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UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

REALTIME DATA LLA d/b/a IXO, Plaintiff, v. NEXENTA SYSTEMS, INC., Defendant.	Case No. 2:17-cv-07690-SJO-JCx **FIRST AMENDED COMPLAINT** **JURY TRIAL REQUESTED**

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 Defendant Nexenta Systems, Inc. ("Nexenta" 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. Realtime has been registered to do business in Texas since May 2011. 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, Nexenta is a California corporation with its principal place of business at 451 El Camino Real, Ste. 201, Santa Clara, CA 95050. Nexenta can be served through its registered agent, Cindy Liang, 451 El Camino Real, Ste. 201, Santa Clara, CA 95050.

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 Nexenta in this action because Nexenta has committed acts within the Central District of California giving rise to this action and has established minimum contacts with this forum such that the exercise of jurisdiction over Nexenta would not offend traditional notions of fair play and substantial justice. Nexenta, 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, Nexenta has transacted business in the Central District of California, has committed acts of direct and indirect infringement in the Central District of California, and is a resident of California.

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, Nexenta has offered for sale, sold and/or imported into the United States Nexenta products that infringe the '728 patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Nexenta's storage systems and services, *e.g.*, the NexentaStor, NexentaEdge, NexentaFusion, and NexentaConnect systems and services, including the system hardware on which they operate, and all versions and variations thereof since the issuance of the '728 patent ("Accused Instrumentalities").

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

10. On information and belief, Nexenta 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, Nexenta knew of the '728 patent and knew of its infringement, including by way of this lawsuit.

11. Nexenta'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, Nexenta explains to customers the benefits of using the Accused Instrumentalities: "NexentaStor can scale up to multi-petabyte configurations and its inline compression, unlimited snapshots and clones and end-to-end data integrity are key benefits critical to agile cloud deployments." (https://www.sandisk.com/content/dam/sandisk-main/en_us/assets/resources/enterprise/case-studies/wipro-infiniflash-cloud-services-case-study.pdf); "Having archival/intermediate storage with compression, and snapshot capability that is local to the HPC cluster via highspeed interconnect is highly valued by NAU researchers." (https://nexenta.com/sites/default/files/docs/Nexenta-Nothern-Arizona-Univ-HPC-Case-Study.pdf); "NexentaEdge provides full-featured, high performance iSCSI block and object services with inline deduplication, inline compression and unlimited snapshots and clones." (https://nexenta.com/sites/default/files/docs/Nexenta-Mellanox-SB.pdf); "In comparison with the VDI deployed directly on SAN (Figure 3, on the right), NexentaConnect introduces local caching and write I/O aggregation, inline compression and de-duplication. Combination of all of the above results in dramatic improvements: 38x (38 times) physical SAN data retrieval reduction and 2.5x (2.5 times) SAN write I/O reduction was observed in our experiments with EMC VNX-5300 (Nexenta/VMware NexentaConnect SAN acceleration joint white paper)." (http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf). For similar reasons, Nexenta also induces its customers to use the Accused Instrumentalities to infringe other claims of the '728 patent. Nexenta specifically intended and was aware that the normal and customary use of the Accused

Instrumentalities on compatible systems would infringe the '728 patent. Nexenta 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, Nexenta engaged in such inducement to promote the sales of the Accused Instrumentalities, *e.g.*, through Nexenta'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, Nexenta 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, some Nexenta recommended system requirements include 64 bit x86 CPUs, 2.13 GHz or faster, from the Intel Xeon or AMD Barcelona families. *See* https://nexenta.com/rs/nexenta2/images/NexentaConnect-2-3-Hardware-Reference.pdf; https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf.

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://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("[NexentaEdge's] advanced features include automatic cluster-wide inline deduplication and compression at chunk/block level and end-to-end data integrity."); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses a combination of available … [i]nline compression and deduplication");

https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("If Dedupe mode is set to on, it enables the deletion of redundant data copies, thereby using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Deduplication: If set to on, enables the deletion of redundant data copies, using the storage capacity more effectively."). Performing deduplication results in compression by representing data with fewer bits.

