UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
MIDLAND/ODESSA DIVISION

VIRTAMOVE, CORP., Plaintiff, v. GOOGLE LLC, Defendant.	Case No. 7:24-cv-00033-DC-DTG **JURY TRIAL DEMANDED**

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT AGAINST GOOGLE LLC

This is an action for patent infringement arising under the Patent Laws of the United States of America, 35 U.S.C. § 1 *et seq.*, in which Plaintiff VirtaMove Corp. (collectively, "Plaintiff" or "VirtaMove") makes the following allegations against Defendant Google LLC ("Defendant" or "Google"):

INTRODUCTION AND PARTIES

1. This complaint arises from Defendant's unlawful infringement of the following United States patents owned by VirtaMove, each of which generally relate to novel containerization systems and methods: United States Patent Nos. 7,519,814 and 7,784,058 (collectively, the "Asserted Patents"). VirtaMove owns all right, title, and interest in each of the Asserted Patents to file this case.

2. VirtaMove, Corp. is a is a corporation organized and existing under the laws of Canada, having its place of business at 110 Didsbury Road, M083, Ottawa, Ontario K2T 0C2. VirtaMove is formerly known as Appzero Software Corp. ("Appzero"), which was established in

Google Exhibit 1080
Google v. VirtaMove

Oracle Ex. 1080
Oracle v. VirtaMove, IPR2025-00964

2010.

3. VirtaMove is an innovator and pioneer in containerization. At a high level, a container is a portable computing environment. It can hold everything an application needs to run to move it from development to testing to production smoothly. Containerization lowers software and operational costs, using far fewer resources. It provides greater scalability (for example, compared to virtual machines). It provides a lightweight and fast infrastructure to run updates and make changes. It also encapsulates the entire code with its dependencies, libraries, and configuration files, effectively removing errors that can result from traditional configurations.

4. For years, VirtaMove has helped customers repackage, migrate and refactor thousands of important, custom, and packaged Windows Server, Unix Sun Solaris, & Linux applications to modern, secure operating systems, without recoding. VirtaMove's mission is to move and modernize the world's server applications to make organizations more successful and secure. VirtaMove has helped companies from many industries achieve modernization success.

5. The use of containerization has been growing rapidly. For instance, one source predicted the application containers market to reach $2.1 billion in 2019 and $4.3 billion in 2022—a compound annual growth rate ("CAGR") of 30%. *See, e.g.*, https://digiworld.news/news/56020/application-containers-market-to-reach-43-billion-by-2022. Another source reported the application containers market had a market size of $5.45 billion in 2024 and estimated it to reach $19.41 billion in 2029—a CAGR of 28.89%. *See, e.g.*, https://www.mordorintelligence.com/industry-reports/application-container-market.

6. Google LLC is a wholly-owned subsidiary of Alphabet, Inc, and a Delaware limited liability company with a principal place of business at 1600 Amphitheatre Parkway, Mountain View, California 94043. Google LLC may be served with process through its registered agent,

Becky DeGeorge, at 2710 Gateway Oaks Drive, Sacramento, California 95833. Google LLC is registered to do business in the State of Texas and has been since at least November 17, 2006.

JURISDICTION AND VENUE

7. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has original subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

8. This Court has personal jurisdiction over Defendant in this action because Defendant has committed acts within this District giving rise to this action, and has established minimum contacts with this forum such that the exercise of jurisdiction over Defendant would not offend traditional notions of fair play and substantial justice. Defendant, directly and through subsidiaries or intermediaries, has committed and continue to commit acts of infringement in this District by, among other things, importing, offering to sell, and selling products that infringe the asserted patents.

9. Venue is proper in this District under 28 U.S.C. § 1400(b). Upon information and belief, Defendant has transacted business in this District and has committed acts of direct and indirect infringement in this District by, among other things, making, using, offering to sell, selling, and importing products that infringe the asserted patents. Defendant has at least one regular and established place of business in the District. For example, Google invested $20 million to build a corporate office at 500 West 2nd Street, Austin, Texas 78701.

