UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

INVINCIBLE IP LLC, Plaintiff v. **NETAPP, INC.,** Defendant	**Case No.**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Invincible IP, LLC ("Invincible" or "Plaintiff") files this Complaint for patent infringement against NetApp, Inc. ("Defendant"), and alleges as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement arising under 35 U.S.C. § 1 *et seq*.

PARTIES

2. Invincible is a limited liability company organized and existing under the laws of the State of Texas with its principal place of business in Plano, Texas.

3. Upon information and belief, Defendant is a corporation organized and existing under the laws of Delaware with a principal place of business at 3060 Olsen Drive, San Jose, California 95128.

JURISDICTION AND VENUE

4. This Court has original jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

5. Defendant is subject to personal jurisdiction of this Court based upon it being a Delaware corporation, such that Defendant is essentially at home in the State of Delaware.

6. Venue is proper in this District under 28 U.S.C. § 1400(b) because Defendant resides in this judicial district.

IDENTIFICATION OF THE ACCUSED SYSTEMS AND PRODUCTS

7. Defendant provides for its customers use NetApp Hyper Converged Infrastructure.

8. Defendant provides for its customers use NetApp Cloud Sync.

9. Defendant provides for its customers use NetApp ONTAP.

COUNT I (Infringement of U.S. Patent No. 8,938,634)

10. Invincible incorporates the above paragraphs as though fully set forth herein.

11. Plaintiff is the owner, by assignment, of U.S. Patent No. 8,938,634 (" the '634 Patent"), entitled USER GENERATED DATA AND POWER SAVINGS, which issued on January 20, 2015. A copy of the '634 Patent is attached as Exhibit 1.

12. The '634 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

13. Defendant has been and is now infringing one or more claims of the '634 Patent under 35 U.S.C. § 271 by making, using, selling, and offering to sell NetApp Hyper Converged Infrastructure in the United States without authority.

14. Claim 1 of the '634 Patent recites:

> 1. A method to provide power savings in a data center, the method comprising:
>
> identifying user-provided hardware independent power saving codes from multiple virtual machines within the data center;
>
> converting at least a portion of the user-provided hardware independent power saving codes into a device power management message specific to a computing system in the data center, wherein the converting includes identifying the

> portion of the user-provided hardware independent power saving codes relevant to the computing system and converting the portion of the user-provided hardware independent power saving codes into the device power management message specific to the computing system in the data center; and
>
> providing the device power management message to the computing system, wherein the computing system is operative to enable or disable one or more devices within the computing system in accordance with the device power management message.

15. More particularly, Defendant infringes at least claim 1 of the '634 Patent.

On information and belief, Defendant makes, uses, sells, and offers to sell NetApp Hyper Converged Infrastructure, which practices a method to provide power savings (e.g., halts power to a host, Power Management, etc.) in a data center.

16. On information and belief, the method practiced by NetApp Hyper Converged Infrastructure includes a step of identifying user-provided hardware independent power saving codes (e.g. reboot, force stop, etc.) from multiple virtual machines (e.g. Instances) within the data center.

17. On information and belief, the method practiced by NetApp Hyper Converged Infrastructure includes a step of converting at least a portion of the user-provided hardware independent power saving codes (e.g., fencing, power management mode, etc.) into a device power management message specific to a computing system (e.g. VM Host) in the data center, wherein the converting includes identifying the portion of the user-provided hardware independent power saving codes (e.g. fencing, power management mode, etc.) relevant to the computing system (e.g. VM Host) and converting the portion of the user-provided hardware independent power saving codes (e.g. fencing, power management mode, etc.) into the device power management message specific to the computing system (e.g. VM Host) in the data center.

18. On information and belief, NetApp Hyper Converged Infrastructure accepts user provided hardware independent power saving code through enabling power management and

converts it to device power management message specific to VM hosts. The computing system identifies the power management of VM instance and prepares to enable a different physical node and disable the current physical node.

19. On information and belief, NetApp Hyper Converged Infrastructure practices providing the device power management message (e.g., message to power on/off the host, enable power management, etc.) to the computing system (e.g., VM Host), wherein the computing system (e.g., VM Host) is operative to enable or disable one or more devices (e.g., hosts, cores, servers, etc.) within the computing system (e.g., VM Host) in accordance with the device power management message (e.g., message to power on/off the host).

