CLAIMS

1. A method for automatic application deployment, performed by a cloud management node deployed on at least one of a plurality of computer devices, wherein the method comprises:

receiving an application orchestration template from a user;

acquiring an application model characteristic of an application from the application orchestration template, wherein the application model characteristic comprises one of:

auto scaling group information indicating the application is a non-scalable application;

processing content information of the application indicating the application is not in a running state or that the running state of the application comprises a stable state;

a service level agreement (SLA) of the application indicating a time limit to a failover of the application is less than or equal to a preset value;

an operating system supported by the application indicating that the application supports an OSv operating system; or

the operating system supported by the application indicating that the application does not support an OSv operating system;

determining, according to the application model characteristic and a preset rule stored in the cloud management node, a first computer device of the plurality of computer devices fit for deploying the application in a first instance creation manner selected based on the application model characteristic, wherein the first instance creation manner comprises one of a bare-metal creation manner, a container creation manner, or an OSv creation manner each associated with a different corresponding application model characteristic; and

sending a first instance creation command to the first computer device, wherein the first instance creation command instructs the first computer device to create a first instance for the application according to the first instance creation manner.

2. The method of claim 1, wherein the preset rule comprises at least one of:

determining the first instance creation manner comprises the bare-metal creation manner when the application comprises the non-scalable application;

determining the first instance creation manner comprises the container creation manner when the application is not in the running state or the running state of the application comprises the stable state;

determining the first instance creation manner comprises the container creation manner when the time limit to the failover of the application is less than or equal to the preset value; or

determining the first instance creation manner comprises the OSv creation manner when the application supports the OSv operating system.

3. The method of claim 1, wherein the application orchestration template does not include a platform or a virtualization technology of the application.

4. The method of claim 1, wherein the first instance creation manner comprises a virtual machine (VM) creation manner when the application does not support the OSv operating system.

5. The method of claim 1, further comprising:

obtaining real-time monitoring information of running the application in the first instance, wherein the real-time monitoring information comprises an execution status of the application in the first instance; and

determining, according to the real-time monitoring information, to migrate the application from the first instance to a second instance, wherein the second instance is created in a second instance creation manner different from the first instance creation manner.

6. The method of claim 5, wherein the computer devices further comprise a second computer device corresponding to the second instance creation manner, and wherein the method further comprises:

sending a second instance creation command to the second computer device, wherein the second instance creation command instructs the second computer device to create the second instance for the application according to the second instance creation manner; and

migrating the application to the second instance.

7. The method of claim 6, wherein migrating the application to the second instance for running comprises instructing the second computer device to run the application in the second instance based on a data source used when the application runs in the first instance.

8. The method of claim 6, wherein when the application is in the running state, migrating the application to the second instance comprises:

instructing the second computer device to obtain the running state of the application in the first instance; and

running the application in the second instance based on the running state.

9. The method of claim 5, wherein the application comprises a database, and wherein determining to migrate the application from the first instance to the second instance comprises:

determining, according to the real-time monitoring information, that the database is in an idle state; and

determining to migrate the application from the first instance to the second instance when the database is in the idle state, wherein the second instance is created in the container creation manner.

10. A cloud management node, comprising:

a processor; and

a non-transitory computer-readable storage medium coupled to the processor and storing instructions which when executed by the processor, cause the processor to:

receive an application orchestration template from a user;

acquire an application model characteristic of an application from the application orchestration template, wherein the application model characteristic comprises one of:

auto scaling group information indicating the application is a non-scalable application;

processing content information of the application indicating the application is not in a running state or that the running state of the application comprises a stable state;

a service level agreement (SLA) of the application indicating a time limit to a failover of the application is less than or equal to a preset value;

an operating system supported by the application indicating that the application supports an OSv operating system; or

the operating system supported by the application indicating that the application does not support an OSv operating system;

determine, according to the application model characteristic and a preset rule stored in the cloud management node, a first computer device of a plurality of computer devices fit for deploying the application in a first instance creation manner, wherein the plurality of computer devices belong to a cloud computing data center, wherein the first instance creation manner is selected based on the application model characteristic, and wherein the first instance creation manner comprises one of a bare-metal creation manner, a container creation manner, or an OSv creation manner each associated with a different corresponding application model characteristic; and

send a first instance creation command to the first computer device, wherein the first instance creation command instructs the first computer device to create a first instance for the application according to the first instance creation manner.

