

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
TYLER DIVISION**

REALTIME DATA LLC d/b/a IXO,

Plaintiff,

v.

RIVERBED TECHNOLOGY, INC. and  
DELL INC.,

Defendants.

Case No. 6:15-cv-468

JURY TRIAL DEMANDED

**COMPLAINT FOR PATENT INFRINGEMENT**

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 Riverbed Technology, Inc. (“Riverbed”) and Defendant Dell Inc. (“Dell”):

**PARTIES**

1. Realtime is a New York limited liability company. Realtime has places of business at 1828 E.S.E. Loop 323, Tyler, Texas 75701 and 116 Croton Lake Road, Katonah, New York 10536. 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 over 40 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, Defendant Riverbed Inc. is a Delaware

corporation with its principal office at 680 Folsom St, San Francisco, California 94107. On information and belief, Riverbed can be served through its registered agent, Corporation Service Company d/b/a CSC-Lawyers Inco, 211 E. 7th Street Suite 620, Austin, Texas 78701.

3. On information and belief, Defendant Dell is a Delaware corporation, with its principal place of business at One Dell Way, Round Rock, Texas 78682. On information and belief, Dell has a large services and data center location in Plano, Texas.<sup>1</sup> On information and belief, Dell can be served through its registered agent, Corporation Service Company, 211 East Seventh Street, Suite 620, Austin, Texas 78701-3218.

4. On information and belief, Defendant Dell sells Defendant Riverbed's Steelhead product on its website, Dell.com.<sup>2</sup> Defendants Riverbed and Dell also promote the use of Riverbed's Steelhead and Dell's EqualLogic products together.<sup>3</sup> On information and belief, these arrangements between Riverbed and Dell are based on ongoing contractual agreements between them. As further explained below, Steelhead and EqualLogic infringe the asserted patents. Accordingly, each of the Defendants is properly joined in this action pursuant to 35 U.S.C. § 299.

### **JURISDICTION AND VENUE**

5. 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).

6. This Court has personal jurisdiction over Defendant Riverbed in this

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[http://www.dell.com/content/topics/global.aspx/sitelets/solutions/perot/contact\\_us?c=us&l=en&cs=RC966726](http://www.dell.com/content/topics/global.aspx/sitelets/solutions/perot/contact_us?c=us&l=en&cs=RC966726)

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<http://accessories.us.dell.com/sna/productdetail.aspx?c=us&l=en&s=bsd&cs=04&sku=a7184314>

<sup>3</sup> <http://media-cms.riverbed.com/documents/SolutionBrief-Riverbed-Dell-EqualLogic.pdf>

action because Riverbed has committed acts within the Eastern District of Texas giving rise to this action and has established minimum contacts with this forum such that the exercise of jurisdiction over Riverbed would not offend traditional notions of fair play and substantial justice. Riverbed, 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. Riverbed is registered to do business in the State of Texas and has appointed Corporation Service Company d/b/a CSC-Lawyers Inco, 211 E. 7th Street Suite 620, Austin, Texas 78701 as its agent for service of process.

7. This Court has personal jurisdiction over Defendant Dell in this action because Dell has committed acts within the Eastern District of Texas giving rise to this action and has established minimum contacts with this forum such that the exercise of jurisdiction over Dell would not offend traditional notions of fair play and substantial justice. Dell, 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. Dell is registered to do business in the State of Texas and has appointed Corporation Service Company, 211 East Seventh Street, Suite 620, Austin, Texas 78701-3218 as its agent for service of process. In addition, Dell has a principal place of business and a large services and data center location in Texas.

8. Venue is proper in this district under 28 U.S.C. §§ 1391(b), 1391(c) and 1400(b). Defendants Riverbed and Dell are both registered to do business in Texas, and upon information and belief, Riverbed and Dell have both transacted business in the Eastern District of Texas and have both committed acts of direct and indirect infringement in the Eastern District of Texas. In addition, Dell has a principal place of business and a large services and data center location in Texas.