ADDITIONAL FACTS

10. Representatives of VirtaMove met with representatives of Google in 2015, 2020, and 2021 for the purposes of partnering with VirtaMove, demonstrating AppZero, training Google on how to use AppZero, allowing Google to run and evaluate AppZero, discussing integration of

AppZero into Google Cloud, and sharing materials about how AppZero works. During this time frame, Google would have learned that AppZero was patented as a matter of basic due diligence, or Google intentionally chose to remain willfully blind to this fact. VirtaMove's technology from its demos and disclosures appears to have made their way into the Accused Products of Google described below.

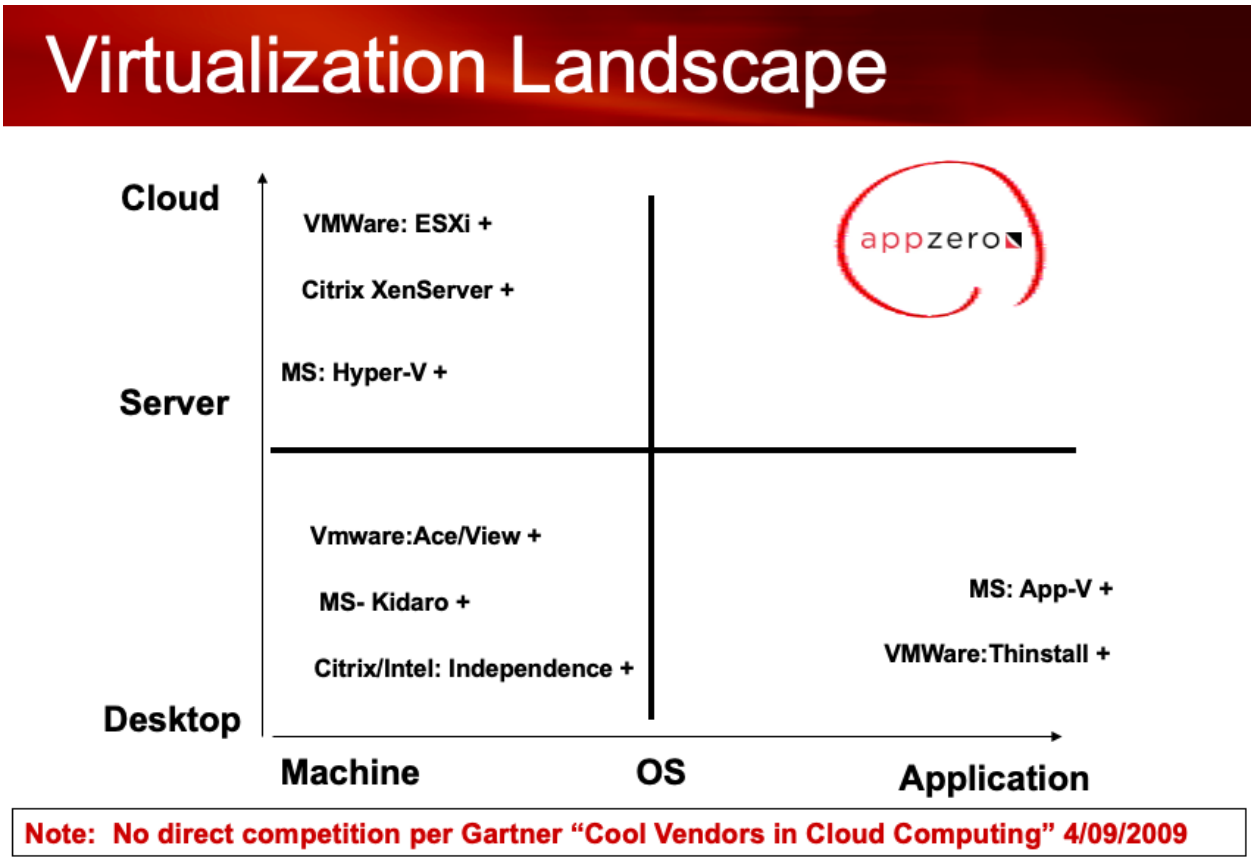
COUNT I

INFRINGEMENT OF U.S. PATENT NO. 7,519,814

11. VirtaMove realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

12. VirtaMove owns all rights, title, and interest in U.S. Patent No. 7,519,814 ('814 patent), titled "System for Containerization of Application Sets," issued on April 14, 2009. A true and correct copy of the '814 Patent is attached as Exhibit **1.**

13. The technology in the '814 Patent was not routine or conventional. Independent business intelligence provider Gartner reported that AppZero had no direct technological competitors in "Cool Vendors in Cloud Computing" in April 2009.



