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*REALTIME DATA LLC d/b/a IXO*

**UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION**

REALTIME DATA LLC d/b/a IXO,

Plaintiff,

v.

BACKBLAZE, INC.,

Defendant.

**Case No. 3:19-cv-01504-WHA**

**FIRST AMENDED COMPLAINT FOR  
PATENT INFRINGEMENT AGAINST  
BACKBLAZE, INC.**

**JURY TRIAL DEMANDED**

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1 This is an action for patent infringement arising under the Patent Laws of the United States  
2 of America, 35 U.S.C. § 1 *et seq.* in which Plaintiff Realtime Data LLC d/b/a IXO (“Plaintiff,”  
3 “Realtime,” or “IXO”) makes the following allegations against Defendant Backblaze Inc.  
4 (“Backblaze” or “Defendant”):

5 **PARTIES**

6 1. Realtime is a limited liability company organized under the laws of the State of  
7 New York. Realtime’s principal place of business is at 66 Palmer Avenue, Suite 27, Bronxville,  
8 NY 10708. Since the 1990s, Realtime has researched and developed specific solutions for data  
9 compression, including, for example, those that increase the speeds at which data can be stored  
10 and accessed. As recognition of its innovations rooted in this technological field, Realtime holds  
11 40 United States patents and has numerous pending patent applications. Realtime has licensed  
12 patents in this portfolio to many of the world’s leading technology companies. The patents-in-suit  
13 relate to Realtime’s development of advanced systems and methods for fast and efficient data  
14 compression using numerous innovative compression techniques based on, for example, particular  
15 attributes of the data.

16 2. On information and belief, Backblaze is a Delaware corporation with its principal  
17 place of business at 500 Ben Franklin Ct. San Mateo, San Mateo, CA 94401. Backblaze can be  
18 served through its registered agent, Incorporating Services, LTD., 3500 S. Dupont HWY, Dover,  
19 Delaware, 19901.

20 **JURISDICTION AND VENUE**

21 3. This action arises under the patent laws of the United States, Title 35 of the United  
22 States Code. This Court has original subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and  
23 1338(a).

24 4. This Court has personal jurisdiction over Defendant Backblaze in this action  
25 because Backblaze has its principal place of business and has committed acts within the Northern  
26 District of California giving rise to this action and has established minimum contacts with this  
27 forum such that the exercise of jurisdiction over Backblaze would not offend traditional notions of  
28

1 fair play and substantial justice. Backblaze, directly and through subsidiaries or intermediaries,  
2 has committed and continues to commit acts of infringement in this District by, among other  
3 things, offering to sell and selling products and/or services that infringe the asserted patents.

4 5. Venue is proper in this district under 28 U.S.C. § 1400(b). Upon information and  
5 belief, Backblaze has its principal place of business in this District, has transacted business in this  
6 District, and has committed acts of direct and indirect infringement in this District.

7 **ASSERTED PATENTS**

8 6. Plaintiff Realtime is the owner by assignment of United States Patent No. 9,116,908  
9 (“the ’908 Patent”) entitled “System and methods for accelerated data storage and retrieval.”  
10 The ’908 Patent was duly and legally issued by the United States Patent and Trademark Office on  
11 August 25, 2015. A true and correct copy of the ’908 Patent is included as Exhibit A.

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

16 8. Plaintiff Realtime is the owner by assignment of United States Patent No. 8,933,825  
17 (“the ’825 Patent”) entitled “Data compression systems and methods.” The ’825 Patent was duly  
18 and legally issued by the United States Patent and Trademark Office on January 13, 2015. A true  
19 and correct copy of the ’825 Patent is included as Exhibit C.

20 9. In addition to the factual allegations set forth below for each of the three Counts,  
21 the following are non-exhaustive list of fact-based claim constructions that confirm that the  
22 claimed solutions do not just cover any form of digital data compression techniques but instead  
23 are more focused—and covers a technical sub-species of digital data compression. These  
24 constructions include the following:<sup>1</sup>

- 25 a. “compressing”/“compressed”/“compression”: [representing / represented  
26 / representation of] data with fewer bits.

27  
28 <sup>1</sup> Realtime reserves the right to modify these constructions as case progresses, consistent with the  
practice of meeting and conferring that are typical in any claim construction proceeding.

- b. “descriptor”: recognizable digital data
- c. “data stream”: one or more data blocks transmitted in sequence
- d. “data block”: a single unit of data, which may range in size from individual bits through complete files or collection of multiple files
- e. “analyze”: directly examine

10. Prior constructions in earlier-filed cases involving the ‘908 patent and patents related to the ‘751 and ‘825 patents confirm that the claimed methods and systems are in fact limited to *the compression of digital data*. For example, pursuant to a stipulation, a Texas court construed the term “compress”—a term used in all patents—to mean “represent data **with fewer bits.**” *Realtime Data LLC v. Actian Corp. et al.*, Case No. 15-cv-463-RWS-JDL, Dkt. No. 362 (E.D. Tex. July 28, 2016). This construction confirmed that the claimed inventions were limited to the realm of digital-data compression, as a “bit” is a unit of digital data. The constructions of other claim terms, such as “data block” and “accelerator” also confirmed that the patented inventions are unique to the compression of digital data. For example, the plain and ordinary meaning of the term “data block” was stipulated to be “a single **unit of data,**” which may only “range in size from individual **bits through complete files or collection of multiple files.**” *Realtime Data LLC v. Actian Corp. et al.*, Case No. 15-cv-463-RWS-JDL, Dkt. No. 362 (E.D. Tex. July 28, 2016).

11. The asserted ‘908 patent and patents related to the ‘751 and ‘825 patents have gone through §101 scrutiny before in multiple districts. In a detailed, twenty-two-page opinion issued on September 20, 2017, a court in Texas ruled, in a Report and Recommendation by Magistrate Judge Love, that the asserted ‘908 patent and three other patents that are related to the ‘751 and ‘825 patents are “inventive” and “directed to patent eligible subject matter” because they disclose “specific improvement[s] in computer capabilities.” *Realtime Data LLC v. Carbonite, Inc.*, Case No. 17-cv-121, D.I. 70 (E.D. Tex. Sept. 20, 2017), *e.g.*, at 7, 10, 15, 16, 20.<sup>2</sup>

<sup>2</sup> U.S. Pat. No. 9,054,728 at issue in the Carbonite case is related to (and shares substantially the same specification as) the ‘825 patent asserted here, and U.S. Pat. No. 8,717,204 at issue in the Carbonite case is related to (and shares substantially the same specification as) the ‘751 patent asserted here.



1           16.     The claims at issue here are not abstract, but rather are limited to particularized  
2 technological solutions that improve computer capabilities—e.g., digital data compression systems  
3 to increase the capacity of a computer system to store or transfer data more efficiently.

4           17.     The ‘908 patent teaches various improved, particularized digital data compression  
5 systems and methods to address problems specific to digital data. Indeed, the patent itself states  
6 that it deals specifically with limitations and problems arising in the realm of compressing  
7 “[d]iffuse digital data” which is “**a representation of data that . . . is typically not easily**  
8 **recognizable to humans in its native form.**” ‘908 patent at 1:33-37.

