Claims:

1. A computer-based system having a virtual machine infrastructure for hosting a plurality of virtual machine environments in a cloud computing environment, comprising:

at least one system user interface electrically connected to the cloud computing environment, with the at least one system user interface initiating a virtual machine environment in the cloud computing environment by transmitting requests to the cloud computing environment to access and use applications and/or virtual machine services accessible through the cloud computing environment;

at least one provisioner in the cloud computing environment that is electrically connected to the at least one system user interface, with the at least one provisioner for balancing a distribution of the requests for applications and/or virtual machine services from the at least one user interface among a plurality of activated first server types and a plurality of activated second server types in the cloud computing environment;

at least one activated first server type electrically connected to the provisioner for at least routing requests received from the at least one system user interface for accessing and/or using virtual machine services stored in or accessible through the cloud computing environment;

a plurality of second server types electrically connected to the at least one activated first server type, with the second server types for routing requests for applications and/or virtual machine services received from the at least one system user interface; and

a cloud database electrically connected to the second server types and the at least one system user interface, with the cloud database receiving requests for access to virtual machine services in the cloud database and making the requested virtual machine services available for the at least one system user interface to run in a virtual machine environment in the cloud computing environment that is associated with the activated first-server type and one or more activated second server types.

2. The system as recited in claim 1, wherein the cloud computing environment includes a public cloud.

3. The system as recited in claim 2, wherein the at least one system user interface includes being wired or wirelessly connected to the cloud computing enviroment.

4. The system as recited in claim 1, wherein the cloud computing environment includes a private cloud.

5. The system as recited in claim 4, wherein the cloud computing environment includes an enterprise-wide private cloud.

6. The system as recited in claim 4, wherein the at least one system user interface includes being wired or wirelessly connected to the cloud computing environment.

7. The system as recited in claim 1, wherein the at least one system user interface includes a personal computer, personal digital assistant, table device, or smart phone.

8. The system as recited in claim 1, wherein the provisioner includes a load balancer for providing provisioning services for balancing the distribution of requests for applications and/or virtual machine services from the at least one system user interface among a plurality of first server types and second server types.

9. The system as recited in claim 8, wherein the plurality of first server types includes at least two web servers and the load balancer balances distributions of requests for applications and/or virtual machine services from the at least one system user interface between the two web servers.

10. The system as recited in claim 1, wherein the requests transmitted from the at least one system user interface to the cloud computing environment include requests formatted according to a hypertext transfer protocol (HTTP).

11. The system as recited in claim 1, wherein the first server type includes a web server.

12. The system as recited in claim 1, wherein the second server type includes an applications server.

13. The system as recited in claim 1, wherein virtual machine services include virtual desktop services .

14. A computer-based system having a virtual machine infrastructure for hosting a plurality of virtual machine environments in a cloud computing environment, comprising:

a plurality of system user interfaces electrically connected to the cloud computing environment, with each system user interface initiating a virtual machine environment in the cloud computing environment by transmitting requests to the cloud computing environment to access and use applications and/or virtual machine services accessible through the cloud computing environment;

at least one provisioner in the cloud computing environment that is electrically connected to the plurality of system user interfaces, with the at least one provisioner for balancing a distribution of the request for applications and/or virtual machine services from the plurality of user interfaces among a plurality of activated first server types and a plurality of activated second server types in the cloud computing environment;

a plurality of first server types electrically connected to the provisioner, with each activated first server type of the plurality of the first server types for at least routing requests for applications and/or virtual machine services received from the plurality system user interfaces for accessing and/or using applications and/or virtual machine services stored in or accessible through the cloud computing environment that have been provisioned by the provisioner to each activated first server type; and

a plurality of second server types electrically connected to each first server type, with each activated second server type of the plurality of second types for routing requests for applications and/or virtual machine services received from the plurality of system user interfaces to a plurality of hosted web services in each activated second serve type and with the hosted web services being selected according to requests for applications and/or virtual machine services from each of the plurality of system user interfaces.

15. The system as recited in claim 14, wherein the cloud computing environment includes a public cloud.

16. The system as recited in claim 15, wherein each of the plurality of system user interfaces includes being wired or wirelessly connected to the cloud computing environment.

