IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ORCKIT CORPORATION, Plaintiff, v. ARISTA NETWORKS INC., Defendant.	**Civil Action No. _____** **JURY TRIAL DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Orckit Corporation ("Orckit" or "Plaintiff") submits this Complaint for patent infringement against Defendant Arista Networks Inc. ("Arista" or "Defendant"), requests a trial by jury, and alleges the following upon actual knowledge with respect to itself and its own acts and upon information and belief as to all other matters:

NATURE OF ACTION

1. This is an action for patent infringement. Orckit alleges that Arista infringes U.S. Patents Nos. 7,545,740 ("the '740 Patent"), 8,830,821 ("the '821 Patent"), and 10,652,111 ("the '111 Patent") (collectively, "the Asserted Patents"), copies of which are attached hereto.

2. Orckit alleges that Arista: (1) directly and indirectly infringes the Asserted Patents by making, using, offering for sale, selling, and importing certain networking hardware and software; (2) induces infringement of the Asserted Patents and contributes to others' infringement of the Asserted Patents; and (3) infringes the Asserted Patents willfully. Orckit seeks damages and other relief for Arista's wrongful conduct.

PARTIES

3. Orckit is a Delaware corporation and owns the Asserted Patents by assignment.

4. Arista is a Delaware corporation with its principal place of business at 5453 Great America Parkway, Santa Clara, CA 95054.

5. Arista is registered to do business in Delaware, and, on information and belief, conducts business in Delaware. On information and belief, a substantial part of the events giving rise to Plaintiff's claims, including acts of patent infringement, have occurred in Delaware and this Judicial District.

6. Arista has a permanent and continuous presence in Delaware and this Judicial District.

JURISDICTION AND VENUE

7. This action arises under the patent laws of the United States, 35 U.S.C. § 271 *et seq*. The Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

8. The Court has personal jurisdiction over Arista because it is incorporated in Delaware. Additionally, as alleged above, Arista has sufficient minimum contacts with Delaware so that this action does not offend due process or the traditional notions of fair play and substantial justice. Among other factors, Arista is (i) registered to do business in Delaware, (ii) is incorporated in and has purposefully availed itself of the rights and benefits of the laws of Delaware and this Judicial District, and (iii) has a continuous presence in and systematic contact with this district. Upon information and belief, Arista derives substantial revenue from the goods and services that it provides to its customers in Delaware directly or through intermediaries both generally and with respect to the allegations in this Complaint. Arista also undertakes a portion of its infringing activities in Delaware—including by making, using, importing, offering for sale, and selling

products and services that infringe the Asserted Patents—directly and through its distributors, retailers, and other intermediaries.

9. Venue is proper in this judicial district pursuant to 28 U.S.C. §§1391(b), (c), (d) and 1400(b) because Arista resides in this District under the Supreme Court's opinion in *TC Heartland v. Kraft Foods Group Brands LLC*, 137 S. Ct. 1514 (2017) through its incorporation in this District. Additionally, upon information and belief, Arista has a permanent and continuous presence in and has committed acts of infringement in this Judicial District.

FACTUAL ALLEGATIONS

Orckit Communications Ltd. and Its Breakthrough Communications Technology

10. The patented technology is rooted in research by Orckit Communications Ltd. (later reorganized and renamed Orckit-Corrigent Ltd.), a company founded in Israel in 1990 by Izhak Tamir. The company was a pioneer in the development of infrastructure-level networking products, and in its first decade became the market leader in Asymmetric Digital Subscriber Line (ADSL) technology, winning a client base that included some of the world's preeminent telecommunications providers. The company went public, and in 1996 was listed in the United States on the Nasdaq Stock Exchange.

11. Building from that initial success, Orckit Communications Ltd. turned its attention to overcoming significant limitations in Ethernet, the predominant technology used for local area networks used in offices, schools and other local environments. With the proliferation of data and the development of the Internet, demand for the data transmission skyrocketed. While Ethernet could be used to connect a limited number of computers, it was not well suited to the delivery of video, voice, and other applications with higher bandwidth requirements for a larger number of users. The existing standard for delivering voice communications, known as the Synchronous

Optical Network ("SONET") protocol, was not a viable alternative because it was not designed to process data in an efficient and scalable way. As a result, providers like cable companies were required to develop and install their own infrastructure to deliver services and could not rely on a single network to provide different services in parallel.

