IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

REALTIME DATA LLC d/b/a IXO, Plaintiff, v. BARRACUDA NETWORKS INC., Defendant.	C.A. No. _____ **JURY TRIAL DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT
AGAINST BARRACUDA NETWORKS INC.

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

PARTIES

1. Realtime is a limited liability company organized under the laws of the State of New York. Realtime has a principal place of business at 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 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 Barracuda Networks, Inc. ("Barracuda") is a Delaware corporation with its principal place of business at 3175 Winchester Blvd., Campbell, CA 95008. Upon information and belief, Barracuda operates a place of business in Austin, Texas. *See, e.g.*, https://www.barracuda.com/company/careers?p=job%2Fo2od4fwr. On information and belief, Barracuda can be served through its registered agent, Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808.

JURISDICTION AND VENUE

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

4. This Court has personal jurisdiction over Defendant Barracuda in this action because Barracuda has committed acts within the District of Delaware giving rise to this action and has established minimum contacts with this forum such that the exercise of jurisdiction over Barracuda would not offend traditional notions of fair play and substantial justice. Barracuda, directly and through subsidiaries or intermediaries, has committed and continues to commit acts of infringement in this District by, among other things, offering to sell and selling products and/or services that infringe the asserted patents.

5. Venue is proper in this district under 28 U.S.C. § 1400(b). Barracuda is incorporated in Delaware, and resides in this District. Upon information and belief, Barracuda has transacted business in this District, has committed acts of direct and

indirect infringement in this District, and has a regular and established place of business in this District.

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

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

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

Barracuda Message Archiver

8. On information and belief, Barracuda has offered for sale, sold and/or imported into the United States Barracuda products that infringe the '728 Patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Barracuda's products and services, *e.g.*, Barracuda Message Archiver, including physical appliance versions 150, 350, 450, 650, 850, 950, and 1050, virtual appliance versions 150 Vx, 350 Vx, 450 Vx, 650 Vx, 850 Vx, 950 Vx, and 1050 Vx, Azure deployment versions Level 2, Level 5, and Level 6, AWS deployment versions Level 150, Level 350, Level 450, Level 650, Level 850, Level 950, and Level 1050, and vCloud Air versions 150 Vx, 350 Vx, 450 Vx, 650 Vx, 850 Vx, 950 Vx, and 1050 Vx, and all versions and variations thereof since the issuance of the '728 Patent ("Accused Instrumentality").

9. On information and belief, Barracuda has directly infringed and continues to infringe the '728 Patent, for example, through its own use and testing of the Accused

Instrumentality, which constitute systems for compressing data claimed by Claim 1 of the ’728 Patent, comprising a processor; one or more content dependent data compression encoders; and a single data compression encoder; wherein the processor is configured: to analyze data within a data block to identify one or more parameters or attributes of the data wherein the analyzing of the data within the data block to identify the one or more parameters or attributes of the data excludes analyzing based solely on a descriptor that is indicative of the one or more parameters or attributes of the data within the data block; to perform content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified; and to perform data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not identified. Upon information and belief, Barracuda uses the Accused Instrumentality, an infringing system, for its own internal non-testing business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Barracuda’s customers.

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

11. Barracuda’s affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentality has induced and continues to induce users of the Accused Instrumentality to use the Accused Instrumentality in its normal and customary way on compatible systems to infringe the ’728 Patent, knowing that when the

Accused Instrumentality is used in its ordinary and customary manner with such compatible systems, such systems constitute infringing systems for compressing data comprising; a processor; one or more content dependent data compression encoders; and a single data compression encoder; wherein the processor is configured: to analyze data within a data block to identify one or more parameters or attributes of the data wherein the analyzing of the data within the data block to identify the one or more parameters or attributes of the data excludes analyzing based solely on a descriptor that is indicative of the one or more parameters or attributes of the data within the data block; to perform content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified; and to perform data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not identified. For example, Barracuda explains to customers the benefits of using the Accused Instrumentality: "The Barracuda Message Archiver and the Barracuda Backup Service work particularly well in tandem to optimize data storage because they both eliminate duplicate data and compress data before storage. This has an additive effect. . . . Another large reduction in storage happens when the Barracuda Message Archiver offloads emails from the email server then eliminates duplicate messages collected from the email server and users' PST files. . . . In addition to deduplicating emails, the Barracuda Message Archiver stores only one instance of each attachment. The Barracuda Message Archiver replaces an attachment (that might be duplicated in hundreds of emails) with a link in emails to the attachment called a "stub." Stubbing also massively reduces the amount of data stored in the archiver and backup …. With messages deduped and stubbed, the Barracuda Message

Archiver aggressively compresses the remaining email data for maximum storage efficiency." *See* https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf. Barracuda specifically intended and was aware that the normal and customary use of the Accused Instrumentality on compatible systems would infringe the '728 Patent. Barracuda performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '728 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Barracuda engaged in such inducement to promote the sales of the Accused Instrumentality, *e.g.*, through Barracuda's user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '728 Patent. Accordingly, Barracuda has induced and continues to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing the '728 Patent, knowing that such use of the Accused Instrumentality with compatible systems will result in infringement of the '728 Patent.

12. Barracuda also indirectly infringes the '728 Patent by manufacturing, using, selling, offering for sale, and/or importing the accused products, with knowledge that the accused products were and are especially manufactured and/or especially adapted for use in infringing the '728 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. On information and belief, the Accused Instrumentality is designed to function with compatible hardware to create systems for compressing data comprising; a processor; one or more content dependent

data compression encoders; and a single data compression encoder; wherein the processor is configured: to analyze data within a data block to identify one or more parameters or attributes of the data wherein the analyzing of the data within the data block to identify the one or more parameters or attributes of the data excludes analyzing based solely on a descriptor that is indicative of the one or more parameters or attributes of the data within the data block; to perform content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified; and to perform data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not identified. Because the Accused Instrumentality is designed to operate as the claimed system for compressing input data, the Accused Instrumentality has no substantial non-infringing uses, and any other uses would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental. Barracuda's manufacture, use, sale, offering for sale, and/or importation of the Accused Instrumentality constitutes contributory infringement of the '728 Patent.

13. The Accused Instrumentality is a system for compressing data, comprising a processor. For example, the physical appliance versions of the Accused Instrumentality must contain a processor, the virtual appliance versions of the Accused Instrumentality must run on hardware containing a processor running the hypervisor on which the virtual appliance versions run, and the cloud-based versions of the Accused Instrumentality must run on cloud servers containing a processor.

14. The Accused Instrumentality is a system for compressing data, comprising one or more content dependent data compression encoders. For example, the Accused

Instrumentality performs deduplication, which is a content dependent data compression encoder. Performing deduplication results in representation of data with fewer bits. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("Another large reduction in storage happens when the Barracuda Message Archiver offloads emails from the email server then eliminates duplicate messages collected from the email server and users' PST files. … In addition to deduplicating emails, the Barracuda Message Archiver stores only one instance of each attachment. The Barracuda Message Archiver replaces an attachment (that might be duplicated in hundreds of emails) with a link in emails to the attachment called a "stub." Stubbing also massively reduces the amount of data stored in the archiver and backup.").

15. The Accused Instrumentality comprises a single data compression encoder. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("With messages deduped and stubbed, the Barracuda Message Archiver aggressively compresses the remaining email data for maximum storage efficiency.").

16. The Accused Instrumentality analyzes data within a data block to identify one or more parameters or attributes of the data, for example, whether the data is duplicative of data previously transmitted and/or stored, where the analysis does not rely only on the descriptor. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("Another large reduction in storage happens when the Barracuda

Message Archiver offloads emails from the email server then eliminates duplicate messages collected from the email server and users' PST files. … In addition to deduplicating emails, the Barracuda Message Archiver stores only one instance of each attachment. The Barracuda Message Archiver replaces an attachment (that might be duplicated in hundreds of emails) with a link in emails to the attachment called a "stub." Stubbing also massively reduces the amount of data stored in the archiver and backup.").

17. The Accused Instrumentality performs content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified. For example, the Accused Instrumentality replaces duplicative attachments with a small link to the attachment called a "stub". *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("Another large reduction in storage happens when the Barracuda Message Archiver offloads emails from the email server then eliminates duplicate messages collected from the email server and users' PST files. . . . In addition to deduplicating emails, the Barracuda Message Archiver stores only one instance of each attachment. The Barracuda Message Archiver replaces an attachment (that might be duplicated in hundreds of emails) with a link in emails to the attachment called a "stub." Stubbing also massively reduces the amount of data stored in the archiver and backup.").

18. The Accused Instrumentality performs data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not identified. For example, the Accused Instrumentality compresses non-duplicative data. *See, e.g.*,

https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("With messages deduped and stubbed, the Barracuda Message Archiver aggressively compresses the remaining email data for maximum storage efficiency.").

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

20. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentality, and touting the benefits of using the Accused Instrumentality's compression features, Barracuda has injured Realtime and is liable to Realtime for infringement of the '728 Patent pursuant to 35 U.S.C. § 271.

21. As a result of Barracuda's infringement of the '728 Patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Barracuda's infringement, but in no event less than a reasonable royalty for the use made of the invention by Barracuda, together with interest and costs as fixed by the Court.

Barracuda Backup

22. On information and belief, Barracuda has offered for sale, sold and/or imported into the United States Barracuda products that infringe the '728 Patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Barracuda's products and services, *e.g.*, Barracuda Backup, including but not limited to Barracuda Backup physical appliances 190, 290, 390, 490, 690, 790, 890, 895, 990, 995, and 1090, virtual appliance Barracuda Backup Vx, and Barracuda Backup Cloud-to-Cloud Backup, and all versions and variations thereof since the issuance of the '728 patent ("Accused Instrumentality").

23. On information and belief, Barracuda has directly infringed and continues to infringe the ’728 Patent, for example, through its own use and testing of the Accused Instrumentality, which constitute systems for compressing data claimed by Claim 1 of the ’728 Patent, comprising a processor; one or more content dependent data compression encoders; and a single data compression encoder; wherein the processor is configured: to analyze data within a data block to identify one or more parameters or attributes of the data wherein the analyzing of the data within the data block to identify the one or more parameters or attributes of the data excludes analyzing based solely on a descriptor that is indicative of the one or more parameters or attributes of the data within the data block; to perform content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified; and to perform data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not identified. Upon information and belief, Barracuda uses the Accused Instrumentality, an infringing system, for its own internal non-testing business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Barracuda’s customers.

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

25. Barracuda’s affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentality has induced and continues to induce users

of the Accused Instrumentality to use the Accused Instrumentality in its normal and customary way on compatible systems to infringe the ’728 Patent, knowing that when the Accused Instrumentality is used in its ordinary and customary manner with such compatible systems, such systems constitute infringing systems for compressing data comprising; a processor; one or more content dependent data compression encoders; and a single data compression encoder; wherein the processor is configured: to analyze data within a data block to identify one or more parameters or attributes of the data wherein the analyzing of the data within the data block to identify the one or more parameters or attributes of the data excludes analyzing based solely on a descriptor that is indicative of the one or more parameters or attributes of the data within the data block; to perform content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified; and to perform data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not identified. For example, Barracuda explains that, “Barracuda Backup deduplicates network data such as redundant operating systems and applications. It then compresses the single-instance data before storage offsite in public or private clouds.” https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf. Barracuda also explains, “Barracuda Backup created its inline deduplication (Figure 1) technology. With inline deduplication, the appliance performs deduplication in one step as the data is ingested, eliminating the need for the superfluous landing-space capacity required by slower two-step post-process deduplication. Barracuda inline deduplication helps organizations save money by eliminating the need

for a larger disk array dedicated to holding ingested data before deduplication can begin. This deduplication method also can help reduce risk of lost data by accelerating time-to-backup processing and full replication since data is queued for replication as the backup job is being processed. Deploying a Barracuda Backup appliance significantly improves DR readiness by reducing time to get data offsite through inline deduplication and instant replication. Because data is deduplicated inline, it can be ready for replication more quickly than if it had to be processed after the backup process fully completed. And because there is no need to ingest the entire data set prior to replication commencing, data can be moved offsite as it is backed up and deduplicated, providing faster offsite protection." *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf. Barracuda specifically intended and was aware that the normal and customary use of the Accused Instrumentality on compatible systems would infringe the '728 patent. Barracuda performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '728 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Barracuda engaged in such inducement to promote the sales of the Accused Instrumentality, *e.g.*, through Barracuda's user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '728 Patent. Accordingly, Barracuda has induced and continues to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing

the ’728 Patent, knowing that such use of the Accused Instrumentality with compatible systems will result in infringement of the ’728 Patent.

26. Barracuda also indirectly infringes the ’728 Patent by manufacturing, using, selling, offering for sale, and/or importing the accused products, with knowledge that the accused products were and are especially manufactured and/or especially adapted for use in infringing the ’728 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. On information and belief, the Accused Instrumentality is designed to function with compatible hardware to create systems for compressing data comprising; a processor; one or more content dependent data compression encoders; and a single data compression encoder; wherein the processor is configured: to analyze data within a data block to identify one or more parameters or attributes of the data wherein the analyzing of the data within the data block to identify the one or more parameters or attributes of the data excludes analyzing based solely on a descriptor that is indicative of the one or more parameters or attributes of the data within the data block; to perform content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified; and to perform data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not identified. Because the Accused Instrumentality is designed to operate as the claimed system for compressing input data, the Accused Instrumentality has no substantial non-infringing uses, and any other uses would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental. Barracuda’s manufacture, use, sale, offering for

sale, and/or importation of the Accused Instrumentality constitutes contributory infringement of the ’728 Patent.

27. The Accused Instrumentality is a system for compressing data, comprising a processor. For example, the physical appliance versions of the Accused Instrumentality must contain a processor, the virtual appliance versions of the Accused Instrumentality must run on hardware containing a processor running the hypervisor on which the virtual appliance versions run, and the cloud-to-cloud based versions of the Accused Instrumentality must run on cloud servers containing a processor.

28. The Accused Instrumentality is a system for compressing data, comprising one or more content dependent data compression encoders. For example, the Accused Instrumentality performs deduplication, which is a content dependent data compression encoder. Performing deduplication results in representation of data with fewer bits. *See, e.g.,*

https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf (“Barracuda Backup created its inline deduplication (Figure 1) technology. With inline deduplication, the appliance performs deduplication in one step as the data is ingested, eliminating the need for the superfluous landing-space capacity required by slower two-step post-process deduplication. Barracuda inline deduplication helps organizations save money by eliminating the need for a larger disk array dedicated to holding ingested data before deduplication can begin. This deduplication method also can help reduce risk of lost data by accelerating time-to-backup processing and full replication since data is queued for replication as the backup job is being processed. Deploying a Barracuda Backup appliance significantly improves DR readiness by

reducing time to get data offsite through inline deduplication and instant replication. Because data is deduplicated inline, it can be ready for replication more quickly than if it had to be processed after the backup process fully completed. And because there is no need to ingest the entire data set prior to replication commencing, data can be moved offsite as it is backed up and deduplicated, providing faster offsite protection.").

29. The Accused Instrumentality comprises a single data compression encoder. For example, the Accused Instrumentality compresses unique data that has been deduplicated. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf ("During its installation, a small database is created on the server to keep track of data chunks so only unique data seen by the agent is compressed and sent to the appliance for processing, reducing network traffic and the backup window."); https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("Barracuda Backup deduplicates network data such as redundant operating systems and applications. It then compresses the single-instance data before storage offsite in public or private clouds.").

30. The Accused Instrumentality analyzes data within a data block to identify one or more parameters or attributes of the data, for example, whether the data is duplicative of data that has already been processed, where the analysis does not rely only on the descriptor. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf ("Barracuda Backup created its inline deduplication (Figure 1) technology. With inline deduplication, the appliance performs deduplication in one step as the data is

ingested, eliminating the need for the superfluous landing-space capacity required by slower two-step post-process deduplication. Barracuda inline deduplication helps organizations save money by eliminating the need for a larger disk array dedicated to holding ingested data before deduplication can begin. This deduplication method also can help reduce risk of lost data by accelerating time-to-backup processing and full replication since data is queued for replication as the backup job is being processed. Deploying a Barracuda Backup appliance significantly improves DR readiness by reducing time to get data offsite through inline deduplication and instant replication. Because data is deduplicated inline, it can be ready for replication more quickly than if it had to be processed after the backup process fully completed. And because there is no need to ingest the entire data set prior to replication commencing, data can be moved offsite as it is backed up and deduplicated, providing faster offsite protection."); https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("Barracuda Backup deduplicates network data such as redundant operating systems and applications.").