14. The Accused Instrumentalities comprise a single data compression encoder. The Accused Instrumentalities have a compression encoder, which is a single data compression encoder. *See, e.g.*, https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Compression: Enables lzjb compression algorithm"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("Compression mode: Enables the compression algorithm for a dataset (defaults to lz4)"); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses Lempel-Ziv family LZJB lossless data compression to improve I/O throughput."); https://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("Cluster-wide inline … compression across petabyte-scale clusters.").

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://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("[NexentaEdge's] advanced features include automatic cluster-wide inline deduplication and compression at chunk/block level and end-to-end data integrity."); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses a combination of available … [i]nline compression and deduplication"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf

("If Dedupe mode is set to on, it enables the deletion of redundant data copies, thereby using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Deduplication: If set to on, enables the deletion of redundant data copies, using the storage capacity more effectively.").

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://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("[NexentaEdge's] advanced features include automatic cluster-wide inline deduplication and compression at chunk/block level and end-to-end data integrity."); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses a combination of available … [i]nline compression and deduplication"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("If Dedupe mode is set to on, it enables the deletion of redundant data copies, thereby using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Deduplication: If set to on, enables the deletion of redundant data copies, using the storage capacity more effectively.").

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://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Compression: Enables lzjb compression algorithm"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("Compression mode: Enables the compression algorithm for a dataset (defaults to lz4)"); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses Lempel-Ziv family LZJB lossless data compression to improve I/O throughput."); https://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-

Whitepaper.pdf ("Cluster-wide inline deduplication and compression across petabyte-scale clusters.").

18. Nexenta 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, Nexenta 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 Nexenta's infringement of the '728 patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Nexenta's infringement, but in no event less than a reasonable royalty for the use made of the invention by Nexenta, 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, Nexenta has offered for sale, sold and/or imported into the United States Nexenta products that infringe the '751 patent, and continues to do so. By way of illustrative example, these infringing products include,

without limitation, Nexenta's storage systems and services, *e.g.*, the NexentaStor, NexentaEdge, NexentaFusion, and NexentaConnect systems and services, including the system hardware on which they operate, and all versions and variations thereof since the issuance of the '751 patent ("Accused Instrumentalities").

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

26. On information and belief, Nexenta 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, Nexenta knew of the '751 patent and knew of its infringement, including by way of this lawsuit.

27. Upon information and belief, Nexenta'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, Nexenta explains to customers the benefits of using the Accused Instrumentalities: For example, Nexenta explains to customers the benefits of using the Accused Instrumentalities: "NexentaStor can scale up to multi-petabyte configurations and its inline compression, unlimited snapshots and clones and end-to-end data integrity are key benefits critical to agile cloud deployments." (https://www.sandisk.com/content/dam/sandisk-main/en_us/assets/resources/enterprise/case-studies/wipro-infiniflash-cloud-services-case-study.pdf); "Having archival/intermediate storage with compression, and snapshot capability that is local to the HPC cluster via highspeed interconnect is highly valued by NAU researchers." (https://nexenta.com/sites/default/files/docs/Nexenta-Nothern-Arizona-Univ-HPC-Case-Study.pdf); "NexentaEdge provides full-featured, high performance iSCSI block and object services with inline deduplication, inline compression and unlimited snapshots and clones." (https://nexenta.com/sites/default/files/docs/Nexenta-Mellanox-SB.pdf); "In comparison with the VDI deployed directly on SAN (Figure 3, on the right), NexentaConnect introduces local caching and write I/O aggregation, inline compression and de-duplication. Combination of all of the above