9           18.     In their most basic form, and ignoring many claim limitations, the claims of  
10 the ‘908 patent is directed to systems and methods of digital data compression utilizing a plurality  
11 of different encoders for accelerated storage and retrieval of data blocks. *See, e.g.*, ‘908 patent at  
12 Abstract, 2:58–60. The ‘908 patent addresses problems that existed in the realm of digital data  
13 compression, including:

- 14                   a. “high performance disk interface standards . . . offer only the promise of  
15 higher data transfer rates through intermediate data buffering in random  
16 access memory”
- 17                   b. “[f]aster disk access data rates are only achieved by the high cost solution  
18 of simultaneously accessing multiple disk drives with a technique known  
19 within the art as data striping”
- 20                   c. “problems with bandwidth limitations similarly occur within the art by all  
21 other forms of sequential, pseudorandom, and random access mass storage  
22 devices”

23 ‘908 patent at 2:20–54.

24           19.     The ‘908 patent solves the foregoing problems with novel technological solutions  
25 in digital data compression utilizing a plurality of different encoders, and optionally a compression  
26 descriptor, for accelerated storage and retrieval of data blocks. The novel approaches taught in the  
27 specification, include:  
28

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- a. Using digital compression type descriptor “for output so as to indicate the type of compression format of the encoded data block”
- b. “data storage and retrieval accelerator method and system [being] employed in a disk storage adapter to reduce the time required to store and retrieve data from computer to a disk memory device”
- c. “data storage and retrieval accelerator method and system [being] employed in conjunction with random access memory to reduce the time required to store and retrieve data from random access memory”
- d. “provid[ing] an effective increase of the data storage and retrieval bandwidth of a memory storage device”

’908 patent at 2:58–3:58; 12:14-59. Figure 8 illustrates of one preferred embodiment:

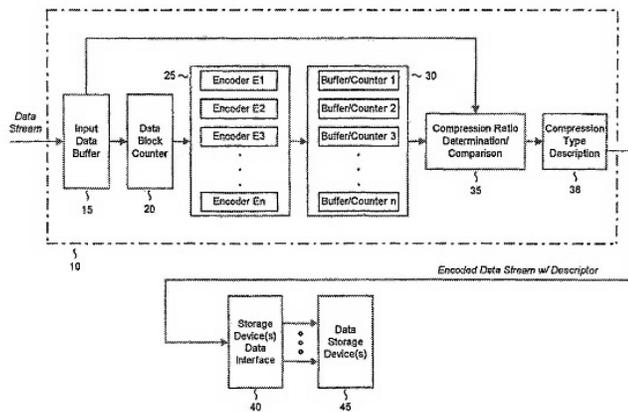


FIGURE 8

20. The claims require unconventional combination of elements, e.g.: (a) “a data accelerator” with two different compression techniques; (b) “a memory device”; (c) where the accelerator is configured to compress two data blocks; (d) including “a first data block with a first compression technique”; and (e) a “second data block with a second [and different] compression technique.” (*Id.* 18:50-62.) The accelerator is unconventional, as it requires two different compression techniques and the structural capability of compressing and storing digital data faster than the digital data can be stored in uncompressed form.

21. The novelty and unconventional nature of the ’908 patent is further confirmed by the fact that the ’908 patent has gone through the adversarial *inter partes* review process, after

1 which all challenged claims were confirmed to be patentable. *E.g.*, IPR2016-01002 (PTAB, Oct.  
2 31, 2017).

3 22. Further, the file history confirms that the claims were inventive over prior art and  
4 not well-understood, routine, and conventional. For instance, the patent claims were allowed by  
5 the PTO after the PTO considered hundreds of references, which are cited in the “References  
6 Cited” portion of the patent.

7 23. Claim 1 is not representative of all claims of the ‘908 patent. For example, claim  
8 29 of the ‘908 patent requires “decompressing the first compressed data block and the second  
9 compressed data block, wherein the retrieval and decompression occurs faster than the first data  
10 block is able to be retrieved from the memory device in uncompressed form,” which is not a  
11 limitation in claim 1 or other claims.

12 24. The claims do not merely recite a result. Instead, they recite specific steps for  
13 accomplishing a result—*e.g.*, comprising a memory device and a data accelerator configured to  
14 compress two data blocks with two different compression techniques.

15 25. The dependent claims contain limitations not found in the independent claims. For  
16 example, dependent claim 3 recites “a second data descriptor on the memory device indicative of  
17 the second compression technique such that the second descriptor is capable of being utilized to  
18 decompress at least a portion of the second data block”; claim 9 recites “wherein the first  
19 compression technique applied to the first data block is a form of dictionary compression and the  
20 second compression technique applied to the second data block is a form of Lempel-Ziv  
21 compression”; claim 12 recites “wherein the first compression technique includes compressing  
22 with a plurality of encoders in a serial configuration”; claim 13 recites “wherein the first  
23 compression technique includes compressing with a plurality of encoders in a parallel  
24 configuration, each of the plurality of encoders having an identical type.”

25 26. In a patent filed by Altera in 2012, it admitted that there was still a technical  
26 problem associated with computer capacity and a need for a more efficient compression system:  
27 “In order to better meet the requirements of higher speed data transfer, reduced memory utilization  
28

1 and minimal computation in many computing applications, a need exists for computationally  
2 efficient compression and decompression.” U.S. Pat. No. 9,026,568 at 2:43-47.

3 27. Similarly, in a 2013 patent filed by Western Digital, it also admitted that there was  
4 still a technical problem associated with computer capacity and a need for a more efficient  
5 compression system: “It is desirable to provide mechanisms and architectures for increasing  
6 capacity, reliability, and performance of data storage systems.” U.S. Pat. No. 9,448,738 at 1:33-  
7 35.

8 28. The statements in these later-filed patents confirm that Realtime’s patent at issue  
9 here are directed to technical solutions to technical problems, and improves computer  
10 functionalities. The statements in these later-filed patents also confirm that the limitations recited  
11 in Realtime’s patent at issue here are not well-understood, routine, or conventional, and that the  
12 claims are not directed to other ideas “identified by the courts as abstract ideas,” that recently have  
13 been synthesized into three groups: “(a) mathematical concepts”; “(b) methods of organizing  
14 human activity”; or “(c) mental processes.” 84 Fed. Reg. 50 (Jan. 7, 2019) (2019 PTO §101  
15 Guidance, citing and surveying post-*Alice* decisions).

16 29. On information and belief, Backblaze has offered for sale, sold and/or imported  
17 into the United States Backblaze products and services that infringe the ’908 patent, and continues  
18 to do so. By way of illustrative example, these infringing products and services include, without  
19 limitation, Backblaze products and services, *e.g.*, Backblaze Personal Backup, Business Backup,  
20 Backblaze 1.0, Backblaze 2.0, Backblaze 3.0, and the system hardware on which they operate, and  
21 all versions and variations thereof since the issuance of the ’908 Patent (“Accused  
22 Instrumentalities”).

23 30. On information and belief, Backblaze has directly infringed and continues to  
24 infringe the ’908 Patent, for example, by making, selling, offering for sale, and/or importing the  
25 Accused Instrumentalities, and through its own use and testing of the Accused Instrumentalities,  
26 which constitute performing a method for accelerating data storage of data claimed by Claim 21  
27 of the ’908 Patent, comprising: compressing a first data block with a first data compression  
28 technique to provide a first compressed data block; and compressing a second data block with a

1 second data compression technique to provide a second compressed data block, wherein the first  
2 data compression technique and the second data compression technique are different; storing the  
3 first and second data compressed blocks on a memory device wherein the compression and storage  
4 occurs faster than the first and second data blocks are able to be stored on the memory device in  
5 uncompressed form. Upon information and belief, Backblaze uses the Accused Instrumentalities,  
6 which perform the infringing method, for its own internal non-testing business purposes, while  
7 testing the Accused Instrumentalities, and while providing technical support and repair services  
8 for the Accused Instrumentalities to its customers.