12. Orckit Communications Ltd.'s solutions addressed those shortcomings. It quickly recognized that existing solutions could accommodate network traffic only so long as data occupied only a small portion of overall network traffic. The company's technology overcame those limitations by enhancing Ethernet switching and routing to optimize the transmission of data, voice and video, including those using Internet Protocol ("IP") telecommunications networks. The capacity, reliability, and resilience offered by Orckit Communications Ltd.'s inventions opened up the possibility of the transmission of data, voice, and video services on the same network—the hugely valuable "bundled services" or "triple-play services" sought by both telecommunications companies and their customers.

13. Between 2000 and 2010, Orckit Communications Ltd. invested hundreds of millions of US dollars in research and development of those solutions. It earned recognition around the world for those innovations and won contracts to rebuild national telecommunications infrastructure systems along with hundreds of patents—including those at issue in this lawsuit.

14. With the economic downturn of 2007 and 2008, many of Orckit Communications Ltd.'s most significant potential customers dramatically reduced their infrastructure spending. Even with its superior technology the company was unable to weather the global recession and ultimately went into liquidation.

15. Plaintiff Orckit Corporation obtained all rights to the Asserted Patents.

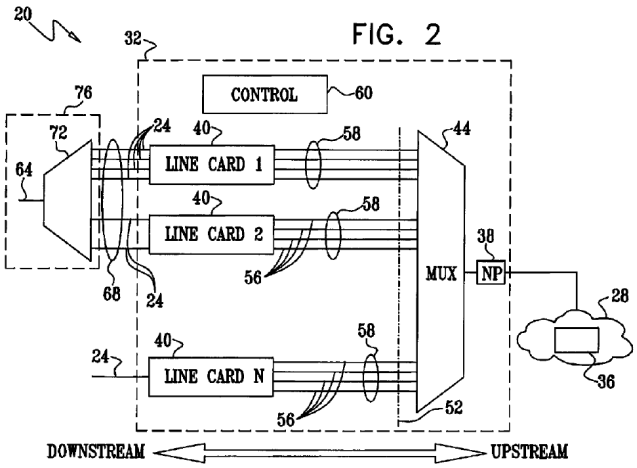
The Asserted Patents

U.S. Patent No. 7,545,740

16. Orckit is the lawful owner of all right, title, and interest in U.S. Patent No. 7,545,740 ("the '740 Patent") entitled "TWO-WAY LINK AGGREGATION" (attached as Exhibit 1), including the right to sue and recover for infringement thereof. The '740 Patent was duly and legally issued on June 9, 2009, naming David Zelig, Ronen Solomon, and Uzi Khill as the inventors.

17. The '740 Patent has 31 claims: 12 independent claims and 19 dependent claims.

18. The '740 Patent presented novel and unconventional apparatuses and methods for (among other things) "connecting users to a communication network with increased capacity and use of service." Ex. 1, '740 Patent at 1:39-41. The inventions patented in the '740 Patent, for example, distribute data frames among "parallel physical links, so as to balance the traffic load among the links," a process that in turn enables the network to "deliver a higher bandwidth at a given [quality of service ('QoS')] or to improve the QoS at a given bandwidth." *Id.* at 1:48-55. The patented "load balancing operation in embodiments of the present invention enables statistical multiplexing of the frames, in which there is no direct relationship or connection between user ports and backplane traces." *Id.* at 2:1-4. Furthermore, "[i]n some embodiments, two or more physical user ports are aggregated into a [link aggregation] group external to the network element, so as to form an aggregated user port having a higher bandwidth." *Id.* at 2:5-8. One embodiment of the inventions of the '740 Patent is shown in Fig. 2, reproduced below:



19. The claims of the '740 Patent, including claim 1 (reproduced below), recite at least these inventive concepts of the '740 Patent:

> 1. A method for communication, comprising:
>
> coupling a network node to one or more interface modules using a first group of first physical links arranged in parallel, at least one of said first physical links being a bi-directional link operative to communicate in both an upstream direction and a downstream direction;
>
> coupling each of the one or more interface modules to a communication network using a second group of second physical links arranged in parallel, at least one of said second physical links being a bi-directional link operative to communicate in both an upstream direction and a downstream direction;
>
> receiving a data frame having frame attributes sent between the communication network and the network node;
>
> selecting, in a single computation based on at least one of the frame attributes, a first physical link out of the first group and a second physical link out of the second group; and
>
> sending the data frame over the selected first and second physical links,
>
> said sending comprising communicating along at least one of said bi-directional links.

