

WHAT IS CLAIMED IS:

1. A system for selecting a data center of a Program Execution Service (PES) platform, the system comprising:

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

a resource allocation system configured to:

identify a geographic location of the computing device; and

determine from the number of data centers a set of data centers that include the computing resource, the determination including identifying the set of data centers from data centers that the user is authorized to access;

a latency calculation system configured to calculate, for each data center from the determined set of data centers, a latency factor based, at least in part, on the geographic location of the computing device;

the resource allocation system further configured to identify a data center from the determined set of data centers based, at least in part, on the latency factor of the data center; and

a data center management system configured to grant the user of the computing device access to the computing resource at the identified data center.

2. The system of claim 1, wherein the latency calculation system is further configured to calculate the latency factor by:

calculating a distance between the computing device and the data center based on the geographic location of the computing device and a geographic location of the data center; and

determining the latency factor based, at least in part, on the distance between the computing device and the data center.

3. The system of claim 1, wherein the latency calculation system is further configured to calculate the latency factor by:

performing one or more latency tests between the computing device and the data center; and

determining the latency factor based, at least in part, on the results of the one or more latency tests.

8. ~~The system of claim 1, wherein the resource allocation system is further configured to identify the set of data centers from data centers that the user is authorized to access.~~

9.8. The system of claim 1, wherein the latency factor correlates, at least in part, to a communication latency between the computing device and the data center.

9. The system of claim 1, wherein the resource allocation system is further configured to determine from the number of data centers the set of data centers that include the computing resource, wherein the set of data centers are each within a radius of the computing device.

10. The system of claim 1, wherein the resource allocation system is further configured to identify the data center from the determined set of data centers based, at least in part, on a utilization rate associated with each data center from the set of data centers.

11. The system of claim 1, wherein the resource allocation system is further configured to identify the data center from the determined set of data centers based, at least in part, on an access rule specifying an amount of users of a plurality of users that can share access to the computing resource at the data center during a time period.

10.12. A method, comprising:

receiving a request at a PES platform to obtain access to a computing resource from a computing device of a user, the PES platform comprising a number of data centers;

identifying a geographic location of the computing device;

determining, from the number of data centers, a set of data centers that include the computing resource, including identifying the set of data centers from data centers that the user is authorized to access;

calculating, for each data center from the determined set of data centers, a latency factor based, at least in part, on the geographic location of the computing device;

identifying a data center from the determined set of data centers based, at least in part, on the latency factor of the data center; and

granting the user of the computing device access to the computing resource at the identified data center.

44.13. The method of claim 4012, wherein calculating the latency factor for each data center comprises:

calculating a distance between the computing device and the data center based on the geographic location of the computing device and a geographic location of the data center;

determining a first latency factor based on the distance between the computing device and the data center;

performing one or more latency tests between the computing device and the data center to determine a second latency factor;

identifying a network hop closest to the computing device;

retrieving historical latency information between the data center and the network hop; and

calculating the latency factor based, at least in part, on the first latency factor, the second latency factor, and the historical latency information.

42.14. The method of claim 41.13, wherein identifying a network hop closest to the computing device comprises accessing a lookup table to identify a public network hop closest to the computing device.

43.15. The method of claim 40.12, wherein determining the set of data centers that include the computing resource comprises:

identifying data centers within a threshold distance of the geographic location of the computing device; and

identifying the set of data centers that include the computing resource from the data centers identified within the threshold distance of the geographic location of the computing device.

44.16. The method of claim 40.12, wherein determining the set of data centers that include the computing resource comprises identifying data centers capable of obtaining access to the computing resource.

45.17. The method of claim 40.12, wherein the computing resource comprises a virtual desktop that enables the user to access a plurality of services provided by the PES platform.

18. The method of claim 12, wherein the step of determining from the number of data centers the set of data centers that include the computing resource comprises determining that the set of data centers are each within a radius of the computing device.

19. The method of claim 12, wherein identifying the data center from the determined set of data centers is further based, at least in part, on a utilization rate associated with each data center from the set of data centers.

20. The method of claim 12, wherein identifying the data center from the determined set of data centers is further based, at least in part, on an access rule specifying an amount of users of a plurality of users that can share access to the computing resource at the data center during a time period.