9 31. On information and belief, the Accused Instrumentality is designed to function with  
10 compatible hardware to perform a method for accelerating data storage of data comprising:  
11 compressing a first data block with a first data compression technique to provide a first compressed  
12 data block; and compressing a second data block with a second data compression technique to  
13 provide a second compressed data block, wherein the first data compression technique and the  
14 second data compression technique are different; storing the first and second data compressed  
15 blocks on a memory device wherein the compression and storage occurs faster than the first and  
16 second data blocks are able to be stored on the memory device in uncompressed form. Because  
17 the Accused Instrumentality is designed to operate as the claimed method for accelerating data  
18 storage of data, the Accused Instrumentality has no substantial non-infringing uses, and any other  
19 uses would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.

20 32. On information and belief, Backblaze has had knowledge of the '908 Patent since  
21 at least the filing of the original Complaint in this action, or shortly thereafter.

22 33. Use of the Accused Instrumentalities in their ordinary and customary manner  
23 results in infringement of claims of the '908 Patent. For example, Backblaze explains to customers  
24 the benefits of using the Accused Instrumentalities, such as by touting their performance  
25 advantages: “[F]or 3.0 we’ve basically doubled the speed of the deduplication process. Backups,  
26 both initial and incremental, will be faster, especially for someone with lots of duplicated files.”  
27 See <https://www.backblaze.com/blog/theres-nothing-to-see-here-backblaze-3-0/>.

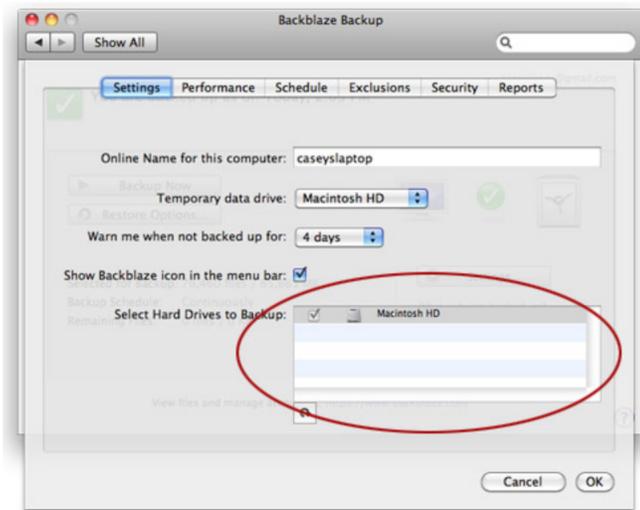
1           34. The Accused Instrumentalities compress a first data block with a first data  
2 compression technique to provide a first compressed data block. For example, the Accused  
3 Instrumentalities support zip lossless compression techniques (e.g., “Backblaze uses a lossless  
4 compression method - zip. This means that when you restore your files, they are a bit-for-bit  
5 identical to the originals. We do not use any lossy compression such as jpeg.” *See*  
6 [https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-](https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed-)  
7 [my-files-are-compressed-](https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed-)).

8           35. The Accused Instrumentalities compress a second data block with a second data  
9 compression technique to provide a second compressed data block, wherein the first data  
10 compression technique and the second data compression technique are different. For example, the  
11 Accused Instrumentalities include a data deduplication technique (e.g., “If the same file exists on  
12 your computer in multiple folders/directories, Backblaze will dedupe the file for backup and  
13 restore.” <https://www.backblaze.com/blog/theres-nothing-to-see-here-backblaze-3-0/>.) As such,  
14 the Accused Instrumentalities define the data deduplication technique as a process where “files are  
15 digitally fingerprinted (checksummed) before they are sent to the server.” *See*  
16 [https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-)  
17 [an-external-drive-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-). Furthermore, the Accused Instrumentalities discloses that when “file's  
18 fingerprint matches an already backed up file, but it's renamed or moved (including drive to drive),  
19 it's simply updated at the servers, rather than re-transmitted.” *See*  
20 [https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-)  
21 [an-external-drive-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-). As another example, the Accused Instrumentalities support lossless zip  
22 compression technique (e.g., “Backblaze uses a lossless compression method - zip. This means  
23 that when you restore your files, they are a bit-for-bit identical to the originals. We do not use any  
24 lossy compression such as jpeg.” *See* [https://help.backblaze.com/hc/en-us/articles/217665238-](https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed-)  
25 [Will-my-photo-quality-degrade-when-my-files-are-compressed-](https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed-)).

26 In contrast to lossless zip  
27 compression, data deduplication is a process that compresses duplicated files. More specifically,  
28 the Accused Instrumentalities explain that “[W]hen we get to the files to actually upload them, we  
will see that they exist on our end, and then update their location without uploading the file itself.

1 This is deduplication, and it can take a while to complete, but everything should update without  
 2 having to re-upload.” See <https://help.backblaze.com/hc/en-us/articles/217665548-Deduplication>.

3 36. The Accused Instrumentalities store the first and second data compressed blocks  
 4 on a memory device wherein the compression and storage occurs faster than the first and second  
 5 data blocks are able to be stored on the memory device in uncompressed form. For example, the  
 6 Accused Instrumentalities backup compressed and deduplicated files on hard drives.



16 See [https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-)  
 17 [replace-an-external-drive-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-). As such, the Accused Instrumentalities disclose that “[I]f the same file  
 18 exists on your computer in multiple folders/directories, Backblaze will dedupe the file for backup  
 19 and restore.” See [https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-)  
 20 [rename-or-replace-an-external-drive-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-). As another example, the Accused Instrumentalities store  
 21 compressed zip files (e.g., “Backblaze uses a lossless compression method - zip. This means that  
 22 when you restore your files, they are a bit-for-bit identical to the originals.” See  
 23 [https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-](https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed-)  
 24 [my-files-are-compressed-](https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed-)). Due to the data reduction and acceleration features of the specific  
 25 compression algorithms used, the time of the compressing the data block and the storing the  
 26 compressed data block is less than the time of storing the data block in uncompressed form. For  
 27 example, the Accused Instrumentalities “doubled the speed of the deduplication process.” See  
 28 <https://www.backblaze.com/blog/theres-nothing-to-see-here-backblaze-3-0/>. That is, in the

1 Accused Instrumentalities “[B]ackups, both initial and incremental, will be faster, especially for  
2 someone with lots of duplicated files.” See <https://www.backblaze.com/blog/theres-nothing-to-see-here-backblaze-3-0/>.

3  
4 37. Backblaze also infringes other claims of the ’908 Patent.

5 38. On information and belief, use of the Accused Instrumentalities in their ordinary  
6 and customary fashion results in infringement of the methods claimed by the ’908 Patent.

7 39. By making, using, offering for sale, selling and/or importing into the United States  
8 the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities’  
9 data storage accelerating features, Backblaze has injured Realtime and is liable to Realtime for  
10 infringement of the ’908 Patent pursuant to 35 U.S.C. § 271.