Id. at 10:65-11:20 (claim 1).

20. The subject matter described and claimed in the '740 Patent, including the subject matter of claim 1, represented an improvement in computer and communications functionality,

performance and efficiency, and was novel and not well-understood, routine, or conventional at the time of the invention of the '740 Patent.

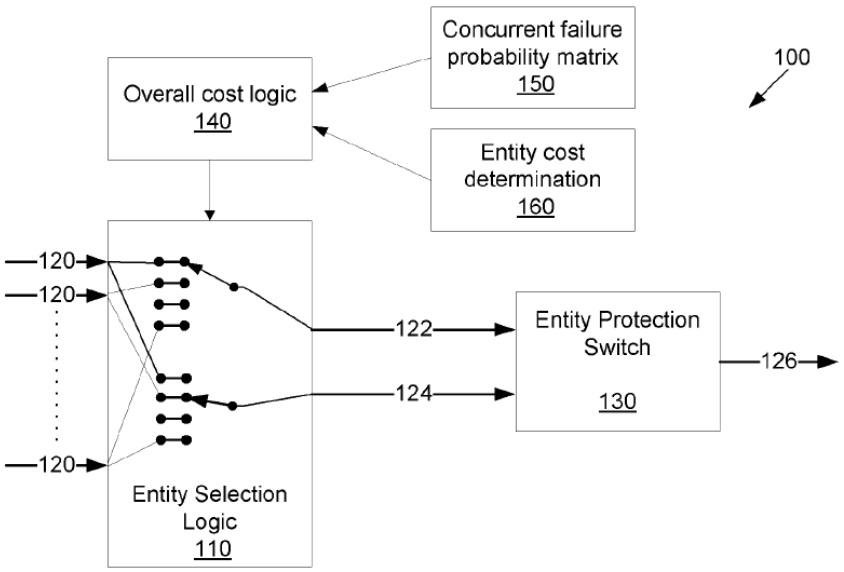
21. Arista had knowledge of the '740 Patent, including at least as of the filing of this Complaint.

U.S. Patent No. 8,830,821

22. Orckit is the lawful owner of all right, title, and interest in U.S. Patent No. 8,830,821 ("the '821 Patent") entitled "METHOD FOR SUPPORTING MPLS TRANSPORT PATH RECOVERY WITH MULTIPLE PROTECTION ENTITIES" (attached as Exhibit 2), including the right to sue and recover for infringement thereof. The '821 Patent was duly and legally issued on September 9, 2014, naming Daniel Cohn and Rafi Ram as the inventors.

23. The '821 Patent has 20 claims: three independent claims and 17 dependent claims.

24. The '821 Patent presented novel and unconventional apparatuses and methods for (among other things) selecting network transport entities between a first and second endpoint, using working and protection entities to minimize simultaneous failure and/or a cost function. Ex. 2, '821 Patent, at Abstract; 2:5-21. The inventions patented in the '821 Patent, for example, switch between working and protection entities, determine a probability of concurrent failure of both entities, and reselect an entity pair. *Id.* at 2:32-43. One embodiment of the inventions of the '821 Patent is shown in Fig. 1, reproduced below:



25. The claims of the '821 Patent, including claim 14 (reproduced below), recite at least these inventive concepts of the '821 Patent:

> 14. A system for selecting entities within an MPLS network, comprising:
>
> a data structure comprising a plurality of transport entity descriptors;
>
> an entity protection switch configured to switch between a working entity and a protection entity; and
>
> digital logic configured to select said working entity and said protection entity from said plurality of transport entity descriptors, comprising: logic configured to determine a probability of concurrent failure of said working entity and said protection entity;
>
> logic configured to determine an entity cost of said plurality of transport entity descriptors; and
>
> logic configured to reselect said working entity and said protection entity from said plurality of transport entity descriptors upon a reselection event,
>
> wherein said reselection event is selected from a group consisting of adding an entity to said plurality of transport entities, removing an entity from said plurality of transport entities, an operational status change for one of said plurality of transport entities, and a change in over all cost for one of said plurality of transport entities.

Id. at 8:42-63 (claim 14).