results in dramatic improvements: 38x (38 times) physical SAN data retrieval reduction and 2.5x (2.5 times) SAN write I/O reduction was observed in our experiments with EMC VNX-5300 (Nexenta/VMware NexentaConnect SAN acceleration joint white paper)." (http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf). For similar reasons, Nexenta also induces its customers to use the Accused Instrumentalities to infringe other claims of the '751 patent. Nexenta specifically intended and was aware that these normal and customary activities would infringe the '751 patent. Nexenta 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, Nexenta engaged in such inducement to promote the sales of the Accused Instrumentalities. Accordingly, Nexenta 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://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("[NexentaEdge's] advanced features include automatic cluster-wide inline deduplication and compression at chunk/block level and end-to-end data integrity."); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses a combination of available … [i]nline compression and deduplication"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("If Dedupe mode is set to on, it enables the deletion of redundant data copies, thereby using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Deduplication: If set to on, enables the deletion of redundant data copies, using the storage capacity more effectively."). Performing deduplication results in compression by

representing data with fewer bits. Furthermore, Accused Instrumentalities include inline compression, including LZ compression. *See, e.g.*, https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Compression: Enables lzjb compression algorithm"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("Compression mode: Enables the compression algorithm for a dataset (defaults to lz4)"); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses Lempel-Ziv family LZJB lossless data compression to improve I/O throughput."); https://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("Cluster-wide inline deduplication and compression across petabyte-scale clusters.").

29. The Accused Instrumentalities include a data server implemented on one or more processors and one or more memory systems. For example, some Nexenta recommended system requirements include 64 bit x86 CPUs, 2.13 GHz or faster, from the Intel Xeon or AMD Barcelona families. *See* https://nexenta.com/rs/nexenta2/images/NexentaConnect-2-3-Hardware-Reference.pdf; https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf. The Accused Instrumentalities also use one or more memory systems, including backup storage media. *See, e.g.*, https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("If Dedupe mode is set to on, it enables the deletion of redundant data copies, thereby using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Deduplication: If set to on, enables the deletion of redundant data copies, using the storage capacity more effectively."). On information and belief, all of the Accused Instrumentalities use backup storage media.

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://nexenta.com/rs/

nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("[NexentaEdge's] advanced features include automatic cluster-wide inline deduplication and compression at chunk/block level and end-to-end data integrity."); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses a combination of available … [i]nline compression and deduplication"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("If Dedupe mode is set to on, it enables the deletion of redundant data copies, thereby using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Deduplication: If set to on, enables the deletion of redundant data copies, using the storage capacity more effectively.").

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://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("[NexentaEdge's] advanced features include automatic cluster-wide inline deduplication and compression at chunk/block level and end-to-end data integrity."); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses a combination of available … [i]nline compression and deduplication"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("If Dedupe mode is set to on, it enables the deletion of redundant data copies, thereby using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Deduplication: If set to on, enables the deletion of redundant data copies, using the storage capacity more effectively.").

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. LZ compression utilizes a state machine and the Accused Instrumentalities use LZ compression or an equivalent thereof. *See, e.g.*, https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Compression: Enables lzjb compression algorithm"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("Compression mode: Enables the compression algorithm for a dataset (defaults to lz4)"); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses Lempel-Ziv family LZJB lossless data compression to improve I/O throughput."); https://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("Cluster-wide inline deduplication and compression across petabyte-scale clusters.").

33. The Accused Instrumentalities include a data server configured to store the compressed data block. For example, the Accused Instrumentalities have storage devices for backups. *See, e.g.*, https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("If Dedupe mode is set to on, it enables the deletion of redundant data copies, thereby using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Deduplication: If set to on, enables the deletion of redundant data copies, using the storage capacity more effectively."). On information and belief, all of the Accused Instrumentalities use backup storage media.

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://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("[NexentaEdge's] advanced features include automatic cluster-wide

inline deduplication and compression at chunk/block level and end-to-end data integrity."); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses a combination of available … [i]nline compression and deduplication"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("If Dedupe mode is set to on, it enables the deletion of redundant data copies, thereby using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Deduplication: If set to on, enables the deletion of redundant data copies, using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Compression: Enables lzjb compression algorithm"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("Compression mode: Enables the compression algorithm for a dataset (defaults to lz4)"); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses Lempel-Ziv family LZJB lossless data compression to improve I/O throughput."); https://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("Cluster-wide inline deduplication and compression across petabyte-scale clusters.").

