

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

REALTIME DATA LLC d/b/a IXO,

Plaintiff,

v.

ZERTO, INC., and ZERTO, LTD,

Defendants.

C.A. No. _____

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT
AGAINST ZERTO, INC. AND ZERTO, LTD

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 Realtime Data LLC d/b/a IXO (“Plaintiff,” “Realtime,” or “IXO”) makes the following allegations against Defendants Zerto, Inc. and Zerto, Ltd. (collectively “Zerto” or “Defendant”):

PARTIES

1. Realtime is a limited liability company organized under the laws of the State of New York. Realtime has places of business at 5851 Legacy Circle, Plano, Texas 75024, 1828 E.S.E. Loop 323, Tyler, Texas 75701, and 66 Palmer Avenue, Suite 27, Bronxville, NY 10708. Since the 1990s, Realtime has researched and developed specific solutions for data compression, including, for example, those that increase the speeds at which data can be stored and accessed. As recognition of its innovations rooted in this technological field, Realtime holds 50 United States patents and has numerous pending patent applications. Realtime has licensed patents in this portfolio to many of the world’s leading technology companies. The patents-in-suit relate to Realtime’s development of advanced systems and methods for fast and efficient data compression using numerous

innovative compression techniques based on, for example, particular attributes of the data.

2. On information and belief, Zerto, Inc. is a Delaware corporation with its principal place of business at 27-43 Wormwood Street, Suite 530, Boston, Massachusetts 02210. Zerto, Inc. can be served through its registered agent, National Registered Agents, Inc., at 160 Greentree Dr. Ste 101, Dover, Delaware 19904.

3. On information and belief, Zerto, Inc., is wholly owned subsidiary of Zerto, Ltd., an Israeli Corporation co-headquartered at 27-43 Wormwood Street, Suite 530, Boston, Massachusetts 02210 and 10 Abba Eban Blvd., Building C, 11th Floor, P.O. Box 12292, Herzliya, Israel 46725. On information and belief, Zerto, Inc. and Zerto, Ltd. are jointly involved in the acts of infringement alleged herein.

JURISDICTION AND VENUE

4. 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).

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

6. Venue is proper in this district under 28 U.S.C. § 1400(b). Upon information and belief, Zerto, Inc. is incorporated in Delaware, has transacted business in the District of Delaware, and has committed acts of direct and indirect infringement in the District of Delaware.

7. This Court has personal jurisdiction over Defendant Zerto, Ltd. in this action because Zerto, Ltd. is foreign entity and has committed acts within the District of Delaware and elsewhere in the United States giving rise to this action and has established minimum contacts with this forum such that the exercise of jurisdiction over Zerto, Ltd. would not offend traditional notions of fair play and substantial justice. Zerto, Ltd. directly and through subsidiaries or intermediaries, has committed and continues to commit acts of infringement in this District by, among other things, offering to sell and selling products and/or services that infringe the asserted patents.

8. Venue is proper in this district under 28 U.S.C. § 1400(b). Upon information and belief, Zerto, Ltd. is a foreign corporation, has transacted business in the District of Delaware, and has committed acts of direct and indirect infringement in the District of Delaware.

COUNT I
INFRINGEMENT OF U.S. PATENT NO. 9,054,728

9. Plaintiff realleges and incorporates by reference the foregoing paragraphs, as if fully set forth herein.

10. Plaintiff Realtime is the owner by assignment of United States Patent No. 9,054,728 (the “’728 Patent”) entitled “Data compression systems and methods.” The ’728 Patent was duly and legally issued by the United States Patent and Trademark

Office on June 9, 2015. A true and correct copy of the '728 Patent is included as Exhibit A.

11. On information and belief, Zerto has offered for sale, sold and/or imported into the United States Zerto products and services that infringe the '728 patent, and continues to do so. By way of illustrative example, these infringing products and services include, without limitation, Zerto's products and services, *e.g.*, Zerto Virtual Manager, Virtual Replication Appliance, and all versions and variations thereof since the issuance of the '728 Patent ("Accused Instrumentalities").

12. On information and belief, Zerto has directly infringed and continues to infringe the '728 Patent, for example, by making, selling, offering for sale, and/or importing the Accused Instrumentalities, and through its own use and testing of the Accused Instrumentalities, which constitute systems for compressing data claimed by Claim 1 of the '728 Patent, comprising: a processor; one or more content dependent data compression encoders; and a single data compression encoder; wherein the processor is configured: to analyze data within a data block to identify one or more parameters or attributes of the data wherein the analyzing of the data within the data block to identify the one or more parameters or attributes of the data excludes analyzing based solely on a descriptor that is indicative of the one or more parameters or attributes of the data within the data block; to perform content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified; and to perform data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not identified. Upon information and belief, Zerto uses the Accused Instrumentalities, which

are infringing systems, for its own internal non-testing business purposes, while testing the Accused Instrumentalities, and while providing technical support and repair services for the Accused Instrumentalities to Zerto's customers.

13. On information and belief, Zerto has had knowledge of the '728 Patent since at least the filing of the original Complaint in this action, or shortly thereafter, and on information and belief, Zerto knew of the '728 Patent and knew of its infringement, including by way of this lawsuit.