20. Plaintiff has been damaged by Defendant's infringing activities.

COUNT II (Infringement of U.S. Patent No. 8,954,993)

21. Invincible incorporates the above paragraphs as though fully set forth herein.

22. Plaintiff is the owner, by assignment, of U.S. Patent No. 8,954,993 ("the '993 Patent"), entitled LOCAL MESSAGE QUEUE PROCESSING FOR CO-LOCATED WORKERS, which issued on February 10, 2015. A copy of the '993 Patent is attached as Exhibit 2.

23. The '993 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

24. Defendant has been and is now infringing one or more claims of the '993 Patent under 35 U.S.C. § 271 by making, using, selling, and offering to sell NetApp Cloud Sync in the United States without authority.

25. Claim 1 of the '993 Patent recites:

> 1. A method to locally process queue requests from co-located workers in a datacenter, the method comprising:
>
> detecting a producer worker at a first server sending a first message to a datacenter queue at least partially stored at a second server;

storing the first message in a queue cache at the first server, wherein the queue cache includes one of a copy and a partial copy of the datacenter queue;

detecting a consumer worker at the first server sending a message request to the datacenter queue;

providing the stored first message to the consumer worker in response to the message request;

receiving a signal from a command channel associated with the datacenter queue; and

modifying the stored first message in response to receiving the signal.

26. More particularly, Defendant infringes at least claim 1 of the ’993 Patent.

27. On information and belief, Defendant makes, uses, sells, and offers to sell NetApp Cloud Sync, which practices a method to locally process queue requests from co-located workers in a datacenter.

28. On information and belief, NetApp Cloud Sync practices detecting a producer worker at a first server sending a first message to a datacenter queue (e.g. a message queue) at least partially stored at a second server (e.g. a message queue server).

29. On information and belief, NetApp Cloud Sync practices storing the first message in a queue cache at the first server wherein the queue cache includes one of a copy and a partial copy of the datacenter queue. Further, on information and belief, the first server of the method practiced by NetApp Cloud Sync stores the message in a queue cache at the first server.

30. On information and belief, NetApp Cloud Sync practices detecting a consumer worker at the first server sending a message request (e.g., request messages from the queue) to the datacenter queue (e.g., a message queue).

31. On information and belief, NetApp Cloud Sync providing the stored first message to the consumer worker in response to the message request (e.g. request messages from the queue).

32. On information and belief, NetApp Cloud Sync practices receiving a signal (e.g., Delete request) from a command channel associated with the datacenter queue (e.g., a message queue).

33. On information and belief, NetApp Cloud Sync practices modifying the stored first message (e.g., deleting the first message) in response to receiving the signal (e.g., Delete request).

34. Plaintiff has been damaged by Defendant's infringing activities.

COUNT III (Infringement of U.S. Patent No. 9,479,472)

35. Invincible incorporates the above paragraphs as though fully set forth herein.

36. Plaintiff is the owner, by assignment, of U.S. Patent No. 9,479,472 ("the '472 Patent"), entitled LOCAL MESSAGE QUEUE PROCESSING FOR CO-LOCATED WORKERS, which issued on October 25, 2016. A copy of the '472 Patent is attached as Exhibit 3.

37. The '472 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

38. Defendant has been and is now infringing one or more claims of the '472 Patent under 35 U.S.C. § 271 by making, using, selling, and offering to sell NetApp Cloud Sync in the United States without authority.

39. Claim 1 of the '472 Patent recites:

> 1. A method to locally process queue requests from co-located workers in a datacenter, the method comprising:
>
> detecting a producer worker at a first server, wherein the producer worker sends a message to a datacenter queue at least partially stored at a second server;
>
> storing the message in a queue cache at the first server;
>
> detecting a consumer worker at the first server, wherein the consumer worker sends a message request to the datacenter queue; and
>
> providing the message to the consumer worker in response to the message request.

40. More particularly, Defendant infringes at least claim 1 of the ’472 Patent.

41 On information and belief, Defendant makes, uses, sells, and offers to sell NetApp Cloud Sync, which practices a method to locally process queue requests from co-located workers in a datacenter.

42. On information and belief, NetApp Cloud Sync practices detecting a producer worker at a first server, wherein the producer worker sends a message to a datacenter queue (e.g. a message queue) at least partially stored at a second server (e.g. a message queue server).