31. The Accused Instrumentality performs content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf ("Barracuda Backup created its inline deduplication (Figure 1) technology. With inline deduplication, the appliance performs deduplication in one step as the data is ingested, eliminating the need for the superfluous landing-space capacity required by slower two-step post-process deduplication. Barracuda inline deduplication helps

organizations save money by eliminating the need for a larger disk array dedicated to holding ingested data before deduplication can begin. This deduplication method also can help reduce risk of lost data by accelerating time-to-backup processing and full replication since data is queued for replication as the backup job is being processed. Deploying a Barracuda Backup appliance significantly improves DR readiness by reducing time to get data offsite through inline deduplication and instant replication. Because data is deduplicated inline, it can be ready for replication more quickly than if it had to be processed after the backup process fully completed. And because there is no need to ingest the entire data set prior to replication commencing, data can be moved offsite as it is backed up and deduplicated, providing faster offsite protection."); https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("Barracuda Backup deduplicates network data such as redundant operating systems and applications.").

32. The Accused Instrumentality performs data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not identified. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf ("During its installation, a small database is created on the server to keep track of data chunks so only unique data seen by the agent is compressed and sent to the appliance for processing, reducing network traffic and the backup window."); https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("Barracuda Backup deduplicates network data such as redundant

operating systems and applications. It then compresses the single-instance data before storage offsite in public or private clouds.").

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

34. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentality, and touting the benefits of using the Accused Instrumentality's compression features, Barracuda has injured Realtime and is liable to Realtime for infringement of the '728 Patent pursuant to 35 U.S.C. § 271.

35. As a result of Barracuda's infringement of the '728 Patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Barracuda's infringement, but in no event less than a reasonable royalty for the use made of the invention by Barracuda, together with interest and costs as fixed by the Court.

Barracuda ArchiveOne

36. On information and belief, Barracuda has offered for sale, sold and/or imported into the United States Barracuda products that infringe the '728 Patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Barracuda's products and services, *e.g.*, Barracuda ArchiveOne, and all versions and variations thereof since the issuance of the '728 Patent ("Accused Instrumentality").

37. On information and belief, Barracuda has directly infringed and continues to infringe the '728 Patent, for example, through its own use and testing of the Accused Instrumentality, which constitute systems for compressing data claimed by Claim 1 of

the ’728 Patent, comprising a processor; one or more content dependent data compression encoders; and a single data compression encoder; wherein the processor is configured: to analyze data within a data block to identify one or more parameters or attributes of the data wherein the analyzing of the data within the data block to identify the one or more parameters or attributes of the data excludes analyzing based solely on a descriptor that is indicative of the one or more parameters or attributes of the data within the data block; to perform content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified; and to perform data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not identified. Upon information and belief, Barracuda uses the Accused Instrumentality, an infringing system, for its own internal non-testing business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Barracuda’s customers.

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

39. Barracuda’s affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentality has induced and continues to induce users of the Accused Instrumentality to use the Accused Instrumentality in its normal and customary way on compatible systems to infringe the ’728 Patent, knowing that when the Accused Instrumentality is used in its ordinary and customary manner with such

compatible systems, such systems constitute infringing systems for compressing data comprising; a processor; one or more content dependent data compression encoders; and a single data compression encoder; wherein the processor is configured: to analyze data within a data block to identify one or more parameters or attributes of the data wherein the analyzing of the data within the data block to identify the one or more parameters or attributes of the data excludes analyzing based solely on a descriptor that is indicative of the one or more parameters or attributes of the data within the data block; to perform content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified; and to perform data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not identified. For example, Barracuda explains to customers the benefits of using the Accused Instrumentality: "What are the benefits of archiving? MANAGE CAPACITY: Moving less frequently accessed mail out of the primary inbox enables users to be more productive and circumvents mailbox quotas. Advanced compression technologies and deduplication can reduce storage requirements by 50% or more and deliver ongoing cost savings."). *See*, *e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving. Barracuda specifically intended and was aware that the normal and customary use of the Accused Instrumentality on compatible systems would infringe the '728 Patent. Barracuda performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '728 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Barracuda engaged in such inducement to promote the sales of

the Accused Instrumentality, *e.g.*, through Barracuda's user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '728 Patent. Accordingly, Barracuda has induced and continues to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing the '728 Patent, knowing that such use of the Accused Instrumentality with compatible systems will result in infringement of the '728 Patent.

40. Barracuda also indirectly infringes the '728 Patent by manufacturing, using, selling, offering for sale, and/or importing the accused products, with knowledge that the accused products were and are especially manufactured and/or especially adapted for use in infringing the '728 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. On information and belief, the Accused Instrumentality is designed to function with compatible hardware to create systems for compressing data comprising; a processor; one or more content dependent data compression encoders; and a single data compression encoder; wherein the processor is configured: to analyze data within a data block to identify one or more parameters or attributes of the data wherein the analyzing of the data within the data block to identify the one or more parameters or attributes of the data excludes analyzing based solely on a descriptor that is indicative of the one or more parameters or attributes of the data within the data block; to perform content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified; and to perform data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not

identified. Because the Accused Instrumentality is designed to operate as the claimed system for compressing input data, the Accused Instrumentality has no substantial non-infringing uses, and any other uses would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental. Barracuda's manufacture, use, sale, offering for sale, and/or importation of the Accused Instrumentality constitutes contributory infringement of the '728 Patent.

41. The Accused Instrumentality is a system for compressing data, comprising a processor. For example, the Accused Instrumentality is software that must be run on corresponding hardware containing a processor in order to perform its functions.

42. The Accused Instrumentality is a system for compressing data, comprising one or more content dependent data compression encoders. For example, the Accused Instrumentality performs deduplication, which is a content dependent data compression encoder. Performing deduplication results in representation of data with fewer bits. *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving ("Advanced compression technologies and deduplication can reduce storage requirements by 50% or more and deliver ongoing cost savings."); https://campus.barracuda.com/glossary/detail/333/deduplication ("**deduplication**: A method of reducing storage needs by eliminating redundant data. Only one unique instance of the data is retained on storage media. Redundant data is replaced with a pointer to the unique data copy. Also known as intelligent compression, single-instance storage.").

43. The Accused Instrumentality comprises a single data compression encoder. *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving ("Advanced compression technologies and deduplication can reduce storage requirements by 50% or more and deliver ongoing cost savings.").

44. The Accused Instrumentality analyzes data within a data block to identify one or more parameters or attributes of the data, for example, whether the data is duplicative of data previously transmitted and/or stored, where the analysis does not rely only on the descriptor. *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving ("Advanced compression technologies and deduplication can reduce storage requirements by 50% or more and deliver ongoing cost savings."); https://campus.barracuda.com/glossary/detail/333/deduplication ("**deduplication**: A method of reducing storage needs by eliminating redundant data. Only one unique instance of the data is retained on storage media. Redundant data is replaced with a pointer to the unique data copy. Also known as intelligent compression, single-instance storage.").

45. The Accused Instrumentality performs content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified. *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving ("Advanced compression technologies and deduplication can reduce storage requirements by 50% or more and deliver ongoing cost savings.");

https://campus.barracuda.com/glossary/detail/333/deduplication ("**deduplication**: A method of reducing storage needs by eliminating redundant data. Only one unique instance of the data is retained on storage media. Redundant data is replaced with a pointer to the unique data copy. Also known as intelligent compression, single-instance storage.").

46. The Accused Instrumentality performs data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not identified. For example, the Accused Instrumentality compresses non-duplicative data. *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving ("Advanced compression technologies and deduplication can reduce storage requirements by 50% or more and deliver ongoing cost savings.").

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

48. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentality, and touting the benefits of using the Accused Instrumentality's compression features, Barracuda has injured Realtime and is liable to Realtime for infringement of the '728 Patent pursuant to 35 U.S.C. § 271.

49. As a result of Barracuda's infringement of the '728 Patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Barracuda's infringement, but in no event less than a reasonable royalty for the use made of the invention by Barracuda, together with interest and costs as fixed by the Court.

Barracuda NextGen Firewall F

50. On information and belief, Barracuda has offered for sale, sold and/or imported into the United States Barracuda products that infringe the '728 Patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Barracuda's compression products and services, *e.g.*, Barracuda NextGen Firewall F, including physical appliance versions F18, F80, F180, F280, F380, F400, F600, F800, F900, and F1000, virtual appliance versions (referred to as "Barracuda NextGen Firewall F Vx Editions")[1] VF10, VF25, VF50, VF100, VF250, VF500, VF1000, VF2000, VF4000, VF8000, SAC 400, SAC 610, and SAC 820, Azure deployment versions Level 2, Level 4, Level 6, and Level 8, AWS deployment versions Level 2, Level 4, Level 6, and Level 8, and vCloud Air versions VF25, VF50, VF100, VF250, VF500, VF1000, VF2000, VF4000, and VF8000, Google Cloud Platform Level 2, Level 4, Level 6, and Level 8, and all versions and variations thereof since the issuance of the '728 Patent ("Accused Instrumentality").

51. On information and belief, Barracuda has directly infringed and continues to infringe the '728 Patent, for example, through its own use and testing of the Accused Instrumentality, which constitute systems for compressing data claimed by Claim 1 of the '728 Patent, comprising a processor; one or more content dependent data compression encoders; and a single data compression encoder; wherein the processor is configured: to analyze data within a data block to identify one or more parameters or attributes of the

[1] http://vadria.net/wp-content/uploads/2015/08/Barracuda-NGF-Firewall-Product-Overview.pdf ("The Barracuda NextGen Firewall F Vx provides the same powerful technology, comprehensive features, and ease-of-use found in a Barracuda NextGen Firewall F hardware appliance. It is ideally suited for organizations that are standardizing hardware platforms or deploying virtual environments").

data wherein the analyzing of the data within the data block to identify the one or more parameters or attributes of the data excludes analyzing based solely on a descriptor that is indicative of the one or more parameters or attributes of the data within the data block; to perform content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified; and to perform data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not identified. Upon information and belief, Barracuda uses the Accused Instrumentality, an infringing system, for its own internal non-testing business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Barracuda's customers.

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

53. Barracuda's affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentality has induced and continues to induce users of the Accused Instrumentality to use the Accused Instrumentality in its normal and customary way on compatible systems to infringe the '728 Patent, knowing that when the Accused Instrumentality is used in its ordinary and customary manner with such compatible systems, such systems constitute infringing systems for compressing data comprising; a processor; one or more content dependent data compression encoders; and a single data compression encoder; wherein the processor is configured: to analyze data

within a data block to identify one or more parameters or attributes of the data wherein the analyzing of the data within the data block to identify the one or more parameters or attributes of the data excludes analyzing based solely on a descriptor that is indicative of the one or more parameters or attributes of the data within the data block; to perform content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified; and to perform data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not identified. For example, Barracuda explains to customers the benefits of using the Accused Instrumentality: "The Barracuda NextGen Firewall F-Series can significantly enhance the WAN performance of distributed network environments by improving the availability, performance, and response time of business-critical applications by lowering throughput and transmission delays, affecting time-sensitive decisions and enterprise profitability. The next-generation networking concept of the F-Series provides a set of powerful features to efficiently reduce and offset the negative effects of high latencies and response times. By implementing enterprise-grade WAN acceleration features such as data deduplication, traffic compression, and protocol optimization, the F-Series firewalls can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business applications - at no extra charge. WAN traffic can be effectively compressed up to 95 percent, significantly reducing the bandwidth needed at remote locations while increasing network responsiveness." *See, e.g.*, https://www.barracuda.com/products/nextgenfirewall_f/features. Barracuda specifically intended and was aware that the normal and customary use of the Accused

Instrumentality on compatible systems would infringe the ’728 Patent. Barracuda performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the ’728 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Barracuda engaged in such inducement to promote the sales of the Accused Instrumentality, *e.g.*, through Barracuda’s user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the ’728 Patent. Accordingly, Barracuda has induced and continues to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing the ‘728 patent, knowing that such use of the Accused Instrumentality with compatible systems will result in infringement of the ’728 Patent.

54. Barracuda also indirectly infringes the ’728 Patent by manufacturing, using, selling, offering for sale, and/or importing the accused products, with knowledge that the accused products were and are especially manufactured and/or especially adapted for use in infringing the ’728 Patent and are not a staple article or commodity of commerce suitable for substantial non-infringing use. On information and belief, the Accused Instrumentality is designed to function with compatible hardware to create systems for compressing data comprising; a processor; one or more content dependent data compression encoders; and a single data compression encoder; wherein the processor is configured: to analyze data within a data block to identify one or more parameters or attributes of the data wherein the analyzing of the data within the data block to identify the one or more parameters or attributes of the data excludes analyzing

based solely on a descriptor that is indicative of the one or more parameters or attributes of the data within the data block; to perform content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified; and to perform data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not identified. Because the Accused Instrumentality is designed to operate as the claimed system for compressing input data, the Accused Instrumentality has no substantial non-infringing uses, and any other uses would be unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental. Barracuda's manufacture, use, sale, offering for sale, and/or importation of the Accused Instrumentality constitutes contributory infringement of the '728 Patent.

55. The Accused Instrumentality is a system for compressing data, comprising a processor. For example, the physical appliance versions of the Accused Instrumentality must contain a processor, the virtual appliance versions of the Accused Instrumentality must run on hardware containing a processor running the hypervisor on which the virtual appliance versions run, and the cloud-based versions of the Accused Instrumentality must run on cloud servers containing a processor.

56. The Accused Instrumentality is a system for compressing data, comprising one or more content dependent data compression encoders. For example, the Accused Instrumentality performs deduplication, which is a content dependent data compression encoder. Performing deduplication results in representation of data with fewer bits. *See, e.g.,*

https://www.barracuda.com/assets/docs/Datasheets/Barracuda_NextGen_Firewall_F_DS_Azure_US.pdf ("Byte-level data deduplication").

57. The Accused Instrumentality comprises a single data compression encoder. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_NextGen_Firewall_F_DS_Azure_US.pdf ("Stream and packet compression").

58. The Accused Instrumentality analyzes data within a data block to identify one or more parameters or attributes of the data, for example, whether the data is duplicative of data previously transmitted and/or stored, where the analysis does not rely only on the descriptor. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_NextGen_Firewall_F_DS_Azure_US.pdf ("Byte-level data deduplication").

59. The Accused Instrumentality performs content dependent data compression with the one or more content dependent data compression encoders if the one or more parameters or attributes of the data are identified. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_NextGen_Firewall_F_DS_Azure_US.pdf ("Byte-level data deduplication").

60. The Accused Instrumentality performs data compression with the single data compression encoder, if the one or more parameters or attributes of the data are not identified. For example, the Accused Instrumentality compresses non-duplicative data. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_NextGen_Firewall_F_DS_Azure_US.pdf ("Stream and packet compression").

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

62. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentality, and touting the benefits of using the Accused Instrumentality’s compression features, Barracuda has injured Realtime and is liable to Realtime for infringement of the ’728 Patent pursuant to 35 U.S.C. § 271.

63. As a result of Barracuda’s infringement of the ’728 Patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Barracuda’s infringement, but in no event less than a reasonable royalty for the use made of the invention by Barracuda, together with interest and costs as fixed by the Court.

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

64. Plaintiff realleges and incorporates by reference paragraphs 1-63 above, as if fully set forth herein.

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

Barracuda Message Archiver

66. On information and belief, Barracuda has offered for sale, sold and/or imported into the United States Barracuda products that infringe the ’530 Patent, and continues to do so. By way of illustrative example, these infringing products include,

without limitation, Barracuda's products and services, *e.g.*, Barracuda Message Archiver, including physical appliance versions 150, 350, 450, 650, 850, 950, and 1050, virtual appliance versions 150 Vx, 350 Vx, 450 Vx, 650 Vx, 850 Vx, 950 Vx, and 1050 Vx, Azure deployment versions Level 2, Level 5, and Level 6, AWS deployment versions Level 150, Level 350, Level 450, Level 650, Level 850, Level 950, and Level 1050, and vCloud Air versions 150 Vx, 350 Vx, 450 Vx, 650 Vx, 850 Vx, 950 Vx, and 1050 Vx, and all versions and variations thereof since the issuance of the '530 Patent ("Accused Instrumentality").