26. The subject matter described and claimed in the '821 Patent, including the subject matter of claim 14, represented an improvement in computer and communications functionality, performance and efficiency, and was novel and not well-understood, routine, or conventional at the time of the invention of the '821 Patent.

27. Arista had knowledge of the '821 Patent, including at least as of the filing of this Complaint.

U.S. Patent No. 10,652,111

28. Orckit is the lawful owner of all right, title, and interest in U.S. Patent No. 10,652,111 ("the '111 Patent") entitled "METHOD AND SYSTEM FOR DEEP PACKET INSPECTION IN SOFTWARE DEFINED NETWORKS" (attached as Exhibit 3), including the right to sue and recover for infringement thereof. The '111 Patent was duly and legally issued on May 12, 2020, naming Yossi Barsheshet, Simhon Doctori and Ronen Solomon as the inventors.

29. The '111 Patent has 54 claims: two independent claims and 52 dependent claims.

30. The '111 Patent presented novel and unconventional methods for (among other things) "deep packet inspection (DPI) in a software defined network (SDN), wherein the method is performed by a central controller of the SDN." Ex. 3, '111 Patent at 2:28-30. As an example, unlike the prior art, the inventions patented in the '111 Patent enable the inspection or extraction of content from data packets belonging to a specific flow or session, thereby enabling security threat detection. *Id.* at 1:61-67. The patented inventions also decrease traffic delays between client and server, avoid overflowing the controller with data, and prevent the concentration of a single point of failure for data traffic. *Id.* at 2:1-7. One embodiment of the inventions of the '111 Patent is shown in Fig. 1, reproduced below:

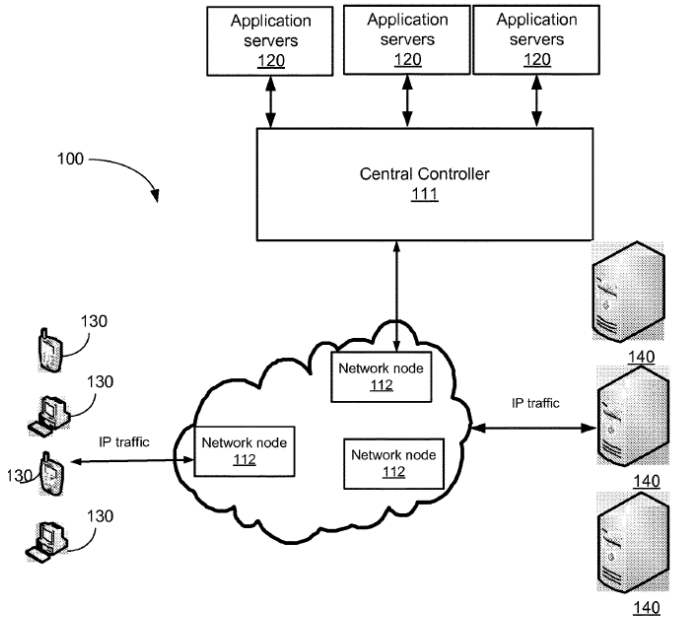


FIG. 1

31. The claims of the '111 Patent, including claim 1 (reproduced below), recite at least these inventive concepts of the '111 Patent:

> 1. A method for use with a packet network including a network node for transporting packets between first and second entities under control of a controller that is external to the network node, the method comprising:
>
> sending, by the controller to the network node over the packet network, an instruction and a packet-applicable criterion;
>
> receiving, by the network node from the controller, the instruction and the criterion;
> receiving, by the network node from the first entity over the packet network, a packet addressed to the second entity;
>
> checking, by the network node, if the packet satisfies the criterion;
>
> responsive to the packet not satisfying the criterion, sending, by the network node over the packet network, the packet to the second entity; and
>
> responsive to the packet satisfying the criterion, sending the packet, by the network node over the packet network, to an entity that is included in the instruction and is other than the second entity.

Id. at 10:51-11:4 (claim 1).

32. The subject matter described and claimed in the '111 Patent, including the subject matter of claim 1, represented an improvement in computer and communications functionality, performance and efficiency, and was novel and not well-understood, routine, or conventional at the time of the invention of the '111 Patent.

