

CLAIMS

1. A computer system embodied on one or more tangible computer storage media having computer-executable instructions embodied thereon for performing a method for operating a scalable computing platform, the system comprising:

a receiving component ~~(212)~~ that receives at least:

a request for a service and

a service description comprised of ~~having~~ a description of one or more resources required to deploy the service ~~associated therewith;~~

a resource determining component ~~(216)~~ that determines ~~the~~ one or more resources required to deploy the service based, in part, on the service description;

an instance description producing component ~~(240)~~ that produces an instance description comprised of a plurality of target elements, a source element including a designation of a target element with which to connect, and a stateful switch channel for the requested service based on at least: ~~based on the service description and the one or more resources;~~

the service description and

the one or more resources required to deploy the service;

a resource mapping component ~~(218)~~ that maps the plurality of target element, the source element, and the stateful switch channel as produced in the instance description to one or more resources available on the scalable computing platform ~~required to deploy the service;~~ and

a deploying component ~~(220)~~ that deploys the service with a processor in association with the one or more mapped resources of the scalable computing platform required to deploy the service.

2. The computer system of claim 1, wherein the instance description is further comprised of ~~a plurality of elements and~~ one or more channels.

3. The computer system of claim 2, wherein each of the plurality of target elements is at least one of a role and a group.

4. The computer system of claim 2, wherein each of the one or more channels establishes a connection between two of the plurality of target elements.

5. The computer system of claim 4, wherein each of the one or more channels is one of a load balancer channel, a stateful switch channel, and a stateless switch channel.

6. The computer system of claim 5, wherein at least one of the one or more channels is a load balancer channel, and wherein the system further comprises a load balancing component utilized by the load balancer channel to determine one or more endpoints of two of the plurality of elements.

7. The computer system of claim 5, wherein at least one of the one or more channels is a stateful switch channel, and wherein the system further comprises a stateful switching component utilized by the stateful switch channel to connect two of the plurality of target elements.

8. The computer system of claim 5, wherein at least one of the one or more channels is a stateless switch channel, and wherein the system further comprises a stateless switching component utilized by the stateless switch channel to connect two of the plurality of target elements.

9. One or more tangible computer storage media having computer-executable instructions embodied thereon for performing a method for operating a scalable computing platform, the method comprising:

receiving ~~(310)~~ a first request for one or more services- wherein the request includes a service description for the one or more services;

determining ~~-(320)-~~resources required to deploy the one or more services based, in part, on the service description;

determining ~~(325)~~ at least one available resource of the scalable computing platform as determined to be required to deploy the one or more services;

producing ~~(330)~~ a first instance description comprised of a plurality of target elements, a source element including a designation of a target element with which to connect, and a stateful switch channel for the requested service, the instance description based on at least the service description, the resources required, and the at least one available resource;

mapping the plurality of target elements, the source element, and the stateful switch channel ~~(340) at least one resource required to deploy the one or more services~~ to the at least one available resource of the scalable computing platform;

deploying ~~(350)~~ the one or more services in the scalable computing platform based on the mapping between the plurality of target elements, the source

element, and the stateful switch channel and the at least one available resource to

generate a result; and

transmitting the result.

10. The one or more computer storage media of claim 9, wherein the received first request for service and the received service description are received either as one receipt or as multiple receipts.

11. The one or more computer storage media of claim 9, wherein each of the one or more services is further comprised of at least one channel and a plurality of elements.

12. The one or more computer storage media of claim 9, wherein the at least one channel is one of a load balancer channel, a stateful switch channel, and a stateless switch channel.

13. The computer system of claim 12, wherein the at least one channel is a load balancer channel, and wherein the method further comprises determining one or more endpoints of the plurality of elements.

14. The computer system of claim 12, wherein the at least one channel is one of a stateful switch channel and a stateless switch channel, and wherein the method further comprises connecting the plurality of elements.

15. The one or more computer storage media of claim 9, wherein each of the one or more elements is at least one of a role and a group.

16. The one or more computer storage media of claim 9, wherein the method further comprises:

receiving an additional request for the one or more services; and
 producing an additional instance description for the one or more services.

17. The one or more computer storage media of claim 9, wherein the first instance description is comprised of at least one of an application configuration setting, a system configuration setting, and a resource reference.

18. One or more tangible computer storage media having computer-executable instructions embodied thereon for performing a method for operating a scalable computing platform, the method comprising:

receiving ~~(310)~~ a request for the one or more services, wherein each of the one or more services is comprised of an element and a channel, and wherein the channel is ~~at least one of a load balancer channel, a stateful switch channel, and a stateless switch channel;~~

receiving ~~(315)~~ a service description for the one or more services, wherein the service description is comprised of a least one of an application configuration setting, a system configuration setting, and a resource reference;

determining ~~(320) the~~ resources required to instantiate ~~deploy~~ the one or more services of the request in association with the service description for the one or more services;

determining ~~(325)~~ at least one available resource of the scalable computing platform that corresponds with a resource determined to be required to instantiate the one or more services;

producing ~~(330)~~ a first instance description comprised of a plurality of target elements, a source element including a designation of a target element

with which to connect, and a stateful switch channel for the requested service
 based on at least the service description, the resources required, and the at least one
 available resources;

based on the first instance description, mapping the plurality of
target elements, the source element, and the stateful switch channel ~~(340)-at least~~
~~one resource required to deploy the one or more services~~ to the at least one
 available resource of the scalable computing platform;

deploying ~~(350)~~ the one or more services in the scalable computing
platform to generate a result with a processor; and
 transmitting the result.

19. The one or more computer storage media of claim 18, wherein the
 method further comprises:

receiving an additional request for the one or more services;
 producing an additional instance description for the one or more
 services;

determining at least one resource required to instantiate ~~deploy~~ the
 one or more services in association with the additional instance description for the
 one or more services;

determining at least one available resource of the scalable
 computing platform;

mapping the at least one resource required to instantiate ~~deploy~~ the
 one or more services to the at least one available resource of the scalable
 computing platform;

deploying the one or more services to generate a result; and
 transmitting the result.

20. The one or more computer storage media of claim 19, wherein the first instance description and the additional instance description are modified to reflect the mapping of the resources required to deploy the one or more services to the at least one available resource of the scalable computing platform.