43. On information and belief, NetApp Cloud Sync practices storing the message in a queue cache at the first server.

44. On information and belief, NetApp Cloud Sync practices detecting a consumer worker at the first server, wherein the consumer worker sends a message request (e.g., request messages from the queue) to the datacenter queue (e.g., a message queue).

45. On information and belief, NetApp Cloud Sync practices providing the message to the consumer worker in response to the message request (e.g., request messages from the queue).

COUNT IV (Infringement of U.S. Patent No. 9,635,134)

46. Invincible incorporates the above paragraphs as though fully set forth herein.

47. Plaintiff is the owner, by assignment, of U.S. Patent No. 9,635,134 (“the ’134 Patent”), entitled RESOURCE MANAGEMENT IN A CLOUD COMPUTING ENVIRONMENT, which issued on April 25, 2017. A copy of the ’134 Patent is attached as Exhibit 4.

48. The ’134 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

49. Defendant has been and is now infringing one or more claims of the ’134 Patent under 35 U.S.C. § 271 by making, using, selling, and offering to sell NetApp Spot in the United States without authority.

50. Claim 1 of the ’134 Patent recites:

> 1. A method to manage resources in a cloud computing environment, comprising:
>
> determining a consumption rate of cloud resources by one or more virtual machines (VMs), the determining based on monitoring at least one of processor usage, memory usage, or input/output (I/O) access rates for the one or more virtual machines in the cloud computing environment;
>
> prioritizing the one or more VMs for consumption of the cloud resources using a first resource management scheme based, at least in part, on the determined consumption rate;
>
> determining whether a change in the consumption rate of the cloud resources exceeds a predetermined threshold, the change in the consumption rate including a change in the at least one of processor usage, memory usage, I/O access rates, or a change region size based on changed regions of a graphical display generated by the one or more VMs;
>
> prioritizing the one or more VMs for consumption of the cloud resources using a second resource management scheme based, at least in part, on a maximum capacity for utilization of allowed cloud resources for the cloud computing environment and whether the determined change in the consumption rate of the cloud resources exceeds the predetermined threshold; and
>
> migrating the consumption of the cloud resources to alternate cloud resources located outside of the cloud computing environment for at least one of the one or more VMs based, at least in part, on the one or more VMs prioritized for consumption of the cloud resources using the second resource management scheme.

51. More particularly, Defendant infringes at least claim 1 of the ’134 Patent.

52. Defendant makes, uses, sells, and offers to sell NetApp Spot, which provides a method to manage resources in a cloud computing environment (e.g., NetApp Spot provides monitoring and performance metrics and manages resources in cloud computing environment.).

53. On information and belief, NetApp Spot determines a consumption rate (e.g., CPU the instance is currently consuming, active memory usage, etc.) of cloud resources (e.g., CPU and memory) by one or more virtual machines (e.g., Instances), the determining based on monitoring at least one of processor usage (e.g., CPU usage), memory usage, or input/output (I/O) access rates for the one or more virtual machines in the cloud computing environment (e.g., the origin host where the instances are located).

54. On information and belief, NetApp Spot prioritizes the one or more VMs for consumption of the cloud resources (e.g., CPU and memory resources) using a first resource management scheme (e.g., calculation for CPU and memory demand) based, at least in part, on the determined consumption rate (e.g., CPU and active memory currently used).

55. On information and belief, NetApp Spot determines whether a change in the consumption rate of the cloud resources exceeds a predetermined threshold (e.g., a preset target value), the change in the consumption rate including a change in the at least one of processor usage, memory usage, I/O access rates, or a change region size based on changed regions of a graphical display generated by the one or more VMs.

56. On information and belief, NetApp Spot prioritizes the one or more VMs for consumption of the cloud resources (e.g., prioritizes one or more instances based on weights assigned) using a second resource management scheme (e.g., Elastigroup weights, etc.) based, at least in part, on a maximum capacity for utilization of allowed cloud resources for the cloud computing environment (e.g., the allocated vCPUs, memory, etc.) and whether the determined change in the consumption rate of the cloud resources exceeds the predetermined threshold (e.g., whether the change in the consumption rate of the cloud resources exceeds the preset threshold).

57. On information and belief, NetApp Spot migrates the consumption of the cloud resources to alternate cloud resources located outside of the cloud computing environment (e.g., destination host where the instance loads are migrated to) for at least one of the one or more VMs based, at least in part, on the one or more VMs prioritized for consumption of the cloud resources using the second resource management scheme (e.g., prioritizing Instances based on weights assigned to each instance type).

