IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

REALTIME DATA LLC d/b/a IXO,

    Plaintiff,

        v.

IXSYSTEMS, INC.,

    Defendant.

C.A. No.

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT AGAINST IXSYSTEMS, INC.

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 iXsystems, Inc. ("iXsystems" 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.

1

2.   On information and belief, iXsystems is a Delaware corporation with its principal place of business at 2490 Kruse Drive, San Jose, CA 95131. iXsystems can be served through its registered agent, Gogency Global Inc., 850 New Burton Road, Suite 201, Dover, DE 19904.

JURISDICTION AND VENUE

3.   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).

4.   This Court has personal jurisdiction over Defendant iXsystems in this action because iXsystems 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 iXsystems would not offend traditional notions of fair play and substantial justice. iXsystems, 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.

5.   Venue is proper in this district under 28 U.S.C. § 1400(b). Upon information and belief, iXsystems 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.

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

6.   Plaintiff realleges and incorporates by reference paragraphs 1-5 above, as if fully set forth herein.

7.   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.

8.   On information and belief, iXsystems has offered for sale, sold and/or imported into the United States iXsystems 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, iXsystems's TrueNAS® Unified Storage X10/X20, TrueNAS® Z, TrueNAS® Z50 TrueFlash, FreeNAS 1U, FreeNAS 2U, FreeNAS 2U All-Flash, FreeNAS 4U, FreeNAS Mini, and FreeNAS Mini XL products, TrueRack servers, iX Family Intel-based and AMD-based servers, and iX Family High Density servers, and all products and services using TrueNAS and/or the OpenZFS file system, and the system hardware on which they operate, and all versions and variations thereof since the issuance of the '728 Patent (the "Accused Instrumentalities").

9.   On information and belief, iXsystems 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, iXsystems 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 iXsystems's customers.

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

11.   iXsystems'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, iXsystems explains to customers the benefits of using the Accused Instrumentalities: "[P]re-compressed data, such as music or video, will be stored exactly as it is received without additional compression and in some cases it may be wise to disable compression. In all other cases, OpenZFS compression gives you both a speed and capacity increase. Deduplication by contrast can yield even higher capacity savings, up to 10X … ." *See* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/.   For similar reasons, iXsystems also induces its customers to use the Accused Instrumentalities to infringe other claims of the '728 Patent. iXsystems specifically intended and was aware that the normal and customary use of the Accused Instrumentalities on compatible systems would infringe the '728 Patent. iXsystems 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, iXsystems engaged in such inducement to promote the sales of the Accused Instrumentalities, *e.g.,* through iXsystems'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, iXsystems 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.

12.   The Accused Instrumentalities include a system for compressing data, comprising a processor.   For example, the iXsystems products include processors, including, without limitation, Intel Xeon or AMD EPYC processors.   *See,   e.g.,* https://www.ixsystems.com/blog/truenas-x10-part-1/;   https://www.ixsystems.com/ix-server-family/rackmount-servers/.

13.   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.   *See, e.g.,* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/ ("The OpenZFS file system used in every iXsystems storage product supports … deduplication at the block level. This means that every block of data being stored is either individually compressed and/or is deduplicated by being compared to every other block on the volume using a deduplication table that indexes all unique blocks.").   Performing deduplication results in compression by representing data with fewer bits.

14.   The Accused Instrumentalities comprise a single data compression encoder. *See, e.g.,*   https://www.ixsystems.com/blog/data-compression-deduplication-demystified/   ("The OpenZFS file system used in every iXsystems storage product supports … inline compression … at the block level. ").

15.   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. *See, e.g.,*   https://www.ixsystems.com/blog/data-compression-deduplication-demystified/   ("The OpenZFS file system used in every iXsystems storage product supports … deduplication at the

block level. This means that every block of data being stored is either individually compressed and/or is deduplicated by being compared to every other block on the volume using a deduplication table that indexes all unique blocks.").

