

RUSS, AUGUST & KABAT

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

RUSS AUGUST & KABAT  
Marc A. Fenster (CA SBN 181067)  
Email: mfenster@raklaw.com  
Reza Mirzaie (CA SBN 246953)  
Email: rmirzaie@raklaw.com  
Brian D. Ledahl (CA SBN 186579)  
Email: bledahl@raklaw.com  
Paul A. Kroeger (CA SBN 229074)  
Email: pkroeger@raklaw.com  
C. Jay Chung (CA SBN 252794)  
Email: jchung@raklaw.com  
Philip X. Wang (CA SBN 262239)  
Email: pwang@raklaw.com  
Christian W. Conkle (CA SBN 306374)  
Email: cconkle@raklaw.com  
12424 Wilshire Boulevard, 12th Floor  
Los Angeles, CA 90025  
Telephone: 310/826-7474  
Facsimile 310/826-6991

Attorneys for Plaintiff  
*REALTIME DATA LLC d/b/a IXO*

**UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA**

REALTIME DATA LLC d/b/a IXO,

Plaintiff,

vs.

RIVERBED TECHNOLOGY, INC.,

Defendant.

**Case No. 3:18-cv-3605**

**COMPLAINT FOR PATENT  
INFRINGEMENT**

**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. (“Defendant” or “Riverbed”).

**The Parties**

1. Realtime is a limited liability company organized under the laws of the State of New York. Realtime has places of business at 5851 Legacy Circle, Plano, Texas 75024, 1828 E.S.E. Loop 323, Tyler, Texas 75701, and 66 Palmer Avenue, Suite 27, Bronxville, NY 10708. Since the 1990s, Realtime has researched and developed specific solutions for data compression, including, for example, those that increase the speeds at which data can be stored and accessed. As recognition of its innovations rooted in this technological field, Realtime holds at least 47 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.

**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 Riverbed in this action because Riverbed resides in the Northern District of California and has committed acts within the Northern District of California giving rise to this action and has established minimum contacts with this forum such

RUSS, AUGUST & KABAT

1 that the exercise of jurisdiction over Riverbed would not offend traditional notions of fair play and  
2 substantial justice. Riverbed, directly and through subsidiaries or intermediaries, has committed  
3 and continues to commit acts of infringement in this District by, among other things, offering to  
4 sell and selling products and/or services that infringe the asserted patents.

5 5. Venue is proper in this district under 28 U.S.C. §§ 1391(b), 1391(c) and 1400(b).  
6 Riverbed has an established place of business in California, for example its office at 680 Folsom  
7 St., San Francisco, California 94107.

8 **COUNT I**

9 **INFRINGEMENT OF U.S. PATENT NO. 9,054,728**

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

12 7. Plaintiff Realtime is the owner by assignment of United States Patent No. 9,054,728  
13 (“the ‘728 Patent”) entitled “Data compression systems and methods.” The ‘728 Patent was duly  
14 and legally issued by the United States Patent and Trademark Office on June 9, 2015. A true and  
15 correct copy of the ‘728 Patent is included as Exhibit A.

16 8. On information and belief, Riverbed has used, offered for sale, sold and/or imported  
17 into the United States products that infringe various claims of the ‘728 patent and continues to do  
18 so. By way of illustrative example, these infringing products include, without limitation,  
19 Riverbed’s compression products and services, such as, *e.g.*, the Riverbed Optimization System  
20 (“RiOS”) software, which operates on Riverbed’s SteelHead appliances (“SteelHead”), including  
21 but not limited to SteelHead 520, 1020, 2020, 1520, 3020, 3520, 5520, 6020, 1050, 2050, 250,  
22 550, 5050, 6050, 7050, CX555, 755, 1555, EX560, 760, 1160, 1260, CX5055, 7055, C255,  
23 EX1360, VCX255, VCX555, CX555, CX570, CX770, EX1360, CX3070, 5070, 7070, Steelhead  
24 Mobile, and Steelhead Software as a Service (or “SAAS”) and all versions and variations thereof  
25 since the issuance of the ‘728 patent (“Accused Instrumentality”).

26 9. On information and belief, Riverbed has directly infringed and continues to infringe  
27 the ‘728 patent, for example, through its own use and testing of the Accused Instrumentality, which  
28 constitute systems for compressing data claimed by Claim 1 of the ‘728 Patent, comprising a

RUSS, AUGUST & KABAT

1 processor; one or more content dependent data compression encoders; and a single data  
2 compression encoder; wherein the processor is configured: to analyze data within a data block to  
3 identify one or more parameters or attributes of the data wherein the analyzing of the data within  
4 the data block to identify the one or more parameters or attributes of the data excludes analyzing  
5 based solely on a descriptor that is indicative of the one or more parameters or attributes of the  
6 data within the data block; to perform content dependent data compression with the one or more  
7 content dependent data compression encoders if the one or more parameters or attributes of the  
8 data are identified; and to perform data compression with the single data compression encoder, if  
9 the one or more parameters or attributes of the data are not identified. Upon information and belief,  
10 Riverbed uses the Accused Instrumentality, an infringing system, for its own internal non-testing  
11 business purposes, while testing the Accused Instrumentality, and while providing technical  
12 support and repair services for the Accused Instrumentality to Riverbed's customers.

