

WHAT IS CLAIMED IS:

1. A method for computing resource allocation at a data center, the method comprising:

under control of a Program Execution Service (PES) platform that includes a number of data centers, each data center including one or more computing systems configurable to provide a user with access to a compute node hosted by at least one of the one or more computing systems, the compute node comprising a virtual desktop that enables the user to access a plurality of services provided by the PES platform:

- receiving a request at a data center of the PES platform to obtain access to the compute node from a computing device of the user;
- identifying the user associated with the computing device;
- accessing user metadata associated with the user based, at least in part, on the user's identity;
- selecting a set of resource placement rules based, at least in part, on the user metadata, the set of resource placement rules selected to reduce the impact of a computing system failure on a set of users, the set of users including the user;
- identifying a computing system from the one or more computing systems of the data center based, at least in part, on the set of resource placement rules;
- providing the user with access to the compute node on the computing system;
- determining whether an active instance of the compute node associated with the user exists; and
- in response to determining that the active instance associated with the user exists, the method further comprises:
 - identifying a second computing system that includes the active instance; and
 - determining whether the second computing system satisfies the set of resource placement rules,

wherein identifying the computing system from the one or more computing systems of the data center comprises identifying the second computing system in response to determining that the second computing system satisfies the set of resource placement rules.

2. The method of claim 1, wherein providing the user with access to the compute node on the computing system comprises:

creating an instance of the compute node on the computing system; and
providing the user with access to the instance of the compute node on the computing system.

3. A system for computing resource allocation at a data center, the system comprising:

a Program Execution Service (PES) platform comprising a number of data centers, each data center including one or more computing systems configurable to provide one or more computing resources to one or more users;

a data center from the number of data centers configured to receive, from a computing device of a user, a request to obtain access to a computing resource;

a management component stored in a memory, the management component configured to:

identity the user associated with the computing device;

access user metadata associated with the user based, at least in part, on the user's identity; and

selecting a set of resource placement rules based, at least in part, on the user metadata;

a deployment component stored in a memory, the deployment component configured to:

identify a computing system from one or more computing systems of the data center based, at least in part, on the set of resource placement rules;

determine whether an active instance of the computing resource associated with the user exists; and

identify a second computing system that includes the active instance and determine whether the second computing system satisfies the set of resource placement rules in response to determining that the active instance of the computing resource associated with the user exists, wherein identifying the computing system from the one or more computing systems of the data center comprises identifying the second computing system in response to determining that the second computing system satisfies the set of resource placement rules; and the management component further configured to provide the user with access to the computing resource on the computing system.

4. The system of claim 3, wherein the computing resource comprises a virtual desktop that enables the user to access a plurality of services provided by the PES platform.

5. The system of claim 3, wherein the deployment component is further configured to create an instance of the computing resource on the computing system.

6. The system of claim 5, wherein providing the user with access to the computing resource comprises providing the user with access to the instance of the computing resource on the computing system.

7. The system of claim 3, wherein the computing resource comprises an application instance.

8. The system of claim 3, wherein the data center comprises the management component and the deployment component.

9. A non-transitory physical computer storage comprising computer-executable instructions that direct a computing system to perform a method for computing resource allocation at a data center, the method comprising:

receiving a request at a data center of a Program Execution Service (PES) platform to obtain access to a computing resource, the request received from a computing device of a user;

identifying the user associated with the computing device;

accessing user metadata associated with the user based, at least in part, on the identity of the user;

selecting a set of resource placement rules based, at least in part, on the user metadata;

identifying a computing system from one or more computing systems of the data center based, at least in part, on the set of resource placement rules;

providing the user with access to the computing resource on the computing system;

determining whether an active instance of the computing resource associated with the user exists; and

in response to determining that the active instance associated with the user exists, the method further comprises:

identifying a second computing system that includes the active instance; and

determining whether the second computing system satisfies the set of resource placement rules,

wherein identifying the computing system from the one or more computing systems of the data center comprises identifying the second computing system in response to determining that the second computing system satisfies the set of resource placement rules.

10. The non-transitory physical computer storage of claim 9, wherein the PES platform comprises a number of data centers including the data center, and wherein each data center comprises one or more computing systems configurable to provide one or more users with access to one or more computing resources hosted by at least one of the one or more computing systems.

11. The non-transitory physical computer storage of claim 9, wherein providing the user with access to the computing resource on the computing system comprises: creating an instance of the computing resource on the computing system; and providing the user with access to the instance of the computing resource on the computing system.

12. The non-transitory physical computer storage of claim 9, wherein the computing resource comprises a virtual desktop that enables the user to access a plurality of services provided by the PES platform.

13. The non-transitory physical computer storage of claim 12, wherein the plurality of services comprises one or more of the following: an application; a file manager; or a file storage.

14. The non-transitory physical computer storage of claim 9, wherein the computing resource comprises an application instance.

15. The non-transitory physical computer storage of claim 9, wherein the resource placement rules comprise resource access rules.

16. The non-transitory physical computer storage of claim 9, wherein the method further comprises configuring the computing resource based, at least in part, on the resource placement rules.

17. The non-transitory physical computer storage of claim 9, wherein the user metadata includes the identity of an entity associated with the user and wherein determining the set of resource placement rules based, at least in part, on the user metadata comprises determining the set of resource placement rules based, at least in part, on the identity of the entity.