**COUNT I**

**INFRINGEMENT OF U.S. PATENT NO. 7,378,992**

9. Plaintiff realleges and incorporates by reference paragraphs 1-8 above, as if fully set forth herein.

10. Plaintiff Realtime is the owner by assignment of United States Patent No. 7,378,992 (“the ‘992 patent”) entitled “Content independent data compression method and system.” The ‘992 patent was duly and legally issued by the United States Patent and Trademark Office on May 27, 2008. A true and correct copy of the ‘992 patent, including its reexamination certificates, is included as Exhibit A.

**Riverbed Products**

11. On information and belief, Riverbed and Dell have used, offered for sale, sold and/or imported into the United States products that infringe various claims of the ‘992 patent and continues to do so. By way of illustrative example, these infringing products include, without limitation, Riverbed’s compression products and services, such as, *e.g.*, the Riverbed Optimization System (“RiOS”) software, which operates on Riverbed’s SteelHead appliances (“SteelHead”), and all versions and variations thereof since the issuance of the ‘992 patent (“accused products”).

12. On information and belief, Riverbed and Dell have directly infringed and continue to infringe the ‘992 patent, for example, through their own use and testing of the accused products to practice compression methods claimed by the ‘992 patent, including a computer implemented method comprising: receiving a data block; associating at least one encoder to each one of several data types; analyzing data within the data block to identify a first data type of the data within the data block; compressing if said first data type is the same as one of said several data types, said data block with said at least one encoder associated with said one of said several data types that is the same as said first data type to provide a compressed data block; and compressing, if said first data type is not the same as one of said several data types, said data block with a default encoder to

provide said compressed data block, wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block. On information and belief, use of the accused products in their ordinary and customary fashion results in infringement of the methods claimed by the '992 patent.

13. On information and belief, Dell has had knowledge of the '992 patent since at least the filing of this Complaint or shortly thereafter, and on information and belief, Dell knew of the '992 patent and knew of its infringement, including by way of this lawsuit.

14. Upon information and belief, Dell's affirmative acts of selling the accused products, and providing implementation services and technical support to users of the accused products, including in conjunction with Dell's products, have induced and continue to induce users of the accused products to use the accused products in their normal and customary way to infringe the '992 patent. Dell specifically intended and was aware that these normal and customary activities would infringe the '992 patent. Dell performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '992 patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Dell engaged in such inducement to promote the sales of its own products that can be used in conjunction with the accused products, including EqualLogic. Accordingly, Dell 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 '992 patent, knowing that such use constitutes infringement of the '992 patent.

15. On information and belief, Riverbed has had knowledge of the '992 patent since at least the filing of this Complaint or shortly thereafter, and on information and belief, Riverbed knew of the '992 patent and knew of its infringement, including by way of this lawsuit.

16. Riverbed's affirmative acts of making, using, selling, offering for sale, and/or importing the accused products have induced and continue to induce users of the accused products to use the accused products in their normal and customary way to infringe the '992 patent by practicing compression methods claimed by the '992 patent, including a computer implemented method comprising: receiving a data block; associating at least one encoder to each one of several data types; analyzing data within the data block to identify a first data type of the data within the data block; compressing if said first data type is the same as one of said several data types, said data block with said at least one encoder associated with said one of said several data types that is the same as said first data type to provide a compressed data block; and compressing, if said first data type is not the same as one of said several data types, said data block with a default encoder to provide said compressed data block, wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block. For example, in Riverbed Optimization System (RiOS) 8.5: A Technical Overview,<sup>4</sup> Riverbed explains that RiOS determines whether a segment of data has been seen before; if so, RiOS sends a small reference instead of the duplicate data; if not, RiOS compresses the new data using a tunable LZ algorithm. Riverbed specifically intended and was aware that the normal and customary use of the accused products would infringe the '992 patent. Riverbed performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '992 patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Riverbed engaged in such inducement to promote the sales of the accused products, *e.g.*, through Riverbed's user manuals, product

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<sup>4</sup> See <https://splash.riverbed.com/servlet/JiveServlet/downloadBody/1198-102-3-4379/Technical%20Overview%20-%20RiOS%208.5.pdf> at 13.

support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '992 patent. Accordingly, Riverbed has induced and continue to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the '992 patent, knowing that such use constitutes infringement of the '992 patent.