14. Additionally, the USPTO examined the patented technology and concluded that the prior art "fails to anticipate, disclose, teach, or suggest alone, or in combination, at the time of the invention, the features as set forth of the claim . . . . Nowhere in the prior art is found collectively the *italicized* claim elements (i.e., the various aspects of applications software not being sharable between the plurality of secure (and isolated) containers of application software, and unique root file systems different from an operating system's root file system, so as to allow for different versions of the same operating running on the same system/server environment), at the ***time** of the invention*, serving to patently distinguish the prior art." Ex. 5 at 2–5. Thus, multiple aspects of the claims were not found anywhere in the prior art of record, alone or in combination, such that they cannot be described as "routine" or "conventional." *Id.*

15. The technology claimed is not directed to an abstract idea. Rather, it is directed to

a technological improvement in computer technology, and it provides a technological solution to a fundamentally technological problem. Indeed, the problem of application portability across operating systems is inherently rooted in computer technology with no non-technological analog, nor can the solution be performed solely within the human mind. In part, the "invention provides a solution whereby a plurality of services can conveniently be installed on one or more servers in a cost effective and secure manner." Ex. 1 at 2:13–15. This is despite how "a collection of applications . . . must be separated with each application installed on an individual computer system," and despite how "certain applications require a specific version of operating system facilities and as such will not co-exist with applications that require another version." *Id.* at 1:27–41. Moreover, the technology is distinguished from the Virtual Machine approach in that, with Virtual Machines, "an operating system, including files and a kernel, must be deployed for each application" while the technology of the '814 patent requires only requires one operating system regardless of the number of application containers deployed, and it "offers the ability for applications to more effectively share a common compute platform, and also allow applications to be easily moved between platforms, without the requirement for a separate and distinct operating system for each application." *Id.* at 1:51–2:3

16. On information and belief, Defendant makes, uses, offers for sale, sells, and/or imports certain products ("Accused Products"), such as, e.g., Google's Migrate to Containers, that directly infringe, literally and/or under the doctrine of equivalents, claims of the '814 patent, for example:

> Use Migrate to Containers to modernize traditional applications away from virtual machine (VM) instances and into native containers that run on Google Kubernetes Engine (GKE), GKE Enterprise clusters, or Cloud Run platform. You can migrate workloads from VMs that run on VMware or Compute Engine, giving you the flexibility to containerize your existing workloads with ease. Migrate to Containers supports modernization of IBM WebSphere, JBoss, Apache, Tomcat, WordPress, Windows IIS applications, as well as containerisation of Linux-based applications.

https://cloud.google.com/migrate/containers/docs/getting-started. Thus, Google directly infringes by its making, using (e.g., running on Google's servers), offering for sale (e.g., offering Migrate to Containers), selling (e.g., selling Migrate to Containers), and/or importing. Google makes, uses, offers for sale, sells, and/or imports Migrate to Containers, as described in https://www.youtube.com/watch?v=Sbv-lzlGeIo, https://cloud.google.com/migrate/containers, https://cloud.google.com/migrate/containers/docs/getting-started. Migrate to Containers is a tool to containerize existing VM-based applications to run on Google Kubernetes Engine (GKE), GKE Autopilot clusters, GKE Enterprise, or Cloud Run. https://cloud.google.com/migrate/containers/docs/anthos-migrate-benefits.

17. The infringement of the Asserted Patents is also attributable to Defendant. Defendant and/or users of the Accused Products directs and controls use of the Accused Products to perform acts that result in infringement of the Asserted Patents, conditioning benefits on participation in the infringement and establishing the timing and manner of the infringement.

