UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

INVINCIBLE IP LLC,

Plaintiff

v.

Case No.

LIFERAY CLOUD, INC.,

Defendant

COMPLAINT FOR PATENT INFRINGEMENT

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

NATURE OF THE ACTION

1. This is an action for patent infringement arising under 35 U.S.C. \S 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.

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 PRODUCT

7. Defendant provides for its customers use Liferay DXP Cloud.

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

- 8. Invincible incorporates the above paragraphs as though fully set forth herein.
- 9. 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 1.
- 10. The '134 Patent is valid, enforceable, and was duly issued in full compliance with Title 35 of the United States Code.
- 11. 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 LifeRay DXP Cloud in the United States without authority.

12. 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.

- 13. More particularly, Defendant infringes at least claim 1 of the '134 Patent.
- 14. Defendant makes, uses, sells, and offers to sell LifeRay DXP Cloud, which provides a method to manage resources in a cloud computing environment (e.g.,

LifeRay provides monitoring and performance metrics and manages resources in the DXP cloud computing environment.).

- 15. On information and belief, Liferay DXP Cloud 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 DXP Cloud computing environment).
- 16. On information and belief, Liferay DXP Cloud 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).
- 17. On information and belief, Liferay DXP Cloud determines whether a change in the consumption rate of the cloud resources exceeds a predetermined threshold (e.g., a preset threshold level average utilization level), 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.
- 18. On information and belief, Liferay DXP Cloud prioritizes the one or more VMs for consumption of the cloud resources (e.g., prioritizes one or more

instances) using a second resource management scheme (e.g., resource management based on resource limits, or maximum instance limits) based, at least in part, on a maximum capacity for utilization of allowed cloud resources for the cloud computing environment (e.g., the resource limits, or maximum number of instances) 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 average threshold).

- 19. On information and belief, Liferay DXP Cloud migrates the consumption of the cloud resources to alternate cloud resources located outside of the cloud computing environment (e.g., upscaled instances at a new destination) 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 that would reduce CPU usage limit to a permissible level without exceeding the predetermined maximum limit on instances).
 - 20. 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 '134 Patent;
- 2. awarding Plaintiff its damages suffered as a result of Defendant's infringement of the '134 Patent;
- 3. awarding Plaintiff its costs, attorney's fees, expenses, and interest: and
- 4. granting Plaintiff such further relief as the Court finds appropriate.

JURY DEMAND

Plaintiff demands a trial by jury under Fed. R. Civ. P. 38.

Dated: August 26, 2021 Respectfully submitted,

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ATTORNEYS FOR PLAINTIFF