17. The system as recited in claim 14, wherein the cloud computing environment includes a private cloud.

18. The system as recited in claim 17, wherein the cloud computing environment includes an enterprise-wide private cloud.

19. The system as recited in claim 17, wherein each of the plurality system user interfaces includes being wired or wirelessly connected to the cloud computing environment.

20. The system as recited in claim 14, wherein each of the plurality of system user interfaces includes a personal computer, personal digital assistant, tablet device, or smart phone.

21. The system as recited in claim 14, wherein the provisioner includes a load balancer for providing provisioning services for balancing the distribution of requests for applications and/or virtual machine services from the plurality of system user interfaces among a plurality of first server types and second server types.

22. The system as recited in claim 21, wherein the plurality of first server types includes at least two web servers and the load balancer balances distribution of requests for applications and/or web services from the plurality of system user interfaces between the two web servers.

23. The system as recited in claim 14, wherein the requests transmitted from the plurality of system user interfaces to the cloud computing environment include requests formatted according to a hypertext transfer protocol (HTTP).

24. The system as recited in claim 14, wherein each of the plurality of first server types includes a web server.

25. The system as recited in claim 14, wherein each of the plurality of second server types includes an application server.

26. The system as recited in claim 14, wherein the system further includes a monitor for monitoring the number of requests the cloud computing environment receives from the plurality of system user interfaces for applications and/or virtual machine services for controlling a number of first server types and second server types that are activated and available to the provisioner for transmitting requests from the plurality of system user interfaces for applications and/or virtual machine services.

27. The system as recited in claim 14, wherein virtual machine services include virtual desktop services.

28. A computer-based system virtual machine infrastructure for provisioning a plurality of virtual machine environments in a cloud computing environment, comprising:

a provisioner in the cloud computing environment that receives a plurality of requests for desktop applications from a plurality of system user interfaces, with the provisioner for balancing a distribution of the requests for desktop applications from the plurality of user interfaces among a plurality of activated first server types and a plurality of activated second server types according to the number of requests received from the plurality of system user interfaces for operating one or more virtual machine environments in the cloud environment that are associated with activated first server types and activated second server types;

a cluster of a plurality of first server types connected to the provisioner, with each of the plurality of first server types of being capable of being activated and deactivated by the

provisioner and when activated to process one or more requests for desktop applications from the plurality of system user interfaces according to the distribution of such requests by the provisioner and each activated first server type shall be associated with a virtual machine environment running in the cloud environment; and

a cluster of a plurality of second server types connected to each of the plurality of first server types, with each of the plurality of second server types being capable of being activated and deactivated by the provisioner and when activated to process one or more requests for desktop applications from the plurality of system user interfaces according to the distribution of such requests by the provisioner and each activated second server type along with the connected activated first server type shall be associated with a virtual machine environment in the cloud environment.

29. The system as recited in claim 28, wherein the cloud computing environment includes a public cloud.

30. The system as recited in claim 29, wherein each of the plurality of system user interfaces includes being wired or wirelessly connected to the cloud computing environment.

31. The system as recited in claim 28, wherein the cloud computing environment includes a private cloud.

32. The system as recited in claim 31, wherein the cloud computing environment includes an enterprise-wide private cloud.

33. The system as recited in claim 31, wherein each of the plurality system user interfaces includes being wired or wirelessly connected to the cloud computing environment.

34. The system as recited in claim 28, wherein the provisioner includes a load balancer for providing provisioning services for the plurality first server types and the plurality second server types for balancing the distribution of requests for desktop applications from the plurality of system user interfaces among the plurality of first server types and second server types.

35. The system as recited in claim 28, wherein each of the plurality of first server types includes a web server.

36. The system as recited in claim 35, wherein the plurality of first server types includes at least two web servers and the load balancer balances distribution of requests for desktop applications from the plurality of system user interfaces between the two web servers.

37. The system as recited in claim 36, wherein the plurality of second server types includes a cluster of application servers, with a cluster of application servers being connected to each of the web servers.