67. On information and belief, Barracuda has directly infringed and continues to infringe the '530 Patent, for example, through its own use and testing of the Accused Instrumentality, which constitutes a system comprising: a memory device; and a data accelerator, wherein said data accelerator is coupled to said memory device, a data stream is received by said data accelerator in received form, said data stream includes a first data block and a second data block, said data stream is compressed by said data accelerator to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique, said first and second compression techniques are different, said compressed data stream is stored on said memory device, said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form, a first data descriptor is stored on said memory device indicative of said first compression technique, and said first descriptor is utilized to decompress the portion of said compressed data stream associated with said first data block. Upon information and belief, Barracuda uses the Accused Instrumentality, an infringing system, for its own internal non-testing

business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Barracuda's customers.

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

69. Upon information and belief, Barracuda's affirmative acts of making, using, and selling the Accused Instrumentalities, and providing implementation services and technical support to users of the Accused Instrumentalities, have induced and continue to induce users of the Accused Instrumentalities to use them in their normal and customary way to infringe Claim 1 of the '530 Patent by making or using a system comprising: a memory device; and a data accelerator, wherein said data accelerator is coupled to said memory device, a data stream is received by said data accelerator in received form, said data stream includes a first data block and a second data block, said data stream is compressed by said data accelerator to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique, said first and second compression techniques are different, said compressed data stream is stored on said memory device, said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form, a first data descriptor is stored on said memory device indicative of said first compression technique, and said first descriptor is utilized to decompress the portion of said compressed data stream associated with said

first data block. For example, Barracuda explains to customers the benefits of using the Accused Instrumentality: "The Barracuda Message Archiver and the Barracuda Backup Service work particularly well in tandem to optimize data storage because they both eliminate duplicate data and compress data before storage. This has an additive effect. … Another large reduction in storage happens when the Barracuda Message Archiver offloads emails from the email server then eliminates duplicate messages collected from the email server and users' PST files. … In addition to deduplicating emails, the Barracuda Message Archiver stores only one instance of each attachment. The Barracuda Message Archiver replaces an attachment (that might be duplicated in hundreds of emails) with a link in emails to the attachment called a "stub." Stubbing also massively reduces the amount of data stored in the archiver and backup.… With messages deduped and stubbed, the Barracuda Message Archiver aggressively compresses the remaining email data for maximum storage efficiency." *See* https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf. For similar reasons, Barracuda also induces its customers to use the Accused Instrumentalities to infringe other claims of the '530 Patent. Barracuda specifically intended and was aware that these normal and customary activities would infringe the '530 Patent. Barracuda performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '530 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Barracuda engaged in such inducement to promote the sales of the Accused Instrumentalities. Accordingly, Barracuda has induced and continues to induce users of the accused products to use the

accused products in their ordinary and customary way to infringe the ’530 Patent, knowing that such use constitutes infringement of the ’530 Patent.

70. The Accused Instrumentality evidently includes the memory device and includes the data accelerator, wherein said data accelerator is coupled to said memory device. For example, the physical appliance versions of the Accused Instrumentality must contain a memory device, the virtual appliance versions of the Accused Instrumentality must run on hardware containing a memory device running the hypervisor on which the virtual appliance versions run, and the cloud-based versions of the Accused Instrumentality must run on cloud servers containing a memory device. Moreover, by reducing the amount of data transferred, the Accused Instrumentality inherently accelerates the movements of data. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf (“Without managing storage, the length of backup windows will expand as does the time it takes to label and rotate tapes. Not only do Barracuda Backup and the Barracuda Message Archiver shorten backup windows by reducing the amount of data being stored, by not using removable media and with built-in policies, they can fully automate archiving and backup to save costly staff time.”).

71. The Accused Instrumentality receives an incoming stream of data. *See, e.g.*,

https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf (“Deduplicating Emails: Another large reduction in storage happens when the Barracuda Message Archiver offloads emails from the email server

then eliminates duplicate messages collected from the email server and users' PST files.").

72. The Accused Instrumentality's received data stream will evidently consist of more than one data block. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("Deduplicating Emails: Another large reduction in storage happens when the Barracuda Message Archiver offloads emails from the email server then eliminates duplicate messages collected from the email server and users' PST files.").

73. The Accused Instrumentality compresses said data stream to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique. *See* https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("The Barracuda Message Archiver and the Barracuda Backup Service work particularly well in tandem to optimize data storage because they both eliminate duplicate data and compress data before storage. This has an additive effect. … Another large reduction in storage happens when the Barracuda Message Archiver offloads emails from the email server then eliminates duplicate messages collected from the email server and users' PST files. … In addition to deduplicating emails, the Barracuda Message Archiver stores only one instance of each attachment. The Barracuda Message Archiver replaces an attachment (that might be duplicated in hundreds of emails) with a link in emails to the attachment called a "stub." Stubbing also massively reduces the amount of data stored in the archiver and backup. … With messages deduped

and stubbed, the Barracuda Message Archiver aggressively compresses the remaining email data for maximum storage efficiency.").

74. The first (deduplication) and second (compression) compression techniques used by the Accused Instrumentality described above are necessarily different. *See* https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("The Barracuda Message Archiver and the Barracuda Backup Service work particularly well in tandem to optimize data storage because they both eliminate duplicate data and compress data before storage. This has an additive effect. … Another large reduction in storage happens when the Barracuda Message Archiver offloads emails from the email server then eliminates duplicate messages collected from the email server and users' PST files …. In addition to deduplicating emails, the Barracuda Message Archiver stores only one instance of each attachment. The Barracuda Message Archiver replaces an attachment (that might be duplicated in hundreds of emails) with a link in emails to the attachment called a "stub." Stubbing also massively reduces the amount of data stored in the archiver and backup …. With messages deduped and stubbed, the Barracuda Message Archiver aggressively compresses the remaining email data for maximum storage efficiency.").

75. After compression, said compressed data stream is stored on said memory device. *See* https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("The Barracuda Message Archiver and the Barracuda Backup Service work particularly well in tandem to optimize data storage because they both

eliminate duplicate data and compress data before storage. This has an additive effect …. Another large reduction in storage happens when the Barracuda Message Archiver offloads emails from the email server then eliminates duplicate messages collected from the email server and users' PST files …. In addition to deduplicating emails, the Barracuda Message Archiver stores only one instance of each attachment. The Barracuda Message Archiver replaces an attachment (that might be duplicated in hundreds of emails) with a link in emails to the attachment called a "stub." Stubbing also massively reduces the amount of data stored in the archiver and backup. … With messages deduped and stubbed, the Barracuda Message Archiver aggressively compresses the remaining email data for maximum storage efficiency.").

76. Said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("Without managing storage, the length of backup windows will expand as does the time it takes to label and rotate tapes. Not only do Barracuda Backup and the Barracuda Message Archiver shorten backup windows by reducing the amount of data being stored, by not using removable media and with built-in policies, they can fully automate archiving and backup to save costly staff time.").

77. The Accused Instrumentality would evidently store a first data descriptor on said memory device indicative of said first compression technique, and utilize said first descriptor to decompress the portion of said compressed data stream associated with said first data block. *See* https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_St

orage_Advantage.pdf ("In addition to deduplicating emails, the Barracuda Message Archiver stores only one instance of each attachment. The Barracuda Message Archiver replaces an attachment (that might be duplicated in hundreds of emails) with a link in emails to the attachment called a "stub." Stubbing also massively reduces the amount of data stored in the archiver and backup.").

78. On information and belief, Barracuda also infringes, directly and through induced infringement, and continues to infringe other claims of the '530 Patent, for similar reasons as explained above with respect to Claim 1 of the '530 Patent.

79. On information and belief, use of the Accused Instrumentality in its ordinary and customary fashion results in infringement of the methods claimed by the '530 Patent.

80. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities' compression features, Barracuda has injured Realtime and is liable to Realtime for infringement of the '530 Patent pursuant to 35 U.S.C. § 271.

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

Barracuda Backup

82. On information and belief, Barracuda has offered for sale, sold and/or imported into the United States Barracuda products that infringe the '530 Patent, and continues to do so. By way of illustrative example, these infringing products include,

without limitation, Barracuda's products and services, *e.g.*, Barracuda Backup, including but not limited to Barracuda Backup physical appliances 190, 290, 390, 490, 690, 790, 890, 895, 990, 995, and 1090, virtual appliance Barracuda Backup Vx, and Barracuda Backup Cloud-to-Cloud Backup, and all versions and variations thereof since the issuance of the '530 Patent ("Accused Instrumentality").

83. On information and belief, Barracuda has directly infringed and continues to infringe the '530 Patent, for example, through its own use and testing of the Accused Instrumentality, which constitutes a system comprising: a memory device; and a data accelerator, wherein said data accelerator is coupled to said memory device, a data stream is received by said data accelerator in received form, said data stream includes a first data block and a second data block, said data stream is compressed by said data accelerator to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique, said first and second compression techniques are different, said compressed data stream is stored on said memory device, said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form, a first data descriptor is stored on said memory device indicative of said first compression technique, and said first descriptor is utilized to decompress the portion of said compressed data stream associated with said first data block. Upon information and belief, Barracuda uses the Accused Instrumentality, an infringing system, for its own internal non-testing business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Barracuda's customers.

84. On information and belief, Barracuda has had knowledge of the ’530 Patent since at least the filing of this Complaint or shortly thereafter, and on information and belief, Barracuda knew of the ’530 Patent and knew of its infringement, including by way of this lawsuit.

85. Upon information and belief, Barracuda’s affirmative acts of making, using, and selling the Accused Instrumentalities, and providing implementation services and technical support to users of the Accused Instrumentalities, have induced and continue to induce users of the Accused Instrumentalities to use them in their normal and customary way to infringe Claim 1 of the ’530 Patent by making or using a system comprising: a memory device; and a data accelerator, wherein said data accelerator is coupled to said memory device, a data stream is received by said data accelerator in received form, said data stream includes a first data block and a second data block, said data stream is compressed by said data accelerator to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique, said first and second compression techniques are different, said compressed data stream is stored on said memory device, said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form, a first data descriptor is stored on said memory device indicative of said first compression technique, and said first descriptor is utilized to decompress the portion of said compressed data stream associated with said first data block. For example, Barracuda explains that, “Barracuda Backup deduplicates network data such as redundant operating systems and applications. It then compresses the single-instance data before storage offsite in public or private clouds.”

https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf. Barracuda also explains, "Barracuda Backup created its inline deduplication (Figure 1) technology. With inline deduplication, the appliance performs deduplication in one step as the data is ingested, eliminating the need for the superfluous landing-space capacity required by slower two-step post-process deduplication. Barracuda inline deduplication helps organizations save money by eliminating the need for a larger disk array dedicated to holding ingested data before deduplication can begin. This deduplication method also can help reduce risk of lost data by accelerating time-to-backup processing and full replication since data is queued for replication as the backup job is being processed. Deploying a Barracuda Backup appliance significantly improves DR readiness by reducing time to get data offsite through inline deduplication and instant replication. Because data is deduplicated inline, it can be ready for replication more quickly than if it had to be processed after the backup process fully completed. And because there is no need to ingest the entire data set prior to replication commencing, data can be moved offsite as it is backed up and deduplicated, providing faster offsite protection." *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf. For similar reasons, Barracuda also induces its customers to use the Accused Instrumentalities to infringe other claims of the '530 Patent. Barracuda specifically intended and was aware that these normal and customary activities would infringe the '530 Patent. Barracuda performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '530 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute

infringement. On information and belief, Barracuda engaged in such inducement to promote the sales of the Accused Instrumentalities. Accordingly, Barracuda has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the ’530 Patent, knowing that such use constitutes infringement of the ’530 Patent.

86. The Accused Instrumentality evidently includes the memory device and includes the data accelerator, wherein said data accelerator is coupled to said memory device. For example, the physical appliance versions of the Accused Instrumentality must contain a memory device, the virtual appliance versions of the Accused Instrumentality must run on hardware containing a memory device running the hypervisor on which the virtual appliance versions run, and the cloud-to-cloud based versions of the Accused Instrumentality must run on cloud servers containing a memory device. The Accused Instrumentality also contains a data accelerator coupled to said memory device. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf (“Barracuda Backup created its inline deduplication (Figure 1) technology …. This deduplication method also can help reduce risk of lost data by accelerating time-to-backup processing and full replication since data is queued for replication as the backup job is being processed. Deploying a Barracuda Backup appliance significantly improves DR readiness by reducing time to get data offsite through inline deduplication and instant replication. Because data is deduplicated inline, it can be ready for replication more quickly than if it had to be processed after the backup process fully completed. And because there is no need to ingest the entire data set prior to replication commencing, data

can be moved offsite as it is backed up and deduplicated, providing faster offsite protection.").

87. The Accused Instrumentality receives an incoming stream of data. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf ("Source deduplication is implemented through the Barracuda Backup Agent. During its installation, a small database is created on the server to keep track of data chunks so only unique data seen by the agent is compressed and sent to the appliance for processing, reducing network traffic and the backup window.").

88. The first and second compression techniques used by the Accused Instrumentality described above are necessarily different. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf ("During its installation, a small database is created on the server to keep track of data chunks so only unique data seen by the agent is compressed and sent to the appliance for processing, reducing network traffic and the backup window."); https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("Barracuda Backup deduplicates network data such as redundant operating systems and applications. It then compresses the single-instance data before storage offsite in public or private clouds.").

89. After compression, said compressed data stream is stored on said memory device. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf ("Barracuda Backup created its inline deduplication (Figure 1) technology.

With inline deduplication, the appliance performs deduplication in one step as the data is ingested, eliminating the need for the superfluous landing-space capacity required by slower two-step post-process deduplication. Barracuda inline deduplication helps organizations save money by eliminating the need for a larger disk array dedicated to holding ingested data before deduplication can begin. This deduplication method also can help reduce risk of lost data by accelerating time-to-backup processing and full replication since data is queued for replication as the backup job is being processed. Deploying a Barracuda Backup appliance significantly improves DR readiness by reducing time to get data offsite through inline deduplication and instant replication. Because data is deduplicated inline, it can be ready for replication more quickly than if it had to be processed after the backup process fully completed. And because there is no need to ingest the entire data set prior to replication commencing, data can be moved offsite as it is backed up and deduplicated, providing faster offsite protection.").

90. Said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf ("Barracuda Backup created its inline deduplication (Figure 1) technology. With inline deduplication, the appliance performs deduplication in one step as the data is ingested, eliminating the need for the superfluous landing-space capacity required by slower two-step post-process deduplication. Barracuda inline deduplication helps organizations save money by eliminating the need for a larger disk array dedicated to holding ingested data before deduplication can begin. This deduplication method also can help reduce risk of lost data by accelerating time-to-backup processing and full

replication since data is queued for replication as the backup job is being processed. Deploying a Barracuda Backup appliance significantly improves DR readiness by reducing time to get data offsite through inline deduplication and instant replication. Because data is deduplicated inline, it can be ready for replication more quickly than if it had to be processed after the backup process fully completed. And because there is no need to ingest the entire data set prior to replication commencing, data can be moved offsite as it is backed up and deduplicated, providing faster offsite protection.").

91. The Accused Instrumentality would evidently store a first data descriptor (*e.g.* a small pointer to a duplicate data chunk) on said memory device indicative of said first compression technique, and utilize said first descriptor to decompress the portion of said compressed data stream associated with said first data block. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf ("The length of backup data chunks used in deduplication is based on the type and size of the file. Each chunk is then given three unique hashes (digital fingerprints): MD5sum, SHA1, and size of the file. Each hash is unique for each chuck and is stored in a database by the Barracuda Backup Agent running on the local server along with a database on the local appliance. As the backup runs, each calculated hash value is compared to the values of those of chunks already processed, and if the value is unique, the chunk is transmitted to the appliance. For hash values already seen, only a small pointer is sent to the appliance. Once the data is added to the local Barracuda Backup appliance, the hashes are compared again across all agents. If duplicate entries are found, the appliance stores a single copy of the data on local appliance and makes note that it has been backed up, and can be restored to any server requesting the hash.").