14. Zerto's affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentalities have induced and continue to induce users of the Accused Instrumentalities to use the Accused Instrumentalities in their normal and customary way on compatible systems to infringe Claim 1 of the '728 Patent, knowing that when the Accused Instrumentalities are used in their ordinary and customary manner with such compatible systems, such systems constitute infringing systems for compressing data comprising; a processor; one or more content dependent data compression encoders; and a single data compression encoder; wherein the processor is configured: to analyze data within a data block to identify one or more parameters or attributes of the data wherein the analyzing of the data within the data block to identify the one or more parameters or attributes of the data excludes analyzing based solely on a descriptor that is indicative of the one or more parameters or attributes of the data within the data block; to perform content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified; and to perform data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not

identified. For example, Zerto explains to customers the benefits of using the Accused Instrumentalities, such as by touting their performance advantages: “At the heart of Zerto’s patent-pending replication technology is the Zerto Virtual Replication Appliance (VRA). A single, software-based VRA is quickly installed on each host, capable of protecting all the VMs on that host. The VRA continuously replicates data from VMs and VMDKs selected by the user, compressing it and sending it to the remote site over WAN.” <http://storageclarity.com/Zerto-Virtual-Replication-Data-Sheet.pdf>. For similar reasons, Zerto also induces its customers to use the Accused Instrumentalities to infringe other claims of the ’728 Patent. Zerto specifically intended and was aware that the normal and customary use of the Accused Instrumentalities on compatible systems would infringe the ’728 Patent. Zerto performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the ’728 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Zerto engaged in such inducement to promote the sales of the Accused Instrumentalities, *e.g.*, through Zerto’s user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the ’728 Patent. Accordingly, Zerto has induced and continues to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing the ’728 Patent, knowing that such use of the Accused Instrumentalities with compatible systems will result in infringement of the ’728 Patent.

15. The Accused Instrumentalities include a system for compressing data, comprising a processor. For example, “[T]he VRA (Virtual Replication Appliance) is a

custom, very thin, Linux-based virtual machine with a small footprint, disk – memory and CPU – and increased security since there are a minimum number of services installed.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>. Moreover, the Accused Instrumentalities states that the customer can choose between “better compression, which requires more CPU, or less compression to reduce the CPU overhead.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>.

16. The Accused Instrumentalities include a system for compressing data, comprising one or more content dependent data compression encoders. For example, the Accused Instrumentalities perform block-level deduplication, which is a content dependent data compression encoder. As such, the Accused Instrumentalities provide “[A] specialized data compression technique for eliminating duplicate copies of repeating data.”

Data Deduplication	A specialized data compression technique for eliminating duplicate copies of repeating data.
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<https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>. Moreover, the Accused Instrumentalities also disclose that “[R]eplication of VMs with active de-duplication is supported with Zerto Virtual Replication.” <https://www.zerto.com/myzerto/knowledge-base/replication-of-vms-with-deduplication/>. Performing deduplication results in compression by representing data with fewer bits.

17. The Accused Instrumentalities comprise a single data compression encoder. For example, the Accused Instrumentalities “compress backups stored in the repository.”

“Compression is done using zip compression, set to level six.”

<https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>.

18. The Accused Instrumentalities analyze data within a data block to identify one or more parameters or attributes of the data, for example, whether the data is duplicative of data previously transmitted and/or stored, where the analysis does not rely only on the descriptor. As such, the Accused Instrumentalities provide “[A] specialized data compression technique for eliminating duplicate copies of repeating data.”

Data Deduplication	A specialized data compression technique for eliminating duplicate copies of repeating data.
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<https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>. Moreover, the Accused Instrumentalities also disclose that “[R]eplication of VMs with active de-duplication is supported with Zerto Virtual Replication.” <https://www.zerto.com/myzerto/knowledge-base/replication-of-vms-with-deduplication/>.

19. The Accused Instrumentalities perform content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified. For example, the Accused Instrumentalities provide “[A] specialized data compression technique for eliminating duplicate copies of repeating data.”

Data Deduplication	A specialized data compression technique for eliminating duplicate copies of repeating data.
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<https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>. Moreover, the Accused Instrumentalities also disclose that “[R]eplication of VMs with active de-duplication is supported with Zerto

Virtual Replication.” <https://www.zerto.com/myzerto/knowledge-base/replication-of-vms-with-deduplication/>.

20. The Accused Instrumentalities perform data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not identified. For example, the Accused Instrumentalities “compress backups stored in the repository.” “Compression is done using zip compression, set to level six.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>.

21. Zerto also infringes other claims of the '728 Patent, directly and through inducing infringement and contributory infringement.

22. On information and belief, use of the Accused Instrumentalities in their ordinary and customary fashion results in infringement of the methods claimed by the '728 Patent.

23. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities' compression features, Zerto has injured Realtime and is liable to Realtime for infringement of the '728 Patent pursuant to 35 U.S.C. § 271.

24. As a result of Zerto's infringement of the '728 Patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Zerto's infringement, but in no event less than a reasonable royalty for the use made of the invention by Zerto, together with interest and costs as fixed by the Court.