17. By making, using, offering for sale, selling and/or importing into the United States the accused products and touting the benefits of using the accused products' compression features, Riverbed and Dell have injured Realtime and are liable to Realtime for infringement of the '992 patent pursuant to 35 U.S.C. § 271.

18. As a result of Riverbed's and Dell's infringement of the '992 patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Riverbed's and Dell's infringement, but in no event less than a reasonable royalty for the use made of the invention by Riverbed and Dell, together with interest and costs as fixed by the Court.

### **Dell Products**

19. On information and belief, Dell has used, offered for sale, sold and/or imported into the United States products that infringe various claims of the '992 patent and continues to do so. By way of illustrative example, these infringing products include, without limitation, Dell's compression products and services, such as, *e.g.*, Fluid File System ("FluidFS") software, which operates on compatible Dell systems, such as EqualLogic SAN Arrays ("EqualLogic"),<sup>5</sup> and all versions and variations thereof since the issuance of the '992 patent ("accused products").

20. On information and belief, Dell has directly infringed and continues to infringe the '992 patent, for example, through its own use and testing of the accused

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<sup>5</sup> "FluidFS is integrated with Compellent and EqualLogic — Dell's industry leading SAN storage solutions." See [http://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/FluidFS\\_Data\\_Reduction\\_012314.pdf](http://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/FluidFS_Data_Reduction_012314.pdf)

products to practice compression methods claimed by the '992 patent, including a computer implemented method comprising: receiving a data block; associating at least one encoder to each one of several data types; analyzing data within the data block to identify a first data type of the data within the data block; compressing if said first data type is the same as one of said several data types, said data block with said at least one encoder associated with said one of said several data types that is the same as said first data type to provide a compressed data block; and compressing, if said first data type is not the same as one of said several data types, said data block with a default encoder to provide said compressed data block, wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block. On information and belief, use of the accused products in their ordinary and customary fashion results in infringement of the methods claimed by the '992 patent.

21. On information and belief, Dell has had knowledge of the '992 patent since at least the filing of this Complaint or shortly thereafter, and on information and belief, Dell knew of the '992 patent and knew of its infringement, including by way of this lawsuit.

22. Dell's affirmative acts of making, using, selling, offering for sale, and/or importing the accused products have induced and continue to induce users of the accused products to use the accused products in their normal and customary way to infringe the '992 patent by practicing compression methods claimed by the '992 patent, including a computer implemented method comprising: receiving a data block; associating at least one encoder to each one of several data types; analyzing data within the data block to identify a first data type of the data within the data block; compressing if said first data type is the same as one of said several data types, said data block with said at least one encoder associated with said one of said several data types that is the same as said first data type to provide a compressed data block; and compressing, if said first data type is

not the same as one of said several data types, said data block with a default encoder to provide said compressed data block, wherein the analyzing of the data within the data block to identify one or more data types excludes analyzing based only on a descriptor that is indicative of the data type of the data within the data block. For example, in Dell's technical White Paper entitled, "Fluid Data Reduction for FluidFS: Improve file storage efficiency via deduplication and compression", Dell explains that Fluid Data Reduction deduplicates data and then compresses the deduplicated chunks of data.<sup>6</sup> Dell specifically intended and was aware that the normal and customary use of the accused products would infringe the '992 patent. Dell performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '992 patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Dell engaged in such inducement to promote the sales of the accused products, *e.g.*, through Dell's user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '992 patent. Accordingly, Dell has induced and continue to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the '992 patent, knowing that such use constitutes infringement of the '992 patent.

23. By making, using, offering for sale, selling and/or importing into the United States the accused products and touting the benefits of using the accused products' compression features, Dell has injured Realtime and is liable to Realtime for infringement of the '992 patent pursuant to 35 U.S.C. § 271.

24. As a result of Dell's infringement of the '992 patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Dell's

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<sup>6</sup> See [http://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/FluidFS\\_Data\\_Reduction\\_012314.pdf](http://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/FluidFS_Data_Reduction_012314.pdf) at 9.

infringement, but in no event less than a reasonable royalty for the use made of the invention by Dell, together with interest and costs as fixed by the Court.