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

15 **COUNT II**

16 **INFRINGEMENT OF U.S. PATENT NO. 9,667,751**

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

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

23 43. The claims at issue here are not abstract, but rather are limited to particularized  
24 technological solutions that improve computer capabilities—e.g., digital data compression systems  
25 to increase the capacity of a computer system to store or transfer data more efficiently.

26 44. The ’751 patent teaches various improved, particularized digital data compression  
27 systems and methods to address problems specific to digital data. Indeed, the patent itself indicate  
28

1 that it deals specifically with limitations and problems arising in the realm of compressing digital  
2 data. *See, e.g.*, ‘751 patent at 3:38-45.

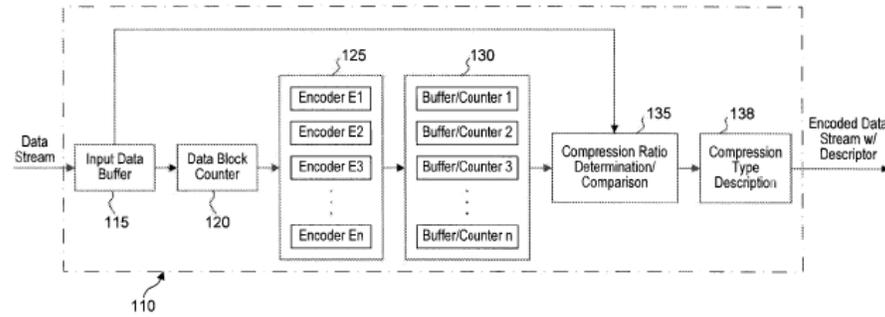
3 45. In their most basic form, and ignoring many claim limitations, the claims of  
4 the ‘751 patent are directed to systems and methods for providing accelerated data transmission of  
5 digital data and effectively increasing the bandwidth of the communication channel and/or  
6 reducing the latency of data transmission. ‘751 patent at Abstract, 5:33–50. The ‘751 patent  
7 addresses specific problems in the field of optimally transmitting digital data, including:

- 8 a. “the latency induced by the act of encryption, compression, decryption, and  
9 decompression”
- 10 b. “substantial latency caused by aggregating data packets due to poor data  
11 compression efficiency and packet overhead”
- 12 c. capacity limitations of data transmission using existing T1 lines
- 13 d. “[t]he limitation of highly significant bandwidth and/or long delays with co-  
14 location processing and long latency times”

15 ‘751 patent at 1:40–5:22.

16 46. The ‘751 patent solves these and other technological problems and limitations in  
17 the prior art by providing novel technological solutions in digital data transmission, which provide,  
18 among other things, transmission and transparent multiplication of digital-data communication  
19 bandwidth, as well as a potential reduction of the latency associated with data transmission of  
20 conventional systems, and also by utilizing a state machine to compress data blocks based on an  
21 analysis of the specific content of the data being encoded. *Id.* at 5:13–29, 6:13–40. “The effective  
22 increase in bandwidth and reduction of latency of the communication channel is achieved by virtue  
23 of the faster than real-time, real-time, near real-time, compression of a received data stream prior  
24 to transmission.” *Id.* at 6:28–40. The claimed invention recognizes a characteristic, attribute, or  
25 parameter of data to select a compression encoder, and uses a state machine to provide compressed  
26 data. *Id.* Advantages of the claimed inventions include “a consistent reduction in latency” where  
27 “[t]he data compression ratio is substantial and repeatable on each data packet,” and packet  
28

1 independence (i.e., “no packet-to-packet data dependency”). *Id.* at 7:52–8:2. Figure 5 of the ’751  
2 patents is illustrative of one preferred embodiment:



12 47. To address the technological problems, the claims requires unconventional  
13 combination of elements, e.g.,: (a) “identif[ying] a parameter, attribute, or value of the data block,”  
14 (b) analysis “that excludes analyzing based solely on reading a descriptor,” (c) “selecting an  
15 encoder associated with the identified parameter, attribute, or value”; (c) “compressing data ...  
16 with the selected encoder ... utilizing a state machine”; (d) “storing compressed data block”; and  
17 (e) wherein “the time of the compressing the data block and the storing the compressed data block  
18 is less than the time of storing the data block in uncompressed form.”

19 48. Further, the file history confirms that the claims were inventive over prior art and  
20 not well-understood, routine, and conventional. For instance, the patent claims were allowed by  
21 the PTO after the PTO considered hundreds of references, which are cited in the “References  
22 Cited” portion of the patent.

23 49. Claim 1 is not representative of all claims of the ’751 patent. For example, claim  
24 15 requires “transmitting the compressed data blocks in a packetized data stream of data packets  
25 having control and compressed data information, and resetting the one or more local state machines  
26 at a predetermined point of each data packet in the packetized data stream,” which is not a  
27 limitation in claim 1 or other claims.  
28

1           50.     The claims do not merely recite a result. Instead, they recite specific steps for  
2 accomplishing a result—e.g., comprising doing analysis that excludes analyzing based solely on  
3 reading a descriptor, selecting an encoder associated with the identified parameter, attribute, or  
4 value, and utilizing a state machine, among other things.

5           51.     The dependent claims contain limitations not found in independent claims. For  
6 example, dependent claim 2 recites “transmitting the compressed data block in a data packet to a  
7 client, the data packet including both control information and compressed data information”; claim  
8 3 recites “wherein the compressed data block is transmitted utilizing Transmission Control  
9 Protocol/Internet Protocol (TCP/IP)”; claim 10 recites “wherein the at least one synchronization  
10 point is a predetermined byte sequence”; and claim 11 recites “transmitting the compressed data  
11 block in a packetized data stream having data packets that include control information and  
12 compressed data information, and wherein the selected encoder is a packet independent encoder.”

13           52.     In a patent filed by Altera in 2012, it admitted that there was still a technical  
14 problem associated with computer capacity and a need for a more efficient compression system:  
15 “In order to better meet the requirements of higher speed data transfer, reduced memory utilization  
16 and minimal computation in many computing applications, a need exists for computationally  
17 efficient compression and decompression.” U.S. Pat. No. 9,026,568 at 2:43-47.

18           53.     Similarly, in a 2013 patent filed by Western Digital, it also admitted that there was  
19 still a technical problem associated with computer capacity and a need for a more efficient  
20 compression system: “It is desirable to provide mechanisms and architectures for increasing  
21 capacity, reliability, and performance of data storage systems.” U.S. Pat. No. 9,448,738 at 1:33-  
22 35.

23           54.     The statements in these later-filed patents confirm that Realtime’s patent at issue  
24 here are directed to technical solutions to technical problems, and improves computer  
25 functionalities. The statements in these later-filed patents also confirm that the limitations recited  
26 in Realtime’s patent at issue here are not well-understood, routine, or conventional, and that the  
27 claims are not directed to other ideas “identified by the courts as abstract ideas,” that recently have  
28 been synthesized into three groups: “(a) mathematical concepts”; “(b) methods of organizing

1 human activity”; or “(c) mental processes.” 84 Fed. Reg. 50 (Jan. 7, 2019) (2019 PTO §101  
2 Guidance, citing and surveying post-*Alice* decisions).