18. Defendant also knowingly and intentionally induces infringement of claims of the '814 patent in violation of 35 U.S.C. § 271(b). Defendant has had knowledge of the '814 patent and the infringing nature of the Accused Products at least as early as when this Complaint was filed and/or earlier. Despite this knowledge of the '814 patent, Defendant continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website) to use the Accused Products in ways that directly infringe the '814 patent. Defendant does so, knowing and intending that its customers and end users will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '814 patent, thereby specifically intending for and inducing its customers to infringe the '814 patent through the customers' normal

and customary use of the Accused Products.

19. Defendant has also infringed, and continue to infringe, claims of the ’814 patent by offering to commercially distribute, commercially distributing, making, and/or importing the Accused Products, which are used in practicing the process, or using the systems, of the patent, and constitute a material part of the invention. Defendant knows the components in the Accused Products to be especially made or especially adapted for use in infringement of the patent, not a staple article, and not a commodity of commerce suitable for substantial noninfringing use. Accordingly, Defendant has been, and currently are, contributorily infringing the ’814 patent, in violation of 35 U.S.C. § 271(c).

20. The Accused Products satisfy all claim limitations of claims of the ’814 patent. A claim chart comparing an independent claim of the ’814 patent to a representative Accused Product, is attached as Exhibit **2**, which is hereby incorporated by reference in its entirety.

21. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Defendant has injured VirtaMove and is liable for infringement of the ’814 patent pursuant to 35 U.S.C. § 271.

22. As a result of Defendant’s infringement of the ’814 patent, VirtaMove is entitled to monetary damages in an amount adequate to compensate for Defendant’s infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court. VirtaMove is entitled to past damages under 35 U.S.C. § 287. *See* https://web.archive.org/web/20230924012816/https://virtamove.com/about-us/product-patents.