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

25. Plaintiff Realtime realleges and incorporates by reference paragraphs 1-24 above, as if fully set forth herein.

26. Plaintiff Realtime is the owner by assignment of United States Patent No. 7,415,530 (“the ‘530 Patent”) entitled “System and methods for accelerated data storage and retrieval.” The ‘530 Patent was duly and legally issued by the United States Patent and Trademark Office on August 19, 2008. A true and correct copy of the ‘530 Patent, including its reexamination certificate, is included as Exhibit B.

**Riverbed Products**

27. On information and belief, Riverbed and Dell have used, offered for sale, sold and/or imported into the United States products that infringe various claims of the ‘992 patent and continues to do so. By way of illustrative example, these infringing products include, without limitation, Riverbed’s compression products and services, such as, *e.g.*, the Riverbed Optimization System (“RiOS”) software, which operates on Riverbed’s SteelHead appliances (“SteelHead”), and all versions and variations thereof since the issuance of the ‘530 patent (“accused products”).

28. On information and belief, Riverbed and Dell have directly infringed and continue to infringe the ‘530 patent, for example, through their own use, testing, sale, offer for sale, and/or importation of the accused products, which when used as designed and intended, constitute a system comprising: a memory device; and a data accelerator, wherein said data accelerator is coupled to said memory device, a data stream is received by said data accelerator in received form, said data stream includes a first data block and a second data block, said data stream is compressed by said data accelerator to provide a compressed data stream by compressing said first data block with a first compression

technique and said second data block with a second compression technique, said first and second compression techniques are different, said compressed data stream is stored on said memory device, said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form, a first data descriptor is stored on said memory device indicative of said first compression technique, and said first descriptor is utilized to decompress the portion of said compressed data stream associated with said first data block. Such infringing systems include the accused products.

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

30. Upon information and belief, Dell's affirmative acts of selling the accused products, and providing implementation services and technical support to users of the accused products, including in conjunction with Dell's products, have induced and continue to induce users of the accused products to use the accused products in their normal and customary way to infringe the '530 patent. Dell specifically intended and was aware that these normal and customary activities would infringe the '530 patent. Dell performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '530 patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Dell engaged in such inducement to promote the sales of its own products that can be used in conjunction with the accused products, including EqualLogic. Accordingly, Dell has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the '530 patent, knowing that such use constitutes infringement of the '530 patent.

31. On information and belief, Riverbed has had knowledge of the '530 patent

since at least the filing of this Complaint or shortly thereafter, and on information and belief, Riverbed knew of the '530 patent and knew of its infringement, including by way of this lawsuit.

32. Riverbed's affirmative acts of making, using, selling, offering for sale, and/or importing the accused products have induced and continue to induce users of the accused products to use the accused products in their normal and customary way to infringe the '530 patent, knowing that when the accused products are used in their ordinary and customary manner, the accused products are an infringing system comprising: a memory device; and a data accelerator, wherein said data accelerator is coupled to said memory device, a data stream is received by said data accelerator in received form, said data stream includes a first data block and a second data block, said data stream is compressed by said data accelerator to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique, said first and second compression techniques are different, said compressed data stream is stored on said memory device, said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form, a first data descriptor is stored on said memory device indicative of said first compression technique, and said first descriptor is utilized to decompress the portion of said compressed data stream associated with said first data block, thereby infringing the '530 patent. For example, in Riverbed Optimization System (RiOS) 8.5: A Technical Overview,<sup>7</sup> Riverbed explains that RiOS determines whether a segment of data has been seen before; if so, RiOS sends a small reference instead of the duplicate data; if not, RiOS compresses the new data using a tunable LZ algorithm. Riverbed also explains SteelHead's support for high-throughput

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<sup>7</sup> See <https://splash.riverbed.com/servlet/JiveServlet/downloadBody/1198-102-3-4379/Technical%20Overview%20-%20RiOS%208.5.pdf> at 13.

disaster recovery environments requiring large-scale data transfer and dynamic application of data reduction and compression algorithms.<sup>8</sup> Riverbed specifically intended and was aware that the normal and customary use of the accused products on compatible systems would infringe the '530 patent. Riverbed performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '530 patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Riverbed engaged in such inducement to promote the sales of the accused products, *e.g.*, through Riverbed's user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '530 patent. Accordingly, Riverbed has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to make and/or use systems infringing the '530 patent, knowing that such use of the accused products will result in infringement of the '530 patent.