3 55. On information and belief, Backblaze has offered for sale, sold and/or imported  
4 into the United States Backblaze products and services that infringe the ’751 patent, and continues  
5 to do so. By way of illustrative example, these infringing products and services include, without  
6 limitation, Backblaze products and services, *e.g.*, Backblaze Personal Backup, Business Backup,  
7 Backblaze 1.0, Backblaze 2.0, Backblaze 3.0, and the system hardware on which they operate, and  
8 all versions and variations thereof since the issuance of the ’751 Patent (“Accused  
9 Instrumentalities”).

10 56. On information and belief, Backblaze has directly infringed and continues to  
11 infringe the ’751 Patent, for example, through its own use and testing of the Accused  
12 Instrumentalities, which in the ordinary course of their operation perform a method for  
13 compressing data claimed by Claim 1 of the ’751 Patent, comprising: analyzing content of a data  
14 block to identify a parameter, attribute, or value of the data block that excludes analyzing based  
15 solely on reading a descriptor; selecting an encoder associated with the identified parameter,  
16 attribute, or value; compressing data in the data block with the selected encoder to produce a  
17 compressed data block, wherein the compressing includes utilizing a state machine; and storing  
18 the compressed data block; wherein the time of the compressing the data block and the storing the  
19 compressed data block is less than the time of storing the data block in uncompressed form. Upon  
20 information and belief, Backblaze uses the Accused Instrumentalities, which perform the  
21 infringing method, for its own internal non-testing business purposes, while testing the Accused  
22 Instrumentalities, and while providing technical support and repair services for the Accused  
23 Instrumentalities to Backblaze’s customers.

24 57. On information and belief, Backblaze has had knowledge of the ’751 Patent since  
25 at least the filing of the original Complaint in this action, or shortly thereafter, and on information  
26 and belief, Backblaze knew of the ’751 Patent and knew of its infringement, including by way of  
27 this lawsuit.  
28

1           58.     Upon information and belief, Backblaze’s affirmative acts of making, using, and  
2 selling the Accused Instrumentalities, and providing implementation services and technical  
3 support to users of the Accused Instrumentalities, have induced and continue to induce users of  
4 the Accused Instrumentalities to use them in their normal and customary way to infringe Claim 1  
5 of the ’751 Patent by analyzing content of a data block to identify a parameter, attribute, or value  
6 of the data block that excludes analyzing based solely on reading a descriptor; selecting an encoder  
7 associated with the identified parameter, attribute, or value; compressing data in the data block  
8 with the selected encoder to produce a compressed data block, wherein the compressing includes  
9 utilizing a state machine; and storing the compressed data block; wherein the time of the  
10 compressing the data block and the storing the compressed data block is less than the time of  
11 storing the data block in uncompressed form. For example, Backblaze explains to customers the  
12 benefits of using the Accused Instrumentalities, such as by touting their efficiency: “[F]or 3.0  
13 we’ve basically doubled the speed of the deduplication process. Backups, both initial and  
14 incremental, will be faster, especially for someone with lots of duplicated files.” *See*  
15 <https://www.backblaze.com/blog/theres-nothing-to-see-here-backblaze-3-0/>. For similar reasons,  
16 Backblaze also induces its customers to use the Accused Instrumentalities to infringe other claims  
17 of the ’751 Patent. Backblaze specifically intended and was aware that these normal and  
18 customary activities would infringe the ’751 Patent. Backblaze performed the acts that constitute  
19 induced infringement, and would induce actual infringement, with the knowledge of the ’751  
20 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would  
21 constitute infringement. On information and belief, Backblaze engaged in such inducement to  
22 promote the sales of the Accused Instrumentalities. Accordingly, Backblaze has induced and  
23 continues to induce users of the accused products to use the accused products in their ordinary and  
24 customary way to infringe the ’751 Patent, knowing that such use constitutes infringement of  
25 the ’751 Patent.

26           59.     Backblaze also indirectly infringes the ’751 Patent by manufacturing, using,  
27 selling, offering for sale, and/or importing the accused products, with knowledge that the accused  
28 products were and are especially manufactured and/or especially adapted for use in infringing the

1 '751 Patent and are not a staple article or commodity of commerce suitable for substantial non-  
2 infringing use. On information and belief, the Accused Instrumentality is designed to perform a  
3 method for compressing data comprising: analyzing content of a data block to identify a  
4 parameter, attribute, or value of the data block that excludes analyzing based solely on reading a  
5 descriptor; selecting an encoder associated with the identified parameter, attribute, or value;  
6 compressing data in the data block with the selected encoder to produce a compressed data block,  
7 wherein the compressing includes utilizing a state machine; and storing the compressed data block;  
8 wherein the time of the compressing the data block and the storing the compressed data block is  
9 less than the time of storing the data block in uncompressed form. Because the Accused  
10 Instrumentality is designed to operate as the claimed method for compressing, the Accused  
11 Instrumentality has no substantial non-infringing uses, and any other uses would be unusual, far-  
12 fetched, illusory, impractical, occasional, aberrant, or experimental. Backblaze's manufacture,  
13 use, sale, offering for sale, and/or importation of the Accused Instrumentality constitutes  
14 contributory infringement of the '751 Patent.

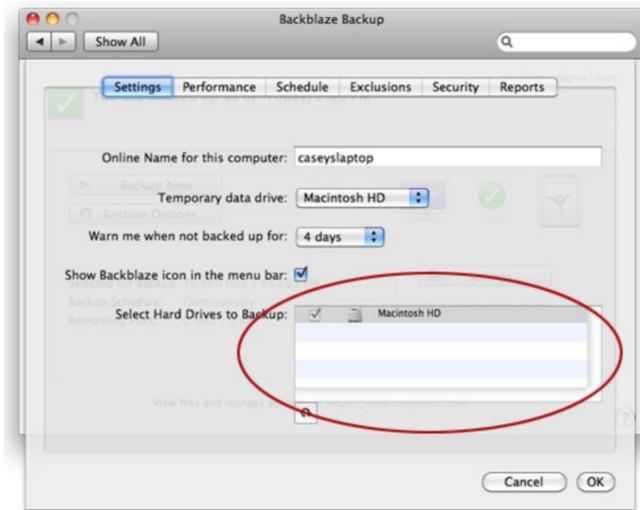
15 60. The Accused Instrumentalities analyze content of a data block to identify a  
16 parameter, attribute, or value of the data block that excludes analyzing based solely on reading a  
17 descriptor. For example, the Accused Instrumentalities support data deduplication technique (e.g.,  
18 "If the same file exists on your computer in multiple folders/directories, Backblaze will dedupe  
19 the file for backup and restore." [https://www.backblaze.com/blog/theres-nothing-to-see-here-  
20 backblaze-3-0/](https://www.backblaze.com/blog/theres-nothing-to-see-here-backblaze-3-0/).) As such, the Accused Instrumentalities define data deduplication as a process  
21 where "files are digitally fingerprinted (checksummed) before they are sent to the server." *See*  
22 [https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-  
23 an-external-drive-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-)

24 61. The Accused Instrumentalities select an encoder associated with the identified  
25 parameter, attribute, or value. For example, the Accused Instrumentalities support data  
26 compression and deduplication techniques (e.g., "Backblaze uses a lossless compression method  
27 - zip. This means that when you restore your files, they are a bit-for-bit identical to the originals."  
28 *See* <https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade->

1 when-my-files-are-compressed-; “If the same file exists on your computer in multiple  
2 folders/directories, Backblaze will dedupe the file for backup and  
3 restore.” <https://www.backblaze.com/blog/theres-nothing-to-see-here-backblaze-3-0/>. As such,  
4 the Accused Instrumentalities select data deduplication technique to compress duplicate files (e.g.,  
5 “If the same file exists on your computer in multiple folders/directories, Backblaze will dedupe  
6 the file for backup and restore.” See [https://www.backblaze.com/blog/theres-nothing-to-see-here-](https://www.backblaze.com/blog/theres-nothing-to-see-here-backblaze-3-0/)  
7 [backblaze-3-0/](https://www.backblaze.com/blog/theres-nothing-to-see-here-backblaze-3-0/)). The Accused Instrumentalities use lossless zip compression technique to  
8 eliminate redundancies in unique files. See [https://help.backblaze.com/hc/en-](https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed-)  
9 [us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed-](https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed-).