COUNT II
INFRINGEMENT OF U.S. PATENT NO. 9,667,751

25. Plaintiff realleges and incorporates by reference the foregoing paragraphs, as if fully set forth herein.

26. Plaintiff Realtime is the owner by assignment of United States Patent No. 9,667,751 (the “’751 Patent”) entitled “Data feed acceleration.” The ’751 Patent was duly and legally issued by the United States Patent and Trademark Office on May 30, 2017. A true and correct copy of the ’751 Patent is included as Exhibit B.

27. On information and belief, Zerto has offered for sale, sold and/or imported into the United States Zerto products and services that infringe the ’751 patent, and continues to do so. By way of illustrative example, these infringing products and services include, without limitation, Zerto’s products and services, *e.g.*, Zerto Virtual Manager, Virtual Replication Appliance, and all versions and variations thereof since the issuance of the ’751 Patent (“Accused Instrumentalities”).

28. On information and belief, Zerto has directly infringed and continues to infringe the ’751 Patent, for example, through its own use and testing of the Accused Instrumentalities, which in the ordinary course of their operation form a system for compressing data claimed by Claim 25 of the ’751 Patent, including: a data server implemented on one or more processors and one or more memory systems; the data server configured to analyze content of a data block to identify a parameter, attribute, or value of the data block that excludes analysis based solely on reading a descriptor; the data server configured to select an encoder associated with the identified parameter, attribute, or value; the data server configured to compress data in the data block with the selected encoder to produce a compressed data block, wherein the compression utilizes a

state machine; and the data server configured to store the compressed data block; wherein the time of the compressing the data block and the storing the compressed data block is less than the time of storing the data block in uncompressed form. Upon information and belief, Zerto uses the Accused Instrumentalities, which are infringing systems, for its own internal non-testing business purposes, while testing the Accused Instrumentalities, and while providing technical support and repair services for the Accused Instrumentalities to Zerto's customers.

29. On information and belief, Zerto has had knowledge of the '751 Patent since at least the filing of the original Complaint in this action, or shortly thereafter, and on information and belief, Zerto knew of the '751 Patent and knew of its infringement, including by way of this lawsuit.

30. Upon information and belief, Zerto's affirmative acts of making, using, and selling the Accused Instrumentalities, and providing implementation services and technical support to users of the Accused Instrumentalities, have induced and continue to induce users of the Accused Instrumentalities to use them in their normal and customary way to infringe Claim 25 of the '751 Patent by making or using a data server implemented on one or more processors and one or more memory systems; the data server configured to analyze content of a data block to identify a parameter, attribute, or value of the data block that excludes analysis based solely on reading a descriptor; the data server configured to select an encoder associated with the identified parameter, attribute, or value; the data server configured to compress data in the data block with the selected encoder to produce a compressed data block, wherein the compression utilizes a state machine; and the data server configured to store the compressed data block; wherein

the time of the compressing the data block and the storing the compressed data block is less than the time of storing the data block in uncompressed form. For example, Zerto explains to customers the benefits of using the Accused Instrumentalities, such as by touting their efficiency: “At the heart of Zerto’s patent-pending replication technology is the Zerto Virtual Replication Appliance (VRA). A single, software-based VRA is quickly installed on each host, capable of protecting all the VMs on that host. The VRA continuously replicates data from VMs and VMDKs selected by the user, compressing it and sending it to the remote site over WAN.” <http://storageclarity.com/Zerto-Virtual-Replication-Data-Sheet.pdf>. For similar reasons, Zerto also induces its customers to use the Accused Instrumentalities to infringe other claims of the ’751 Patent. Zerto specifically intended and was aware that these normal and customary activities would infringe the ’751 Patent. Zerto performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the ’751 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Zerto engaged in such inducement to promote the sales of the Accused Instrumentalities. Accordingly, Zerto has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the ’751 Patent, knowing that such use constitutes infringement of the ’751 Patent.

31. The Accused Instrumentalities include a system for compressing data. For example, the Accused Instrumentalities suggest that “[T]he VRA continuously replicates data from VMs and VMDKs selected by the user, compressing it and sending it to the remote site over WAN.” <http://storageclarity.com/Zerto-Virtual-Replication-Data->

[Sheet.pdf](#). Additionally, the Accused Instrumentalities further specify that “Zerto Virtual Replication employs sophisticated compression algorithms to reduce the bandwidth required between the sites. While compression can be very effective in reducing the bandwidth requirements, its efficiency is dependent on data characteristics.”

32. The Accused Instrumentalities include a data server implemented on one or more processors and one or more memory systems. For example, “[T]he VRA (Virtual Replication Appliance) is a custom, very thin, Linux-based virtual machine with a small footprint, disk – memory and CPU – and increased security since there are a minimum number of services installed.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>.

Moreover, the Accused Instrumentalities states that the customer can choose between “better compression, which requires more CPU, or less compression to reduce the CPU overhead.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>. The Accused Instrumentalities also include a local memory (e.g., “Local Memory – The percentage of the VRA memory used by protected volumes managed by the VRA. If the memory consumption is high you can consider vMotioning some of the virtual machines to a different host.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>). On information and belief, all of the Accused Instrumentalities use one or more memory systems in substantially the same way.