35. On information and belief, Nexenta 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, Nexenta 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 Nexenta's infringement of the '751 patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Nexenta's infringement, but in no event less than a reasonable royalty for the use made of the invention by Nexenta, 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, Nexenta has offered for sale, sold and/or imported into the United States Nexenta products that infringe the '203 patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Nexenta's storage systems and services, *e.g.*, the NexentaStor, NexentaEdge, NexentaFusion, and NexentaConnect systems and services, including the system hardware on which they operate, and all versions and variations thereof since the issuance of the '203 patent ("Accused Instrumentalities").

42. On information and belief, Nexenta 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 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, Nexenta 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 Nexenta's customers.

43. On information and belief, Nexenta has had knowledge of the '203 patent since at least the filing of the Original Complaint in this action or shortly thereafter, and

on information and belief, Nexenta knew of the '203 patent and knew of its infringement, including by way of this lawsuit.

44. Upon information and belief, Nexenta'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 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 decompression engine, configured to output a decompressed data packet including the first or the second decompressed data block. For example, Nexenta explains to customers the benefits of using the Accused Instrumentalities: "NexentaStor can scale up to multi-petabyte configurations and its inline compression, unlimited snapshots and clones and end-to-end data integrity are key benefits critical to agile cloud deployments." (https://www.sandisk.com/content/dam/sandisk-main/en_us/assets/resources/enterprise/case-studies/wipro-infiniflash-cloud-services-case-study.pdf); "Having archival/intermediate storage with compression, and snapshot capability that is local to the HPC cluster via highspeed interconnect is highly valued by NAU researchers." (https://nexenta.com/sites/default/files/docs/Nexenta-Nothern-Arizona-Univ-HPC-Case-Study.pdf); "NexentaEdge provides full-featured, high performance iSCSI block and object services with inline deduplication, inline compression and unlimited snapshots and clones." (https://nexenta.com/sites/default/files/docs/Nexenta-Mellanox-SB.pdf); "In comparison with the VDI deployed directly on SAN (Figure 3, on the right), NexentaConnect introduces local caching and write I/O aggregation, inline compression and de-duplication. Combination of all of the above results in dramatic improvements: 38x (38 times) physical SAN data retrieval reduction and 2.5x (2.5 times) SAN write I/O reduction was observed in our experiments with EMC VNX-5300 (Nexenta/VMware NexentaConnect SAN acceleration joint white paper)." (http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf). For similar reasons, Nexenta also induces its customers to use the Accused Instrumentalities to infringe other claims of the '203 patent. Nexenta specifically intended and was aware that these normal and customary activities would infringe the '203 patent. Nexenta 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, Nexenta engaged in such inducement to promote the sales of the Accused Instrumentalities. Accordingly, Nexenta 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 for backup. *See, e.g.,* https://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("[NexentaEdge's] advanced features include automatic cluster-wide inline deduplication and compression at chunk/block level and end-to-end data integrity."); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses a combination of available … [i]nline compression and deduplication"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("If Dedupe mode is set to on, it enables the deletion of redundant data copies, thereby using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Deduplication: If set to on, enables the deletion of redundant data copies, using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Compression: Enables lzjb compression algorithm"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("Compression mode: Enables the compression algorithm for a dataset (defaults to lz4)"); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses Lempel-Ziv family LZJB lossless data compression to

improve I/O throughput."); https://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("Cluster-wide inline deduplication and compression across petabyte-scale clusters."). 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://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("[NexentaEdge's] advanced features include automatic cluster-wide inline deduplication and compression at chunk/block level and end-to-end data integrity."); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses a combination of available … [i]nline compression and deduplication"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("If Dedupe mode is set to on, it enables the deletion of redundant data copies, thereby using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Deduplication: If set to on, enables the deletion of redundant data copies, using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Compression: Enables lzjb compression algorithm"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("Compression mode: Enables the compression algorithm for a dataset (defaults to lz4)"); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses Lempel-Ziv family LZJB lossless data compression to improve I/O throughput."); https://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("Cluster-wide inline deduplication and compression across petabyte-scale clusters.").