92. On information and belief, Barracuda also infringes, directly and through induced infringement, and continues to infringe other claims of the ’530 Patent, for similar reasons as explained above with respect to Claim 1 of the ’530 Patent.

93. On information and belief, use of the Accused Instrumentality in its ordinary and customary fashion results in infringement of the methods claimed by the ’530 Patent.

94. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities’ compression features, Barracuda has injured Realtime and is liable to Realtime for infringement of the ’530 Patent pursuant to 35 U.S.C. § 271.

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

Barracuda ArchiveOne

96. On information and belief, Barracuda has offered for sale, sold and/or imported into the United States Barracuda products that infringe the ’530 Patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Barracuda’s products and services, e.g., Barracuda ArchiveOne, and all versions and variations thereof since the issuance of the ’530 Patent (“Accused Instrumentality”).

97. On information and belief, Barracuda has directly infringed and continues to infringe the ’530 Patent, for example, through its own use and testing of the Accused

Instrumentality, which constitutes a system comprising: a memory device; and a data accelerator, wherein said data accelerator is coupled to said memory device, a data stream is received by said data accelerator in received form, said data stream includes a first data block and a second data block, said data stream is compressed by said data accelerator to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique, said first and second compression techniques are different, said compressed data stream is stored on said memory device, said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form, a first data descriptor is stored on said memory device indicative of said first compression technique, and said first descriptor is utilized to decompress the portion of said compressed data stream associated with said first data block. Upon information and belief, Barracuda uses the Accused Instrumentality, an infringing system, for its own internal non-testing business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Barracuda's customers.

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

99. Upon information and belief, Barracuda's affirmative acts of making, using, and selling the Accused Instrumentalities, and providing implementation services and technical support to users of the Accused Instrumentalities, have induced and

continue to induce users of the Accused Instrumentalities to use them in their normal and customary way to infringe Claim 1 of the ’530 Patent by making or using a system comprising: a memory device; and a data accelerator, wherein said data accelerator is coupled to said memory device, a data stream is received by said data accelerator in received form, said data stream includes a first data block and a second data block, said data stream is compressed by said data accelerator to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique, said first and second compression techniques are different, said compressed data stream is stored on said memory device, said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form, a first data descriptor is stored on said memory device indicative of said first compression technique, and said first descriptor is utilized to decompress the portion of said compressed data stream associated with said first data block. For example, Barracuda explains to customers the benefits of using the Accused Instrumentality: “What are the benefits of archiving? MANAGE CAPACITY: Moving less frequently accessed mail out of the primary inbox enables users to be more productive and circumvents mailbox quotas. Advanced compression technologies and deduplication can reduce storage requirements by 50% or more and deliver ongoing cost savings.”). *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving. For similar reasons, Barracuda also induces its customers to use the Accused Instrumentalities to infringe other claims of the ’530 Patent. Barracuda specifically intended and was aware that these normal and customary activities would infringe

the ’530 Patent. Barracuda performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the ’530 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Barracuda engaged in such inducement to promote the sales of the Accused Instrumentalities. Accordingly, Barracuda has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the ’530 Patent, knowing that such use constitutes infringement of the ’530 Patent.

100. The Accused Instrumentality evidently includes the memory device and includes the data accelerator, wherein said data accelerator is coupled to said memory device. For example, the Accused Instrumentality comprises software that must be run on compatible hardware including a memory device, and by employing “Advanced compression technologies and deduplication” in “Moving less frequently accessed mail out of the primary inbox”, the Accused Instrumentality inherently accelerates the movement of data. *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving.

101. The Accused Instrumentality receives an incoming stream of data. *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving (“Moving less frequently accessed mail out of the primary inbox enables users to be more productive and circumvents mailbox quotas.”).

102. The Accused Instrumentality’s received data stream will evidently consist of more than one data block. *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving

("Moving less frequently accessed mail out of the primary inbox enables users to be more productive and circumvents mailbox quotas.").

103. The Accused Instrumentality compresses said data stream to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique. *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving ("Advanced compression technologies and deduplication can reduce storage requirements by 50% or more and deliver ongoing cost savings.").

104. The first (deduplication) and second (compression) compression techniques used by the Accused Instrumentality described above are necessarily different. *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving ("Advanced compression technologies and deduplication can reduce storage requirements by 50% or more and deliver ongoing cost savings.").

105. After compression, said compressed data stream is stored on said memory device. *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving ("Archiving solutions address the information management needs of organizations both now and for the foreseeable future. They improve the availability and manageability of email and file storage operations by reducing both the amount of data and the disk space required to store this data …. Advanced compression technologies and deduplication can reduce storage requirements by 50% or more and deliver ongoing cost savings."); https://www.barracuda.com/assets/docs/dms/Barracuda_ArchiveOne_DS_US.pdf ("Any

data found in Exchange mailboxes, public folders, client PST files or network file servers can be automatically archived to any designated storage device.").

106. Said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form. *See, e.g.*, https://www.barracuda.com/assets/docs/dms/Barracuda_ArchiveOne_DS_US.pdf ("• Single solution covers multiple email sources • Improves performance and data backup times … • Data compression and deduplication minimizes storage"); https://www.barracuda.com/products/archiveone/ ("ArchiveOne safely archives your emails and files … Performance is improved and data backup time shortened."); https://www.barracuda.com/products/archiveone/features ("**Reduced Email Storage through Compression and Single-Instance Storage**: ArchiveOne can automatically compress and de-duplicate all email messages and attachments, reducing both the amount of data and the disk space required to store this data. ArchiveOne can typically give a reduction of 60% to 80% in space required for email data, enables organisations to achieve a lower overall cost of ownership while providing an improved service to end users.").

107. The Accused Instrumentality would evidently store a first data descriptor (*e.g.* a pointer to the unique data copy) on said memory device indicative of said first compression technique, and utilize said first descriptor to decompress the portion of said compressed data stream associated with said first data block. *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving ("Advanced compression technologies and deduplication can reduce storage requirements by 50% or more and deliver ongoing cost savings.");

https://campus.barracuda.com/glossary/detail/333/deduplication ("A method of reducing storage needs by eliminating redundant data. Only one unique instance of the data is retained on storage media. Redundant data is replaced with a pointer to the unique data copy. Also known as intelligent compression, single-instance storage.").

108. On information and belief, Barracuda also infringes, directly and through induced infringement, and continues to infringe other claims of the '530 Patent, for similar reasons as explained above with respect to Claim 1 of the '530 Patent.

109. On information and belief, use of the Accused Instrumentality in its ordinary and customary fashion results in infringement of the methods claimed by the '530 Patent.

110. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities' compression features, Barracuda has injured Realtime and is liable to Realtime for infringement of the '530 Patent pursuant to 35 U.S.C. § 271.

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

Barracuda NextGen Firewall F

112. On information and belief, Barracuda has offered for sale, sold and/or imported into the United States Barracuda products that infringe the '530 Patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Barracuda's compression products and services, *e.g.*, Barracuda

NextGen Firewall F, including physical appliance versions F18, F80, F180, F280, F380, F400, F600, F800, F900, and F1000, virtual appliance versions (referred to as "Barracuda NextGen Firewall F Vx Editions")[2] VF10, VF25, VF50, VF100, VF250, VF500, VF1000, VF2000, VF4000, VF8000, SAC 400, SAC 610, and SAC 820, Azure deployment versions Level 2, Level 4, Level 6, and Level 8, AWS deployment versions Level 2, Level 4, Level 6, and Level 8, and vCloud Air versions VF25, VF50, VF100, VF250, VF500, VF1000, VF2000, VF4000, and VF8000, Google Cloud Platform Level 2, Level 4, Level 6, and Level 8, and all versions and variations thereof since the issuance of the '530 Patent ("Accused Instrumentality").

113. On information and belief, Barracuda has directly infringed and continues to infringe the '530 Patent, for example, through its own use and testing of the Accused Instrumentality, which constitutes a system comprising: a memory device; and a data accelerator, wherein said data accelerator is coupled to said memory device, a data stream is received by said data accelerator in received form, said data stream includes a first data block and a second data block, said data stream is compressed by said data accelerator to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique, said first and second compression techniques are different, said compressed data stream is stored on said memory device, said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form, a first data

[2] http://vadria.net/wp-content/uploads/2015/08/Barracuda-NGF-Firewall-Product-Overview.pdf ("The Barracuda NextGen Firewall F Vx provides the same powerful technology, comprehensive features, and ease-of-use found in a Barracuda NextGen Firewall F hardware appliance. It is ideally suited for organizations that are standardizing hardware platforms or deploying virtual environments").

descriptor is stored on said memory device indicative of said first compression technique, and said first descriptor is utilized to decompress the portion of said compressed data stream associated with said first data block. Upon information and belief, Barracuda uses the Accused Instrumentality, an infringing system, for its own internal non-testing business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Barracuda's customers.

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

115. Upon information and belief, Barracuda's affirmative acts of making, using, and selling the Accused Instrumentalities, and providing implementation services and technical support to users of the Accused Instrumentalities, have induced and continue to induce users of the Accused Instrumentalities to use them in their normal and customary way to infringe Claim 1 of the '530 Patent by making or using a system comprising: a memory device; and a data accelerator, wherein said data accelerator is coupled to said memory device, a data stream is received by said data accelerator in received form, said data stream includes a first data block and a second data block, said data stream is compressed by said data accelerator to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique, said first and second compression techniques are different, said compressed data stream is stored on said memory device,

said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form, a first data descriptor is stored on said memory device indicative of said first compression technique, and said first descriptor is utilized to decompress the portion of said compressed data stream associated with said first data block. For example, Barracuda explains to customers the benefits of using the Accused Instrumentality: "The Barracuda NextGen Firewall F-Series can significantly enhance the WAN performance of distributed network environments by improving the availability, performance, and response time of business-critical applications by lowering throughput and transmission delays, affecting time-sensitive decisions and enterprise profitability. The next-generation networking concept of the F-Series provides a set of powerful features to efficiently reduce and offset the negative effects of high latencies and response times. By implementing enterprise-grade WAN acceleration features such as data deduplication, traffic compression, and protocol optimization, the F-Series firewalls can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business applications - at no extra charge. WAN traffic can be effectively compressed up to 95 percent, significantly reducing the bandwidth needed at remote locations while increasing network responsiveness." *See, e.g.*, https://www.barracuda.com/products/nextgenfirewall_f/features. For similar reasons, Barracuda also induces its customers to use the Accused Instrumentalities to infringe other claims of the '530 Patent. Barracuda specifically intended and was aware that these normal and customary activities would infringe the '530 Patent. Barracuda performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '530 Patent and with the knowledge, or willful blindness to the

probability, that the induced acts would constitute infringement. On information and belief, Barracuda engaged in such inducement to promote the sales of the Accused Instrumentalities. Accordingly, Barracuda has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the '530 Patent, knowing that such use constitutes infringement of the '530 Patent.

116. The Accused Instrumentality evidently includes the memory device and includes the data accelerator, wherein said data accelerator is coupled to said memory device. For example, the physical appliance versions of the Accused Instrumentality must contain a memory device, the virtual appliance versions of the Accused Instrumentality must run on hardware containing a memory device running the hypervisor on which the virtual appliance versions run, and the cloud-based versions of the Accused Instrumentality must run on cloud servers containing a memory device. Moreover, by reducing the amount of data transferred, the Accused Instrumentality inherently accelerates the movements of data. *See, e.g.*, https://www.barracuda.com/products/nextgenfirewall_f/features ("The Barracuda NextGen Firewall F-Series can significantly enhance the WAN performance of distributed network environments by improving the availability, performance, and response time of business-critical applications by lowering throughput and transmission delays, affecting time-sensitive decisions and enterprise profitability. The next-generation networking concept of the F-Series provides a set of powerful features to efficiently reduce and offset the negative effects of high latencies and response times. By implementing enterprise-grade WAN acceleration features such as data deduplication,

traffic compression, and protocol optimization, the F-Series firewalls can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business applications - at no extra charge. WAN traffic can be effectively compressed up to 95 percent, significantly reducing the bandwidth needed at remote locations while increasing network responsiveness.").

117. The Accused Instrumentality receives an incoming stream of data. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_NextGen_Firewall_F_DS_Azure_US.pdf ("The Barracuda NextGen Firewall F-Series provides centralized management and highly secure, encrypted traffic to, from, and within Microsoft Azure deployments.").

118. The Accused Instrumentality's received data stream will evidently consist of more than one data block. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_NextGen_Firewall_F_DS_Azure_US.pdf ("The Barracuda NextGen Firewall F-Series provides centralized management and highly secure, encrypted traffic to, from, and within Microsoft Azure deployments.").

119. The Accused Instrumentality compresses said data stream to provide a compressed data stream by compressing said first data block with a first compression technique and said second data block with a second compression technique. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_NextGen_Firewall_F_DS_Azure_US.pdf ("Traffic Optimization … • Stream and packet compression • Byte-level data deduplication"); https://www.barracuda.com/products/nextgenfirewall_f/features

("The Barracuda NextGen Firewall F-Series can significantly enhance the WAN performance of distributed network environments by improving the availability, performance, and response time of business-critical applications by lowering throughput and transmission delays, affecting time-sensitive decisions and enterprise profitability. The next-generation networking concept of the F-Series provides a set of powerful features to efficiently reduce and offset the negative effects of high latencies and response times. By implementing enterprise-grade WAN acceleration features such as data deduplication, traffic compression, and protocol optimization, the F-Series firewalls can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business applications - at no extra charge. WAN traffic can be effectively compressed up to 95 percent, significantly reducing the bandwidth needed at remote locations while increasing network responsiveness.").

120. The first (deduplication) and second (compression) compression techniques used by the Accused Instrumentality described above are necessarily different. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_NextGen_Firewall_F_DS_Azure_US.pdf ("Traffic Optimization … • Stream and packet compression • Byte-level data deduplication"); https://www.barracuda.com/products/nextgenfirewall_f/features ("The Barracuda NextGen Firewall F-Series can significantly enhance the WAN performance of distributed network environments by improving the availability, performance, and response time of business-critical applications by lowering throughput and transmission delays, affecting time-sensitive decisions and enterprise profitability. The next-generation networking concept of the F-Series provides a set of powerful

features to efficiently reduce and offset the negative effects of high latencies and response times. By implementing enterprise-grade WAN acceleration features such as data deduplication, traffic compression, and protocol optimization, the F-Series firewalls can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business applications - at no extra charge. WAN traffic can be effectively compressed up to 95 percent, significantly reducing the bandwidth needed at remote locations while increasing network responsiveness.").

121. After compression, said compressed data stream is stored on said memory device. *See, e.g.*, https://www.barracuda.com/products/nextgenfirewall_f/features ("The Barracuda NextGen Firewall F-Series can significantly enhance the WAN performance of distributed network environments by improving the availability, performance, and response time of business-critical applications by lowering throughput and transmission delays, affecting time-sensitive decisions and enterprise profitability. The next-generation networking concept of the F-Series provides a set of powerful features to efficiently reduce and offset the negative effects of high latencies and response times. By implementing enterprise-grade WAN acceleration features such as data deduplication, traffic compression, and protocol optimization, the F-Series firewalls can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business applications - at no extra charge. WAN traffic can be effectively compressed up to 95 percent, significantly reducing the bandwidth needed at remote locations while increasing network responsiveness.").

122. Said compression and storage occurs faster than said data stream is able to be stored on said memory device in said received form. *See, e.g.*,

https://www.barracuda.com/products/nextgenfirewall_f/features ("The Barracuda NextGen Firewall F-Series can significantly enhance the WAN performance of distributed network environments by improving the availability, performance, and response time of business-critical applications by lowering throughput and transmission delays, affecting time-sensitive decisions and enterprise profitability. The next-generation networking concept of the F-Series provides a set of powerful features to efficiently reduce and offset the negative effects of high latencies and response times. By implementing enterprise-grade WAN acceleration features such as data deduplication, traffic compression, and protocol optimization, the F-Series firewalls can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business applications - at no extra charge. WAN traffic can be effectively compressed up to 95 percent, significantly reducing the bandwidth needed at remote locations while increasing network responsiveness.").