10 62. The Accused Instrumentalities compress data in the data block with the selected  
11 encoder to produce a compressed data block, wherein the compressing includes utilizing a state  
12 machine. For example, the Accused Instrumentalities provide data compression and deduplication  
13 techniques outputting compressed data blocks (e.g., “Backblaze uses a lossless compression  
14 method - zip. This means that when you restore your files, they are a bit-for-bit identical to the  
15 originals.” See [https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-](https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed-)  
16 [degrade-when-my-files-are-compressed-](https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed-); “If the same file exists on your computer in multiple  
17 folders/directories, Backblaze will dedupe the file for backup and  
18 restore.” <https://www.backblaze.com/blog/theres-nothing-to-see-here-backblaze-3-0/>.) In  
19 particular, in the Accused Instrumentalities data deduplication technique is defined as a process  
20 where “files are digitally fingerprinted (checksummed) before they are sent to the server.” See  
21 [https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-)  
22 [an-external-drive-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-). Furthermore, the Accused Instrumentalities discloses that when “file’s  
23 fingerprint matches an already backed up file, but it’s renamed or moved (including drive to drive),  
24 it’s simply updated at the servers, rather than re-transmitted.” See  
25 [https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-)  
26 [an-external-drive-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-).

27 63. The Accused Instrumentalities store the compressed data block. For example, the  
28 Accused Instrumentalities backup compressed and deduplicated files on hard drives.



See <https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive->. As such, the Accused Instrumentalities disclose that “[I]f the same file exists on your computer in multiple folders/directories, Backblaze will dedupe the file for backup and restore.” See <https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive->. As another example, the Accused Instrumentalities store compressed zip files (e.g., “Backblaze uses a lossless compression method - zip. This means that when you restore your files, they are a bit-for-bit identical to the originals.” See <https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed->).

64. The Accused Instrumentalities compress data, wherein the time of the compressing the data block and the storing the compressed data block is less than the time of storing the data block in uncompressed form. For example, the Accused Instrumentalities perform compression and data deduplication (e.g., “Backblaze uses a lossless compression method - zip. This means that when you restore your files, they are a bit-for-bit identical to the originals.” See <https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed->; “If the same file exists on your computer in multiple folders/directories, Backblaze will dedupe the file for backup and restore.” [Case No. 3:19-cv-01504-WHA](https://www.backblaze.com/blog/theres-</a></p>
</div>
<div data-bbox=)

1 nothing-to-see-here-backblaze-3-0/.) Due to the data reduction and acceleration features of the  
 2 specific compression algorithms used, the time of the compressing the data block and the storing  
 3 the compressed data block is less than the time of storing the data block in uncompressed form.  
 4 For example, the Accused Instrumentalities “doubled the speed of the deduplication process.” *See*  
 5 <https://www.backblaze.com/blog/theres-nothing-to-see-here-backblaze-3-0/>. As such, in the  
 6 Accused Instrumentalities “[B]ackups, both initial and incremental, will be faster, especially for  
 7 someone with lots of duplicated files.” *See* <https://www.backblaze.com/blog/theres-nothing-to-see-here-backblaze-3-0/>.

10 65. On information and belief, Backblaze also infringes, directly and through induced  
 11 infringement, and continues to infringe other claims of the ’751 Patent.

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

14 67. By making, using, offering for sale, selling and/or importing into the United States  
 15 the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities’  
 16 compression features, Backblaze has injured Realtime and is liable to Realtime for infringement  
 17 of the ’751 Patent pursuant to 35 U.S.C. § 271.

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

22 **COUNT III**

23 **INFRINGEMENT OF U.S. PATENT NO. 8,933,825**

24 69. Plaintiff realleges and incorporates by reference the foregoing paragraphs, as if  
 25 fully set forth herein. Plaintiff Realtime is the owner by assignment of United States Patent No.  
 26 8,933,825 (“the ’825 Patent”) entitled “Data compression systems and methods.” The ’825 Patent  
 27 was duly and legally issued by the United States Patent and Trademark Office on January 13, 2015.  
 28 A true and correct copy of the ’825 Patent is included as Exhibit C.

1           70.     The claims at issue here are not abstract, but rather are limited to particularized  
2 technological solutions that improve computer capabilities—e.g., digital data compression systems  
3 to increase the capacity of a computer system to store or transfer data more efficiently.

4           71.     The ‘825 patent teaches various improved, particularized digital data compression  
5 systems and methods to address problems specific to digital data. Indeed, the patent itself states  
6 that it deals specifically with limitations and problems arising in the realm of compressing  
7 “[d]iffuse digital data” which is “**a representation of data that . . . is typically not easily**  
8 **recognizable to humans in its native form.**” ‘825 patent at 1:44-51.

9           72.     In their most basic form, and ignoring many claim limitations, the claims of  
10 The ‘825 patent is directed to systems and methods of digital-data compression utilizing multiple  
11 encoders to compress data blocks based on an analysis of the specific content or type of the data  
12 being encoded. *See, e.g.*, ‘825 patent at Abstract, 3:55–5:7. The ‘825 patent addresses specific  
13 problems in the field of losslessly compressing digital data, including:

- 14                   a.    “their content sensitive behavior . . . often referred to as data dependency”  
15                   b.    “significant variations in the compression ratio obtained when using a single  
16                   lossless data compression<sup>3</sup> technique for data streams having different  
17                   data content and data size [*i.e.*] natural variation”

18 ‘825 patent at 1:60–3:52. The patent further explains that, while “conventional content dependent  
19 techniques may be utilized” to combat some of the problems described above, even those content  
20 dependent techniques had limitations because they relied exclusively on a descriptor such as, e.g.,  
21 file extensions (e.g., “.doc,” “.txt,” etc.). The limitations included:

- 22                   c.    “the extremely large number of application programs, some of which do not  
23                   possess published or documented file formats, data structures, or data type  
24                   descriptors”

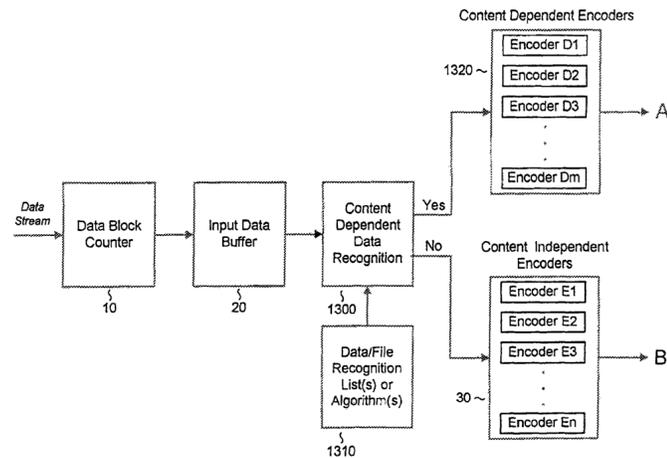
25  
26  
27  
28 <sup>3</sup> In “lossless” compression, “the decoded (or reconstructed) data is identical to the original  
uncompressed/unencoded data.” *See, e.g.*, ‘825 patent at 2:18-25.