33. The Accused Instrumentalities include a data server configured to analyze content of a data block to identify a parameter, attribute, or value of the data block that excludes analysis based solely on reading a descriptor. For example, the Accused

Instrumentalities provide “[A] specialized data compression technique for eliminating duplicate copies of repeating data.”

Data Deduplication A specialized data compression technique for eliminating duplicate copies of repeating data.

<https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>. Moreover, the Accused Instrumentalities also disclose that “[R]eplication of VMs with active de-duplication is supported with Zerto Virtual Replication.” <https://www.zerto.com/myzerto/knowledge-base/replication-of-vms-with-deduplication/>.

34. The Accused Instrumentalities include a data server configured to select an encoder associated with the identified parameter, attribute, or value. For example, the Accused Instrumentalities select between deduplication or other compression. For example, the Accused Instrumentalities provide “[A] specialized data compression technique for eliminating duplicate copies of repeating data.”

Data Deduplication A specialized data compression technique for eliminating duplicate copies of repeating data.

<https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>. Moreover, the Accused Instrumentalities also disclose that “[R]eplication of VMs with active de-duplication is supported with Zerto Virtual Replication.” <https://www.zerto.com/myzerto/knowledge-base/replication-of-vms-with-deduplication/>.

35. The Accused Instrumentalities include a data server configured to compress data in the data block with the selected encoder to produce a compressed data block, wherein the compression utilizes a state machine. For example, the Accused Instrumentalities provide “[A] specialized data compression technique for eliminating

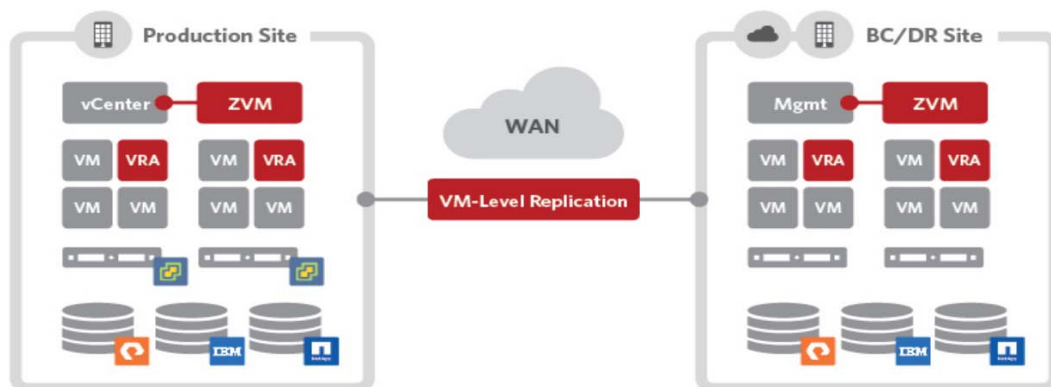
duplicate copies of repeating data.”

Data Deduplication	A specialized data compression technique for eliminating duplicate copies of repeating data.
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<https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>. Moreover, Zerto discloses that “[C]ompression is done using zip compression, set to level six.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>.

36. The Accused Instrumentalities include a data server configured to store the compressed data block. For example, the Accused Instrumentalities include storage arrays, such as “Storage Area Network (SAN) and Network-Attached Storage (NAS), and virtual disk types such as Raw Device Mapping (RDM) and VMWare File System (VMFS).” <https://www.zerto.com/products/on-premises-disaster-recovery/hypervisor-based-replication/>. Moreover, Zerto also “creates a dynamic, efficient, and relatively low-cost deduplicated backup storage and long-term archiving solution.” See Zerto Virtual Replication Offsite Backup and Deduplication With Windows Server 2012R2. On information and belief, all of the Accused Instrumentalities include a data server configured to store the compressed data block in substantially the same way.

37. The time of the compressing the data block and the storing the compressed data block in the Accused Instrumentalities is less than the time of storing the data block in uncompressed form. Due to the data reduction and acceleration features of the specific compression algorithms used, the time of the compressing the data block and the storing the compressed data block is less than the time of storing the data block in uncompressed form. As shown in the figure below, Zerto stores compressed data in the storage devices.



<https://www.zerto.com/products/on-premises-disaster-recovery/hypervisor-based-replication/>. Moreover, Zerto Virtual Replication “employs sophisticated compression algorithms to reduce the bandwidth required between the sites. While compression can be very effective in reducing the bandwidth requirements, its efficiency is dependent on data characteristics.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>. Furthermore, Zerto states that “[F]or greater efficiency and performance, the write can be compressed before being sent to the recovery site with throttling techniques being used to prioritize network traffic.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>.

38. On information and belief, Zerto also infringes, directly and through induced infringement, and continues to infringe other claims of the ’751 Patent.

39. On information and belief, use of the Accused Instrumentalities in their ordinary and customary fashion results in infringement of the methods claimed by the ’751 Patent.

40. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the

Accused Instrumentalities' compression features, Zerto has injured Realtime and is liable to Realtime for infringement of the '751 Patent pursuant to 35 U.S.C. § 271.

41. As a result of Zerto's infringement of the '751 Patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Zerto's infringement, but in no event less than a reasonable royalty for the use made of the invention by Zerto, together with interest and costs as fixed by the Court.