33. Riverbed and Dell also indirectly infringe the '530 patent by manufacturing, using, selling, offering for sale, and/or importing the accused products, with knowledge that the accused products were and are especially manufactured and/or especially adapted for use in infringing the '530 patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. On information and belief, the accused products are designed to function with compatible hardware to create systems comprising: a memory device; and a data accelerator, wherein said data accelerator is coupled to said memory device, a data stream is received by said data accelerator in received form, said data stream includes a first data block and a second data block, said data stream is compressed by said data accelerator to provide a compressed data stream by compressing said first data block with a first compression

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<sup>8</sup> See *id.* at 21.

technique and said second data block with a second compression technique, said first and second compression techniques are different, said compressed data stream is stored on said memory device, said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form, a first data descriptor is stored on said memory device indicative of said first compression technique, and said first descriptor is utilized to decompress the portion of said compressed data stream associated with said first data block, thereby infringing the '530 patent. Because all software must run on corresponding compatible hardware that necessarily includes a memory device, and the functions of the claimed data accelerator are performed by the accused products when executed on such hardware, the most compelling inference is that the accused products have no substantial non-infringing uses, and that any other uses would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental. Riverbed's and Dell's manufacture, use, sale, offering for sale, and/or importation of the accused products constitutes contributory infringement of the '530 patent.

34. By making, using, offering for sale, selling and/or importing into the United States the accused products and touting the benefits of using the accused products' compression features, Riverbed and Dell have injured Realtime and are liable to Realtime for infringement of the '530 patent pursuant to 35 U.S.C. § 271.

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

### **Dell Products**

36. On information and belief, Dell has used, offered for sale, sold and/or imported into the United States products that infringe various claims of the '530 patent and continues to do so. By way of illustrative example, these infringing products include,

without limitation, Dell's compression products and services, such as, *e.g.*, Fluid File System ("FluidFS") software, which operates on compatible Dell systems, such as EqualLogic SAN Arrays ("EqualLogic"),<sup>9</sup> and all versions and variations thereof since the issuance of the '530 patent ("accused products").

37. On information and belief, Dell has directly infringed and continues to infringe the '530 patent, for example, through its own use, testing, sale, offer for sale, and/or importation of the accused products, which when used as designed and intended, constitute a system comprising: a memory device; and a data accelerator, wherein said data accelerator is coupled to said memory device, a data stream is received by said data accelerator in received form, said data stream includes a first data block and a second data block, said data stream is compressed by said data accelerator to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique, said first and second compression techniques are different, said compressed data stream is stored on said memory device, said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form, a first data descriptor is stored on said memory device indicative of said first compression technique, and said first descriptor is utilized to decompress the portion of said compressed data stream associated with said first data block. Such infringing systems include the accused products.

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

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<sup>9</sup> "FluidFS is integrated with Compellent and EqualLogic — Dell's industry leading SAN storage solutions." See [http://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/FluidFS\\_Data\\_Reduction\\_012314.pdf](http://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/FluidFS_Data_Reduction_012314.pdf)

39. Dell's affirmative acts of making, using, selling, offering for sale, and/or importing the accused products have induced and continue to induce users of the accused products to use the accused products in their normal and customary way to infringe the '530 patent, knowing that when the accused products are used in their ordinary and customary manner, the accused products are an infringing system comprising: a memory device; and a data accelerator, wherein said data accelerator is coupled to said memory device, a data stream is received by said data accelerator in received form, said data stream includes a first data block and a second data block, said data stream is compressed by said data accelerator to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique, said first and second compression techniques are different, said compressed data stream is stored on said memory device, said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form, a first data descriptor is stored on said memory device indicative of said first compression technique, and said first descriptor is utilized to decompress the portion of said compressed data stream associated with said first data block, thereby infringing the '530 patent. For example, in Dell's technical White Paper entitled, "Fluid Data Reduction for FluidFS: Improve file storage efficiency via deduplication and compression", Dell explains that Fluid Data Reduction deduplicates data and then compresses the deduplicated chunks of data.<sup>10</sup> Dell also explains that, "FluidFS is integrated with Compellent and EqualLogic — Dell's industry leading SAN storage solutions."<sup>11</sup> Dell specifically intended and was aware that the normal and customary use of the accused products on compatible systems would infringe the '530 patent. Dell

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<sup>10</sup> See [http://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/FluidFS\\_Data\\_Reduction\\_012314.pdf](http://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/FluidFS_Data_Reduction_012314.pdf) at 9.