16.   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.   *See, e.g.,* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/ ("The OpenZFS file system used in every iXsystems storage product supports … deduplication at the block level. This means that every block of data being stored is either individually compressed and/or is deduplicated by being compared to every other block on the volume using a deduplication table that indexes all unique blocks.").

17.   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. *See, e.g.,* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/ ("The OpenZFS file system used in every iXsystems storage product supports … inline compression … at the block level. ").

18.   iXsystems also infringes other claims of the '728 Patent, directly and through inducing infringement and contributory infringement, for similar reasons as explained above with respect to Claim 1 of the '728 Patent.

19.   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.

20.   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, iXsystems has injured Realtime and is liable to Realtime

for infringement of the '728 Patent pursuant to 35 U.S.C. § 271.

21.   As a result of iXsystems's infringement of the '728 Patent, Plaintiff Realtime is

entitled to monetary damages in an amount adequate to compensate for iXsystems's

infringement, but in no event less than a reasonable royalty for the use made of the invention by

iXsystems, together with interest and costs as fixed by the Court.

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

22.   Plaintiff realleges and incorporates by reference paragraphs 1-21 above, as if fully

set forth herein.

23.   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.

24.   On information and belief, iXsystems has offered for sale, sold and/or imported

into the United States iXsystems 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, iXsystems's TrueNAS® Unified Storage X10/X20, TrueNAS® Z,

TrueNAS® Z50 TrueFlash, FreeNAS 1U, FreeNAS 2U, FreeNAS 2U All-Flash, FreeNAS 4U,

FreeNAS Mini, and FreeNAS Mini XL products, TrueRack servers, iX Family Intel-based and

AMD-based servers, and iX Family High Density servers, and all products and services using

TrueNAS and/or the OpenZFS file system, and the system hardware on which they operate, and

all versions and variations thereof since the issuance of the '751 Patent (the "Accused

Instrumentalities").

25.   On information and belief, iXsystems 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, iXsystems 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 iXsystems's customers.

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

27.   Upon information and belief, iXsystems'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, iXsystems explains to customers the benefits of using the Accused Instrumentalities: "[P]re-compressed data, such as music or video, will be stored exactly as it is received without additional compression and in some cases it may be wise to disable compression. In all other cases, OpenZFS compression gives you both a speed and capacity increase. Deduplication by contrast can yield even higher capacity savings, up to 10X … ." *See* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/. For similar reasons, iXsystems also induces its customers to use the Accused Instrumentalities to infringe other claims of the '751 Patent. iXsystems specifically intended and was aware that these normal and customary activities would infringe the '751 Patent. iXsystems 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, iXsystems engaged in such inducement to promote the sales of the Accused Instrumentalities. Accordingly, iXsystems 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.

28.   The Accused Instrumentalities include a system for compressing data. *See, e.g.,* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/ ("The OpenZFS file system used in every iXsystems storage product supports both inline compression and deduplication at the block level. This means that every block of data being stored is either individually compressed and/or is deduplicated by being compared to every other block on the volume using a deduplication table that indexes all unique blocks.").

29.   The Accused Instrumentalities include a data server implemented on one or more processors and one or more memory systems.   For example, the system specifications for iXsystems products include processors, including, without limitation, Intel Xeon or AMD EPYC processors.   *See,   e.g.,*   https://www.ixsystems.com/blog/truenas-x10-part-1/; https://www.ixsystems.com/ix-server-family/rackmount-servers/. The Accused Instrumentalities also use one or more memory systems, including storage media such as Flash drives and/or disk drives. *See, e.g.*, https://www.ixsystems.com/truenas/.

30.   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.   *See, e.g.,* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/ ("The OpenZFS file system used in every iXsystems storage product supports … deduplication at the block level. This means that every block of data being stored is either individually compressed and/or is deduplicated by being compared to every other block on the volume using a deduplication table that indexes all unique blocks.").

31.   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. *See, e.g.,* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/ ("The OpenZFS file system used in every iXsystems storage product supports both inline compression and deduplication at the block level. This means that every block of data being stored is either individually compressed and/or is deduplicated by being compared to every other block on the volume using a deduplication table that indexes all unique blocks.").