123. The Accused Instrumentality would evidently store a first data descriptor (*e.g.* a pointer to the unique data copy) on said memory device indicative of said first compression technique, and utilize said first descriptor to decompress the portion of said compressed data stream associated with said first data block. *See, e.g.*, https://www.barracuda.com/products/nextgenfirewall_f/features ("By implementing enterprise-grade WAN acceleration features such as data deduplication, traffic compression, and protocol optimization, the F-Series firewalls can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business applications"); https://campus.barracuda.com/glossary/detail/333/deduplication ("deduplication: Barracuda NextGen Firewall F … A method of reducing storage needs

by eliminating redundant data. Only one unique instance of the data is retained on storage media. Redundant data is replaced with a pointer to the unique data copy. Also known as intelligent compression, single-instance storage.").

124. On information and belief, Barracuda also infringes, directly and through induced infringement, and continues to infringe other claims of the '530 Patent, for similar reasons as explained above with respect to Claim 1 of the '530 Patent.

125. On information and belief, use of the Accused Instrumentality in its ordinary and customary fashion results in infringement of the methods claimed by the '530 Patent.

126. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities' compression features, Barracuda has injured Realtime and is liable to Realtime for infringement of the '530 Patent pursuant to 35 U.S.C. § 271.

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

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

128. Plaintiff Realtime realleges and incorporates by reference paragraphs 1-127 above, as if fully set forth herein.

129. Plaintiff Realtime is the owner by assignment of United States Patent No. 9,116,908 ("the '908 Patent") entitled "System and methods for accelerated data storage and retrieval." The '908 Patent was duly and legally issued by the United States Patent

and Trademark Office on August 25, 2015. A true and correct copy of the '908 Patent is included as Exhibit C.

Barracuda Message Archiver

130. On information and belief, Barracuda has offered for sale, sold and/or imported into the United States Barracuda products that infringe the '908 Patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Barracuda's products and services, *e.g.*, Barracuda Message Archiver, including physical appliance versions 150, 350, 450, 650, 850, 950, and 1050, virtual appliance versions 150 Vx, 350 Vx, 450 Vx, 650 Vx, 850 Vx, 950 Vx, and 1050 Vx, Azure deployment versions Level 2, Level 5, and Level 6, AWS deployment versions Level 150, Level 350, Level 450, Level 650, Level 850, Level 950, and Level 1050, and vCloud Air versions 150 Vx, 350 Vx, 450 Vx, 650 Vx, 850 Vx, 950 Vx, and 1050 Vx, and all versions and variations thereof since the issuance of the '908 Patent ("Accused Instrumentality").

131. On information and belief, Barracuda has directly infringed and continues to infringe the '908 Patent, for example, through its own use and testing of the Accused Instrumentality, which constitutes a system comprising: a memory device; and a data accelerator configured to compress: (i) a first data block with a first compression technique to provide a first compressed data block; and (ii) a second data block with a second compression technique, different from the first compression technique, to provide a second compressed data block; wherein the compressed first and second data blocks are stored on the memory device, and the compression and storage occurs faster than the first and second data blocks are able to be stored on the memory device in uncompressed form.

Upon information and belief, Barracuda uses the Accused Instrumentality, an infringing system, for its own internal non-testing business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Barracuda's customers.

132. On information and belief, use of the Accused Instrumentality in its ordinary and customary fashion results in infringement of the systems claimed by the '908 Patent.

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

134. Upon information and belief, Barracuda's affirmative acts of making, using, and selling the Accused Instrumentalities, and providing implementation services and technical support to users of the Accused Instrumentalities, have induced and continue to induce users of the Accused Instrumentalities to use them in their normal and customary way to infringe Claim 1 of the '908 Patent by making or using a system comprising: a memory device; and a data accelerator configured to compress: (i) a first data block with a first compression technique to provide a first compressed data block; and (ii) a second data block with a second compression technique, different from the first compression technique, to provide a second compressed data block; wherein the compressed first and second data blocks are stored on the memory device, and the compression and storage occurs faster than the first and second data blocks are able to be stored on the memory device in uncompressed form. For example, Barracuda explains to

customers the benefits of using the Accused Instrumentality: "The Barracuda Message Archiver and the Barracuda Backup Service work particularly well in tandem to optimize data storage because they both eliminate duplicate data and compress data before storage. This has an additive effect …. Another large reduction in storage happens when the Barracuda Message Archiver offloads emails from the email server then eliminates duplicate messages collected from the email server and users' PST files …. In addition to deduplicating emails, the Barracuda Message Archiver stores only one instance of each attachment. The Barracuda Message Archiver replaces an attachment (that might be duplicated in hundreds of emails) with a link in emails to the attachment called a "stub." Stubbing also massively reduces the amount of data stored in the archiver and backup. … With messages deduped and stubbed, the Barracuda Message Archiver aggressively compresses the remaining email data for maximum storage efficiency." *See* https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf. For similar reasons, Barracuda also induces its customers to use the Accused Instrumentalities to infringe other claims of the '908 Patent. Barracuda specifically intended and was aware that these normal and customary activities would infringe the '908 Patent. Barracuda performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '908 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Barracuda engaged in such inducement to promote the sales of the Accused Instrumentalities. Accordingly, Barracuda has induced and continues to induce users of the accused products to use the

accused products in their ordinary and customary way to infringe the ’908 Patent, knowing that such use constitutes infringement of the ’908 Patent.

135. The Accused Instrumentality evidently includes a memory device and a data accelerator configured to compress: (i) a first data block with a first compression technique to provide a first compressed data block; and (ii) a second data block with a second compression technique, different from the first compression technique, to provide a second compressed data block. For example, the physical appliance versions of the Accused Instrumentality must contain a memory device, the virtual appliance versions of the Accused Instrumentality must run on hardware containing a memory device running the hypervisor on which the virtual appliance versions run, and the cloud-based versions of the Accused Instrumentality must run on cloud servers containing a memory device. Moreover, by reducing the amount of data transferred, the Accused Instrumentality inherently accelerates the movements of data. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf (“Without managing storage, the length of backup windows will expand as does the time it takes to label and rotate tapes. Not only do Barracuda Backup and the Barracuda Message Archiver shorten backup windows by reducing the amount of data being stored, by not using removable media and with built-in policies, they can fully automate archiving and backup to save costly staff time.”); https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf (“Barracuda Backup provides application-aware, variable length, block level inline deduplication for maximum data reduction and minimum capacity needs, reducing storage footprint, bandwidth requirements, and backup/restore times. For standard data

sets backed up over time, users could see 20-50x data reduction, on average, from the three-stage deduplication process."). The Accused Instrumentality compresses (i) a first data block with a first compression technique to provide a first compressed data block; and (ii) a second data block with a second compression technique, different from the first compression technique, to provide a second compressed data block. *See* https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("The Barracuda Message Archiver and the Barracuda Backup Service work particularly well in tandem to optimize data storage because they both eliminate duplicate data and compress data before storage. This has an additive effect …. Another large reduction in storage happens when the Barracuda Message Archiver offloads emails from the email server then eliminates duplicate messages collected from the email server and users' PST files …. In addition to deduplicating emails, the Barracuda Message Archiver stores only one instance of each attachment. The Barracuda Message Archiver replaces an attachment (that might be duplicated in hundreds of emails) with a link in emails to the attachment called a "stub." Stubbing also massively reduces the amount of data stored in the archiver and backup …. With messages deduped and stubbed, the Barracuda Message Archiver aggressively compresses the remaining email data for maximum storage efficiency.").

136. The Accused Instrumentality stores the compressed first and second data blocks on the memory device, and the compression and storage occurs faster than the first and second data blocks are able to be stored on the memory device in uncompressed form. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplic

ation.pdf ("Barracuda Backup provides application-aware, variable length, block level inline deduplication for maximum data reduction and minimum capacity needs, reducing storage footprint, bandwidth requirements, and backup/restore times. For standard data sets backed up over time, users could see 20-50x data reduction, on average, from the three-stage deduplication process.").

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

138. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities' compression features, Barracuda has injured Realtime and is liable to Realtime for infringement of the '908 Patent pursuant to 35 U.S.C. § 271.

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

Barracuda Backup

140. On information and belief, Barracuda has offered for sale, sold and/or imported into the United States Barracuda products that infringe the '908 Patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Barracuda's products and services, *e.g.*, Barracuda Backup, including but not limited to Barracuda Backup physical appliances 190, 290, 390, 490, 690, 790, 890, 895, 990, 995, and 1090, virtual appliance Barracuda Backup Vx, and Barracuda

Backup Cloud-to-Cloud Backup, and all versions and variations thereof since the issuance of the ’908 Patent (“Accused Instrumentality”).

141. On information and belief, Barracuda has directly infringed and continues to infringe the ’908 Patent, for example, through its own use and testing of the Accused Instrumentality, which constitutes a system comprising: a memory device; and a data accelerator configured to compress: (i) a first data block with a first compression technique to provide a first compressed data block; and (ii) a second data block with a second compression technique, different from the first compression technique, to provide a second compressed data block; wherein the compressed first and second data blocks are stored on the memory device, and the compression and storage occurs faster than the first and second data blocks are able to be stored on the memory device in uncompressed form. Upon information and belief, Barracuda uses the Accused Instrumentality, an infringing system, for its own internal non-testing business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Barracuda’s customers.

142. On information and belief, use of the Accused Instrumentality in its ordinary and customary fashion results in infringement of the systems claimed by the ’908 Patent.

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

144. Upon information and belief, Barracuda's affirmative acts of making, using, and selling the Accused Instrumentalities, and providing implementation services and technical support to users of the Accused Instrumentalities, have induced and continue to induce users of the Accused Instrumentalities to use them in their normal and customary way to infringe Claim 1 of the '908 Patent by making or using a system comprising: a memory device; and a data accelerator configured to compress: (i) a first data block with a first compression technique to provide a first compressed data block; and (ii) a second data block with a second compression technique, different from the first compression technique, to provide a second compressed data block; wherein the compressed first and second data blocks are stored on the memory device, and the compression and storage occurs faster than the first and second data blocks are able to be stored on the memory device in uncompressed form. For example, Barracuda explains that, "Barracuda Backup deduplicates network data such as redundant operating systems and applications. It then compresses the single-instance data before storage offsite in public or private clouds." https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf. Barracuda also explains, "Barracuda Backup created its inline deduplication (Figure 1) technology. With inline deduplication, the appliance performs deduplication in one step as the data is ingested, eliminating the need for the superfluous landing-space capacity required by slower two-step post-process deduplication. Barracuda inline deduplication helps organizations save money by eliminating the need for a larger disk array dedicated to holding ingested data before deduplication can begin. This deduplication method also can help reduce risk of lost data by accelerating time-to-

backup processing and full replication since data is queued for replication as the backup job is being processed. Deploying a Barracuda Backup appliance significantly improves DR readiness by reducing time to get data offsite through inline deduplication and instant replication. Because data is deduplicated inline, it can be ready for replication more quickly than if it had to be processed after the backup process fully completed. And because there is no need to ingest the entire data set prior to replication commencing, data can be moved offsite as it is backed up and deduplicated, providing faster offsite protection." *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf.

145. For similar reasons, Barracuda also induces its customers to use the Accused Instrumentalities to infringe other claims of the '908 Patent. Barracuda specifically intended and was aware that these normal and customary activities would infringe the '908 Patent. Barracuda performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '908 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Barracuda engaged in such inducement to promote the sales of the Accused Instrumentalities. Accordingly, Barracuda has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the '908 Patent, knowing that such use constitutes infringement of the '908 Patent.

146. The Accused Instrumentality evidently includes a memory device and a data accelerator configured to compress: (i) a first data block with a first compression

technique to provide a first compressed data block; and (ii) a second data block with a second compression technique, different from the first compression technique, to provide a second compressed data block. For example, the physical appliance versions of the Accused Instrumentality must contain a memory device, the virtual appliance versions of the Accused Instrumentality must run on hardware containing a memory device running the hypervisor on which the virtual appliance versions run, and the cloud-to-cloud based versions of the Accused Instrumentality must run on cloud servers containing a memory device. The Accused Instrumentality also contains a data accelerator. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf ("Barracuda Backup created its inline deduplication (Figure 1) technology …. This deduplication method also can help reduce risk of lost data by accelerating time-to-backup processing and full replication since data is queued for replication as the backup job is being processed. Deploying a Barracuda Backup appliance significantly improves DR readiness by reducing time to get data offsite through inline deduplication and instant replication. Because data is deduplicated inline, it can be ready for replication more quickly than if it had to be processed after the backup process fully completed. And because there is no need to ingest the entire data set prior to replication commencing, data can be moved offsite as it is backed up and deduplicated, providing faster offsite protection."). The Accused Instrumentality compresses (i) a first data block with a first compression technique to provide a first compressed data block; and (ii) a second data block with a second compression technique, different from the first compression technique, to provide a second compressed data block. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplic

ation.pdf ("During its installation, a small database is created on the server to keep track of data chunks so only unique data seen by the agent is compressed and sent to the appliance for processing, reducing network traffic and the backup window."); https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("Barracuda Backup deduplicates network data such as redundant operating systems and applications. It then compresses the single-instance data before storage offsite in public or private clouds.").

147. The Accused Instrumentality stores the compressed first and second data blocks on the memory device, and the compression and storage occurs faster than the first and second data blocks are able to be stored on the memory device in uncompressed form. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf ("Barracuda Backup created its inline deduplication (Figure 1) technology. With inline deduplication, the appliance performs deduplication in one step as the data is ingested, eliminating the need for the superfluous landing-space capacity required by slower two-step post-process deduplication. Barracuda inline deduplication helps organizations save money by eliminating the need for a larger disk array dedicated to holding ingested data before deduplication can begin. This deduplication method also can help reduce risk of lost data by accelerating time-to-backup processing and full replication since data is queued for replication as the backup job is being processed. Deploying a Barracuda Backup appliance significantly improves DR readiness by reducing time to get data offsite through inline deduplication and instant replication. Because data is deduplicated inline, it can be ready for replication more quickly than if it

had to be processed after the backup process fully completed. And because there is no need to ingest the entire data set prior to replication commencing, data can be moved offsite as it is backed up and deduplicated, providing faster offsite protection.").

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

149. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities' compression features, Barracuda has injured Realtime and is liable to Realtime for infringement of the '908 Patent pursuant to 35 U.S.C. § 271.

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

Barracuda ArchiveOne

151. On information and belief, Barracuda has offered for sale, sold and/or imported into the United States Barracuda products that infringe the '908 Patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Barracuda's products and services, *e.g.*, Barracuda ArchiveOne, and all versions and variations thereof since the issuance of the '908 Patent ("Accused Instrumentality").

152. On information and belief, Barracuda has directly infringed and continues to infringe the '908 Patent, for example, through its own use and testing of the Accused

Instrumentality, which constitutes a system comprising: a memory device; and a data accelerator configured to compress: (i) a first data block with a first compression technique to provide a first compressed data block; and (ii) a second data block with a second compression technique, different from the first compression technique, to provide a second compressed data block; wherein the compressed first and second data blocks are stored on the memory device, and the compression and storage occurs faster than the first and second data blocks are able to be stored on the memory device in uncompressed form. Upon information and belief, Barracuda uses the Accused Instrumentality, an infringing system, for its own internal non-testing business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Barracuda's customers.

153. On information and belief, use of the Accused Instrumentality in its ordinary and customary fashion results in infringement of the systems claimed by the '908 Patent.