<sup>11</sup> See [http://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/FluidFS\\_Data\\_Reduction\\_012314.pdf](http://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/FluidFS_Data_Reduction_012314.pdf)

performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '530 patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Dell engaged in such inducement to promote the sales of the accused products, *e.g.*, through Dell's user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '530 patent. Accordingly, Dell has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to make and/or use systems infringing the '530 patent, knowing that such use of the accused products will result in infringement of the '530 patent.

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

first data block, thereby infringing the '530 patent. Because all software must run on corresponding compatible hardware that necessarily includes a memory device, and the functions of the claimed data accelerator are performed by the accused products when executed on such hardware, the most compelling inference is that the accused products have no substantial non-infringing uses, and that any other uses would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental. Dell's manufacture, use, sale, offering for sale, and/or importation of the accused products constitutes contributory infringement of the '530 patent.

41. By making, using, offering for sale, selling and/or importing into the United States the accused products and touting the benefits of using the accused products' compression features, Dell has injured Realtime and is liable to Realtime for infringement of the '530 patent pursuant to 35 U.S.C. § 271.

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

### **COUNT III**

#### **INFRINGEMENT OF U.S. PATENT NO. 8,643,513**

43. Plaintiff realleges and incorporates by reference paragraphs 1-42 above, as if fully set forth herein.

44. Plaintiff Realtime is the owner by assignment of United States Patent No. 8,643,513 ("the '513 patent") entitled "Data compression systems and methods." The '513 patent was duly and legally issued by the United States Patent and Trademark Office on February 4, 2014. A true and correct copy of the '513 patent is included as Exhibit C.

#### **Riverbed Products**

45. On information and belief, Riverbed and Dell have used, offered for sale,

sold and/or imported into the United States products that infringe various claims of the '513 patent and continue to do so. By way of illustrative example, these infringing products include, without limitation, Riverbed's compression products and services, such as, *e.g.*, the Riverbed Optimization System ("RiOS") software, which operates on Riverbed's SteelHead appliances ("SteelHead"), and all versions and variations thereof since the issuance of the '513 patent ("accused products").

46. On information and belief, Riverbed and Dell have directly infringed and continues to infringe the '513 patent, for example, through their own use and testing of the accused products to practice compression methods claimed by the '513 patent, including a method of compressing a plurality of data blocks, comprising: analyzing the plurality of data blocks to recognize when an appropriate content independent compression algorithm is to be applied to the plurality of data blocks; applying the appropriate content independent data compression algorithm to a portion of the plurality of data blocks to provide a compressed data portion; analyzing a data block from another portion of the plurality of data blocks for recognition of any characteristic, attribute, or parameter that is indicative of an appropriate content dependent algorithm to apply to the data block; and applying the appropriate content dependent data compression algorithm to the data block to provide a compressed data block when the characteristic, attribute, or parameter is identified, wherein the analyzing the plurality of data blocks to recognize when the appropriate content independent compression algorithm is to be applied excludes analyzing based only on a descriptor indicative of the any characteristic, attribute, or parameter, and wherein the analyzing the data block to recognize the any characteristic, attribute, or parameter excludes analyzing based only on the descriptor. On information and belief, use of the accused products in their ordinary and customary fashion results in infringement of the methods claimed by the '513 patent.

47. On information and belief, Dell has had knowledge of the '513 patent since at least the filing of this Complaint or shortly thereafter, and on information and

belief, Dell knew of the '513 patent and knew of its infringement, including by way of this lawsuit.

48. Upon information and belief, Dell's affirmative acts of selling the accused products, and providing implementation services and technical support to users of the accused products, including in conjunction with Dell's products, have induced and continue to induce users of the accused products to use the accused products in their normal and customary way to infringe the '513 patent. Dell specifically intended and was aware that these normal and customary activities would infringe the '513 patent. Dell performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '513 patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Dell engaged in such inducement to promote the sales of its own products that can be used in conjunction with the accused products, including EqualLogic. Accordingly, Dell 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 '513 patent, knowing that such use constitutes infringement of the '513 patent.