32.   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.   *See, e.g.,*   https://www.ixsystems.com/blog/data-compression-deduplication-demystified/ ("The OpenZFS file system used in every iXsystems storage product supports … inline compression … at the block level. ").

33.   The Accused Instrumentalities include a data server configured to store the compressed data block. For example, the Accused Instrumentalities have storage media storage media such as Flash drives and/or disk drives. *See, e.g.*, https://www.ixsystems.com/truenas/. Also, compressed data blocks are stored temporarily in volatile memory when they are created.

34.   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. *See, e.g.,*   https://www.ixsystems.com/blog/data-compression-deduplication-demystified/   ("While

compressing every block may sound inefficient, it actually isn't given the dramatic speed difference between the system's CPU and the SSDs and hard disks in the storage subsystem: The CPU can compress data far faster than it can be written or read, resulting in a storage system speed boost, plus the additional capacity that the compression produces.").

35.   On information and belief, iXsystems also infringes, directly and through induced infringement, and continues to infringe other claims of the '751 Patent, for similar reasons as explained above with respect to Claim 25 of the '751 Patent.

36.   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.

37.   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, iXsystems has injured Realtime and is liable to Realtime for infringement of the '751 Patent pursuant to 35 U.S.C. § 271.

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

COUNT III
INFRINGEMENT OF U.S. PATENT NO. 8,717,203

39.   Plaintiff realleges and incorporates by reference paragraphs 1-38 above, as if fully set forth herein.

40.   Plaintiff Realtime is the owner by assignment of United States Patent No. 8,717,203 ("the '203 Patent") entitled "Data compression systems and methods."   The '203

Patent was duly and legally issued by the United States Patent and Trademark Office on May 6, 2014. A true and correct copy of the '203 Patent is included as Exhibit C.

41.   On information and belief, iXsystems has offered for sale, sold and/or imported into the United States iXsystems products and services that infringe the '203 Patent, and continues to do so. By way of illustrative example, these infringing products and services include, without limitation, iXsystems's TrueNAS® Unified Storage X10/X20, TrueNAS® Z, TrueNAS® Z50 TrueFlash, FreeNAS 1U, FreeNAS 2U, FreeNAS 2U All-Flash, FreeNAS 4U, FreeNAS Mini, and FreeNAS Mini XL products, TrueRack servers, iX Family Intel-based and AMD-based servers, and iX Family High Density servers, and all products and services using TrueNAS and/or the OpenZFS file system, and the system hardware on which they operate, and all versions and variations thereof since the issuance of the '203 Patent (the "Accused Instrumentalities").

42.   On information and belief, iXsystems has directly infringed and continues to infringe the '203 Patent, for example, through its own use and testing of the Accused Instrumentalities, which in the ordinary course of their operation form a system, claimed by Claim 14 of the '203 Patent, for decompressing one or more compressed data blocks included in one or more data packets using a data decompression engine, the one or more data packets being transmitted in sequence from a source that is internal or external to the data decompression engine, wherein a data packet from among the one or more data packets comprises a header containing control information followed by one or more compressed data blocks of the data packet. The claimed system includes: a data decompression processor configured to analyze the data packet to identify one or more recognizable data tokens associated with the data packet, the one or more recognizable data identifying a selected encoder used to compress one or more data

14

blocks to provide the one or more compressed data blocks, the encoder being selected based on content of the one or more data blocks on which a compression algorithm was applied; one or more decompression decoders configured to decompress a compressed data block from among the one or more compressed data blocks associated with the data packet based on the one or more recognizable data tokens; wherein: the one or more decompression decoders are further configured to decompress the compressed data block utilizing content dependent data decompression to provide a first decompressed data block when the one or more recognizable data tokens indicate that the data block was encoded utilizing content dependent data compression; and the one or more decompression decoders are further configured to decompress the compressed data block utilizing content independent data decompression to provide a second decompressed data block when the one or more recognizable data tokens indicate that the data block was encoded utilizing content independent data compression; and an output interface, coupled to the data decompression engine, configured to output a decompressed data packet including the first or the second decompressed data block. Upon information and belief, iXsystems 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 iXsystems's customers.