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

16 11. Riverbed's affirmative acts of making, using, selling, offering for sale, and/or  
17 importing the Accused Instrumentality have induced and continue to induce users of the Accused  
18 Instrumentality to use the Accused Instrumentality in its normal and customary way to infringe the  
19 '728 patent by practicing compression methods/systems claimed by the '728 patent, including  
20 systems for compressing data comprising; a processor; one or more content dependent data  
21 compression encoders; and a single data compression encoder; wherein the processor is  
22 configured: to analyze data within a data block to identify one or more parameters or attributes of  
23 the data wherein the analyzing of the data within the data block to identify the one or more  
24 parameters or attributes of the data excludes analyzing based solely on a descriptor that is  
25 indicative of the one or more parameters or attributes of the data within the data block; to perform  
26 content dependent data compression with the one or more content dependent data compression  
27 encoders if the one or more parameters or attributes of the data are identified; and to perform data  
28 compression with the single data compression encoder, if the one or more parameters or attributes

1 of the data are not identified.. For example, Riverbed explains the benefits of selecting the SDR-  
2 Adaptive Advanced setting, which “Maximizes LAN-side throughput dynamically under different  
3 data workloads. This switching mechanism is governed with a throughput and bandwidth reduction  
4 goal using the available WAN bandwidth.” See  
5 [https://support.riverbed.com/bin/support/static/oc1r4qa2pks6172bsj6fte42p4/html/  
6 dhatalm0otkq7neeb7h9e9dl8j/sh\\_ex\\_4.6\\_ug/index.html#page/sh\\_ex\\_4.6\\_ug/setupServicePerfor  
7 mance.html](https://support.riverbed.com/bin/support/static/oc1r4qa2pks6172bsj6fte42p4/html/dhatalm0otkq7neeb7h9e9dl8j/sh_ex_4.6_ug/index.html#page/sh_ex_4.6_ug/setupServicePerformance.html). Riverbed also encourages customers to use the SDR-Adaptive Advanced setting,  
8 which it explains provides, “Good data reduction and LAN-side throughput”, enabling “the ability  
9 to fine tune the data streamlining capabilities and enables you to obtain the right balance between  
10 optimal bandwidth reduction and optimal throughput.” Riverbed explains that SDR-Adaptive  
11 Advanced achieves this balance between data/bandwidth reduction and throughput by  
12 “Monitor[ing] disk I/O response times, CPU load, and WAN utilization, and based on statistical  
13 trends employ[ing] a blend of disk-based deduplication, memory-based deduplication and  
14 compress-based data reduction techniques.” See [https://support.riverbed.com/bin/support/static  
15 /fbunsuuo632vi3jrspe0evbko9/html/u2pi6152l4drmhq3uhck9tu7hm/sh\\_9.2\\_dg\\_html/index.html#  
16 page/sh\\_9.2\\_dg/dataprotection.html](https://support.riverbed.com/bin/support/static/fbunsuuo632vi3jrspe0evbko9/html/u2pi6152l4drmhq3uhck9tu7hm/sh_9.2_dg_html/index.html#page/sh_9.2_dg/dataprotection.html). Riverbed specifically intended and was aware that the  
17 normal and customary use of the Accused Instrumentality would infringe the ‘728 patent.  
18 Riverbed performed the acts that constitute induced infringement, and would induce actual  
19 infringement, with the knowledge of the ‘728 patent and with the knowledge, or willful blindness  
20 to the probability, that the induced acts would constitute infringement. On information and belief,  
21 Riverbed engaged in such inducement to promote the sales of the Accused Instrumentality, *e.g.*,  
22 through Riverbed’s user manuals, product support, marketing materials, and training materials to  
23 actively induce the users of the Accused Instrumentality to infringe the ‘728 patent. Accordingly,  
24 Riverbed has induced and continue to induce users of the Accused Instrumentality to use the  
25 Accused Instrumentality in its ordinary and customary way to infringe the ‘728 patent, knowing  
26 that such use constitutes infringement of the ‘728 patent.

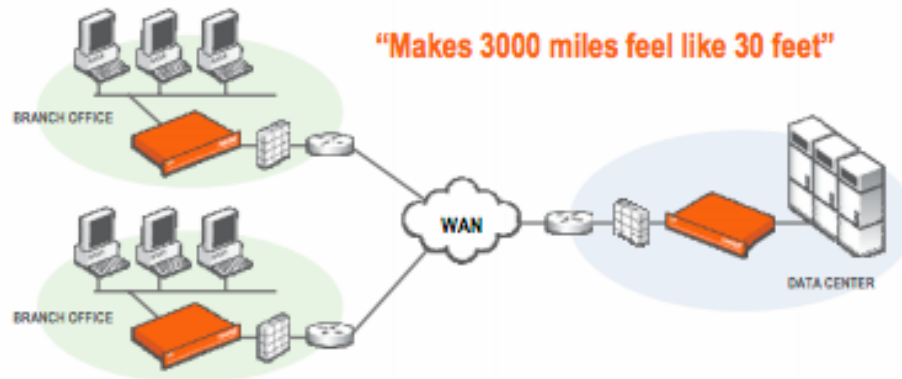
27 12. Riverbed also indirectly infringes the ’728 Patent by manufacturing, using, selling,  
28 offering for sale, and/or importing the accused products, with knowledge that the accused products

