

MICROSERVICE CALL METHOD AND APPARATUS, DEVICE, AND MEDIUM

~~[0001] This application claims priority to Chinese Patent Application No. 202010168547.8, filed with the China National Intellectual Property Administration on March 12, 2020 and entitled~~
5 ~~"MICROSERVICE CALL METHOD AND APPARATUS, SERVER, AND STORAGE MEDIUM", which is incorporated herein by reference in its entirety.~~

~~[0002] This application further claims priority to Chinese Patent Application No. 202010212312.4, filed with the China National Intellectual Property Administration on March 24, 2020 and entitled "MICROSERVICE CALL METHOD AND APPARATUS, DEVICE, AND~~
10 ~~MEDIUM", which is incorporated herein by reference in its entirety.~~

TECHNICAL FIELD

[0003] This application relates to the field of computer technologies, and in particular, to a microservice call method and apparatus, a device, and a computer-readable storage medium.

BACKGROUND

15 [0004] When developers use conventional monolithic architectures (monolithic architecture) to develop applications, for example, large-scale applications such as a customer relationship management (customer relationship management, CRM) system and an enterprise resource planning (enterprise resource planning, ERP) system, it becomes more difficult for the developers to update and repair these large-scale monolithic applications as new requirements continuously
20 increase. Based on this, the industry proposes a new architecture, that is, a microservice architecture (microservice architecture).

[0005] The microservice architecture aims to break down functions into discrete services to decouple solutions. In this way, developers can easily update and repair applications. In addition, a fault of one service does not affect an entire application, so that robustness of the application is
25 improved.

CLAIMS

~~What is claimed is:~~

1. A microservice call method, wherein the method comprises:

receiving(S206), by a network interface card, service call requests separately generated by a plurality of first services deployed on a first device, wherein each of the plurality of first services is corresponding to one second service, and the second service is used to process first data of a service call request generated by the first service corresponding to the second service; and

sending(S214), by the network interface card, the service call request to the second service based on service governance logic related to the first data.

2. The method according to claim 1, wherein the sending, by the network interface card, the service call request to the second service based on service governance logic related to the first data comprises:

determining(S208), by the network interface card based on the service governance logic related to the first data, an address of a second device providing the second service; and

sending, by the network interface card, the service call request to the second service based on the address of the second device.

3. The method according to claim 1, wherein the method further comprises:

sending, by the network interface card, a traffic check request to a governance center, wherein the traffic check request is used to perform traffic check for N service call requests, and N is a positive integer;

receiving, by the network interface card, a traffic check result sent by the governance center; and

sending the service call request to the second service when the traffic check result indicates that the check succeeds.

4. The method according to claim 1, wherein the method further comprises:

receiving, by the network interface card, a service call response sent by the second service, wherein the service call response comprises second data obtained by processing the first data by the second service;

generating, by the network interface card, a service call log based on at least one of the service call request and the service call response; and

sending, by the network interface card, the service call log to a data collection center in batches.

5. The method according to any one of claims 1 to 4, wherein the method further comprises:
subscribing, by the network interface card, to a change message for a service provider list, to
5 determine, from a changed service provider list, the address of the second device providing the second service.

6. The method according to any one of claims 1 to 5, wherein the method further comprises:
subscribing, by the network interface card, to a change message for a service governance rule;
and
10 running, by the network interface card, the service governance logic for the first data according to a changed service governance rule.

7. The method according to any one of claims 1 to 6, wherein the network interface card is a smart network interface card.