43.   On information and belief, iXsystems has had knowledge of the '203 Patent since at least the filing of this Complaint or shortly thereafter, and on information and belief, iXsystems knew of the '203 Patent and knew of its infringement, including by way of this lawsuit.

44.   Upon information and belief, iXsystems's affirmative acts of making, using, and selling the Accused Instrumentalities, and providing implementation services and technical

15

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

14 of the '203 Patent by making or using a system for decompressing, one or more compressed

data blocks included in one or more data packets using a data decompression engine, the one or

more data packets being transmitted in sequence from a source that is internal or external to the

data decompression engine, wherein a data packet from among the one or more data packets

comprises a header containing control information followed by one or more compressed data

blocks of the data packet the system claimed by Claim 14 of the '203 Patent, including: a data

decompression processor configured to analyze the data packet to identify one or more

recognizable data tokens associated with the data packet, the one or more recognizable data

identifying a selected encoder used to compress one or more data blocks to provide the one or

more compressed data blocks, the encoder being selected based on content of the one or more

data blocks on which a compression algorithm was applied; one or more decompression

decoders configured to decompress a compressed data block from among the one or more

compressed data blocks associated with the data packet based on the one or more recognizable

data tokens; wherein: the one or more decompression decoders are further configured to

decompress the compressed data block utilizing content dependent data decompression to

provide a first decompressed data block when the one or more recognizable data tokens indicate

that the data block was encoded utilizing content dependent data compression; and the one or

more decompression decoders are further configured to decompress the compressed data block

utilizing content independent data decompression to provide a second decompressed data block

when the one or more recognizable data tokens indicate that the data block was encoded utilizing

content independent data compression; and an output interface, coupled to the data

16

decompression engine, configured to output a decompressed data packet including the first or the second decompressed data block. For example, iXsystems explains to customers the benefits of using the Accused Instrumentalities: "[P]re-compressed data, such as music or video, will be stored exactly as it is received without additional compression and in some cases it may be wise to disable compression. In all other cases, OpenZFS compression gives you both a speed and capacity increase. Deduplication by contrast can yield even higher capacity savings, up to 10X … ." *See* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/. For similar reasons, iXsystems also induces its customers to use the Accused Instrumentalities to infringe other claims of the '203 Patent. iXsystems specifically intended and was aware that these normal and customary activities would infringe the '203 Patent. iXsystems performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '203 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, iXsystems engaged in such inducement to promote the sales of the Accused Instrumentalities. Accordingly, iXsystems 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 '203 Patent, knowing that such use constitutes infringement of the '203 Patent.

45.   The Accused Instrumentalities form a system for decompressing one or more compressed data blocks included in one or more data packets using a data decompression engine, the one or more data packets being transmitted in sequence from a source that is internal or external to the data decompression engine. The Accused Instrumentalities utilize multiple formats of compression to compress data. *See, e.g.,* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/ ("The OpenZFS file system used in every iXsystems

storage product supports both inline compression and deduplication at the block level. This means that every block of data being stored is either individually compressed and/or is deduplicated by being compared to every other block on the volume using a deduplication table that indexes all unique blocks."). To recover data from backup, the Accused Instrumentalities decompress the data.

46. The data packets from among the one or more data packets in the Accused Instrumentalities include a header containing control information followed by one or more compressed data blocks of the data packet. The header containing control information contains information used to determine which compression format was used to compress the data. *See, e.g.,* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/ ("The OpenZFS file system used in every iXsystems storage product supports both inline compression and deduplication at the block level. This means that every block of data being stored is either individually compressed and/or is deduplicated by being compared to every other block on the volume using a deduplication table that indexes all unique blocks.").

47. The Accused Instrumentalities utilize multiple formats of compression to compress data for backup. *See, e.g.,* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/ ("The OpenZFS file system used in every iXsystems storage product supports both inline compression and deduplication at the block level. This means that every block of data being stored is either individually compressed and/or is deduplicated by being compared to every other block on the volume using a deduplication table that indexes all unique blocks.").