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- d. “the ability for any data compression supplier or consortium to acquire, store, and access the vast amounts of data required to identify known file descriptors and associated data types, data structures, and formats”
- e. “the rate at which new application programs are developed and the need to update file format data descriptions accordingly”

*Id.* at 3:6–19.

73. The '825 patent solves these technological problems and others with a novel technological solution in digital-data compression utilizing multiple encoders to compress data blocks based on an analysis of the specific content or type of the data being encoded without relying solely on a descriptor such as, e.g., file extensions. For example, when one or more digital-data parameters are identified in the content of the digital data blocks, the inventions will utilize one form of a compression encoder. And if no such digital-data parameter is identified, the inventions will utilize a different form of a compression encoder. The analysis of the digital data is not based solely a descriptor (e.g., file extensions). *See, e.g.*, '825 patent claim 1. Figure 13A of the '825 patent is illustrative of one preferred embodiment:



74. To address the technological problems, the claims requires unconventional combination of elements, e.g., (1) “wherein determining is not based solely on a descriptor that is indicative of the parameter or attribute of the data within the data block”; (2) “compressing, if the parameter or attribute of the data ... is identified, the data block with at least one encoder associated

1 with the parameter or attribute,” and (3) “compressing, if the parameter or attribute ... is not  
2 identified, the data block with at least one encoder associated with a non-identifiable parameter or  
3 attribute.”

4 75. Further, the file history confirms that the claims were inventive over prior art and  
5 not well-understood, routine, and conventional. For instance, the patent claims were allowed by  
6 the PTO after the PTO considered hundreds of references, which are cited in the “References  
7 Cited” portion of the patent.

8 76. Claim 1 is not representative of all claims of the ‘825 patent. For example, claim 2  
9 requires “receiving and buffering the data block, wherein the buffering is performed after the  
10 receiving of the data block and before compressing of the data block,” which is not a limitation in  
11 claim 1 or other claims.

12 77. The claims do not merely recite a result. Instead, they recite specific steps for  
13 accomplishing a result—e.g., comprising performing determination of parameter or attribute  
14 wherein the determining is not based solely on a descriptor that is indicative of the parameter or  
15 attribute of the data within the data block, and compressing using two different encoders based on  
16 the determined parameter or attribute, among other things.

17 78. The dependent claims contain limitations not found in independent claims. For  
18 example, dependent claim 3 recites “transmitting a data token indicative of the compression  
19 utilized to provide the compressed data block”; claim 8 recites “wherein the size of the data block  
20 is fixed”; claim 12 recites “wherein the at least one encoder associated with the parameter or  
21 attribute of the data within the data block is lossless”; and claim 14 recites “wherein the at least  
22 one encoder associated with the parameter or attribute of the data is a Lempel-Ziv encoder.”

23 79. In a patent filed by Altera in 2012, it admitted that there was still a technical  
24 problem associated with computer capacity and a need for a more efficient compression system:  
25 “In order to better meet the requirements of higher speed data transfer, reduced memory utilization  
26 and minimal computation in many computing applications, a need exists for computationally  
27 efficient compression and decompression.” U.S. Pat. No. 9,026,568 at 2:43-47.  
28

1           80.     Similarly, in a 2013 patent filed by Western Digital, it also admitted that there was  
2 still a technical problem associated with computer capacity and a need for a more efficient  
3 compression system: “It is desirable to provide mechanisms and architectures for increasing  
4 capacity, reliability, and performance of data storage systems.” U.S. Pat. No. 9,448,738 at 1:33-  
5 35.

6           81.     The statements in these later-filed patents confirm that Realtime’s patent at issue  
7 here are directed to technical solutions to technical problems, and improves computer  
8 functionalities. The statements in these later-filed patents also confirm that the limitations recited  
9 in Realtime’s patent at issue here are not well-understood, routine, or conventional, and that the  
10 claims are not directed to other ideas “identified by the courts as abstract ideas,” that recently have  
11 been synthesized into three groups: “(a) mathematical concepts”; “(b) methods of organizing  
12 human activity”; or “(c) mental processes.” 84 Fed. Reg. 50 (Jan. 7, 2019) (2019 PTO §101  
13 Guidance, citing and surveying post-*Alice* decisions).

14           82.     On information and belief, Backblaze has offered for sale, sold and/or imported  
15 into the United States Backblaze products and services that infringe the ’825 patent, and continues  
16 to do so. By way of illustrative example, these infringing products and services include, without  
17 limitation, Backblaze products and services, *e.g.*, Backblaze Personal Backup, Business Backup,  
18 Backblaze 1.0, Backblaze 2.0, Backblaze 3.0, and the system hardware on which they operate, and  
19 all versions and variations thereof since the issuance of the ’825 Patent (“Accused  
20 Instrumentalities”).

21           83.     On information and belief, Backblaze has directly infringed and continues to  
22 infringe the ’825 Patent, for example, by making, selling, offering for sale, and/or importing the  
23 Accused Instrumentalities, and through its own use and testing of the Accused Instrumentalities,  
24 which constitute performing a method claimed by Claim 18 of the ’825 Patent, comprising:  
25 associating at least one encoder to each one of a plurality of parameters or attributes of data;  
26 analyzing data within a data block to determine whether a parameter or attribute of the data within  
27 the data block is identified for the data block; wherein the analyzing of the data within the data  
28 block to identify a parameter or attribute of the data excludes analyzing based only on a descriptor

1 that is indicative of the parameter or attribute of the data within the data block; identifying a first  
2 parameter or attribute of the data of the data block; compressing, if the first parameter or attribute  
3 of the data is the same as one of the plurality of parameter or attributes of the data, the data block  
4 with the at least one encoder associated with the one of the plurality of parameters or attributes of  
5 the data that is the same as the first parameter or attribute of the data to provide a compressed data  
6 block; and compressing, if the first parameter or attribute of the data is not the same as one of the  
7 plurality of parameters or attributes of the data, the data block with a default encoder to provide  
8 the compressed data block. Upon information and belief, Backblaze uses the Accused  
9 Instrumentalities, which perform the infringing method, for its own internal non-testing business  
10 purposes, while testing the Accused Instrumentalities, and while providing technical support and  
11 repair services for the Accused Instrumentalities to its customers.

12 84. On information and belief, the Accused Instrumentality is designed to function with  
13 compatible hardware to perform a method comprising: associating at least one encoder to each one  
14 of a plurality of parameters or attributes of data; analyzing data within a data block to determine  
15 whether a parameter or attribute of the data within the data block is identified for the data block;  
16 wherein the analyzing of the data within the data block to identify a parameter or attribute of the  
17 data excludes analyzing based only on a descriptor that is indicative of the parameter or attribute  
18 of the data within the data block; identifying a first parameter or attribute of the data of the data  
19 block; compressing, if the first parameter or attribute of the data is the same as one of the plurality  
20 of parameter or attributes of the data, the data block with the at least one encoder associated with  
21 the one of the plurality of parameters or attributes of the data that is the same as the first parameter  
22 or attribute of the data to provide a compressed data block; and compressing, if the first parameter  
23 or attribute of the data is not the same as one of the plurality of parameters or attributes of the data,  
24 the data block with a default encoder to provide the compressed data block. Because the Accused  
25 Instrumentality is designed to operate as the claimed method, the Accused Instrumentality has no  
26 substantial non-infringing uses, and any other uses would be unusual, far-fetched, illusory,  
27 impractical, occasional, aberrant, or experimental.