~~8. A microservice call method, wherein the method comprises:
15 receiving, by a network interface card, service call requests sent by a plurality of first services, wherein each of the plurality of first services is corresponding to one second service, and the second service is used to process first data of a service call request generated by the first service corresponding to the second service;~~

~~sending, by the network interface card, the service call request to the second service;
20 receiving, by the network interface card, a service call response sent by the second service, wherein the service call response comprises second data obtained by processing the first data by the second service; and~~

~~sending, by the network interface card, the service call response to the first service corresponding to the second service.~~

9. The method according to claim 8, wherein the method further comprises:
generating, by the network interface card, a service call log based on at least one of the service
call request and the service call response; and

~~sending, by the network interface card, the service call log to a data collection center in batches.~~

10. The method according to claim 8 or 9, wherein the network interface card is a smart network interface card.

~~118~~. A microservice call apparatus, wherein the apparatus comprises:

a communications module(~~1242~~), configured to receive service call requests separately generated by a plurality of first services deployed on a first device, wherein each of the plurality of first services is corresponding to one second service, and the second service is used to process first data of a service call request generated by the first service corresponding to the second service; and

the communications module(~~1244~~) is further configured to send the service call request to the second service based on service governance logic related to the first data.

~~129~~. The apparatus according to claim ~~118~~, wherein the communications module is specifically configured to:

determine, based on the service governance logic related to the first data, an address of a second device providing the second service; and

send the service call request to the second service based on the address of the second device.

~~1310~~. The apparatus according to claim ~~118~~, wherein the communications module is further configured to:

send a traffic check request to a governance center, wherein the traffic check request is used to perform traffic check for N service call requests, and N is a positive integer;

receive a traffic check result sent by the governance center; and

send the service call request to the second service when the traffic check result indicates that the check succeeds.

~~1411~~. The apparatus according to claim ~~118~~, wherein the communications module is further configured to:

receive a service call response sent by the second service, wherein the service call response comprises second data obtained by processing the first data by the second service;

the apparatus further comprises:

a generation module, configured to generate a service call log based on at least one of the service call request and the service call response; and

the communications module is further configured to:

send the service call log to a data collection center in batches.

~~1512~~. The apparatus according to any one of claims ~~11-8~~ to ~~1411~~, wherein the apparatus further comprises:

a subscription module, configured to subscribe to a change message for a service provider list, to determine, from a changed service provider list, the address of the second device providing the second service.

1613. The apparatus according to any one of claims 11-8 to 1512, wherein the apparatus further comprises:

the subscription module, configured to subscribe to a change message for a service governance rule; and

a service governance module, configured to run the service governance logic for the first data according to a changed service governance rule.

1714. The apparatus according to any one of claims 11-8 to 1613, wherein the microservice call apparatus is a smart network interface card.

~~18. A microservice call apparatus, wherein the apparatus comprises:~~

~~a communications module, configured to receive service call requests sent by a plurality of first services, wherein each of the plurality of first services is corresponding to one second service, and the second service is used to process first data of a service call request generated by the first service corresponding to the second service;~~

~~the communications module is further configured to send the service call request to the second service;~~

~~the communications module is further configured to receive a service call response sent by the second service, wherein the service call response comprises second data obtained by processing the first data by the second service; and~~

~~the communications module is further configured to send the service call response to the first service corresponding to the second service.~~

~~19. The apparatus according to claim 18, wherein the apparatus further comprises:~~

~~a generation module, configured to generate a service call log based on at least one of the service call request and the service call response; and~~

~~the communications module is further configured to send the service call log to a data collection center in batches.~~

~~20. The apparatus according to claim 18 or 19, wherein the network interface card is a smart network interface card.~~

~~21. A network interface card, wherein the network interface card comprises a processor and~~

a memory, wherein

~~the processor is configured to execute instructions stored in the memory, to enable the network interface card to perform the microservice call method according to any one of claims 1 to 7.~~

5 ~~22. A network interface card, wherein the network interface card comprises a processor and a memory, wherein~~

~~the processor is configured to execute instructions stored in the memory, to enable the network interface card to perform the microservice call method according to any one of claims 8 to 10.~~

10 ~~23~~15. A computer-readable storage medium, wherein the computer-readable storage medium comprises instructions, and the instructions instruct a network interface card to perform the microservice call method according to any one of claims 1 to 7.

~~24. A computer readable storage medium, wherein the computer readable storage medium comprises instructions, and the instructions instruct a network interface card to perform the~~
15 ~~microservice call method according to any one of claims 8 to 10.~~