COUNT III
INFRINGEMENT OF U.S. PATENT NO. 7,415,530

42. Plaintiff realleges and incorporates by reference the foregoing paragraphs, as if fully set forth herein.

43. Plaintiff Realtime is the owner by assignment of United States Patent No. 7,415,530 (the "'530 Patent") entitled "System and methods for accelerated data storage and retrieval." The '530 Patent was duly and legally issued by the United States Patent and Trademark Office on August 19, 2008. A true and correct copy of the '530 Patent is included as Exhibit C.

44. On information and belief, Zerto has made, used, offered for sale, sold and/or imported into the United States Zerto products that infringe the '530 Patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Zerto's products and services, e.g., Zerto Virtual Manager, Virtual Replication Appliance, and all versions and variations thereof since the issuance of the '530 patent ("Accused Instrumentality").

45. On information and belief, Zerto has directly infringed and continues to infringe the '530 Patent, for example, through its own use and testing of the Accused Instrumentality, which constitutes a system comprising: a memory device; and a data

accelerator, wherein said data accelerator is coupled to said memory device, a data stream is received by said data accelerator in received form, said data stream includes a first data block and a second data block, said data stream is compressed by said data accelerator to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique, said first and second compression techniques are different, said compressed data stream is stored on said memory device, said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form, a first data descriptor is stored on said memory device indicative of said first compression technique, and said first descriptor is utilized to decompress the portion of said compressed data stream associated with said first data block. Upon information and belief, Zerto uses the Accused Instrumentality, an infringing system, for its own internal non-testing business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Zerto's customers.

46. On information and belief, Zerto has had knowledge of the '530 Patent since at least the filing of this Complaint or shortly thereafter, and on information and belief, Zerto knew of the '530 Patent and knew of its infringement, including by way of this lawsuit.

47. Upon information and belief, Zerto's affirmative acts of making, using, and selling the Accused Instrumentalities, and providing implementation services and technical support to users of the Accused Instrumentalities, have induced and continue to induce users of the Accused Instrumentalities to use them in their normal and customary way to infringe Claim 1 of the '530 Patent by making or using a system comprising: a

memory device; and a data accelerator, wherein said data accelerator is coupled to said memory device, a data stream is received by said data accelerator in received form, said data stream includes a first data block and a second data block, said data stream is compressed by said data accelerator to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique, said first and second compression techniques are different, said compressed data stream is stored on said memory device, said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form, a first data descriptor is stored on said memory device indicative of said first compression technique, and said first descriptor is utilized to decompress the portion of said compressed data stream associated with said first data block.

48. For example, Zerto explains to customers the benefits of using the Accused Instrumentality: “At the heart of Zerto’s patent-pending replication technology is the Zerto Virtual Replication Appliance (VRA). A single, software-based VRA is quickly installed on each host, capable of protecting all the VMs on that host. The VRA continuously replicates data from VMs and VMDKs selected by the user, compressing it and sending it to the remote site over WAN.” <http://storageclarity.com/Zerto-Virtual-Replication-Data-Sheet.pdf>.

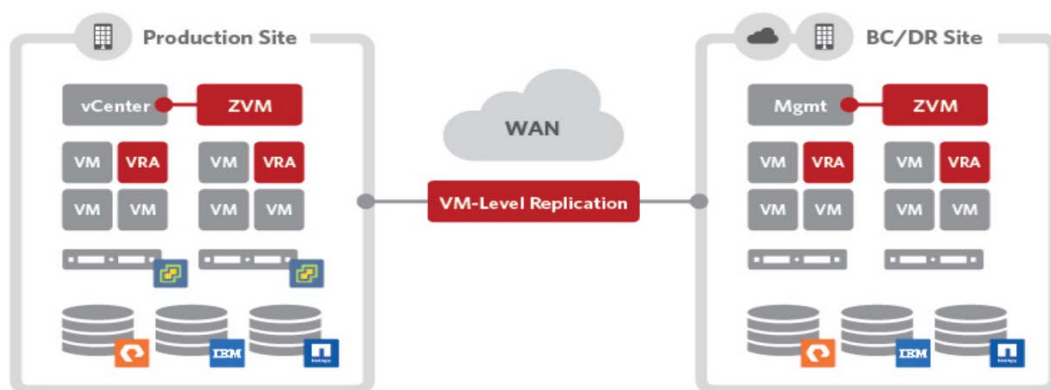
49. Zerto also induces its customers to use the Accused Instrumentalities to infringe other claims of the ’530 Patent. Zerto specifically intended and was aware that these normal and customary activities would infringe the ’530 Patent. Zerto performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the ’530 Patent and with the knowledge, or willful blindness to the

probability, that the induced acts would constitute infringement. On information and belief, Zerto engaged in such inducement to promote the use of the Accused Instrumentalities. Accordingly, Zerto has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the '530 Patent, knowing that such use constitutes infringement of the '530 Patent.