1 were and are especially manufactured and/or especially adapted for use in infringing the '728  
 2 Patent and are not a staple article or commodity of commerce suitable for substantial non-  
 3 infringing use. On information and belief, the Accused Instrumentality is designed to function  
 4 with compatible hardware to create systems for compressing data comprising; a processor; one or  
 5 more content dependent data compression encoders; and a single data compression encoder;  
 6 wherein the processor is configured: to analyze data within a data block to identify one or more  
 7 parameters or attributes of the data wherein the analyzing of the data within the data block to  
 8 identify the one or more parameters or attributes of the data excludes analyzing based solely on a  
 9 descriptor that is indicative of the one or more parameters or attributes of the data within the data  
 10 block; to perform content dependent data compression with the one or more content dependent  
 11 data compression encoders if the one or more parameters or attributes of the data are identified;  
 12 and to perform data compression with the single data compression encoder, if the one or more  
 13 parameters or attributes of the data are not identified. Because the Accused Instrumentality is  
 14 designed to operate as the claimed system for compressing input data, the Accused Instrumentality  
 15 has no substantial non-infringing uses, and any other uses would be unusual, far-fetched, illusory,  
 16 impractical, occasional, aberrant, or experimental. Riverbed's manufacture, use, sale, offering for  
 17 sale, and/or importation of the Accused Instrumentality constitutes contributory infringement of  
 18 the '728 Patent.

19 13. The Accused Instrumentality is a system for compressing data, comprising a  
 20 processor. *See, e.g.,* "); <https://splash.riverbed.com/thread/9089> ("SDR-A: It dynamically blends  
 21 data streamlining modes to enable sustained throughput during periods of high disk/CPU intensive  
 22 workloads. This is done by monitoring disk I/O response times. CPU load and WAN utilization  
 23 and based in statistical trends, employs a blend of disk-based deduplication (SDR), memory based  
 24 deduplication (SDR-M) and compression based data reduction techniques (LZ). Note: This is the  
 25 advance setting.");  
 26 <https://support.riverbed.com/bin/support/static/fbunsuu0632vi3jrspe0evbko9/html/u2pi615214dr>  
 27 [mhq3uhck9tu7hm/sh\\_9.2\\_dg\\_html/index.html#page/sh\\_9.2\\_dg/dataprotection.html](https://support.riverbed.com/bin/support/static/fbunsuu0632vi3jrspe0evbko9/html/u2pi615214dr) ("SDR-  
 28 Adaptive ... Advanced - Monitors disk I/O response times, CPU load, and WAN utilization, and

1 based on statistical trends employs a blend of disk-based deduplication, memory-based  
 2 deduplication and compress-based data reduction techniques.”);  
 3 <http://www.webtorials.com/main/challenge/app-accel-2006/preso/riverbed/Riverbed.pdf>:

### 4 **Steelhead™ appliances solve these problems**



- 12
- 13 • Increases user and IT productivity
  - 14 • Accelerates applications
  - 15 • Saves bandwidth
  - 16 • Eliminates the need for remote infrastructure
  - 17 • The easiest product on the market to deploy
    - 18 • No changes to client/servers
    - 19 • No changes to IP addresses

20 14. The Accused Instrumentality is a system for compressing data, comprising one or  
 21 more content dependent data compression encoders. For example, the Accused Instrumentality  
 22 performs deduplication, which is a content dependent data compression encoder. Performing  
 23 deduplication results in representation of data with fewer bits. As another example, Riverbed  
 24 explains that SDR-Adaptive Advanced achieves this balance between data/bandwidth reduction  
 25 and throughput by “Monitor[ing] disk I/O response times, CPU load, and WAN utilization, and  
 26 based on statistical trends employ[ing] a blend of disk-based deduplication, memory-based  
 27 deduplication and compress-based data reduction techniques.” See  
 28 [https://support.riverbed.com/bin/support/static/fbunsuu0632vi3jrspe0evbko9/html/u2pi615214drmhq3uhck9tu7hm/sh\\_9.2\\_dg\\_html/index.html#page/sh\\_9.2\\_dg/dataprotection.html](https://support.riverbed.com/bin/support/static/fbunsuu0632vi3jrspe0evbko9/html/u2pi615214drmhq3uhck9tu7hm/sh_9.2_dg_html/index.html#page/sh_9.2_dg/dataprotection.html).

15. The Accused Instrumentality comprises a single data compression encoder. See,  
 e.g., <https://www.riverbed.com/document/fpo/TechOverview-Riverbed-RiOS-6.5.pdf> at 11  
 (“RiOS intercepts and analyzes TCP traffic, segmenting the data and indexing it. Once the data

1 has been indexed, it is compared to data on the disk or in memory. A segment of data that has been  
 2 seen before is not transferred across the WAN; instead, a reference is sent in its place. ... If the  
 3 data has never been seen by RiOS before, the segments are compressed using a Lempel-Ziv (LZ)  
 4 based algorithm and sent to the counterpart RiOS-powered device on the far side of the WAN.  
 5 There, segments of data are also stored on the counterpart appliance or endpoint. Finally, the  
 6 original traffic is reconstructed using new data and references to existing data and passed through  
 7 to the client.”);

8 [https://support.riverbed.com/bin/support/static/fbunsuuo632vi3jrpspe0evbko9/html/u2pi615214dr  
 mhq3uhck9tu7hm/sh\\_9.2\\_dg\\_html/index.html#page/sh\\_9.2\\_dg/dataprotection.html](https://support.riverbed.com/bin/support/static/fbunsuuo632vi3jrpspe0evbko9/html/u2pi615214dr<br/>
  9 mhq3uhck9tu7hm/sh_9.2_dg_html/index.html#page/sh_9.2_dg/dataprotection.html).