47. The Accused Instrumentalities utilize multiple formats of compression to compress data for backup. *See, e.g.,* https://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("[NexentaEdge's] advanced features include automatic cluster-wide inline deduplication and compression at chunk/block level and end-to-end data integrity."); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses a combination of available … [i]nline compression and deduplication"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("If Dedupe mode is set to on, it enables the deletion of redundant data copies, thereby using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Deduplication: If set to on, enables the deletion of redundant data copies, using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Compression: Enables lzjb compression algorithm"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("Compression mode: Enables the compression algorithm for a dataset (defaults to lz4)"); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses Lempel-Ziv family LZJB lossless data compression to improve I/O throughput."); https://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("Cluster-wide inline deduplication and compression across petabyte-scale clusters."). An encoder to compress data is selected based on content of the one or more data blocks on which a compression algorithm is applied. To prepare to decompress the data, the Accused Instrumentalities include 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.

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://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("[NexentaEdge's] advanced features include automatic cluster-wide inline deduplication and compression at chunk/block level and end-to-end data integrity."); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses a combination of available … [i]nline compression and deduplication"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("If Dedupe mode is set to on, it enables the deletion of redundant data copies, thereby using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Deduplication: If set to on, enables the deletion of redundant data copies, using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Compression: Enables lzjb compression algorithm"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("Compression mode: Enables the compression algorithm for a dataset (defaults to lz4)"); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses Lempel-Ziv family LZJB lossless data compression to improve I/O throughput."); https://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("Cluster-wide inline deduplication and compression across petabyte-scale clusters.").

49. One of the compression formats in the Accused Instrumentalities is content dependent data decompression. *See, e.g.,* https://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("[NexentaEdge's] advanced features include automatic cluster-wide inline deduplication and compression at chunk/block level

and end-to-end data integrity."); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses a combination of available … [i]nline compression and deduplication"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("If Dedupe mode is set to on, it enables the deletion of redundant data copies, thereby using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Deduplication: If set to on, enables the deletion of redundant data copies, using the storage capacity more effectively."). 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://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Compression: Enables lzjb compression algorithm"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("Compression mode: Enables the compression algorithm for a dataset (defaults to lz4)"); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses Lempel-Ziv family LZJB lossless data compression to improve I/O throughput."); https://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("Cluster-wide inline … compression across petabyte-scale clusters.").

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, a 1Gb Ethernet

connections." *See, e.g.,* https://nexenta.com/rs/nexenta2/images/Nexenta-Cisco-Cloud-DataSheet.pdf.

52. On information and belief, Nexenta 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, Nexenta 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 Nexenta's infringement of the '203 patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Nexenta's infringement, but in no event less than a reasonable royalty for the use made of the invention by Nexenta, together with interest and costs as fixed by the Court.

COUNT IV

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

56. Plaintiff 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, Nexenta has offered for sale, sold and/or imported into the United States Nexenta products and services that infringe the '908 Patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Nexenta's storage systems and services, *e.g.*, the NexentaStor, NexentaEdge, NexentaFusion, and NexentaConnect systems and services, including 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, Nexenta 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, Nexenta 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 Nexenta'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, Nexenta 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, Nexenta knew of the '908 Patent and knew of its infringement, including by way of this lawsuit.