11. The cloud management node of claim 10, wherein the preset rule comprises at least one of:

determining the first instance creation manner comprises the bare-metal creation manner when the application comprises the non-scalable application;

determining the first instance creation manner comprises the container creation manner when the application is not in the running state or the running state of the application comprises the stable state;

determining the first instance creation manner comprises the container creation manner when the time limit to the failover of the application is less than or equal to the preset value; or

determining the first instance creation manner comprises the OSv creation manner when the application supports the OSv operating system.

12. The cloud management node of claim 10, wherein the application orchestration template does not include a platform or virtualization technology of the application.

13. The cloud management node of claim 10, wherein the first instance creation manner comprises a virtual machine (VM) creation manner when the application does not support the OSv operating system.

14. The cloud management node of claim 10, wherein the instructions further cause the processor to:

obtain real-time monitoring information of running the application in the first instance, wherein the real-time monitoring information comprises an execution status of the application in the first instance; and

determine, according to the real-time monitoring information, to migrate the application from the first instance to a second instance, wherein the second instance is created in a second instance creation different from the first instance creation manner.

15. The cloud management node of claim 14, wherein the instructions further cause the processor to:

send a second instance creation command to a second computer device of the plurality of computer devices, wherein the second instance creation command instructs the second computer device to create the second instance for the application according to the second instance creation manner; and

migrate the application to the second instance.

16. The cloud management node of claim 15, wherein the instructions further cause the processor to run the application in the second instance based on a data source used when the application runs in the first instance.

17. The cloud management node of claim 15, wherein the instructions further cause the processor to:

instruct the second computer device to obtain the running state of the application in the first instance; and

run the application in the second instance based on the running state.

18. The cloud management node of claim 14, wherein the application comprises a database, and wherein the instructions further cause the processor to:

determine, according to the real-time monitoring information, that the database is in an idle state; and

determine to migrate the application from the first instance to the second instance when the database is in the idle state, wherein the second instance is created in the container creation manner.

19. A computer program product comprising a non-transitory computer-readable medium storing program code thereon for automatic application deployment, the program code comprising instructions for executing a method performed by a cloud management node deployed on at least one of a plurality of computer devices that comprises:

receiving an application orchestration template from a user;

acquiring an application model characteristic of an application from the application orchestration template, wherein the application model characteristic comprises one of:

auto scaling group information indicating the application is a non-scalable application;

processing content information of the application indicating the application is not in a running state or that the running state of the application comprises a stable state;

a service level agreement (SLA) of the application indicating a time limit to a failover of the application is less than or equal to a preset value;

an operating system supported by the application indicating that the application supports an OSv operating system; or

the operating system supported by the application indicating that the application does not support an OSv operating system;

determining, according to the application model characteristic and a preset rule stored in the cloud management node, a first computer device of the plurality of computer devices fit for deploying the application in a first instance creation manner selected based on the application model characteristic, wherein the first instance creation manner comprises one of a bare-metal

creation manner, a container creation manner, or an OSv creation manner each associated with a different corresponding application model characteristic; and

sending a first instance creation command to the first computer device, wherein the first instance creation command instructs the first computer device to create a first instance for the application according to the first instance creation manner.

20. The computer program product of claim 19, wherein the preset rule comprises:

determining the first instance creation manner comprises the bare-metal creation manner when the application comprises the non-scalable application;

determining the first instance creation manner comprises the container creation manner when the application is not in the running state or the running state of the application comprises the stable state;

determine the first instance creation manner comprises the container creation manner when the time limit to the failover of the application is less than or equal to the preset value; and

determine the first instance creation manner comprises the OSv creation manner when the application supports the OSv operating system.