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

155. Upon information and belief, Barracuda's affirmative acts of making, using, and selling the Accused Instrumentalities, and providing implementation services and technical support to users of the Accused Instrumentalities, have induced and continue to induce users of the Accused Instrumentalities to use them in their normal and customary way to infringe Claim 1 of the '908 Patent by making or using a system

comprising: a memory device; and a data accelerator configured to compress: (i) a first data block with a first compression technique to provide a first compressed data block; and (ii) a second data block with a second compression technique, different from the first compression technique, to provide a second compressed data block; wherein the compressed first and second data blocks are stored on the memory device, and the compression and storage occurs faster than the first and second data blocks are able to be stored on the memory device in uncompressed form. For example, Barracuda explains to customers the benefits of using the Accused Instrumentality: "What are the benefits of archiving? MANAGE CAPACITY: Moving less frequently accessed mail out of the primary inbox enables users to be more productive and circumvents mailbox quotas. Advanced compression technologies and deduplication can reduce storage requirements by 50% or more and deliver ongoing cost savings."). *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving. For similar reasons, Barracuda also induces its customers to use the Accused Instrumentalities to infringe other claims of the '908 Patent. Barracuda specifically intended and was aware that these normal and customary activities would infringe the '908 Patent. Barracuda performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '908 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Barracuda engaged in such inducement to promote the sales of the Accused Instrumentalities. Accordingly, Barracuda has induced and continues to induce users of the accused products to use the accused products in their

ordinary and customary way to infringe the ’908 Patent, knowing that such use constitutes infringement of the ’908 Patent.

156. The Accused Instrumentality evidently includes a memory device and a data accelerator configured to compress: (i) a first data block with a first compression technique to provide a first compressed data block; and (ii) a second data block with a second compression technique, different from the first compression technique, to provide a second compressed data block. For example, the Accused Instrumentality comprises software that must be run on compatible hardware including a memory device, and by employing “Advanced compression technologies and deduplication” in “Moving less frequently accessed mail out of the primary inbox”, the Accused Instrumentality inherently accelerates the movement of data using two different compression techniques (deduplication and compression). *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving.

157. The Accused Instrumentality stores the compressed first and second data blocks on the memory device, and the compression and storage occurs faster than the first and second data blocks are able to be stored on the memory device in uncompressed form. *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving (“Archiving solutions address the information management needs of organizations both now and for the foreseeable future. They improve the availability and manageability of email and file storage operations by reducing both the amount of data and the disk space required to store this data …. Advanced compression technologies and deduplication can reduce storage requirements by 50% or more and deliver ongoing cost savings.”);

https://www.barracuda.com/assets/docs/dms/Barracuda_ArchiveOne_DS_US.pdf ("Any data found in Exchange mailboxes, public folders, client PST files or network file servers can be automatically archived to any designated storage device."); https://www.barracuda.com/assets/docs/dms/Barracuda_ArchiveOne_DS_US.pdf ("• Single solution covers multiple email sources • Improves performance and data backup times … • Data compression and deduplication minimizes storage"); https://www.barracuda.com/products/archiveone/ ("ArchiveOne safely archives your emails and files … Performance is improved and data backup time shortened."); https://www.barracuda.com/products/archiveone/features ("**Reduced Email Storage through Compression and Single-Instance Storage**: ArchiveOne can automatically compress and de-duplicate all email messages and attachments, reducing both the amount of data and the disk space required to store this data. ArchiveOne can typically give a reduction of 60% to 80% in space required for email data, enables organisations to achieve a lower overall cost of ownership while providing an improved service to end users.").

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

159. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities' compression features, Barracuda has injured Realtime and is liable to Realtime for infringement of the '908 Patent pursuant to 35 U.S.C. § 271.

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

Barracuda NextGen Firewall F

161. On information and belief, Barracuda has offered for sale, sold and/or imported into the United States Barracuda products that infringe the '908 Patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Barracuda's compression products and services, *e.g.*, Barracuda NextGen Firewall F, including physical appliance versions F18, F80, F180, F280, F380, F400, F600, F800, F900, and F1000, virtual appliance versions (referred to as "Barracuda NextGen Firewall F Vx Editions")[3] VF10, VF25, VF50, VF100, VF250, VF500, VF1000, VF2000, VF4000, VF8000, SAC 400, SAC 610, and SAC 820, Azure deployment versions Level 2, Level 4, Level 6, and Level 8, AWS deployment versions Level 2, Level 4, Level 6, and Level 8, and vCloud Air versions VF25, VF50, VF100, VF250, VF500, VF1000, VF2000, VF4000, and VF8000, Google Cloud Platform Level 2, Level 4, Level 6, and Level 8, and all versions and variations thereof since the issuance of the '908 Patent ("Accused Instrumentality").

162. On information and belief, Barracuda has directly infringed and continues to infringe the '908 Patent, for example, through its own use and testing of the Accused

[3] http://vadria.net/wp-content/uploads/2015/08/Barracuda-NGF-Firewall-Product-Overview.pdf ("The Barracuda NextGen Firewall F Vx provides the same powerful technology, comprehensive features, and ease-of-use found in a Barracuda NextGen Firewall F hardware appliance. It is ideally suited for organizations that are standardizing hardware platforms or deploying virtual environments").

Instrumentality, which constitutes a system comprising: a memory device; and a data accelerator configured to compress: (i) a first data block with a first compression technique to provide a first compressed data block; and (ii) a second data block with a second compression technique, different from the first compression technique, to provide a second compressed data block; wherein the compressed first and second data blocks are stored on the memory device, and the compression and storage occurs faster than the first and second data blocks are able to be stored on the memory device in uncompressed form. Upon information and belief, Barracuda uses the Accused Instrumentality, an infringing system, for its own internal non-testing business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Barracuda's customers.

163. On information and belief, use of the Accused Instrumentality in its ordinary and customary fashion results in infringement of the systems claimed by the '908 Patent.

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

165. Upon information and belief, Barracuda's affirmative acts of making, using, and selling the Accused Instrumentalities, and providing implementation services and technical support to users of the Accused Instrumentalities, have induced and continue to induce users of the Accused Instrumentalities to use them in their normal and customary way to infringe Claim 1 of the '908 Patent by making or using a system

comprising: a memory device; and a data accelerator configured to compress: (i) a first data block with a first compression technique to provide a first compressed data block; and (ii) a second data block with a second compression technique, different from the first compression technique, to provide a second compressed data block; wherein the compressed first and second data blocks are stored on the memory device, and the compression and storage occurs faster than the first and second data blocks are able to be stored on the memory device in uncompressed form. For example, Barracuda explains to customers the benefits of using the Accused Instrumentality: "The Barracuda NextGen Firewall F-Series can significantly enhance the WAN performance of distributed network environments by improving the availability, performance, and response time of business-critical applications by lowering throughput and transmission delays, affecting time-sensitive decisions and enterprise profitability. The next-generation networking concept of the F-Series provides a set of powerful features to efficiently reduce and offset the negative effects of high latencies and response times. By implementing enterprise-grade WAN acceleration features such as data deduplication, traffic compression, and protocol optimization, the F-Series firewalls can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business applications - at no extra charge. WAN traffic can be effectively compressed up to 95 percent, significantly reducing the bandwidth needed at remote locations while increasing network responsiveness." *See*, *e.g.*, https://www.barracuda.com/products/nextgenfirewall_f/features. For similar reasons, Barracuda also induces its customers to use the Accused Instrumentalities to infringe other claims of the '908 Patent. Barracuda specifically intended and was aware that

these normal and customary activities would infringe the ’908 Patent. Barracuda performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the ’908 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Barracuda engaged in such inducement to promote the sales of the Accused Instrumentalities. Accordingly, Barracuda has induced and continues to induce users of the accused products to use the accused products in their ordinary and customary way to infringe the ’908 Patent, knowing that such use constitutes infringement of the ’908 Patent.

166. The Accused Instrumentality evidently includes a memory device and a data accelerator configured to compress: (i) a first data block with a first compression technique to provide a first compressed data block; and (ii) a second data block with a second compression technique, different from the first compression technique, to provide a second compressed data block. For example, the physical appliance versions of the Accused Instrumentality must contain a memory device, the virtual appliance versions of the Accused Instrumentality must run on hardware containing a memory device running the hypervisor on which the virtual appliance versions run, and the cloud-based versions of the Accused Instrumentality must run on cloud servers containing a memory device. Moreover, by reducing the amount of data transferred, the Accused Instrumentality inherently accelerates the movements of data. *See, e.g.*, https://www.barracuda.com/products/nextgenfirewall_f/features (“The Barracuda NextGen Firewall F-Series can significantly enhance the WAN performance of distributed network environments by improving the availability, performance, and

response time of business-critical applications by lowering throughput and transmission delays, affecting time-sensitive decisions and enterprise profitability. The next-generation networking concept of the F-Series provides a set of powerful features to efficiently reduce and offset the negative effects of high latencies and response times. By implementing enterprise-grade WAN acceleration features such as data deduplication, traffic compression, and protocol optimization, the F-Series firewalls can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business applications - at no extra charge. WAN traffic can be effectively compressed up to 95 percent, significantly reducing the bandwidth needed at remote locations while increasing network responsiveness."). The Accused Instrumentality compresses (i) a first data block with a first compression technique to provide a first compressed data block; and (ii) a second data block with a second compression technique, different from the first compression technique, to provide a second compressed data block. *See, e.g.*, https://www.barracuda.com/products/nextgenfirewall_f/features ("WAN acceleration features such as data deduplication, traffic compression").

167. The Accused Instrumentality stores the compressed first and second data blocks on the memory device, and the compression and storage occurs faster than the first and second data blocks are able to be stored on the memory device in uncompressed form. *See, e.g.*, https://www.barracuda.com/products/nextgenfirewall_f/features ("The Barracuda NextGen Firewall F-Series can significantly enhance the WAN performance of distributed network environments by improving the availability, performance, and response time of business-critical applications by lowering throughput and transmission delays, affecting time-sensitive decisions and enterprise profitability. The next-

generation networking concept of the F-Series provides a set of powerful features to efficiently reduce and offset the negative effects of high latencies and response times. By implementing enterprise-grade WAN acceleration features such as data deduplication, traffic compression, and protocol optimization, the F-Series firewalls can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business applications - at no extra charge. WAN traffic can be effectively compressed up to 95 percent, significantly reducing the bandwidth needed at remote locations while increasing network responsiveness.").

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

169. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities' compression features, Barracuda has injured Realtime and is liable to Realtime for infringement of the '908 Patent pursuant to 35 U.S.C. § 271.

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

COUNT IV
INFRINGEMENT OF U.S. PATENT NO. 8,717,204

171. Plaintiff realleges and incorporates by reference paragraphs 1-170 above, as if fully set forth herein.

172. Plaintiff Realtime is the owner by assignment of United States Patent No. 8,717,204 entitled "Methods for encoding and decoding data." The '204 Patent was duly and legally issued by the United States Patent and Trademark Office on May 6, 2014. A true and correct copy of the '204 Patent is included as Exhibit D.

Barracuda Message Archiver

173. On information and belief, Barracuda has offered for sale, sold and/or imported into the United States Barracuda products that infringe the '204 Patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Barracuda's products and services, *e.g.*, Barracuda Message Archiver, including physical appliance versions 150, 350, 450, 650, 850, 950, and 1050, virtual appliance versions 150 Vx, 350 Vx, 450 Vx, 650 Vx, 850 Vx, 950 Vx, and 1050 Vx, Azure deployment versions Level 2, Level 5, and Level 6, AWS deployment versions Level 150, Level 350, Level 450, Level 650, Level 850, Level 950, and Level 1050, and vCloud Air versions 150 Vx, 350 Vx, 450 Vx, 650 Vx, 850 Vx, 950 Vx, and 1050 Vx, and all versions and variations thereof since the issuance of the '204 Patent ("Accused Instrumentality").

174. On information and belief, Barracuda has directly infringed and continues to infringe the '204 Patent, for example, through its own use and testing of the accused products to practice compression methods claimed by the '204 Patent, including a method for processing data, the data residing in data fields, comprising: recognizing any characteristic, attribute, or parameter of the data; selecting an encoder associated with the recognized characteristic, attribute, or parameter of the data; compressing the data with the selected encoder utilizing at least one state machine to provide compressed data

having a compression ratio of over 4:1; and point-to-point transmitting the compressed data to a client; wherein the compressing and the transmitting occur over a period of time which is less than a time to transmit the data in an uncompressed form. On information and belief, Barracuda uses the Accused Instrumentality in its ordinary and customary fashion for its own internal non-testing business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Barracuda's customers, and use of the Accused Instrumentality in its ordinary and customary fashion results in infringement of the methods claimed by the '204 Patent.

175. On information and belief, Barracuda has had knowledge of the '204 Patent since at least the filing of this Complaint or shortly thereafter, and on information and belief, Barracuda knew of the '204 Patent and knew of its infringement, including by way of this lawsuit.

176. Barracuda's affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentality have induced and continue to induce users of the Accused Instrumentality to use the Accused Instrumentality in its normal and customary way to infringe the '204 Patent by practicing compression methods claimed by the '204 Patent, including a method for processing data, the data residing in data fields, comprising: recognizing any characteristic, attribute, or parameter of the data; selecting an encoder associated with the recognized characteristic, attribute, or parameter of the data; compressing the data with the selected encoder utilizing at least one state machine to provide compressed data having a compression ratio of over 4:1; and point-to-point transmitting the compressed data to a client; wherein the compressing and the

transmitting occur over a period of time which is less than a time to transmit the data in an uncompressed form. For example, Barracuda explains to customers the benefits of using the Accused Instrumentality: "The Barracuda Message Archiver and the Barracuda Backup Service work particularly well in tandem to optimize data storage because they both eliminate duplicate data and compress data before storage. This has an additive effect …. Another large reduction in storage happens when the Barracuda Message Archiver offloads emails from the email server then eliminates duplicate messages collected from the email server and users' PST files …. In addition to deduplicating emails, the Barracuda Message Archiver stores only one instance of each attachment. The Barracuda Message Archiver replaces an attachment (that might be duplicated in hundreds of emails) with a link in emails to the attachment called a "stub." Stubbing also massively reduces the amount of data stored in the archiver and backup. … With messages deduped and stubbed, the Barracuda Message Archiver aggressively compresses the remaining email data for maximum storage efficiency." *See* https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf. Barracuda specifically intended and was aware that the normal and customary use of the Accused Instrumentality on compatible systems would infringe the '204 Patent. Barracuda performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '204 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Barracuda engaged in such inducement to promote the sales of the Accused Instrumentality, *e.g.*, through Barracuda's user manuals, product support, marketing materials, and training materials to actively induce the users

of the accused products to infringe the ’204 Patent. Accordingly, Barracuda has induced and continues to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing the ’204 Patent, knowing that such use of the Accused Instrumentality with compatible systems will result in infringement of the ’204 Patent.

177. The Accused Instrumentality practices a method for processing data, the data residing in data fields. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf (“At installation, the Barracuda Message Archiver crawls the network to import emails from PST files in users’ computers. The PST files can then be deleted. You can prevent new PST files from being created through Exchange. Eliminating PST files yields a large reduction in data stored on desktops, which results in significantly less data entering the backup … Another large reduction in storage happens when the Barracuda Message Archiver offloads emails from the email server then eliminates duplicate messages collected from the email server and users’ PST files. Single instance message storage retains header and folder information giving users, administrators and auditors transparent access to archived emails while greatly reducing the email stored in the archiver and in the backup. … In addition to deduplicating emails, the Barracuda Message Archiver stores only one instance of each attachment. The Barracuda Message Archiver replaces an attachment (that might be duplicated in hundreds of emails) with a link in emails to the attachment called a “stub.” Stubbing also massively reduces the amount of data stored in the archiver and backup.”).

178. The Accused Instrumentality recognizes any characteristic, attribute, or parameter of the data. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("Another large reduction in storage happens when the Barracuda Message Archiver offloads emails from the email server then eliminates duplicate messages collected from the email server and users' PST files …. In addition to deduplicating emails, the Barracuda Message Archiver stores only one instance of each attachment. The Barracuda Message Archiver replaces an attachment (that might be duplicated in hundreds of emails) with a link in emails to the attachment called a "stub." Stubbing also massively reduces the amount of data stored in the archiver and backup.").

179. The Accused Instrumentality selects an encoder associated with the recognized characteristic, attribute, or parameter of the data. *See, e.g.*, https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("Another large reduction in storage happens when the Barracuda Message Archiver offloads emails from the email server then eliminates duplicate messages collected from the email server and users' PST files …. In addition to deduplicating emails, the Barracuda Message Archiver stores only one instance of each attachment. The Barracuda Message Archiver replaces an attachment (that might be duplicated in hundreds of emails) with a link in emails to the attachment called a "stub." Stubbing also massively reduces the amount of data stored in the archiver and backup.").