50. Zerto also indirectly infringes the '530 Patent by manufacturing, using, selling, offering for sale, and/or importing the accused products, with knowledge that the accused products were and are especially manufactured and/or especially adapted for use in infringing the '530 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. On information and belief, the Accused Instrumentality is designed to function with compatible hardware to create a system comprising: a memory device; and a data accelerator, wherein said data accelerator is coupled to said memory device, a data stream is received by said data accelerator in received form, said data stream includes a first data block and a second data block, said data stream is compressed by said data accelerator to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique, said first and second compression techniques are different, said compressed data stream is stored on said memory device, said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form, a first data descriptor is stored on said memory device indicative of said first compression technique, and said first descriptor is utilized to decompress the portion of said compressed data stream associated with said

first data block. Because the Accused Instrumentality is designed to operate as the claimed system for compressing, the Accused Instrumentality has no substantial non-infringing uses, and any other uses would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental. Zerto's manufacture, use, sale, offering for sale, and/or importation of the Accused Instrumentality constitutes contributory infringement of the '530 Patent.

51. The Accused Instrumentality includes the memory device and includes the data accelerator, wherein said data accelerator is coupled to said memory device. For example, Zerto's Virtual Replication Appliance (VRA) "continuously replicates data from user-selected virtual machines, compressing and sending that data to the remote site over WAN links."



[https://www.zerto.com/products/on-premises-disaster-recovery/hypervisor-based-](https://www.zerto.com/products/on-premises-disaster-recovery/hypervisor-based-replication/)

[replication/](https://www.zerto.com/products/on-premises-disaster-recovery/hypervisor-based-replication/). The Accused Instrumentalities also include a local memory (e.g., "Local Memory – The percentage of the VRA memory used by protected volumes managed by the VRA. If the memory consumption is high you can consider vMotioning some of the virtual machines to a different host." <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>).

Furthermore, Zerto includes storage arrays connected to data accelerator, such as “Storage Area Network (SAN) and Network-Attached Storage (NAS), and virtual disk types such as Raw Device Mapping (RDM) and VMWare File System (VMFS).” <https://www.zerto.com/products/on-premises-disaster-recovery/hypervisor-based-replication/>.

52. The Accused Instrumentality receives an incoming stream of data. For example, Zerto states that since VRA is “installed directly inside the virtual infrastructure (as opposed to on individual machines), the VRA is able to tap into a virtual machine’s IO stream.” <https://www.zerto.com/products/on-premises-disaster-recovery/hypervisor-based-replication/>.

53. The Accused Instrumentality’s received data stream comprise more than one data block. For example, Zerto discloses that “[V]RAs on different hosts communicate between themselves, synchronizing replication to ensure block-level consistency between different VMs located on different hosts and storage arrays.” <http://storageclarity.com/Zerto-Virtual-Replication-Data-Sheet.pdf>.

54. The Accused Instrumentality compresses said data stream to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique. For example, the Accused Instrumentalities provide “[A] specialized data compression technique for eliminating duplicate copies of repeating data.”

Data Deduplication	A specialized data compression technique for eliminating duplicate copies of repeating data.
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<https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>. Moreover, the Accused Instrumentalities also disclose that “[R]eplication of VMs with active de-duplication is supported with Zerto Virtual Replication.” <https://www.zerto.com/myzerto/knowledge-base/replication-of-vms-with-deduplication/>. As another example, the Accused Instrumentalities “compress backups stored in the repository.” “Compression is done using zip compression, set to level six.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>.

55. The first and second compression techniques used by the Accused Instrumentality described above are different. For example, the Accused Instrumentalities provide “[A] specialized data compression technique for eliminating duplicate copies of repeating data.”

Data Deduplication	A specialized data compression technique for eliminating duplicate copies of repeating data.
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<https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>. Moreover, the Accused Instrumentalities also disclose that “[R]eplication of VMs with active de-duplication is supported with Zerto Virtual Replication.” <https://www.zerto.com/myzerto/knowledge-base/replication-of-vms-with-deduplication/>. As another example, the Accused Instrumentalities “compress backups stored in the repository.” “Compression is done using zip compression, set to level six.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>.

56. After compression, said compressed data stream is stored on said memory device. For example, the Accused Instrumentalities include storage arrays, such as

“Storage Area Network (SAN) and Network-Attached Storage (NAS), and virtual disk types such as Raw Device Mapping (RDM) and VMWare File System (VMFS).” <https://www.zerto.com/products/on-premises-disaster-recovery/hypervisor-based-replication/>. Moreover, Zerto “creates a dynamic, efficient, and relatively low-cost deduplicated backup storage and long-term archiving solution.” See Zerto Virtual Replication Offsite Backup and Deduplication With Windows Server 2012R2. Zerto also discloses that in order “[T]o save space the offsite backups can be compressed before they are stored in the repository.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>.

57. Said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form. For example, Zerto Virtual Replication “employs sophisticated compression algorithms to reduce the bandwidth required between the sites. While compression can be very effective in reducing the bandwidth requirements, its efficiency is dependent on data characteristics.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>. Furthermore, Zerto states that “[F]or greater efficiency and performance, the write can be compressed before being sent to the recovery site with throttling techniques being used to prioritize network traffic.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>.

58. The Accused Instrumentality stores a first data descriptor on said memory device indicative of said first compression technique. For example, the Accused

Instrumentalities provide “[A] specialized data compression technique for eliminating duplicate copies of repeating data.”

Data Deduplication

A specialized data compression technique for eliminating duplicate copies of repeating data.