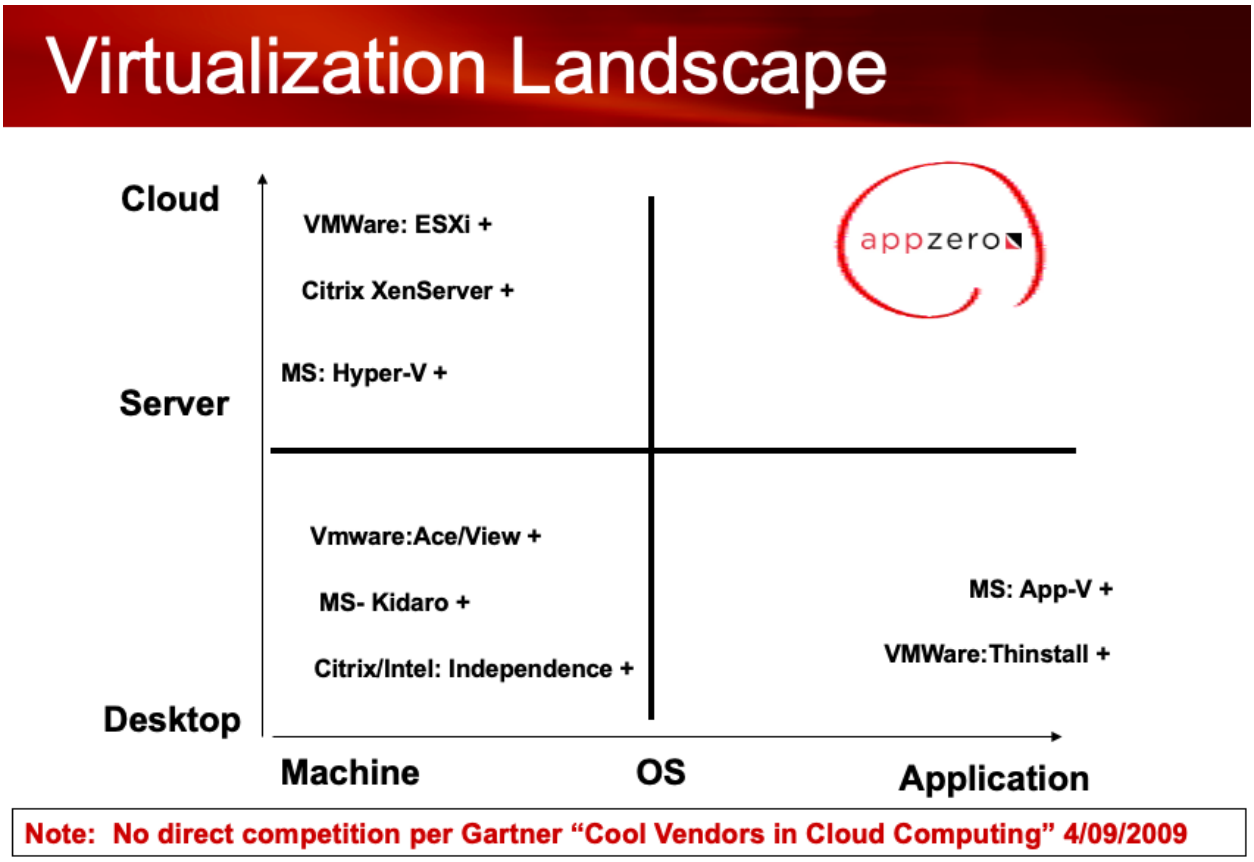
COUNT II

INFRINGEMENT OF U.S. PATENT NO. 7,784,058

23. VirtaMove realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

24. VirtaMove owns all rights, title, and interest in U.S. Patent No. 7,784,058 ('058 patent), titled "Computing System Having User Mode Critical System Elements as Shared Libraries," issued on August 24, 2010. A true and correct copy of the '058 patent is attached as Exhibit **3**.

25. The technology in the '058 Patent was not routine or conventional. Independent business intelligence provider Gartner reported that AppZero had no direct technological competitors in "Cool Vendors in Cloud Computing" in April 2009.



26. Additionally, the USPTO examined the patented technology and concluded that the none of the prior art discloses "a shared library having shared library critical system elements

(SLCSEs) stored therein for use by the plurality of software applications in user mode and i) wherein some of the SLCSEs stored in the shared library are functional replicas of OSCSEs and are accessible to some of the plurality of software applications and when one of the SLCSEs is accessed by one or more of the plurality of software applications it forms a part of the one or more of the plurality of software applications, and ii) wherein an instance of a SLCSE provided to at least a first of the plurality of software applications from the shared library is run in a context of said at least first of the plurality of software applications without being shared with other of the plurality of software applications and where at least a second of the plurality of software applications running under the operating system have use of a unique instance of a corresponding critical system element for performing the same function. iii) wherein a SLCSE related to a predetermined function is provided to the first of the plurality of software applications for running a first instance of the SLCSE, and wherein a SLCSE for performing a same function is provided to the second of the plurality of software applications for running a second instance of the SLCSE simultaneously." Ex. 6 at 4–5. Thus, multiple aspects of the claims were not found anywhere in the prior art of record, alone or in combination, such that they cannot be described as "routine" or "conventional." *Id.*

27. The technology claimed is not directed to an abstract idea. Rather, it is directed to a technological improvement in computer technology, and it provides a technological solution to a fundamentally technological problem. Indeed, the problem of application portability across operating systems is inherently rooted in computer technology with no non-technological analog, nor can the solution be performed solely within the human mind. In part, the technology allows "a CSE to execute in the same context as an application. This then allows, among other things, an ability to deploy multiple instances of a CSE." Ex. 3 at 1:46–50. This is despite how "two software

applications that require the same file, yet each requires a different version of the file will conflict," and despite how "two applications that require independent access to specific network services will conflict." *Id.* at 1:27–41. Moreover, the technology overcomes the "performance and operational differences" suffered by other technological solutions. *Id.* at 1:41–45.

28. On information and belief, Defendant makes, uses, offers for sale, sells, and/or imports certain products ("Accused Products"), such as, e.g., Google's Migrate to Containers, that directly infringe, literally and/or under the doctrine of equivalents, claims of the '058 patent, for example:

> Use Migrate to Containers to modernize traditional applications away from virtual machine (VM) instances and into native containers that run on Google Kubernetes Engine (GKE), GKE Enterprise clusters, or Cloud Run platform. You can migrate workloads from VMs that run on VMware or Compute Engine, giving you the flexibility to containerize your existing workloads with ease. Migrate to Containers supports modernization of IBM WebSphere, JBoss, Apache, Tomcat, WordPress, Windows IIS applications, as well as containerisation of Linux-based applications.