48. To decompress the data, the Accused Instrumentalities include one or more decompression decoders configured to decompress a compressed data block from among the one

or more compressed data blocks associated with the data packet based on the one or more recognizable data tokens. *See, e.g.,* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/ ("The OpenZFS file system used in every iXsystems storage product supports both inline compression and deduplication at the block level. This means that every block of data being stored is either individually compressed and/or is deduplicated by being compared to every other block on the volume using a deduplication table that indexes all unique blocks.").

49.   One of the compression formats in the Accused Instrumentalities is content dependent data decompression. *See, e.g.,* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/ ("The OpenZFS file system used in every iXsystems storage product supports … deduplication at the block level. This means that every block of data being stored is either individually compressed and/or is deduplicated by being compared to every other block on the volume using a deduplication table that indexes all unique blocks."). The one or more decompression decoders in the Accused Instrumentalities are further configured to decompress the compressed data block utilizing content dependent data decompression to provide a first decompressed data block when the one or more recognizable data tokens indicate that the data block was encoded utilizing content dependent data compression.

50.   One of the compression formats in the Accused Instrumentalities is content independent data decompression. *See, e.g.,* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/ ("The OpenZFS file system used in every iXsystems storage product supports … inline compression … at the block level. "). The one or more decompression decoders in the Accused Instrumentalities are further configured to decompress the compressed data block utilizing content independent data decompression to provide a second decompressed

data block when the one or more recognizable data tokens indicate that the data block was encoded utilizing content independent data compression.

51.   The Accused Instrumentalities include an output interface, coupled to the data decompression engine, configured to output a decompressed data packet including the first or the second decompressed data block. For example, the Accused Instrumentalities include interfaces for   LAN   and   WAN   connections,   including   output   interfaces.   *See, e.g.,* https://www.ixsystems.com/wp-

content/uploads/2017/10/TrueNAS_X_Line_Datasheet_WEB.pdf.   ("Up to 6x1GbE, 2x10GbE, or 2x8Gb Fibre Channel Interfaces per node"). Furthermore, the Accused Instrumentalities have memory, such as volatile memory, into which decompressed data can be written.   On information and belief, all of the Accused Instrumentalities have network connections that provide an output interface, coupled to the data decompression engine, configured to output a decompressed data packet including the first or the second decompressed data block.

52.   On information and belief, iXsystems also infringes, directly and through induced infringement, and continues to infringe other claims of the '203 Patent, for similar reasons as explained above with respect to Claim 14 of the '203 Patent.

53.   On information and belief, use of the Accused Instrumentalities in their ordinary and customary fashion results in infringement of the methods claimed by the '203 Patent.

54.   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, iXsystems has injured Realtime and is liable to Realtime for infringement of the '203 Patent pursuant to 35 U.S.C. § 271.

55.   As a result of iXsystems's infringement of the '203 Patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for iXsystems's infringement, but in no event less than a reasonable royalty for the use made of the invention by iXsystems, together with interest and costs as fixed by the Court.

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

56.   Plaintiff Realtime realleges and incorporates by reference paragraphs 1-55 above, as if fully set forth herein.

57.   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.

58.   On information and belief, iXsystems has offered for sale, sold and/or imported into the United States iXsystems 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, iXsystems's TrueNAS® Unified Storage X10/X20, TrueNAS® Z, TrueNAS® Z50 TrueFlash, FreeNAS 1U, FreeNAS 2U, FreeNAS 2U All-Flash, FreeNAS 4U, FreeNAS Mini, and FreeNAS Mini XL products, TrueRack servers, iX Family Intel-based and AMD-based servers, and iX Family High Density servers, and all products and services using TrueNAS and/or the OpenZFS file system, and the system hardware on which they operate, and all versions and variations thereof since the issuance of the '908 Patent (the "Accused Instrumentality").

59.   On information and belief, iXsystems 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, iXsystems 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 iXsystems's customers.