<https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>. Moreover, the Accused Instrumentalities also disclose that “[R]eplication of VMs with active de-duplication is supported with Zerto Virtual Replication.” <https://www.zerto.com/myzerto/knowledge-base/replication-of-vms-with-deduplication/>.

59. On information and belief, Zerto also infringes, directly and through induced infringement and contributory infringement, and continues to infringe other claims of the ’530 Patent.

60. On information and belief, use of the Accused Instrumentality in its ordinary and customary fashion results in infringement of the methods claimed by the ’530 Patent.

61. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities’ compression features, Zerto has injured Realtime and is liable to Realtime for infringement of the ’530 Patent pursuant to 35 U.S.C. § 271.

62. As a result of Zerto’s infringement of the ’530 Patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Zerto’s infringement, but in no event less than a reasonable royalty for the use made of the invention by Zerto, together with interest and costs as fixed by the Court.

COUNT IV
INFRINGEMENT OF U.S. PATENT NO. 9,116,908

63. Plaintiff Realtime realleges and incorporates by reference the foregoing paragraphs, as if fully set forth herein.

64. Plaintiff Realtime is the owner by assignment of United States Patent No. 9,116,908 (the “’908 Patent”) entitled “System and methods for accelerated data storage and retrieval.” The ’908 Patent was duly and legally issued by the United States Patent and Trademark Office on August 25, 2015, and Claims 1, 2, 4-6, 9, 11, 21, 22, 24, and 25 of the ’908 Patent confirmed as patentable in a Final Written Decision of the Patent Trial and Appeal Board on October 31, 2017. A true and correct copy of the ’908 Patent is included as Exhibit D.

65. On information and belief, Zerto has offered for sale, sold and/or imported into the United States Zerto products and services that infringe the ’908 Patent, and continues to do so. By way of illustrative example, these infringing products and services include, without limitation, Zerto’s products and services, *e.g.*, Zerto Virtual Manager, Virtual Replication Appliance, and all versions and variations thereof since the issuance of the ’908 Patent (the “Accused Instrumentality”).

66. On information and belief, Zerto has directly infringed and continues to infringe the ’908 Patent, for example, through its own use and testing of the Accused Instrumentality, which constitutes a system comprising: a memory device; and a data accelerator configured to compress: (i) a first data block with a first compression technique to provide a first compressed data block; and (ii) a second data block with a second compression technique, different from the first compression technique, to provide a second compressed data block; wherein the compressed first and second data blocks are

stored on the memory device, and the compression and storage occurs faster than the first and second data blocks are able to be stored on the memory device in uncompressed form. Upon information and belief, Zerto uses the Accused Instrumentality, an infringing system, for its own internal non-testing business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Zerto's customers.

67. On information and belief, use of the Accused Instrumentality in its ordinary and customary fashion results in infringement of the systems claimed by the '908 Patent.

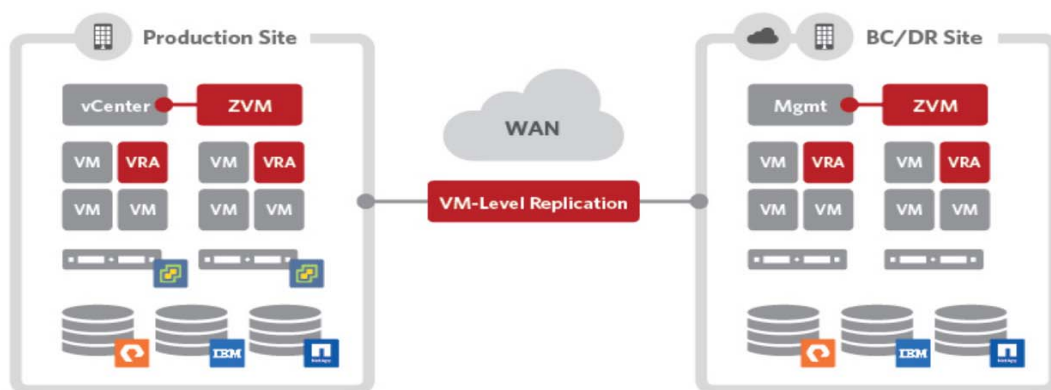
68. On information and belief, Zerto has had knowledge of the '908 Patent since at least the filing of this First Amended Complaint or shortly thereafter, and on information and belief, Zerto knew of the '908 Patent and knew of its infringement, including by way of this lawsuit.

69. Upon information and belief, Zerto's affirmative acts of making, using, and selling the Accused Instrumentalities, and providing implementation services and technical support to users of the Accused Instrumentalities, have induced and continue to induce users of the Accused Instrumentalities to use them in their normal and customary way to infringe Claim 1 of the '908 Patent by making or using a system comprising: a memory device; and a data accelerator configured to compress: (i) a first data block with a first compression technique to provide a first compressed data block; and (ii) a second data block with a second compression technique, different from the first compression technique, to provide a second compressed data block; wherein the compressed first and second data blocks are stored on the memory device, and the compression and storage

occurs faster than the first and second data blocks are able to be stored on the memory device in uncompressed form. For example, Zerto explains to customers the benefits of using the Accused Instrumentalities, such as by touting their performance advantages: “At the heart of Zerto’s patent-pending replication technology is the Zerto Virtual Replication Appliance (VRA). A single, software-based VRA is quickly installed on each host, capable of protecting all the VMs on that host. The VRA continuously replicates data from VMs and VMDKs selected by the user, compressing it and sending it to the remote site over WAN.” <http://storageclarity.com/Zerto-Virtual-Replication-Data-Sheet.pdf>. For similar reasons, Zerto also induces its customers to use the Accused Instrumentalities to infringe other claims of the ’908 Patent. Zerto specifically intended and was aware that these normal and customary activities would infringe the ’908 Patent. Zerto performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the ’908 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Zerto engaged in such inducement to promote the sales of the Accused Instrumentalities. Accordingly, Zerto has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the ’908 Patent, knowing that such use constitutes infringement of the ’908 Patent.