https://cloud.google.com/migrate/containers/docs/getting-started. Thus, Google directly infringes by its making, using (e.g., running on Google's servers), offering for sale (e.g., offering Migrate to Containers), selling (e.g., selling Migrate to Containers), and/or importing. Google makes, uses, offers for sale, sells, and/or imports Migrate to Containers, as described in https://www.youtube.com/watch?v=Sbv-lzlGeIo, https://cloud.google.com/migrate/containers, https://cloud.google.com/migrate/containers/docs/getting-started. Migrate to Containers is a tool to containerize existing VM-based applications to run on Google Kubernetes Engine (GKE), GKE Autopilot clusters, GKE Enterprise, or Cloud Run. https://cloud.google.com/migrate/containers/docs/anthos-migrate-benefits.

29. The infringement of the Asserted Patents is also attributable to Defendant. Defendant and/or users of the Accused Products directs and controls use of the Accused Products to perform acts that result in infringement of the Asserted Patents, conditioning benefits on

participation in the infringement and establishing the timing and manner of the infringement.

30. Defendant also knowingly and intentionally induces infringement of claims of the ’058 patent in violation of 35 U.S.C. § 271(b). Defendant has had knowledge of the ’058 patent and the infringing nature of the Accused Products at least as early as when this Complaint was filed. Despite this knowledge of the ’058 patent, Defendant continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website) to use the Accused Products in ways that directly infringe the ’058 patent. Defendant does so, knowing and intending that its customers and end users will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the ’058 patent, thereby specifically intending for and inducing its customers to infringe the ’058 patent through the customers’ normal and customary use of the Accused Products.

31. Defendant has also infringed, and continue to infringe, claims of the ’058 patent by offering to commercially distribute, commercially distributing, making, and/or importing the Accused Products, which are used in practicing the process, or using the systems, of the patent, and constitute a material part of the invention. Defendant knows the components in the Accused Products to be especially made or especially adapted for use in infringement of the patent, not a staple article, and not a commodity of commerce suitable for substantial noninfringing use. Accordingly, Defendant has been, and currently are, contributorily infringing the ’058 patent, in violation of 35 U.S.C. § 271(c).

32. The Accused Products satisfy all claim limitations of claims of the ’058 patent. A claim chart comparing an independent claim of the ’058 patent to a representative Accused Product, is attached as Exhibit **4**, which is hereby incorporated by reference in its entirety.

33. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Defendant has injured VirtaMove and are liable for infringement of the ’058 patent pursuant to 35 U.S.C. § 271.

34. As a result of Defendant’s infringement of the ’058 patent, VirtaMove is entitled to monetary damages in an amount adequate to compensate for Defendant’s infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court. VirtaMove is entitled to past damages under 35 U.S.C. § 287. *See* https://web.archive.org/web/20230924012816/https://virtamove.com/about-us/product-patents.

PRAYER FOR RELIEF

WHEREFORE, VirtaMove respectfully requests that this Court enter:

a. A judgment in favor of VirtaMove that Defendant has infringed, either literally and/or under the doctrine of equivalents, each of the Asserted Patents;

b. A permanent injunction prohibiting Defendant from further acts of infringement of each of the ’814 and ’058 patents;

c. A judgment and order requiring Defendant to pay VirtaMove its damages, costs, expenses, and pre-judgment and post-judgment interest for Defendant’s infringement of each of the Asserted Patents;

d. A judgment and order requiring Defendant to provide an accounting and to pay supplemental damages to VirtaMove, including without limitation, pre-judgment and post-judgment interest;

e. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to VirtaMove its reasonable attorneys’ fees against

Defendant; and

f. Any and all other relief as the Court may deem appropriate and just under the circumstances.

DEMAND FOR JURY TRIAL

VirtaMove, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable by right.

Dated: May 21, 2024

Respectfully submitted,

/s/ Reza Mirzaie

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Attorneys for Plaintiff VirtaMove, Corp.

CERTIFICATE OF SERVICE

I certify that on May 21, 2024, a true and correct copy of the foregoing document was electronically filed with the Court and served on all parties of record via the Court's CM/ECF system.

/s/ Reza Mirzaie
Reza Mirzaie