10 16. The Accused Instrumentality analyzes data within a data block to identify one or  
 11 more parameters or attributes of the data, for example, whether the data is duplicative of data  
 12 previously transmitted and/or stored, where the analysis does not rely only on the descriptor. *See*,  
 13 *e.g.*, [https://support.riverbed.com/bin/support/static/oc1r4qa2pks6172bsj6fte42p4/  
 html/dhatalm0otkq7neeb7h9e9dl8j/sh\\_ex\\_4.6\\_ug/index.html#page/sh\\_ex\\_4.6\\_ug/setupServiceD  
 16 atastore.html](https://support.riverbed.com/bin/support/static/oc1r4qa2pks6172bsj6fte42p4/<br/>
  14 html/dhatalm0otkq7neeb7h9e9dl8j/sh_ex_4.6_ug/index.html#page/sh_ex_4.6_ug/setupServiceD<br/>
  15 atastore.html) (“SteelHeads transparently intercept and analyze all of your WAN traffic. TCP traffic  
 17 is segmented, indexed, and stored as segments of data, and the references representing that data  
 18 are stored on the RiOS data store within SteelHeads on both sides of your WAN. After the data  
 19 has been indexed, it is compared to data already on the disk. Segments of data that have been seen  
 20 before aren’t transferred across the WAN again; instead a reference is sent in its place that can  
 21 index arbitrarily large amounts of data, thereby massively reducing the amount of data that needs  
 22 to be transmitted. One small reference can refer to megabytes of existing data that has been  
 transferred over the WAN before.”).

23 17. The Accused Instrumentality performs content dependent data compression with  
 24 the one or more content dependent data compression encoders if the one or more parameters or  
 25 attributes of the data are identified. *See, e.g.*,  
 26 [https://support.riverbed.com/bin/support/static/oc1r4qa2pks6172bsj6fte42p4/html/dhatalm0otkq  
 28 7neeb7h9e9dl8j/sh\\_ex\\_4.6\\_ug/index.html#page/sh\\_ex\\_4.6\\_ug/setupServiceDatastore.html](https://support.riverbed.com/bin/support/static/oc1r4qa2pks6172bsj6fte42p4/html/dhatalm0otkq<br/>
  27 7neeb7h9e9dl8j/sh_ex_4.6_ug/index.html#page/sh_ex_4.6_ug/setupServiceDatastore.html)  
 (“SteelHeads transparently intercept and analyze all of your WAN traffic. TCP traffic is



1 segmented, indexed, and stored as segments of data, and the references representing that data are  
2 stored on the RiOS data store within SteelHeads on both sides of your WAN. After the data has  
3 been indexed, it is compared to data already on the disk. Segments of data that have been seen  
4 before aren't transferred across the WAN again; instead a reference is sent in its place that can  
5 index arbitrarily large amounts of data, thereby massively reducing the amount of data that needs  
6 to be transmitted. One small reference can refer to megabytes of existing data that has been  
7 transferred over the WAN before.”).

8 18. The Accused Instrumentality performs data compression with the single data  
9 compression encoder, if the one or more parameters or attributes of the data are not identified. *See*,  
10 *e.g.*, <https://www.riverbed.com/document/fpo/TechOverview-Riverbed-RiOS-6.5.pdf> at 11  
11 (“RiOS intercepts and analyzes TCP traffic, segmenting the data and indexing it. Once the data  
12 has been indexed, it is compared to data on the disk or in memory. A segment of data that has been  
13 seen before is not transferred across the WAN; instead, a reference is sent in its place. ... If the  
14 data has never been seen by RiOS before, the segments are compressed using a Lempel-Ziv (LZ)  
15 based algorithm and sent to the counterpart RiOS-powered device on the far side of the WAN.  
16 There, segments of data are also stored on the counterpart appliance or endpoint. Finally, the  
17 original traffic is reconstructed using new data and references to existing data and passed through  
18 to the client.”);  
19 <https://support.riverbed.com/bin/support/static/fbunsuu0632vi3jrspe0evbko9/html/u2pi615214dr>  
20 [mhq3uhck9tu7hm/sh\\_9.2\\_dg\\_html/index.html#page/sh\\_9.2\\_dg/dataprotection.html](https://support.riverbed.com/bin/support/static/fbunsuu0632vi3jrspe0evbko9/html/u2pi615214dr/mhq3uhck9tu7hm/sh_9.2_dg_html/index.html#page/sh_9.2_dg/dataprotection.html).

21 19. Riverbed also infringes other claims of the ‘728 patent, directly and indirectly.

22 20. By making, using, offering for sale, selling and/or importing into the United States  
23 the Accused Instrumentality and touting the benefits of using the Accused Instrumentality’  
24 compression features, Riverbed has injured Realtime and is liable to Realtime for infringement of  
25 the ‘728 patent pursuant to 35 U.S.C. § 271.

