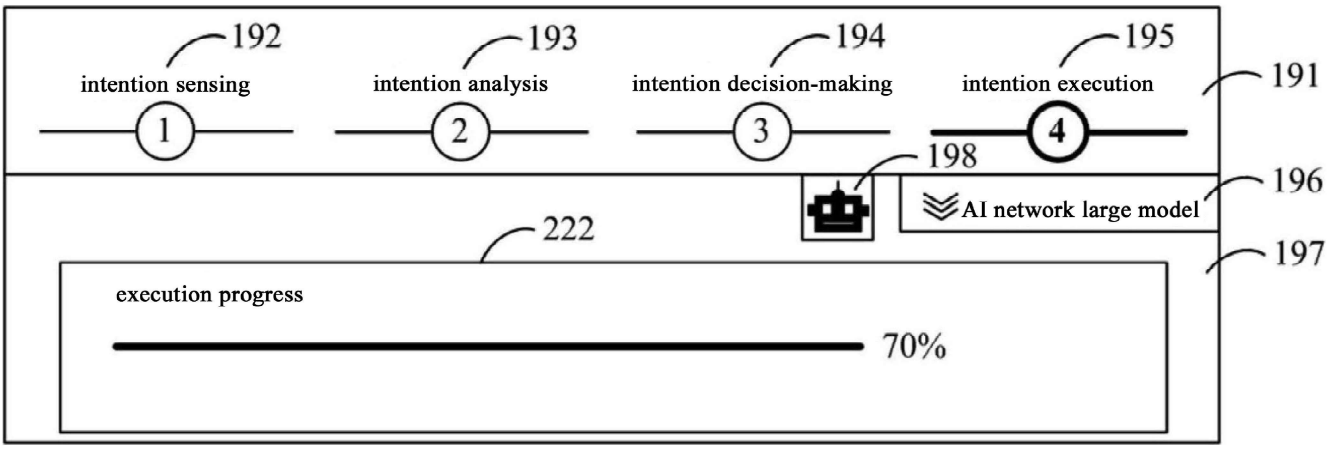

FIG. 22b

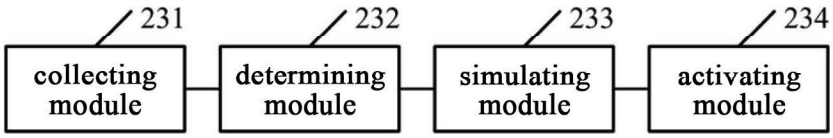

FIG. 23

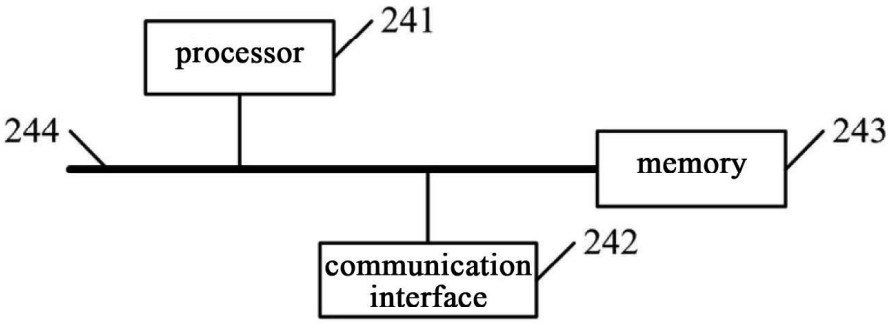

FIG. 24