62. Upon information and belief, Nexenta'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, Nexenta explains to customers the benefits of using the Accused Instrumentalities: "NexentaStor can scale up to multi-petabyte configurations and its inline compression, unlimited snapshots and clones and end-to-end data integrity are key benefits critical to agile cloud deployments." (https://www.sandisk.com/content/dam/sandisk-main/en_us/assets/resources/enterprise/case-studies/wipro-infiniflash-cloud-services-case-study.pdf); "Having archival/ intermediate storage with compression, and snapshot capability that is local to the HPC cluster via highspeed interconnect is highly valued by NAU researchers." (https://nexenta.com/sites/default/files/docs/Nexenta-Nothern-Arizona-Univ-HPC-Case-Study.pdf); "NexentaEdge provides full-featured, high performance iSCSI block and object services with inline deduplication, inline compression and unlimited snapshots and clones." (https://nexenta.com/sites/default/files/docs/Nexenta-Mellanox-SB.pdf); "In comparison with the VDI deployed directly on SAN (Figure 3, on the right), NexentaConnect introduces local caching and write I/O aggregation, inline compression and de-duplication. Combination of all of the above results in dramatic improvements: 38x (38 times) physical SAN data retrieval reduction and 2.5x (2.5 times) SAN write I/O

reduction was observed in our experiments with EMC VNX-5300 (Nexenta/VMware NexentaConnect SAN acceleration joint white paper)." (http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf). For similar reasons, Nexenta also induces its customers to use the Accused Instrumentalities to infringe other claims of the '908 Patent. Nexenta specifically intended and was aware that these normal and customary activities would infringe the '908 Patent. Nexenta 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, Nexenta engaged in such inducement to promote the sales of the Accused Instrumentalities. Accordingly, Nexenta 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://nexenta.com/rs/nexenta2/images/Nexenta-OpenStack-Whitepaper.pdf ("[NexentaEdge's] advanced features include automatic cluster-wide inline deduplication and compression at chunk/block level and end-to-end data integrity."); http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf ("NexentaConnect uses a combination of available … [i]nline compression and deduplication"); https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("If Dedupe mode is set to on, it enables the deletion of redundant data copies, thereby using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/

4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Deduplication: If set to on, enables the deletion of redundant data copies, using the storage capacity more effectively."). For example, the Accused Instrumentalities also use one or more memory devices, including backup media. *See, e.g.*, https://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("If Dedupe mode is set to on, it enables the deletion of redundant data copies, thereby using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Deduplication: If set to on, enables the deletion of redundant data copies, using the storage capacity more effectively."). On information and belief, all of the Accused Instrumentalities use backup storage media.

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://prodpkg.nexenta.com/nfusion/1.1.0.18/docs/NF-1.1-User-Guide-09252017.pdf ("If Dedupe mode is set to on, it enables the deletion of redundant data copies, thereby using the storage capacity more effectively."); https://prodpkg.nexenta.com/nstor/4.0.5.0/docs/NS-4.0.5-Install-Guide-113016.pdf ("Deduplication: If set to on, enables the deletion of redundant data copies, using the storage capacity more effectively."). On information and belief, all of the Accused Instrumentalities use backup storage media. 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. 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. For example, Nexenta explains to customers the benefits of using the Accused Instrumentalities: "In comparison with the VDI deployed directly on SAN (Figure 3, on the right), NexentaConnect introduces local

caching and write I/O aggregation, inline compression and de-duplication. Combination of all of the above results in dramatic improvements: 38x (38 times) physical SAN data retrieval reduction and 2.5x (2.5 times) SAN write I/O reduction was observed in our experiments with EMC VNX-5300 (Nexenta/VMware NexentaConnect SAN acceleration joint white paper).” (http://info.nexenta.com/rs/nexenta2/images/NexentaConnect_In_Depth_Review_White_Paper.pdf).

65. On information and belief, Nexenta 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, Nexenta 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 Nexenta’s infringement of the ’908 Patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Nexenta’s infringement, but in no event less than a reasonable royalty for the use made of the invention by Nexenta, 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 Nexenta 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 Nexenta 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 Nexenta 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 Nexenta 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: January 18, 2018

Respectfully submitted,

/s/ Reza Mirzaie

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