26 21. As a result of Riverbed’s infringement of the ‘728 patent, Plaintiff Realtime is  
27 entitled to monetary damages in an amount adequate to compensate for Riverbed’s infringement,  
28

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

3 **COUNT II**

4 **INFRINGEMENT OF U.S. PATENT NO. 9,054,728**

5 22. Realtime realleges and incorporates by reference the foregoing paragraphs, as if  
6 fully set forth herein.

7 23. Realtime is the owner by assignment of United States Patent No. 9,859,919 entitled  
8 “System and method for data compression.” The ‘919 patent was duly and legally issued by the  
9 United States Patent and Trademark Office on January 2, 2018. A true and correct copy of the  
10 ‘919 Patent is included as Exhibit B.

11 24. On information and belief, Riverbed has used, offered for sale, sold and/or imported  
12 into the United States products that infringe various claims of the ‘919 patent and continues to do  
13 so. By way of illustrative example, these infringing products include, without limitation,  
14 Riverbed’s compression products and services, such as, *e.g.*, the Riverbed Optimization System  
15 (“RiOS”) software, which operates on Riverbed’s SteelHead appliances (“SteelHead”), including  
16 but not limited to SteelHead 520, 1020, 2020, 1520, 3020, 3520, 5520, 6020, 1050, 2050, 250,  
17 550, 5050, 6050, 7050, CX555, 755, 1555, EX560, 760, 1160, 1260, CX5055, 7055, C255,  
18 EX1360, VCX255, VCX555, CX555, CX570, CX770, EX1360, CX3070, 5070, 7070, Steelhead  
19 Mobile, and Steelhead Software as a Service (or “SAAS”) and all versions and variations thereof  
20 since the issuance of the ‘919 patent (“Accused Instrumentality”).

21 25. On information and belief, Riverbed has directly infringed and continues to infringe  
22 the ‘919 patent, for example, through its own use and testing of the Accused Instrumentality to  
23 practice compression methods claimed by the ‘919 patent, including a method for compressing  
24 data in one or more data blocks, comprising: analyzing a data block to determine a parameter,  
25 attribute, or value of the data block, wherein the analyzing excludes only reading a descriptor or  
26 data token associated with the data block; selecting at least one lossless encoder associated with  
27 the determined parameter, attribute, or value; compressing data in the data block with the selected  
28 at least one lossless encoder to produce a compressed data block, having a size over 10 times

1 smaller than the data block; and storing the compressed data block, wherein the time of the  
2 compressing the data block and the storing the compressed data block is less than the time of  
3 storing the data block in uncompressed form.. On information and belief, Riverbed uses the  
4 Accused Instrumentality in its ordinary and customary fashion for its own internal non-testing  
5 business purposes, while testing the Accused Instrumentality, and while providing technical  
6 support and repair services for the Accused Instrumentality to Riverbed's customers, and use of  
7 the Accused Instrumentality in its ordinary and customary fashion results in infringement of the  
8 methods claimed by the '919 patent.

9 26. On information and belief, Riverbed has had knowledge of the '919 patent since at  
10 least the filing of this Complaint or shortly thereafter, and on information and belief, Riverbed  
11 knew of the '919 patent and knew of its infringement, including by way of this lawsuit.

12 27. Riverbed's affirmative acts of making, using, selling, offering for sale, and/or  
13 importing the Accused Instrumentality have induced and continue to induce users of the Accused  
14 Instrumentality to use the Accused Instrumentality in its normal and customary way to infringe the  
15 '919 patent by practicing compression methods claimed by the '919 patent, including a method  
16 for compressing data in one or more data blocks, comprising: analyzing a data block to determine  
17 a parameter, attribute, or value of the data block, wherein the analyzing excludes only reading a  
18 descriptor or data token associated with the data block; selecting at least one lossless encoder  
19 associated with the determined parameter, attribute, or value; compressing data in the data block  
20 with the selected at least one lossless encoder to produce a compressed data block, having a size  
21 over 10 times smaller than the data block; and storing the compressed data block, wherein the time  
22 of the compressing the data block and the storing the compressed data block is less than the time  
23 of storing the data block in uncompressed form. Riverbed explains to customers that the Accused  
24 Instrumentality performs disk-based deduplication by default: "By default, SteelHeads use their  
25 disk-based RiOS data store to find data patterns that traverse the network. Previously seen data  
26 patterns do not traverse the network in their fully expanded form. Instead, a SteelHead sends a  
27 unique identifier for the data to its peer SteelHead, which sends the fully expanded data. In this  
28 manner, data is streamlined over the WAN because unique content only traverses the link once"