70. The Accused Instrumentality includes a memory device and a data accelerator configured to compress: (i) a first data block with a first compression technique (e.g., deduplication) to provide a first compressed data block; and (ii) a second data block with a second compression technique (e.g., another compression), different

from the first compression technique, to provide a second compressed data block. For example, Zerto's Virtual Replication Appliance (VRA) "continuously replicates data from user-selected virtual machines, compressing and sending that data to the remote site over WAN links."



<https://www.zerto.com/products/on-premises-disaster-recovery/hypervisor-based-replication/>. The Accused Instrumentalities also include a local memory (e.g., "Local

Memory – The percentage of the VRA memory used by protected volumes managed by the VRA. If the memory consumption is high you can consider vMotioning some of the virtual machines to a different host." <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>.

Furthermore, Zerto includes storage arrays connected to data accelerator, such as "Storage Area Network (SAN) and Network-Attached Storage (NAS), and virtual disk types such as Raw Device Mapping (RDM) and VMWare File System (VMFS)." <https://www.zerto.com/products/on-premises-disaster-recovery/hypervisor-based-replication/>.

For example, the Accused Instrumentalities provide "[A] specialized data compression technique for eliminating duplicate copies of repeating data."

Data Deduplication	A specialized data compression technique for eliminating duplicate copies of repeating data.
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<https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>. Moreover, the Accused Instrumentalities also disclose that “[R]eplication of VMs with active de-duplication is supported with Zerto Virtual Replication.” <https://www.zerto.com/myzerto/knowledge-base/replication-of-vms-with-deduplication/>. As another example, the Accused Instrumentalities “compress backups stored in the repository.” “Compression is done using zip compression, set to level six.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>.

71. The Accused Instrumentality stores the compressed first and second data blocks on the memory device. For example, the Accused Instrumentalities include storage arrays, such as “Storage Area Network (SAN) and Network-Attached Storage (NAS), and virtual disk types such as Raw Device Mapping (RDM) and VMWare File System (VMFS).” <https://www.zerto.com/products/on-premises-disaster-recovery/hypervisor-based-replication/>. Moreover, Zerto “creates a dynamic, efficient, and relatively low-cost deduplicated backup storage and long-term archiving solution.” *See* Zerto Virtual Replication Offsite Backup and Deduplication With Windows Server 2012R2. Zerto also discloses that in order “[T]o save space the offsite backups can be compressed before they are stored in the repository.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>. The compression and storage occurs faster than the first and second data blocks are able to be stored on the memory device in uncompressed form. For example, Zerto Virtual Replication “employs sophisticated

compression algorithms to reduce the bandwidth required between the sites. While compression can be very effective in reducing the bandwidth requirements, its efficiency is dependent on data characteristics.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>.

Furthermore, Zerto states that “[F]or greater efficiency and performance, the write can be compressed before being sent to the recovery site with throttling techniques being used to prioritize network traffic.” <https://www.zerto.com/myzerto/wp-content/uploads/2015/10/Zerto-Virtual-Manager-vSphere-Administration-Guide.pdf>.

72. On information and belief, Zerto also infringes, directly and through induced infringement, and continues to infringe other claims of the ’908 Patent.

73. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities’ compression features, Zerto has injured Realtime and is liable to Realtime for infringement of the ’908 Patent pursuant to 35 U.S.C. § 271.

74. As a result of Zerto’s infringement of the ’908 Patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Zerto’s infringement, but in no event less than a reasonable royalty for the use made of the invention by Zerto, together with interest and costs as fixed by the Court.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff Realtime respectfully requests that this Court enter:

a. A judgment in favor of Plaintiff that Zerto has infringed, either literally and/or under the doctrine of equivalents, the ’728 Patent, the ’751 Patent, the ’530 Patent, and the ’908 Patent;

b. A permanent injunction prohibiting Zerto from further acts of infringement of the '728 Patent, the '751 Patent, the '530 Patent, and the '908 Patent;

c. A judgment and order requiring Zerto to pay Plaintiff its damages, costs, expenses, and prejudgment and post-judgment interest for its infringement of the '728 Patent, the '751 Patent, the '530 Patent, and the '908 Patent; and

d. A judgment and order requiring Zerto to provide an accounting and to pay supplemental damages to Realtime, including without limitation, prejudgment 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 Plaintiff its reasonable attorneys' fees against Defendants; and

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

DEMAND FOR JURY TRIAL

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

Dated: September 26, 2108

BAYARD, P.A.

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