1           85. On information and belief, Backblaze has had knowledge of the '825 Patent since  
2 at least the filing of the original Complaint in this action, or shortly thereafter.

3           86. For example, Backblaze explains to customers the benefits of using the Accused  
4 Instrumentalities, such as by touting their performance advantages: “[F]or 3.0 we’ve basically  
5 doubled the speed of the deduplication process. Backups, both initial and incremental, will be  
6 faster, especially for someone with lots of duplicated files.” See  
7 <https://www.backblaze.com/blog/theres-nothing-to-see-here-backblaze-3-0/>.

8           87. The Accused Instrumentalities associate at least one encoder to each one of a  
9 plurality of parameters or attributes of data. For example, the Accused Instrumentalities support  
10 compression and deduplication encoders (e.g., “Backblaze uses a lossless compression method -  
11 zip. This means that when you restore your files, they are a bit-for-bit identical to the originals.”  
12 See <https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed->;  
13 [“If the same file exists on your computer in multiple](https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed-)  
14 [folders/directories, Backblaze will dedupe the file for backup and](https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed-)  
15 [restore.”](https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed-) <https://www.backblaze.com/blog/theres-nothing-to-see-here-backblaze-3-0/>. The  
16 Accused Instrumentalities analyze files to detect duplicates (e.g., “files are digitally fingerprinted  
17 (checksummed) before they are sent to the server. When a file's fingerprint matches an already  
18 backed up file, but it's renamed or moved (including drive to drive), it's simply updated at the  
19 servers, rather than re-transmitted.” See [https://help.backblaze.com/hc/en-us/articles/217666718-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-)  
20 [What-happens-if-I-rename-or-replace-an-external-drive-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-)). In particular, the Accused  
21 Instrumentalities associate deduplication encoder with duplicate files and compression encoder  
22 with unique files.

23           88. The Accused Instrumentalities analyze data within a data block to determine  
24 whether a parameter or attribute of the data within the data block is identified for the data block.  
25 For example, the Accused Instrumentalities analyze data blocks to determine duplicate data files  
26 by performing data deduplication. (e.g., “files are digitally fingerprinted (checksummed) before  
27 they are sent to the server. When a file's fingerprint matches an already backed up file, but it's  
28 renamed or moved (including drive to drive), it's simply updated at the servers, rather than re-

1 transmitted.” See <https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I->  
 2 [rename-or-replace-an-external-drive-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-)).

3 89. The Accused Instrumentalities analyze data, wherein the analyzing of the data  
 4 within the data block to identify a parameter or attribute of the data excludes analyzing based only  
 5 on a descriptor that is indicative of the parameter or attribute of the data within the data block. For  
 6 example, the Accused Instrumentalities analyze backup files to identify duplicate files (e.g., “files  
 7 are digitally fingerprinted (checksummed) before they are sent to the server. When a file's  
 8 fingerprint matches an already backed up file, but it's renamed or moved (including drive to drive),  
 9 it's simply updated at the servers, rather than re-transmitted.” See  
 10 <https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace->  
 11 [an-external-drive-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-); “If the same file exists on your computer in multiple folders/directories,  
 12 Backblaze will dedupe the file for backup and restore.” See  
 13 <https://www.backblaze.com/blog/theres-nothing-to-see-here-backblaze-3-0/>).

14 90. The Accused Instrumentalities identify a first parameter or attribute of the data of  
 15 the data block. For example, the Accused Instrumentalities identify duplicate files (e.g., “files are  
 16 digitally fingerprinted (checksummed) before they are sent to the server. When a file's fingerprint  
 17 matches an already backed up file, but it's renamed or moved (including drive to drive), it's simply  
 18 updated at the servers, rather than re-transmitted.” See <https://help.backblaze.com/hc/en->  
 19 [us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-](https://help.backblaze.com/hc/en-); “If the same file  
 20 exists on your computer in multiple folders/directories, Backblaze will dedupe the file for backup  
 21 and restore.” See <https://www.backblaze.com/blog/theres-nothing-to-see-here-backblaze-3-0/>).

22 91. The Accused Instrumentalities compress, if the first parameter or attribute of the  
 23 data is the same as one of the plurality of parameter or attributes of the data, the data block with  
 24 the at least one encoder associated with the one of the plurality of parameters or attributes of the  
 25 data that is the same as the first parameter or attribute of the data to provide a compressed data  
 26 block. For example, the Accused Instrumentalities support data deduplication that compresses  
 27 duplicate files (e.g., “files are digitally fingerprinted (checksummed) before they are sent to the  
 28 server. When a file's fingerprint matches an already backed up file, but it's renamed or moved

1 (including drive to drive), it's simply updated at the servers, rather than re-transmitted.” See  
 2 [https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-)  
 3 [an-external-drive-](https://help.backblaze.com/hc/en-us/articles/217666718-What-happens-if-I-rename-or-replace-an-external-drive-)).

4 92. The Accused Instrumentalities compress, if the first parameter or attribute of the  
 5 data is not the same as one of the plurality of parameters or attributes of the data, the data block  
 6 with a default encoder to provide the compressed data block. For example, the Accused  
 7 Instrumentalities provide lossless zip data compression technique (e.g., “Backblaze uses a lossless  
 8 compression method - zip. This means that when you restore your files, they are a bit-for-bit  
 9 identical to the originals.” See [https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-](https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed-)  
 10 [photo-quality-degrade-when-my-files-are-compressed-](https://help.backblaze.com/hc/en-us/articles/217665238-Will-my-photo-quality-degrade-when-my-files-are-compressed-)). As such, if duplicate files data blocks are  
 11 not identified, the Accused Instrumentalities use zip compression encoder to compress unique  
 12 files.

13 93. Backblaze also infringes other claims of the '825 Patent.

14 94. On information and belief, use of the Accused Instrumentalities in their ordinary  
 15 and customary fashion results in infringement of the methods claimed by the '825 Patent.

16 95. By making, using, offering for sale, selling and/or importing into the United States  
 17 the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities'  
 18 data storage accelerating features, Backblaze has injured Realtime and is liable to Realtime for  
 19 infringement of the '825 Patent pursuant to 35 U.S.C. § 271.

20 96. As a result of Backblaze's infringement of the '825 Patent, Plaintiff Realtime is  
 21 entitled to monetary damages in an amount adequate to compensate for Backblaze's infringement,  
 22 but in no event less than a reasonable royalty for the use made of the invention by Backblaze,  
 23 together with interest and costs as fixed by the Court.

24  
 25 **PRAYER FOR RELIEF**

26 WHEREFORE, Plaintiff Realtime respectfully requests that this Court enter:

27 a. A judgment in favor of Plaintiff that Backblaze has infringed, either literally and/or  
 28 under the doctrine of equivalents, the '908 Patent, the '825 Patent, and the '751 Patent;