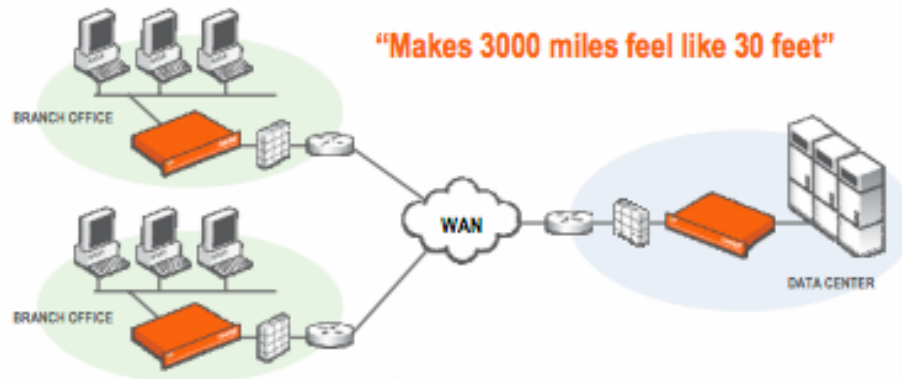
1 which results in “Best data reduction”. See  
2 [https://support.riverbed.com/bin/support/static/fbunsuu0632vi3jrspe0evbko9/  
3 \[html/u2pi615214drmhq3uhck9tu7hm/sh\\\_9.2\\\_dg\\\_html/index.html#page/sh\\\_9.2\\\_dg/dataprotection.  
4 \\[html\\]\\(https://support.riverbed.com/bin/support/static/fbunsuu0632vi3jrspe0evbko9/html/u2pi615214drmhq3uhck9tu7hm/sh\\_9.2\\_dg\\_html/index.html#page/sh\\_9.2\\_dg/dataprotection.html\\)\]\(https://support.riverbed.com/bin/support/static/fbunsuu0632vi3jrspe0evbko9/html/u2pi615214drmhq3uhck9tu7hm/sh\_9.2\_dg\_html/index.html#page/sh\_9.2\_dg/dataprotection.html\). Riverbed also explains to customers the benefits of using the Accused Instrumentality,  
5 “Reduced bandwidth utilization. Organizations can cut bandwidth expenses and defer WAN  
6 upgrades to control costs. • Enhanced backup, recovery, and replication. Backup, restoration, and  
7 data replication operations are accelerated helping minimize data loss and achieve shorter recovery  
8 point and time objectives \(RPO/RTO\). File servers, application servers and even virtual machine  
9 images can be backed up in minutes instead of hours or days.” See, e.g.,  
10 \[https://splash.riverbed.com/servlet/JiveServlet/downloadBody/1198-102-3-  
11 \\[4379/Technical%20Overview%20-%20iOS%208.5.pdf\\]\\(https://splash.riverbed.com/servlet/JiveServlet/downloadBody/1198-102-3-4379/Technical%20Overview%20-%20iOS%208.5.pdf\\) at 3. Indeed, Riverbed has already  
12 “pleaded guilty” to Steelhead devices accelerating the transmission of data: “Riverbed pleads  
13 guilty to providing ‘faster speed transmission.’ It is what SteelHeads do: accelerate data  
14 transmission and application performance across networks of hundreds or even thousands of  
15 miles.” See, e.g., Riverbed’s Reply ISO Motion for MSJ, Realtime Data LLC v. Actian Corp. et  
16 al., Case No. 6:15-cv-00463-RWS-JDL, Dkt. No. 470 \\(E.D. Tex. Mar. 13, 2017\\). Riverbed  
17 specifically intended and was aware that the normal and customary use of the Accused  
18 Instrumentality would infringe the ‘919 patent. Riverbed performed the acts that constitute  
19 induced infringement, and would induce actual infringement, with the knowledge of the ‘919  
20 patent and with the knowledge, or willful blindness to the probability, that the induced acts would  
21 constitute infringement. On information and belief, Riverbed engaged in such inducement to  
22 promote the sales of the Accused Instrumentality, e.g., through Riverbed’s user manuals, product  
23 support, marketing materials, and training materials to actively induce the users of the Accused  
24 Instrumentality to infringe the ‘919 patent. Accordingly, Riverbed has induced and continue to  
25 induce users of the Accused Instrumentality to use the Accused Instrumentality in its ordinary and  
26 customary way to infringe the ‘919 patent, knowing that such use constitutes infringement of the  
27 ‘919 patent.  
28\]\(https://splash.riverbed.com/servlet/JiveServlet/downloadBody/1198-102-3-4379/Technical%20Overview%20-%20iOS%208.5.pdf\)](https://support.riverbed.com/bin/support/static/fbunsuu0632vi3jrspe0evbko9/html/u2pi615214drmhq3uhck9tu7hm/sh_9.2_dg_html/index.html#page/sh_9.2_dg/dataprotection.html)

1           28. Riverbed also indirectly infringes the '919 Patent by manufacturing, using, selling,  
2 offering for sale, and/or importing the accused products, with knowledge that the accused products  
3 were and are especially manufactured and/or especially adapted for use in infringing the '919  
4 Patent and are not a staple article or commodity of commerce suitable for substantial non-  
5 infringing use. On information and belief, the Accused Instrumentality is designed to function  
6 with compatible hardware to create systems for compressing data in one or more data blocks,  
7 comprising: analyzing a data block to determine a parameter, attribute, or value of the data block,  
8 wherein the analyzing excludes only reading a descriptor or data token associated with the data  
9 block; selecting at least one lossless encoder associated with the determined parameter, attribute,  
10 or value; compressing data in the data block with the selected at least one lossless encoder to  
11 produce a compressed data block, having a size over 10 times smaller than the data block; and  
12 storing the compressed data block, wherein the time of the compressing the data block and the  
13 storing the compressed data block is less than the time of storing the data block in uncompressed  
14 form. Because the Accused Instrumentality is designed to operate as the claimed system for  
15 compressing input data, the Accused Instrumentality has no substantial non-infringing uses, and  
16 any other uses would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or  
17 experimental. Riverbed's manufacture, use, sale, offering for sale, and/or importation of the  
18 Accused Instrumentality constitutes contributory infringement of the '919 Patent.