58. Plaintiff has been damaged by Defendant's infringing activities.

COUNT V (Infringement of U.S. Patent No. 9,678,774)

59. Invincible incorporates the above paragraphs as though fully set forth herein.

60. Plaintiff is the owner, by assignment, of U.S. Patent No. 9,678,774 ("the '774 Patent"), entitled SECURE MIGRATION OF VIRTUAL MACHINES, which issued on June 13, 2017. A copy of the '774 Patent is attached as Exhibit 5.

61. The '774 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.

62. Defendant has been and is now infringing one or more claims of the '774 Patent under 35 U.S.C. § 271 by making, using, selling, and offering to sell NetApp ONTAP in the United States without authority.

63. Claim 1 of the '774 Patent recites:

> 1. A method, comprising:
>
> receiving, at a computing device, a request to migrate a virtual machine from a source host to a target host;
>
> determining, via a hidden process, whether a geographic location of the target host is within a particular perimeter, wherein the hidden process is executable by the virtual machine;

> in response to a determination that the geographic location of the target host is within the particular perimeter, allowing, via the hidden process, a migration of the virtual machine from the source host to the target host; and
>
> in response to a determination that the geographic location of the target host is outside of the particular perimeter, denying, via the hidden process, the migration of the virtual machine from the source host to the target host.

64. More particularly, Defendant infringes at least claim 1 of the ’774 Patent.

65. Defendant makes, uses, sells, and offers to sell NetApp ONTAP, which utilizes a method (e.g., a method for Virtual Machines or VMs).

66. On information and belief, NetApp ONTAP utilizes receiving, at a computing device, a request to migrate a virtual machine from a source host to a target host. Further, on information and belief, VM Migration is a process of NetApp ONTAP wherein a request is received to migrate a virtual machine from a source host to a target host.

67 On information and belief, NetApp ONTAP utilizes determining, via a hidden process, whether a geographic location of the target host is within a particular perimeter, wherein the hidden process is executable by the virtual machine. For example, on information and belief, NetApp ONTAP utilizes evaluating wherein it evaluates where the RTT (round-trip time) latency is 150 milliseconds or less between the source host and the target host for migration.

68. On information and belief, NetApp ONTAP discloses that in response to a determination that the geographic location of the target host is within the particular perimeter, allowing, via the hidden process, a migration of the virtual machine from the source host to the target host. For example, on information and belief, NetApp ONTAP utilizes evaluating wherein it evaluates where the RTT (round-trip time) latency is 150 milliseconds or less between the source host and the target host for migration.

69. On information and belief, NetApp ONTAP discloses that in response to a determination that the geographic location of the target host is outside of the particular perimeter,

denying, via the hidden process, the migration of the virtual machine from the source host to the target host. For example, on information and belief, NetApp ONTAP utilizes evaluating wherein it evaluates whether the RTT (round-trip time) latency is 150 milliseconds or less between source host and target host for migration—as exceeding the RTT limit of 150 milliseconds would not result in successful migration between the virtual machines.

70. Plaintiff has been damaged by Defendant's infringing activities.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests the Court enter judgment against Defendant:

1. declaring that Defendant has infringed the '634 Patent;
2. awarding Plaintiff its damages suffered as a result of Defendant's infringement of the '634 Patent;
3. declaring that Defendant has infringed the '993 Patent;
4. awarding Plaintiff its damages suffered as a result of Defendant's infringement of the '993 Patent;
5. declaring that Defendant has infringed the '472 Patent;
6. awarding Plaintiff its damages suffered as a result of Defendant's infringement of the '472 Patent;
7. declaring that Defendant has infringed the '134 Patent;
8. awarding Plaintiff its damages suffered as a result of Defendant's infringement of the '134 Patent;
9. declaring that Defendant has infringed the '774 Patent;
10. awarding Plaintiff its damages suffered as a result of Defendant's infringement of the '774 Patent;

11. awarding Plaintiff its costs, attorneys' fees, expenses, and interest; and

12. granting Plaintiff such further relief as the Court finds appropriate.

JURY DEMAND

Plaintiff demands trial by jury, Under Fed. R. Civ. P. 38.

Dated: June 28, 2021

Respectfully submitted,

/s/ David W. deBruin

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