CLAIMS

WHAT IS CLAIMED IS:

1. A region interconnect, RI, controller (1000) configured between a plurality of independent network partitions (2100, 2200) and a core switching network (3000), the RI controller comprising:

an RI router (110, 120) that, when creating a tenant, is configured to:

assign a first identifier to the tenant for identifying traffic of the tenant;

create a virtual routing and forwarding, VFR, instance for the tenant at all routers or switches of the core switching network (3000) and bind the first identifier and the virtual routing and forwarding instance at the core switching network (3000); and

activate a dynamic routing protocol at the all routers or switches of the core switching network (3000) and bind a dynamic routing protocol instance to the virtual routing and forwarding instance,

wherein respective virtual routers corresponding to the tenant and distributed at the plurality of independent network partitions (2100, 2200) are associated with the RI router (110, 120), a route published by a network partition is synchronized to other network partitions, where virtual resources of the tenant are located;

characterized in that, the RI router (110, 120) is further configured to:

activate a timer to dynamically detect changes of virtual network resources of the associated virtual routers; and

call an application programming interface of a software-defined networking, SDN, controller at a network partition where the virtual routers are located, so as to obtain an associated relationship of the virtual routers and virtual networks.

2. The RI controller of claim 1, wherein the virtual router is a logic switch configured to perform data exchange of an intranet and an extranet of the corresponding network partition.

3. The RI controller of claim 1, wherein the RI router (110, 120) is configured to activate the dynamic routing protocol at the all routers or switches of the core switching network (3000) through a Netconf protocol, such that the tenant runs an independent dynamic routing protocol domain at the core switching network (3000).

4. The RI controller of claim 1, wherein the RI controller, through writing a binding relationship of the virtual routers and the RI router (110, 120) into a database, is configured to establish an associated relationship between the virtual routers and the RI router (110, 120).

5. The RI controller of claim 1, wherein in the plurality of independent network partitions (2100, 2200), virtual resources created by the tenant are bound to the virtual router at a network partition where the virtual resources are located and associated with the RI router (110, 120).

6. A region interconnect, RI, control method between a plurality of independent network partitions (2100, 2200) and a core switching network (3000), comprising:

configuring, by an RI controller, an RI router (110, 120) comprised in the RI controller, when creating a tenant; performing by the RI router (110, 120) the steps of:

assigning a first identifier to the tenant for identifying traffic of the tenant;

creating a virtual routing and forwarding, VFR, instance for the tenant at all routers or switches of the core switching network (3000) and binding the first identifier and the virtual routing and forwarding instance at the core switching network (3000); and

activating a dynamic routing protocol at the all routers or switches of the core switching network (3000) and binding a dynamic routing protocol instance to the virtual routing and forwarding instance,

wherein respective virtual routers corresponding to the tenant and distributed at the plurality of independent network partitions (2100, 2200) are associated with the RI router (110, 120), a route published by a network partition is synchronized to other network partitions, where virtual resources of the tenant are located;

the method characterized in that,

the RI router (110, 120) further performs the steps of:

activating a timer to dynamically detect changes of virtual network resources of the associated virtual routers; and

calling an application programming interface of a software-defined networking, SDN, controller of a network partition where the virtual routers are located, so as to obtain an associated relationship of the virtual routers and virtual networks.

7. The RI control method of claim 6, wherein the RI router (110, 120) is a logic switch that performs data exchanges of an intranet and an extranet of the corresponding network partition.

8. The RI control method of claim 6, wherein the RI router (110, 120) activates the dynamic routing protocol at the all routers or switches at the core switching network (3000) through a Netconf protocol, such that the tenant runs an independent dynamic routing protocol domain at the core switching network (3000).

9. The RI control method of claim 6, wherein the RI router (110, 120), through writing a binding relationship of the virtual routers and the RI router (110, 120) into a database, establishes an associated relationship between the virtual routers and the RI router (110, 120).

10. The RI control method of claim 6, wherein in the plurality of independent network partitions (2100, 2200), virtual resources created by the tenant are bound to the virtual router at a network partition where the virtual resources are located and associated with the RI router (110, 120).

11. A computer storage medium comprising instructions which, when executed by a computer, cause the computer to carry out all steps of the method according to claim 6.