19  
20  
21  
22  
23  
24  
25  
26  
27  
28

1 29. The Accused Instrumentality practices a method for compressing data in one or  
 2 more data blocks. See, e.g., [http://www.webtorials.com/main/challenge/app-accel-  
 3 2006/preso/riverbed/Riverbed.pdf](http://www.webtorials.com/main/challenge/app-accel-2006/preso/riverbed/Riverbed.pdf):

### 4 **Steelhead™ appliances solve these problems**



- 12
- 13 • Increases user and IT productivity
  - 14 • Accelerates applications
  - 15 • Saves bandwidth
  - 16 • Eliminates the need for remote infrastructure
  - 17 • The easiest product on the market to deploy
    - 18 • No changes to client/servers
    - 19 • No changes to IP addresses

20 30. The Accused Instrumentality analyzes a data block to determine a parameter,  
 21 attribute, or value of the data block, wherein the analyzing excludes only reading a descriptor or  
 22 data token associated with the data block, for example, by analyzing whether the data is duplicative  
 23 of data previously transmitted over the WAN. See, e.g.,  
 24 [https://support.riverbed.com/bin/support/static/oc1r4qa2pks6172bsj6fte42p4/  
 25 html/dhatalm0otkq7neeb7h9e9dl8j/sh\\_ex\\_4.6\\_ug/index.html#page/sh\\_ex\\_4.6\\_ug/setupServiceD  
 26 atastore.html](https://support.riverbed.com/bin/support/static/oc1r4qa2pks6172bsj6fte42p4/html/dhatalm0otkq7neeb7h9e9dl8j/sh_ex_4.6_ug/index.html#page/sh_ex_4.6_ug/setupServiceD) (“SteelHeads transparently intercept and analyze all of your WAN traffic. TCP traffic  
 27 is segmented, indexed, and stored as segments of data, and the references representing that data  
 28 are stored on the RiOS data store within SteelHeads on both sides of your WAN. After the data  
 has been indexed, it is compared to data already on the disk. Segments of data that have been seen  
 before aren’t transferred across the WAN again; instead a reference is sent in its place that can  
 index arbitrarily large amounts of data, thereby massively reducing the amount of data that needs

1 to be transmitted. One small reference can refer to megabytes of existing data that has been  
2 transferred over the WAN before.”).

3 31. The Accused Instrumentality selects at least one lossless encoder associated with  
4 the determined parameter, attribute, or value, for example, replacing duplicative data previously  
5 transmitted over the WAN with a reference. See, e.g.,  
6 [https://support.riverbed.com/bin/support/static/oc1r4qa2pks6172bsj6fte42p4/html/dhatalm0otkq](https://support.riverbed.com/bin/support/static/oc1r4qa2pks6172bsj6fte42p4/html/dhatalm0otkq7neeb7h9e9dl8j/sh_ex_4.6_ug/index.html#page/sh_ex_4.6_ug/setupServiceDatastore.html)  
7 [7neeb7h9e9dl8j/sh\\_ex\\_4.6\\_ug/index.html#page/sh\\_ex\\_4.6\\_ug/setupServiceDatastore.html](https://support.riverbed.com/bin/support/static/oc1r4qa2pks6172bsj6fte42p4/html/dhatalm0otkq7neeb7h9e9dl8j/sh_ex_4.6_ug/index.html#page/sh_ex_4.6_ug/setupServiceDatastore.html)  
8 (“SteelHeads transparently intercept and analyze all of your WAN traffic. TCP traffic is  
9 segmented, indexed, and stored as segments of data, and the references representing that data are  
10 stored on the RiOS data store within SteelHeads on both sides of your WAN. After the data has  
11 been indexed, it is compared to data already on the disk. Segments of data that have been seen  
12 before aren’t transferred across the WAN again; instead a reference is sent in its place that can  
13 index arbitrarily large amounts of data, thereby massively reducing the amount of data that needs  
14 to be transmitted. One small reference can refer to megabytes of existing data that has been  
15 transferred over the WAN before.”).

16 32. The Accused Instrumentality compresses data in the data block with the selected at  
17 least one lossless encoder to produce a compressed data block, having a size over 10 times smaller  
18 than the data block. See, e.g., [https://www.riverbed.com/document/fpo/TechOverview-Riverbed-](https://www.riverbed.com/document/fpo/TechOverview-Riverbed-RiOS-6.5.pdf)  
19 [RiOS-6.5.pdf](https://www.riverbed.com/document/fpo/TechOverview-Riverbed-RiOS-6.5.pdf) at 11 (“Data streamlining ensures the same data is never sent more than once over  
20 the WAN. Data streamlining reduces bandwidth consumption for many applications dramatically,  
21 typically by 60 to 95 percent. ... RiOS data streamlining is highly scalable, with peak compression  
22 ratios that can be 100:1 or higher. These compression ratios (as a result of eliminating the transfer  
23 of redundant data) are far higher than what typical TCP compression devices could provide.”);  
24 <https://www.riverbed.com/document/fpo/TechOverview-Riverbed-RiOS-6.5.pdf> at 11 (“RiOS  
25 intercepts and analyzes TCP traffic, segmenting the data and indexing it. Once the data has been  
26 indexed, it is compared to data on the disk or in memory. A segment of data that has been seen  
27 before is not transferred across the WAN; instead, a reference is sent in its place. ... If the data has  
28 never been seen by RiOS before, the segments are compressed using a Lempel-Ziv (LZ) based

1 algorithm and sent to the counterpart RiOS-powered device on the far side of the WAN. There,  
2 segments of data are also stored on the counterpart appliance or endpoint. Finally, the original  
3 traffic is reconstructed using new data and references to existing data and passed through to the  
4 client.”).