180. Upon information and belief, the Accused Instrumentality compresses the data with the selected encoder utilizing at least one state machine to provide compressed data having a compression ratio of over 4:1. *See, e.g.*,

https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf ("At installation, the Barracuda Message Archiver crawls the network to import emails from PST files in users' computers. The PST files can then be deleted. You can prevent new PST files from being created through Exchange. Eliminating PST files yields a large reduction in data stored on desktops, which results in significantly less data entering the backup …. Another large reduction in storage happens when the Barracuda Message Archiver offloads emails from the email server then eliminates duplicate messages collected from the email server and users' PST files. Single instance message storage retains header and folder information giving users, administrators and auditors transparent access to archived emails while greatly reducing the email stored in the archiver and in the backup …. In addition to deduplicating emails, the Barracuda Message Archiver stores only one instance of each attachment. The Barracuda Message Archiver replaces an attachment (that might be duplicated in hundreds of emails) with a link in emails to the attachment called a "stub." Stubbing also massively reduces the amount of data stored in the archiver and backup.").

181. The Accused Instrumentality point-to-point transmits the compressed data to a client. *See, e.g.*, https://www.barracuda.com/products/messagearchiver ("The Barracuda Message Archiver is ideal for organizations looking to reduce their email storage requirements and boost user productivity with mobile or desktop access to any email ever sent or received. The cloud-connected appliance uses the Barracuda Cloud to move information to the cloud as a secondary tier of storage.").

182. In the Accused Instrumentality, the compressing and the transmitting occur over a period of time which is less than a time to transmit the data in an

uncompressed form. *See, e.g.*, https://www.barracuda.com/products/messagearchiver/features ("The Barracuda Message Archiver employs Exchange Stubbing to help reduce size of the Exchange Information Store. Messages and attachments removed from the information store are kept on the Barracuda Message Archiver for easy access, which helps organizations minimize their Exchange storage to reduce costs, shrink Exchange backup windows, and simplify Exchange management …. The Barracuda Message Archiver uses single instance storage, a form of deduplication for both new and older messages. This minimizes both expensive tier-1 storage for email servers and backup windows needed to protect email data.").

183. On information and belief, Barracuda also infringes, directly and through induced infringement, and continues to infringe other claims of the '204 Patent, for similar reasons as explained above with respect to Claim 12 of the '204 Patent.

184. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities' compression features, Barracuda has injured Realtime and is liable to Realtime for infringement of the '204 Patent pursuant to 35 U.S.C. § 271.

185. As a result of Barracuda's infringement of the '204 Patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Barracuda's infringement, but in no event less than a reasonable royalty for the use made of the invention by Barracuda, together with interest and costs as fixed by the Court.

Barracuda Backup

186. On information and belief, Barracuda has offered for sale, sold and/or imported into the United States Barracuda products that infringe the ’204 Patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Barracuda’s products and services, *e.g.*, Barracuda Backup, including but not limited to Barracuda Backup physical appliances 190, 290, 390, 490, 690, 790, 890, 895, 990, 995, and 1090, virtual appliance Barracuda Backup Vx, and Barracuda Backup Cloud-to-Cloud Backup, and all versions and variations thereof since the issuance of the ‘204 Patent (“Accused Instrumentality”).

187. On information and belief, Barracuda has directly infringed and continues to infringe the ’204 Patent, for example, through its own use and testing of the accused products to practice compression methods claimed by the ’204 Patent, including a method for processing data, the data residing in data fields, comprising: recognizing any characteristic, attribute, or parameter of the data; selecting an encoder associated with the recognized characteristic, attribute, or parameter of the data; compressing the data with the selected encoder utilizing at least one state machine to provide compressed data having a compression ratio of over 4:1; and point-to-point transmitting the compressed data to a client; wherein the compressing and the transmitting occur over a period of time which is less than a time to transmit the data in an uncompressed form. On information and belief, Barracuda uses the Accused Instrumentality in its ordinary and customary fashion for its own internal non-testing business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Barracuda’s customers, and use of the Accused

Instrumentality in its ordinary and customary fashion results in infringement of the methods claimed by the ’204 Patent.

188. On information and belief, Barracuda has had knowledge of the ’204 Patent since at least the filing of this Complaint or shortly thereafter, and on information and belief, Barracuda knew of the ’204 Patent and knew of its infringement, including by way of this lawsuit.

189. Barracuda’s affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentality have induced and continue to induce users of the Accused Instrumentality to use the Accused Instrumentality in its normal and customary way to infringe the ’204 Patent by practicing compression methods claimed by the ’204 Patent, including a method for processing data, the data residing in data fields, comprising: recognizing any characteristic, attribute, or parameter of the data; selecting an encoder associated with the recognized characteristic, attribute, or parameter of the data; compressing the data with the selected encoder utilizing at least one state machine to provide compressed data having a compression ratio of over 4:1; and point-to-point transmitting the compressed data to a client; wherein the compressing and the transmitting occur over a period of time which is less than a time to transmit the data in an uncompressed form. For example, Barracuda explains that, “Barracuda Backup deduplicates network data such as redundant operating systems and applications. It then compresses the single-instance data before storage offsite in public or private clouds.” https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf. Barracuda also explains, “Barracuda Backup created its inline deduplication (Figure 1) technology. With inline deduplication, the appliance performs

deduplication in one step as the data is ingested, eliminating the need for the superfluous landing-space capacity required by slower two-step post-process deduplication. Barracuda inline deduplication helps organizations save money by eliminating the need for a larger disk array dedicated to holding ingested data before deduplication can begin. This deduplication method also can help reduce risk of lost data by accelerating time-to-backup processing and full replication since data is queued for replication as the backup job is being processed. Deploying a Barracuda Backup appliance significantly improves DR readiness by reducing time to get data offsite through inline deduplication and instant replication. Because data is deduplicated inline, it can be ready for replication more quickly than if it had to be processed after the backup process fully completed. And because there is no need to ingest the entire data set prior to replication commencing, data can be moved offsite as it is backed up and deduplicated, providing faster offsite protection." *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf. Barracuda specifically intended and was aware that the normal and customary use of the Accused Instrumentality on compatible systems would infringe the '204 Patent. Barracuda performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '204 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Barracuda engaged in such inducement to promote the sales of the Accused Instrumentality, *e.g.*, through Barracuda's user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '204 Patent. Accordingly, Barracuda has induced and continues

to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing the ’204 Patent, knowing that such use of the Accused Instrumentality with compatible systems will result in infringement of the ’204 Patent.

190. The Accused Instrumentality practices a method for processing data, the data residing in data fields. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf (“Deduplication is a process that breaks down files and other data into “chunks” and uses a tracking database to ensure that only a single copy of that chunk is stored across all backup data. For subsequent client backups, incoming data is compared against the tracking database to determine which chunks have been protected and only transfers and stores unique chunks.”); https://www.barracuda.com/assets/docs/Datasheets/Barracuda_Backup_and_Archiver_Storage_Advantage.pdf (“Barracuda Backup deduplicates network data such as redundant operating systems and applications. It then compresses the single-instance data before storage offsite in public or private clouds.”).

191. The Accused Instrumentality recognizes any characteristic, attribute, or parameter of the data. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf (“Deduplication is a process that breaks down files and other data into “chunks” and uses a tracking database to ensure that only a single copy of that chunk is stored across all backup data. For subsequent client backups, incoming data is compared against the tracking database to determine which chunks have been protected and only

transfers and stores unique chunks. For example, if five different servers are backing up data to a Barracuda appliance and a file chunk is found that exists on all five of those servers, only a single copy of the chunk is actually stored on the appliance, with small pointers tracking how that chunk should be rehydrated (recompiled) across all five devices during a restore. The tracking database ensures that these chunks are kept until all backups referencing a given chunk have been deleted. Since only the unique portion of data is stored by the server, there is a significant reduction in capacity needs. During restores, a file is rehydrated based on the information contained in the tracking database, then sent to the destination for recovery …. Barracuda Backup created its inline deduplication (Figure 1) technology. With inline deduplication, the appliance performs deduplication in one step as the data is ingested, eliminating the need for the superfluous landing-space capacity required by slower two-step post-process deduplication. Barracuda inline deduplication helps organizations save money by eliminating the need for a larger disk array dedicated to holding ingested data before deduplication can begin. This deduplication method also can help reduce risk of lost data by accelerating time-to-backup processing and full replication since data is queued for replication as the backup job is being processed. Deploying a Barracuda Backup appliance significantly improves DR readiness by reducing time to get data offsite through inline deduplication and instant replication. Because data is deduplicated inline, it can be ready for replication more quickly than if it had to be processed after the backup process fully completed. And because there is no need to ingest the entire data set prior to replication commencing, data can be moved offsite as it is backed up and deduplicated, providing faster offsite protection.").

192. The Accused Instrumentality selects an encoder associated with the recognized characteristic, attribute, or parameter of the data. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf ("Deduplication is a process that breaks down files and other data into "chunks" and uses a tracking database to ensure that only a single copy of that chunk is stored across all backup data. For subsequent client backups, incoming data is compared against the tracking database to determine which chunks have been protected and only transfers and stores unique chunks. For example, if five different servers are backing up data to a Barracuda appliance and a file chunk is found that exists on all five of those servers, only a single copy of the chunk is actually stored on the appliance, with small pointers tracking how that chunk should be rehydrated (recompiled) across all five devices during a restore. The tracking database ensures that these chunks are kept until all backups referencing a given chunk have been deleted. Since only the unique portion of data is stored by the server, there is a significant reduction in capacity needs. During restores, a file is rehydrated based on the information contained in the tracking database, then sent to the destination for recovery …. Barracuda Backup created its inline deduplication (Figure 1) technology. With inline deduplication, the appliance performs deduplication in one step as the data is ingested, eliminating the need for the superfluous landing-space capacity required by slower two-step post-process deduplication. Barracuda inline deduplication helps organizations save money by eliminating the need for a larger disk array dedicated to holding ingested data before deduplication can begin. This deduplication method also can help reduce risk of lost data by accelerating time-to-backup processing and full replication since data is queued for replication as the backup

job is being processed. Deploying a Barracuda Backup appliance significantly improves DR readiness by reducing time to get data offsite through inline deduplication and instant replication. Because data is deduplicated inline, it can be ready for replication more quickly than if it had to be processed after the backup process fully completed. And because there is no need to ingest the entire data set prior to replication commencing, data can be moved offsite as it is backed up and deduplicated, providing faster offsite protection.").

193. Upon information and belief, the Accused Instrumentality compresses the data with the selected encoder utilizing at least one state machine to provide compressed data having a compression ratio of over 4:1. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf ("Barracuda Backup provides application-aware, variable length, block level inline deduplication for maximum data reduction and minimum capacity needs, reducing storage footprint, bandwidth requirements, and backup/restore times. For standard data sets backed up over time, users could see 20-50x data reduction, on average, from the three-stage deduplication process.").

194. The Accused Instrumentality point-to-point transmits the compressed data to a client. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf:

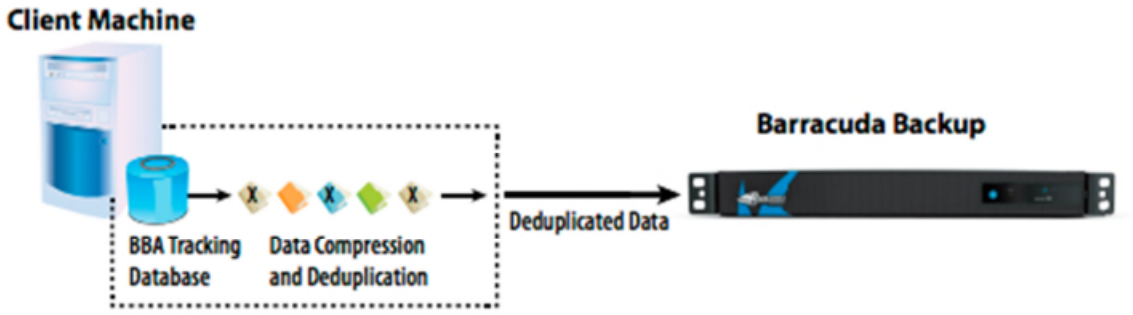
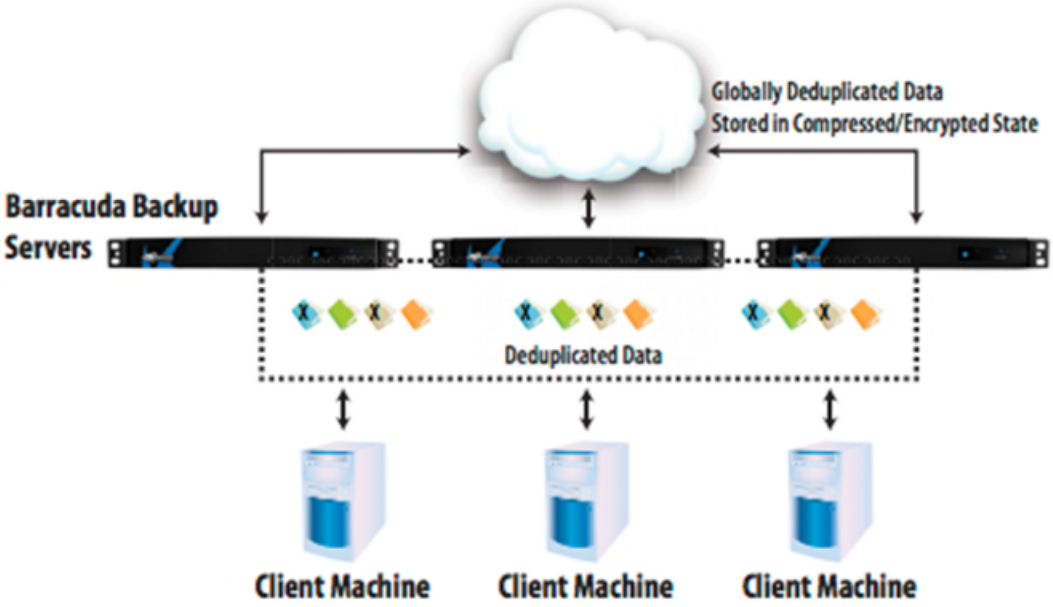


Figure 5. Global Deduplication



195. In the Accused Instrumentality, the compressing and the transmitting occur over a period of time which is less than a time to transmit the data in an uncompressed form. *See, e.g.*, https://assets.barracuda.com/assets/docs/White_Papers/Barracuda_Backup_WP_Deduplication.pdf ("Technology like deduplication that can significantly reduce the amount of data needed to transmit can both avoid overloading corporate networks and reduce backup/restore times …. Deploying a Barracuda Backup appliance significantly improves DR readiness by reducing time to get data offsite through inline deduplication and instant replication. Because data is deduplicated inline, it can be ready for replication more

quickly than if it had to be processed after the backup process fully completed. And because there is no need to ingest the entire data set prior to replication commencing, data can be moved offsite as it is backed up and deduplicated, providing faster offsite protection …. Source deduplication is implemented through the Barracuda Backup Agent. During its installation, a small database is created on the server to keep track of data chunks so only unique data seen by the agent is compressed and sent to the appliance for processing, reducing network traffic and the backup window …. Barracuda Backup provides application-aware, variable length, block level inline deduplication for maximum data reduction and minimum capacity needs, reducing storage footprint, bandwidth requirements, and backup/restore times.").

196. On information and belief, Barracuda also infringes, directly and through induced infringement, and continues to infringe other claims of the '204 Patent, for similar reasons as explained above with respect to Claim 12 of the '204 Patent.

197. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities' compression features, Barracuda has injured Realtime and is liable to Realtime for infringement of the '204 Patent pursuant to 35 U.S.C. § 271.

198. As a result of Barracuda's infringement of the '204 Patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Barracuda's infringement, but in no event less than a reasonable royalty for the use made of the invention by Barracuda, together with interest and costs as fixed by the Court.

Barracuda ArchiveOne

199. On information and belief, Barracuda has offered for sale, sold and/or imported into the United States Barracuda products that infringe the '204 Patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Barracuda's products and services, *e.g.*, Barracuda ArchiveOne, and all versions and variations thereof since the issuance of the '204 Patent ("Accused Instrumentality").