49. On information and belief, Riverbed has had knowledge of the '513 patent since at least the filing of this Complaint or shortly thereafter, and on information and belief, Riverbed knew of the '513 patent and knew of its infringement, including by way of this lawsuit.

50. Riverbed's affirmative acts of making, using, selling, offering for sale, and/or importing the accused products have induced and continue to induce users of the accused products to use the accused products in their normal and customary way to infringe the '513 patent by practicing compression methods claimed by the '513 patent, including a method of compressing a plurality of data blocks, comprising: analyzing the plurality of data blocks to recognize when an appropriate content independent compression algorithm is to be applied to the plurality of data blocks; applying the

appropriate content independent data compression algorithm to a portion of the plurality of data blocks to provide a compressed data portion; analyzing a data block from another portion of the plurality of data blocks for recognition of any characteristic, attribute, or parameter that is indicative of an appropriate content dependent algorithm to apply to the data block; and applying the appropriate content dependent data compression algorithm to the data block to provide a compressed data block when the characteristic, attribute, or parameter is identified, wherein the analyzing the plurality of data blocks to recognize when the appropriate content independent compression algorithm is to be applied excludes analyzing based only on a descriptor indicative of the any characteristic, attribute, or parameter, and wherein the analyzing the data block to recognize the any characteristic, attribute, or parameter excludes analyzing based only on the descriptor. For example, in Riverbed Optimization System (RiOS) 8.5: A Technical Overview,<sup>12</sup> Riverbed explains that RiOS determines whether a segment of data has been seen before; if so, RiOS sends a small reference instead of the duplicate data; if not, RiOS compresses the new data using a tunable LZ algorithm. Riverbed specifically intended and was aware that the normal and customary use of the accused products would infringe the '513 patent. Riverbed performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '513 patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Riverbed engaged in such inducement to promote the sales of the accused products, *e.g.*, through Riverbed's user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '513 patent. Accordingly, Riverbed has induced and continues to induce users of the accused products to use the accused products in their

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<sup>12</sup> See <https://splash.riverbed.com/servlet/JiveServlet/downloadBody/1198-102-3-4379/Technical%20Overview%20-%20RiOS%208.5.pdf> at 13.

ordinary and customary way to infringe the ‘513 patent, knowing that such use constitutes infringement of the ‘513 patent.

51. By making, using, offering for sale, selling and/or importing into the United States the accused products and touting the benefits of using the accused products’ compression features, Riverbed and Dell have injured Realtime and are liable to Realtime for infringement of the ‘513 patent pursuant to 35 U.S.C. § 271.

52. As a result of Riverbed’s and Dell’s infringement of the ‘513 patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Riverbed’s and Dell’s infringement, but in no event less than a reasonable royalty for the use made of the invention by Riverbed and Dell, together with interest and costs as fixed by the Court.

### **Dell Products**

53. On information and belief, Dell has used, offered for sale, sold and/or imported into the United States products that infringe various claims of the ‘513 patent and continues to do so. By way of illustrative example, these infringing products include, without limitation, Dell’s compression products and services, such as, *e.g.*, Fluid File System (“FluidFS”) software, which operates on compatible Dell systems, such as EqualLogic SAN Arrays (“EqualLogic”),<sup>13</sup> and all versions and variations thereof since the issuance of the ‘513 patent (“accused products”).

54. On information and belief, Dell has directly infringed and continues to infringe the ‘513 patent, for example, through its own use and testing of the accused products to practice compression methods claimed by the ‘513 patent, including a method of compressing a plurality of data blocks, comprising: analyzing the plurality of data blocks to recognize when an appropriate content independent compression algorithm is to