60.   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.

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

62.   Upon information and belief, iXsystems'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, iXsystems explains to customers the benefits of using the Accused Instrumentalities: "[P]re-compressed data, such as music or video, will be stored exactly as it is received without additional compression and in some cases it may be wise to disable compression. In all other cases, OpenZFS compression gives you both a speed and capacity increase. Deduplication by contrast can yield even higher capacity savings, up to 10X … ." *See* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/. For similar reasons, iXsystems also induces its customers to use the Accused Instrumentalities to infringe other claims of the '908 Patent. iXsystems specifically intended and was aware that these normal and customary activities would infringe the '908 Patent. iXsystems 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, iXsystems engaged in such inducement to promote the sales of the Accused Instrumentalities. Accordingly, iXsystems 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.

63.   The Accused Instrumentality evidently includes 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. *See, e.g.,* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/ ("The OpenZFS file system used in every iXsystems storage product supports both inline compression and deduplication at the block level. This means that every block of data being stored is either individually compressed and/or is deduplicated by being compared to every other block on the volume using a deduplication table that indexes all unique blocks."). For example, the Accused Instrumentalities also use one or more memory devices, including storage media such as Flash drives and/or disk drives. *See, e.g.*, https://www.ixsystems.com/truenas/.

64. The Accused Instrumentality stores the compressed first and second data blocks on the memory device. For example, the Accused Instrumentalities have storage media at remote storage facilities controlled by data servers. *See, e.g.*, https://www.ixsystems.com/truenas/. Also, compressed data blocks are stored temporarily in volatile memory when they are created. 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. *See, e.g.,* https://www.ixsystems.com/blog/data-compression-deduplication-demystified/ ("While compressing every block may sound inefficient, it actually isn't given the dramatic speed difference between the system's CPU and the SSDs and hard disks in the storage subsystem: The CPU can compress data far faster than it can be written or read, resulting in a storage system speed boost, plus the additional capacity that the compression produces.").

65. On information and belief, iXsystems also infringes, directly and through induced infringement, and continues to infringe other claims of the '908 Patent, for similar reasons as explained above with respect to Claim 1 of the '908 Patent.

66.   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, iXsystems has injured Realtime and is liable to Realtime for infringement of the '908 Patent pursuant to 35 U.S.C. § 271.

67.   As a result of iXsystems's infringement of the '908 Patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for iXsystems's infringement, but in no event less than a reasonable royalty for the use made of the invention by iXsystems, 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 iXsystems has infringed, either literally and/or under the doctrine of equivalents, the '728 Patent, the '751 Patent, the '203 Patent, and the '908 Patent;

b.   A permanent injunction prohibiting iXsystems from further acts of infringement of the '728 Patent, the '751 Patent, the '203 Patent, and the '908 Patent;

c.   A judgment and order requiring iXsystems to pay Plaintiff its damages, costs, expenses, and prejudgment and post-judgment interest for its infringement of the '728 Patent, the '751 Patent, the '203 Patent, and the '908 Patent; and

d.   A judgment and order requiring iXsystems 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: December 6, 2017   BAYARD, P.A.

OF COUNSEL   */s/ Stephen B. Brauerman*
                                                 Stephen B. Brauerman (#4952)
Marc A. Fenster (CA SBN 181067)   Sara E. Bussiere (#5725)
Reza Mirzaie (CA SBN 246953)   600 N. King Street, Suite 400
Paul A. Kroeger (CA SBN 229074)   Wilmington, DE 19801
Stanley H. Thompson, Jr. (CA SBN 198825)   Phone: (302) 655-5000
RUSS AUGUST & KABAT   sbrauerman@bayardlaw.com
12424 Wilshire Boulevard, 12th Floor   sbussiere@bayardlaw.com
Los Angeles, CA 90025
(310) 826-7474   *Attorneys for Plaintiff*
mfenster@raklaw.com   *Realtime Data LLC d/b/a IXO*
rmirzaie@raklaw.com
pkroeger@raklaw.com
sthompson@raklaw.com