200. On information and belief, Barracuda has directly infringed and continues to infringe the '204 Patent, for example, through its own use and testing of the accused products to practice compression methods claimed by the '204 Patent, including a method for processing data, the data residing in data fields, comprising: recognizing any characteristic, attribute, or parameter of the data; selecting an encoder associated with the recognized characteristic, attribute, or parameter of the data; compressing the data with the selected encoder utilizing at least one state machine to provide compressed data having a compression ratio of over 4:1; and point-to-point transmitting the compressed data to a client; wherein the compressing and the transmitting occur over a period of time which is less than a time to transmit the data in an uncompressed form. On information and belief, Barracuda uses the Accused Instrumentality in its ordinary and customary fashion for its own internal non-testing business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Barracuda's customers, and use of the Accused Instrumentality in its ordinary and customary fashion results in infringement of the methods claimed by the '204 Patent.

201. On information and belief, Barracuda has had knowledge of the '204 Patent since at least the filing of this Complaint or shortly thereafter, and on information and belief, Barracuda knew of the '204 Patent and knew of its infringement, including by way of this lawsuit.

202. Barracuda's affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentality have induced and continue to induce users of the Accused Instrumentality to use the Accused Instrumentality in its normal and customary way to infringe the '204 Patent by practicing compression methods claimed by the '204 Patent, including a method for processing data, the data residing in data fields, comprising: recognizing any characteristic, attribute, or parameter of the data; selecting an encoder associated with the recognized characteristic, attribute, or parameter of the data; compressing the data with the selected encoder utilizing at least one state machine to provide compressed data having a compression ratio of over 4:1; and point-to-point transmitting the compressed data to a client; wherein the compressing and the transmitting occur over a period of time which is less than a time to transmit the data in an uncompressed form. For example, Barracuda explains to customers the benefits of using the Accused Instrumentality: "What are the benefits of archiving? MANAGE CAPACITY: Moving less frequently accessed mail out of the primary inbox enables users to be more productive and circumvents mailbox quotas. Advanced compression technologies and deduplication can reduce storage requirements by 50% or more and deliver ongoing cost savings."). *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving. Barracuda specifically intended and was aware that the normal and customary use of the

Accused Instrumentality on compatible systems would infringe the ’204 Patent. Barracuda performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the ’204 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Barracuda engaged in such inducement to promote the sales of the Accused Instrumentality, *e.g.*, through Barracuda’s user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the ’204 Patent. Accordingly, Barracuda has induced and continues to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing the ’204 Patent, knowing that such use of the Accused Instrumentality with compatible systems will result in infringement of the ’204 Patent.

203. The Accused Instrumentality practices a method for processing data, the data residing in data fields. *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving (“BACKUP – Large amounts of email and file data take longer to process and will have a significant impact on backup windows and system recovery operations.”).

204. The Accused Instrumentality recognizes any characteristic, attribute, or parameter of the data. *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving (“Advanced compression technologies and deduplication can reduce storage requirements by 50% or more and deliver ongoing cost savings.”); https://campus.barracuda.com/glossary/detail/333/deduplication (“**deduplication**: A

method of reducing storage needs by eliminating redundant data. Only one unique instance of the data is retained on storage media. Redundant data is replaced with a pointer to the unique data copy. Also known as intelligent compression, single-instance storage.").

205. The Accused Instrumentality selects an encoder associated with the recognized characteristic, attribute, or parameter of the data. *See, e.g.*, https://www.barracuda.com/products/archiveone/solutions/information_archiving ("Advanced compression technologies and deduplication can reduce storage requirements by 50% or more and deliver ongoing cost savings."); https://campus.barracuda.com/glossary/detail/333/deduplication ("**deduplication**: A method of reducing storage needs by eliminating redundant data. Only one unique instance of the data is retained on storage media. Redundant data is replaced with a pointer to the unique data copy. Also known as intelligent compression, single-instance storage.").

206. Upon information and belief, the Accused Instrumentality compresses the data with the selected encoder utilizing at least one state machine to provide compressed data having a compression ratio of over 4:1. *See, e.g.*, https://www.barracuda.com/products/archiveone/features ("**Reduced Email Storage through Compression and Single-Instance Storage**: ArchiveOne can automatically compress and de-duplicate all email messages and attachments, reducing both the amount of data and the disk space required to store this data. ArchiveOne can typically give a reduction of 60% to 80% in space required for email data, enables organisations to

achieve a lower overall cost of ownership while providing an improved service to end users.").

207. The Accused Instrumentality point-to-point transmits the compressed data to a client. *See, e.g.,* https://www.barracuda.com/products/archiveone/features ("Administrators can define multiple policies to meet specific individual business requirements, systematically moving data from primary storage device to designated archive storage, and automatically enforcing retention. They can archive files found on network file servers and email data, including attachments and calendar items, found in Exchange mailboxes, public folders and PST files.").

208. In the Accused Instrumentality, the compressing and the transmitting occur over a period of time which is less than a time to transmit the data in an uncompressed form. *See, e.g.* https://www.barracuda.com/products/archiveone/ ("ArchiveOne safely archives your emails and files …. Performance is improved and data backup time shortened."); https://www.barracuda.com/products/archiveone/features ("**Reduced Email Storage through Compression and Single-Instance Storage**: ArchiveOne can automatically compress and de-duplicate all email messages and attachments, reducing both the amount of data and the disk space required to store this data. ArchiveOne can typically give a reduction of 60% to 80% in space required for email data, enables organisations to achieve a lower overall cost of ownership while providing an improved service to end users.").

209. On information and belief, Barracuda also infringes, directly and through induced infringement, and continues to infringe other claims of the '204 Patent, for similar reasons as explained above with respect to Claim 12 of the '204 Patent.

210. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities' compression features, Barracuda has injured Realtime and is liable to Realtime for infringement of the '204 Patent pursuant to 35 U.S.C. § 271.

211. As a result of Barracuda's infringement of the '204 Patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Barracuda's infringement, but in no event less than a reasonable royalty for the use made of the invention by Barracuda, together with interest and costs as fixed by the Court.

Barracuda NextGen Firewall F

212. On information and belief, Barracuda has offered for sale, sold and/or imported into the United States Barracuda products that infringe the '204 Patent, and continues to do so. By way of illustrative example, these infringing products include, without limitation, Barracuda's compression products and services, *e.g.*, Barracuda NextGen Firewall F, including physical appliance versions F18, F80, F180, F280, F380, F400, F600, F800, F900, and F1000, virtual appliance versions (referred to as "Barracuda NextGen Firewall F Vx Editions")[4] VF10, VF25, VF50, VF100, VF250, VF500, VF1000, VF2000, VF4000, VF8000, SAC 400, SAC 610, and SAC 820, Azure deployment versions Level 2, Level 4, Level 6, and Level 8, AWS deployment versions Level 2, Level 4, Level 6, and Level 8, and vCloud Air versions VF25, VF50, VF100, VF250, VF500, VF1000, VF2000, VF4000, and VF8000, Google Cloud Platform Level 2, Level

[4] http://vadria.net/wp-content/uploads/2015/08/Barracuda-NGF-Firewall-Product-Overview.pdf ("The Barracuda NextGen Firewall F Vx provides the same powerful technology, comprehensive features, and ease-of-use found in a Barracuda NextGen Firewall F hardware appliance. It is ideally suited for organizations that are standardizing hardware platforms or deploying virtual environments").

4, Level 6, and Level 8, and all versions and variations thereof since the issuance of the ’204 Patent (“Accused Instrumentality”).

213. On information and belief, Barracuda has directly infringed and continues to infringe the ’204 Patent, for example, through its own use and testing of the accused products to practice compression methods claimed by the ’204 Patent, including a method for processing data, the data residing in data fields, comprising: recognizing any characteristic, attribute, or parameter of the data; selecting an encoder associated with the recognized characteristic, attribute, or parameter of the data; compressing the data with the selected encoder utilizing at least one state machine to provide compressed data having a compression ratio of over 4:1; and point-to-point transmitting the compressed data to a client; wherein the compressing and the transmitting occur over a period of time which is less than a time to transmit the data in an uncompressed form. On information and belief, Barracuda uses the Accused Instrumentality in its ordinary and customary fashion for its own internal non-testing business purposes, while testing the Accused Instrumentality, and while providing technical support and repair services for the Accused Instrumentality to Barracuda’s customers, and use of the Accused Instrumentality in its ordinary and customary fashion results in infringement of the methods claimed by the ’204 Patent.

214. On information and belief, Barracuda has had knowledge of the ’204 Patent since at least the filing of this Complaint or shortly thereafter, and on information and belief, Barracuda knew of the ’204 Patent and knew of its infringement, including by way of this lawsuit.

215. Barracuda's affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentality have induced and continue to induce users of the Accused Instrumentality to use the Accused Instrumentality in its normal and customary way to infringe the '204 Patent by practicing compression methods claimed by the '204 Patent, including a method for processing data, the data residing in data fields, comprising: recognizing any characteristic, attribute, or parameter of the data; selecting an encoder associated with the recognized characteristic, attribute, or parameter of the data; compressing the data with the selected encoder utilizing at least one state machine to provide compressed data having a compression ratio of over 4:1; and point-to-point transmitting the compressed data to a client; wherein the compressing and the transmitting occur over a period of time which is less than a time to transmit the data in an uncompressed form. For example, Barracuda explains to customers the benefits of using the Accused Instrumentality: "The Barracuda NextGen Firewall F-Series can significantly enhance the WAN performance of distributed network environments by improving the availability, performance, and response time of business-critical applications by lowering throughput and transmission delays, affecting time-sensitive decisions and enterprise profitability. The next-generation networking concept of the F-Series provides a set of powerful features to efficiently reduce and offset the negative effects of high latencies and response times. By implementing enterprise-grade WAN acceleration features such as data deduplication, traffic compression, and protocol optimization, the F-Series firewalls can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business applications - at no extra charge. WAN traffic can be effectively compressed up to 95 percent, significantly

reducing the bandwidth needed at remote locations while increasing network responsiveness." *See, e.g.*, https://www.barracuda.com/products/nextgenfirewall_f/features. Barracuda specifically intended and was aware that the normal and customary use of the Accused Instrumentality on compatible systems would infringe the '204 Patent. Barracuda performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '204 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, Barracuda engaged in such inducement to promote the sales of the Accused Instrumentality, *e.g.*, through Barracuda's user manuals, product support, marketing materials, and training materials to actively induce the users of the accused products to infringe the '204 Patent. Accordingly, Barracuda has induced and continues to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing the '204 Patent, knowing that such use of the Accused Instrumentality with compatible systems will result in infringement of the '204 Patent.

216. The Accused Instrumentality practices a method for processing data, the data residing in data fields. *See, e.g.*, https://www.barracuda.com/products/nextgenfirewall_f/features ("The Barracuda NextGen Firewall F-Series can significantly enhance the WAN performance of distributed network environments by improving the availability, performance, and response time of business-critical applications by lowering throughput and transmission delays, affecting time-sensitive decisions and enterprise profitability. The next-

generation networking concept of the F-Series provides a set of powerful features to efficiently reduce and offset the negative effects of high latencies and response times. By implementing enterprise-grade WAN acceleration features such as data deduplication, traffic compression, and protocol optimization, the F-Series firewalls can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business applications - at no extra charge. WAN traffic can be effectively compressed up to 95 percent, significantly reducing the bandwidth needed at remote locations while increasing network responsiveness.").

217. The Accused Instrumentality recognizes any characteristic, attribute, or parameter of the data. *See, e.g.*, https://www.barracuda.com/products/nextgenfirewall_f/features ("By implementing enterprise-grade WAN acceleration features such as data deduplication, traffic compression, and protocol optimization, the F-Series firewalls can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business applications - at no extra charge."); https://www.barracuda.com/assets/docs/Datasheets/Barracuda_NextGen_Firewall_F_DS_Azure_US.pdf ("Byte-level data deduplication").

218. The Accused Instrumentality selects an encoder associated with the recognized characteristic, attribute, or parameter of the data. *See, e.g.*, https://www.barracuda.com/products/nextgenfirewall_f/features ("By implementing enterprise-grade WAN acceleration features such as data deduplication, traffic compression, and protocol optimization, the F-Series firewalls can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business

applications - at no extra charge."); https://www.barracuda.com/assets/docs/Datasheets/Barracuda_NextGen_Firewall_F_DS_Azure_US.pdf ("Byte-level data deduplication").

219. Upon information and belief, the Accused Instrumentality compresses the data with the selected encoder utilizing at least one state machine to provide compressed data having a compression ratio of over 4:1. *See, e.g.*, https://www.barracuda.com/products/nextgenfirewall_f/features ("By implementing enterprise-grade WAN acceleration features such as data deduplication, traffic compression, and protocol optimization, the F-Series firewalls can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business applications - at no extra charge. WAN traffic can be effectively compressed up to 95 percent, significantly reducing the bandwidth needed at remote locations while increasing network responsiveness.").

220. The Accused Instrumentality point-to-point transmits the compressed data to a client. *See, e.g.*, https://www.barracuda.com/products/nextgenfirewall_f/features ("The Barracuda NextGen Firewall F-Series can significantly enhance the WAN performance of distributed network environments by improving the availability, performance, and response time of business-critical applications by lowering throughput and transmission delays, affecting time-sensitive decisions and enterprise profitability. The next-generation networking concept of the F-Series provides a set of powerful features to efficiently reduce and offset the negative effects of high latencies and response times. By implementing enterprise-grade WAN acceleration features such as data deduplication, traffic compression, and protocol optimization, the F-Series firewalls

can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business applications - at no extra charge. WAN traffic can be effectively compressed up to 95 percent, significantly reducing the bandwidth needed at remote locations while increasing network responsiveness.").

221. In the Accused Instrumentality, the compressing and the transmitting occur over a period of time which is less than a time to transmit the data in an uncompressed form. *See, e.g.*, https://www.barracuda.com/products/nextgenfirewall_f/features ("The Barracuda NextGen Firewall F-Series can significantly enhance the WAN performance of distributed network environments by improving the availability, performance, and response time of business-critical applications by lowering throughput and transmission delays, affecting time-sensitive decisions and enterprise profitability. The next-generation networking concept of the F-Series provides a set of powerful features to efficiently reduce and offset the negative effects of high latencies and response times. By implementing enterprise-grade WAN acceleration features such as data deduplication, traffic compression, and protocol optimization, the F-Series firewalls can significantly improve site-to-site WAN traffic and increase productivity by accelerating the delivery of business applications - at no extra charge. WAN traffic can be effectively compressed up to 95 percent, significantly reducing the bandwidth needed at remote locations while increasing network responsiveness.").

222. On information and belief, Barracuda also infringes, directly and through induced infringement, and continues to infringe other claims of the '204 Patent, for similar reasons as explained above with respect to Claim 12 of the '204 Patent.

223. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities' compression features, Barracuda has injured Realtime and is liable to Realtime for infringement of the '204 Patent pursuant to 35 U.S.C. § 271.

224. As a result of Barracuda's infringement of the '204 Patent, Plaintiff Realtime is entitled to monetary damages in an amount adequate to compensate for Barracuda's infringement, but in no event less than a reasonable royalty for the use made of the invention by Barracuda, together with interest and costs as fixed by the Court.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff Realtime respectfully requests that this Court enter:

a. A judgment in favor of Plaintiff that Barracuda has infringed, either literally and/or under the doctrine of equivalents, the '728 Patent, the '530 Patent, the '908 Patent, and the '204 Patent;

b. A permanent injunction prohibiting Barracuda from further acts of infringement of the '728 Patent, the '530 Patent, the '908 Patent, and the '204 Patent;

c. A judgment and order requiring Barracuda to pay Plaintiff its damages, costs, expenses, and prejudgment and post-judgment interest for its infringement of the '728 Patent, the '530 Patent, the '908 Patent, and the '204 Patent; and

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

e. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Plaintiff its reasonable attorneys' fees against Defendants; and

f. Any and all other relief as the Court may deem appropriate and just under the circumstances.

DEMAND FOR JURY TRIAL

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

July 5, 2017

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