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<sup>13</sup> “FluidFS is integrated with Compellent and EqualLogic — Dell’s industry leading SAN storage solutions.” See [http://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/FluidFS\\_Data\\_Reduction\\_012314.pdf](http://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/FluidFS_Data_Reduction_012314.pdf)

be applied to the plurality of data blocks; applying the appropriate content independent data compression algorithm to a portion of the plurality of data blocks to provide a compressed data portion; analyzing a data block from another portion of the plurality of data blocks for recognition of any characteristic, attribute, or parameter that is indicative of an appropriate content dependent algorithm to apply to the data block; and applying the appropriate content dependent data compression algorithm to the data block to provide a compressed data block when the characteristic, attribute, or parameter is identified, wherein the analyzing the plurality of data blocks to recognize when the appropriate content independent compression algorithm is to be applied excludes analyzing based only on a descriptor indicative of the any characteristic, attribute, or parameter, and wherein the analyzing the data block to recognize the any characteristic, attribute, or parameter excludes analyzing based only on the descriptor. On information and belief, use of the accused products in their ordinary and customary fashion results in infringement of the methods claimed by the '513 patent.

55. On information and belief, Dell has had knowledge of the '513 patent since at least the filing of this Complaint or shortly thereafter, and on information and belief, Dell knew of the '513 patent and knew of its infringement, including by way of this lawsuit.

56. Dell's affirmative acts of making, using, selling, offering for sale, and/or importing the accused products have induced and continue to induce users of the accused products to use the accused products in their normal and customary way to infringe the '513 patent by practicing compression methods claimed by the '513 patent, including a method of compressing a plurality of data blocks, comprising: analyzing the plurality of data blocks to recognize when an appropriate content independent compression algorithm is to be applied to the plurality of data blocks; applying the appropriate content independent data compression algorithm to a portion of the plurality of data blocks to provide a compressed data portion; analyzing a data block from another portion of the

plurality of data blocks for recognition of any characteristic, attribute, or parameter that is indicative of an appropriate content dependent algorithm to apply to the data block; and applying the appropriate content dependent data compression algorithm to the data block to provide a compressed data block when the characteristic, attribute, or parameter is identified, wherein the analyzing the plurality of data blocks to recognize when the appropriate content independent compression algorithm is to be applied excludes analyzing based only on a descriptor indicative of the any characteristic, attribute, or parameter, and wherein the analyzing the data block to recognize the any characteristic, attribute, or parameter excludes analyzing based only on the descriptor. For example, in Dell's technical White Paper entitled, "Fluid Data Reduction for FluidFS: Improve file storage efficiency via deduplication and compression", Dell explains that Fluid Data Reduction deduplicates data and then compresses the deduplicated chunks of data.<sup>14</sup> Dell specifically intended and was aware that the normal and customary use of the accused products would infringe the '513 patent. Dell performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '513 patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Dell engaged in such inducement to promote the sales of the accused products, *e.g.*, through Dell's user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '513 patent. Accordingly, Dell 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 '513 patent, knowing that such use constitutes infringement of the '513 patent.

57. By making, using, offering for sale, selling and/or importing into the

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<sup>14</sup> See [http://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/FluidFS\\_Data\\_Reduction\\_012314.pdf](http://i.dell.com/sites/doccontent/shared-content/data-sheets/en/Documents/FluidFS_Data_Reduction_012314.pdf) at 9.

United States the accused products and touting the benefits of using the accused products' compression features, Dell has injured Realtime and is liable to Realtime for infringement of the '513 patent pursuant to 35 U.S.C. § 271.

58. As a result of Dell's infringement of the '513 patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Dell's infringement, but in no event less than a reasonable royalty for the use made of the invention by Dell, 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 Riverbed and Dell have infringed, either literally and/or under the doctrine of equivalents, the '992 patent, the '530 patent, and the '513 patent;

b. A permanent injunction prohibiting Riverbed and Dell from further acts of infringement of the '992 patent, the '530 patent, and the '513 patent;

c. A judgment and order requiring Riverbed and Dell to pay Plaintiff its damages, costs, expenses, and prejudgment and post-judgment interest for Riverbed's and Dell's infringement of the '992 patent, the '530 patent, and the '513 patent, as provided under 35 U.S.C. § 284; and

d. A judgment and order requiring Riverbed and Dell to provide an accounting and to pay supplemental damages to Realtime, including without limitation, prejudgment and post-judgment interest; and

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: May 8, 2015

Respectfully submitted,

/s/ Marc A. Fenster by permission Claire  
Abernathy Henry

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