38. The system as recited in claim 30, wherein the system further includes a monitor for monitoring the number of requests the cloud computing enviroument receives from the plurality of system user interfaces for desktop applications and for controlling a number of activated first server types and activated second server types that are available to the provisioner for transmitting requests from the plurality of system user interfaces for desktop applications.

39. A computer-based system having a virtual machine infrastructure for hosting a plurality of virtual machine environments in a cloud computing environment, comprising:

a plurality of system user interfaces electrically connected to the cloud computing environment, with each system user interface initiating a virtual machine environment by transmitting requests to the cloud computing environment to access and use applications and/or virtual machine services in the cloud computing environment;

provisioning services of a cloud controller electrically connected to the plurality of system user interfaces for receiving the requests for applications and/or virtual machine services from the plurality of system user interfaces and provisioning virtual machine environments and

associated virtual machine environment controls in the cloud computing environment according to the number of requests received from the plurality of system user interfaces;

a plurality of virtual machine environments and associated virtual machine environment controls that are activated and deactivated by the provisioning services, with each activated virtual machine environment and associated virtual machine environment controls running web server instances and application instances in the cloud computing environment according to the requests for applications and/or virtual machine services provisioned to each activated virtual machine environment and associated virtual machine environment controls by the provisioning services;

monitoring services of the cloud controller electrically connected to the provisioning services for monitoring the number of requests for applications and/or virtual machine services received from the plurality of system user interfaces and controlling the provisioning services to activate or deactivate certain of the plurality of virtual machine environments and associated virtual machine environment controls according to the number of requests for applications and/or virtual machine services received from the plurality of system user interfaces; and a cloud database for storing virtual machine services that can be retrieved and/or run in activated virtual machine environments as controlled by associated virtual machine environment controls according to the requests for applications and/or virtual machine services received from the plurality of system user interfaces.

40. The system as recited in claim 39, wherein the cloud computing environment includes a public cloud.

41. The system as **r**ecited in claim 40, wherein each of the plurality of system user interfaces includes being wired or wirelessly connected to the cloud computing environment.

42. The system as recited in claim 39, wherein the cloud computing environment includes a private cloud.

43. The system as recited in claim 42, wherein the cloud computing environment includes an enterprise-wide private cloud.

44. The system as recited in claim 42, wherein each of the plurality system user interfaces includes being wired or wirelessly connected to the cloud computing environment.

45. The system as recited in claim 39, wherein the provisioning services include a load balancer for balancing the distribution of requests for applications and/or virtual machine services from the plurality of system user interfaces among the plurality of activated virtual machine environments and associated virtual machine environment controls.

46. The system as recited in claim 39, wherein virtual machine environment controls includes a hypervisor for controlling an associated virtual machine environment.

47. The system as recited in claim 39, wherein virtual machine services include virtual desktop services.

48. A computer-based method for operation of a virtual machine infrastructure for hosting a plurality of virtual machine environments in a cloud computing environment, comprising the steps of:

(a) a plurality of system user interfaces transmitting requests for applications and/or web services to the cloud computing environment;

(b) provisioning services of the cloud computing environment receiving the requests for applications and/or virtual machine services from the plurality of system user interfaces and activating or deactivating virtual machine environments and associated virtual machine environment controls according to the number of requests for applications and/or virtual machine services received from the plurality of system user interfaces;

(c) activated virtual machine environments and associated virtual machine environment controls running web server instances and application instances according to the requests for applications and/or virtual machine services that have been provisioned to each activated virtual machine environment and associated virtual machine environment controls; and

(d) monitoring services of the cloud computing environment monitoring the number of requests for applications and/or virtual machine services received from the plurality of system

user interfaces at a given point in time and controlling the provisioning services to activate or deactivate one or more virtual machine environments and associated virtual machine environment controls according to the number of requests for applications and/or virtual machine services received from the plurality of system user interfaces.

49. The method according to claim 48, wherein virtual machine environment controls include a hypervisor for controlling an associated virtual machine environment.

50. The method as recited in claim 48, wherein the provisioning services include a load balancer for balancing the distribution of requests for applications and/or virtual machine services from the plurality of system user interfaces among the plurality of activated virtual machine environments and associated virtual machine environment controls.

51. The method as recited in claim 48, wherein virtual machine services include virtual desktop services.