5 33. The Accused Instrumentality stores the compressed data block, wherein the time of  
6 the compressing the data block and the storing the compressed data block is less than the time of  
7 storing the data block in uncompressed form. For instance, Riverbed has already “pleaded guilty”  
8 to the Steelhead devices accelerating the transmission of data: “Riverbed pleads guilty to providing  
9 'faster speed transmission.' It is what SteelHeads do: accelerate data transmission and application  
10 performance across networks of hundreds or even thousands of miles.” See, e.g., Riverbed’s Reply  
11 ISO Motion for MSJ, *Realtime Data LLC v. Actian Corp. et al.*, Case No. 6:15-cv-00463-RWS-  
12 JDL, Dkt. No. 470 (E.D. Tex. Mar. 13, 2017); see also, e.g.,  
13 [https://support.riverbed.com/bin/support/static/fbunsuu0632vi3jrspe0evbko9/html](https://support.riverbed.com/bin/support/static/fbunsuu0632vi3jrspe0evbko9/html/u2pi6l5214drmhq3uhck9tu7hm/sh_9.2_dg_html/index.html#page/sh_9.2_dg/dataprotection.html)  
14 [/u2pi6l5214drmhq3uhck9tu7hm/sh\\_9.2\\_dg\\_html/index.html#page/sh\\_9.2\\_dg/dataprotection.html](https://support.riverbed.com/bin/support/static/fbunsuu0632vi3jrspe0evbko9/html/u2pi6l5214drmhq3uhck9tu7hm/sh_9.2_dg_html/index.html#page/sh_9.2_dg/dataprotection.html)  
15 (“Accelerate Data Transfer - By accelerating data transfer, SteelHeads meet or improve time  
16 targets for protecting data.”).

17 34. Riverbed also infringes other claims of the ‘919 patent, directly and through  
18 inducing infringement, for similar reasons as explained above with respect to Claim 12 of the ‘919  
19 patent.

20 35. By making, using, offering for sale, selling and/or importing into the United States  
21 the Accused Instrumentality, and touting the benefits of using the Accused Instrumentality’s  
22 compression features, Riverbed has injured Realtime and is liable to Realtime for infringement of  
23 the ‘919 patent pursuant to 35 U.S.C. § 271.

24 36. As a result of Riverbed’s infringement of the ‘919 patent, Plaintiff Realtime is  
25 entitled to monetary damages in an amount adequate to compensate for Riverbed’s infringement,  
26 but in no event less than a reasonable royalty for the use made of the invention by Riverbed,  
27 together with interest and costs as fixed by the Court.  
28



**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff Realtime respectfully requests that this Court enter:

- a. A judgment in favor of Realtime that Riverbed has infringed, either literally and/or under the doctrine of equivalents, the ‘728 patent and the ‘919 patent (“asserted patents”);
- b. A permanent injunction prohibiting Riverbed from further acts of infringement of the asserted patents;
- c. A judgment and order requiring Riverbed to pay Realtime its damages, costs, expenses, and prejudgment and post-judgment interest for Riverbed’s infringement of the asserted patents, as provided under 35 U.S.C. § 284;
- d. A judgment and order requiring Riverbed 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 Realtime its reasonable attorneys’ fees against Defendant; and
- f. Any and all other relief as the Court may deem appropriate and just.

**DEMAND FOR JURY TRIAL**

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

DATED: June 15, 2018

RUSS, AUGUST & KABAT

/s/ Marc A. Fenster

Marc A. Fenster (CA SBN 181067)  
Email: [mfenster@raklaw.com](mailto:mfenster@raklaw.com)  
Reza Mirzaie (CA SBN 246953)  
Email: [rmirzaie@raklaw.com](mailto:rmirzaie@raklaw.com)  
Brian D. Ledahl (CA SBN 186579)  
Email: [bledahl@raklaw.com](mailto:bledahl@raklaw.com)  
Paul A. Kroeger (CA SBN 229074)  
Email: [pkroeger@raklaw.com](mailto:pkroeger@raklaw.com)  
C. Jay Chung (CA SBN 252794)  
Email: [jchung@raklaw.com](mailto:jchung@raklaw.com)  
Philip X. Wang (CA SBN 262239)

RUSS, AUGUST & KABAT

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

Email: [pwang@raklaw.com](mailto:pwang@raklaw.com)  
Christian W. Conkle (CA SBN 306374)  
Email: [cconkle@raklaw.com](mailto:cconkle@raklaw.com)  
RUSS AUGUST & KABAT  
12424 Wilshire Boulevard, 12th Floor  
Los Angeles, CA 90025  
Telephone: 310/826-7474  
Facsimile 310/826-6991

Attorneys for Plaintiff  
*REALTIME DATA LLC d/b/a IXO*