33. Arista had knowledge of the '111 Patent, including at least as of the filing of this Complaint.

BACKGROUND OF ARISTA'S INFRINGING CONDUCT

34. Defendant Arista Networks, Inc. is a cloud networking company that makes, uses, sells, offers for sale in the United States, and/or imports into the United States, or has otherwise made, used, sold, offered for sale in the United States, and/or imported in the United States, routers, switches, and other networking equipment and software that infringe the Asserted Patents, and also has induced and contributed to and continues to induce and contribute to infringement of others who have made, used, sold, offered for sale in the United States, and/or imported in the United States, routers, switches, and other networking equipment and software that infringe the Asserted Patents.

35. A non-comprehensive list of products that infringe the Asserted Patents is set out in Appendices A-C hereto ("the Accused Products"). Arista's infringement includes the making, using, selling, offering for sale and/or importing the listed products, and Arista's active inducement of infringement, including by supplying the listed products to third parties that use those products to practice the claimed methods of the asserted patents. Orckit reserves the right to supplement and amend the list of Accused Products recited in Appendices A-C as permitted by the Court.

36. Arista infringes and continues to infringe the Asserted Patents by making, using, selling, offering to sell, and/or importing, without license or authority, the Accused Products as alleged herein.

37. Arista markets, advertises, offers for sale, and/or otherwise promotes the Accused Products and does so to induce, encourage, instruct, and aid one or more persons in the United States to make, use, sell, and/or offer to sell their Accused Products. For example, Arista advertises, offers for sale, and/or otherwise promotes the Accused Products on its website. Arista further publishes and distributes data sheets, manuals, and guides for the Accused Products, as set forth in detail below. Therein, Arista describes and touts the use of the subject matter claimed in the Asserted Patents, as described and alleged below.

38. Arista has had knowledge of the Asserted Patents and the inventions claimed and described therein at least as of the filing of this Complaint.

COUNT ONE: INFRINGEMENT OF U.S. PATENT 7,545,740

39. Arista directly infringes at least claim 1 of the '740 Patent by making, using, offering for sale, selling, and/or importing products, including at least the Accused Products, which include but are not limited to the products set forth in Appendix A ("the '740 Accused Products"), that meet every limitation, either literally or under the doctrine of equivalents, of at least claim 1 of the '740 Patent, in violation of 35 U.S.C. § 271(a).

40. The '740 Accused Products, including the Arista 7060X4-32S-C Switch ("Arista 7060X4-32S-C"), which is exemplary of all of the '740 Accused Products, are used by Arista and/or the end users of its products to practice a method for communication that includes the steps set forth in paragraphs ¶¶ 41-45 *infra*. For example, the '740 Accused Products, including the Arista 7060X4-32S-C can be used to provide connectivity between network devices and the

internet, *i.e.,* they are used to practice a method for communication. *See, e.g.*, Simplifying 400G for Data Centers (available at https://www.arista.com/assets/data/pdf/Whitepapers/400G-Architecture-WP.pdf) ("High performance computing (HPC) with artificial intelligence/machine learning (AI/ML) are increasingly mainstream applications at the forefront of innovation in the use of automation, modelling and autonomous systems for research, financial services, manufacturing industries and in the broad commercial world. These next generation applications leverage ever larger data sets and increasing numbers of clustered compute nodes communicating in east-west patterns at high speed and low latency to operate effectively. In addition to the need to build increasingly large clusters to support these applications, the adoption of FPGA and DPU based network adapters (SmartNICs) based on PCIe Gen4 for higher bandwidth, lower latency and higher throughput flash based storage systems and NVMe for distributed file systems, leveraging Remote Direct Memory Access (RDMA) has rapidly driven the network connectivity on servers from 10/25Gbps to 50G, 100G and 200 Gbps for the latest generation. Arista's 7050X4 and 7060X4-32S-C families are ideally suited to these applications offering a range of interfaces from 25G to 200G and 400G").

41. The '740 Accused Products, including the Arista 7060X4-32S-C, are used to couple a network node to one or more interface modules using a first group of first physical links arranged in parallel, at least one of said first physical links being a bi-directional link operative to communicate in both an upstream direction and a downstream direction. For example, the Arista 7060X4-32S-C includes a number of full duplex ports, *i.e.*, a first group of bidirectional physical links operative to communicate in both an upstream direction and a downstream direction, that are used to connect one of more network interface modules—for example, internal component(s) such as ASIC(s) responsible for packet forwarding, packet filtering, and other network-related

functions—to network nodes. *See, e.g.*, "Arista 7060X4 Series 100/200/400G Data Center Switches Data Sheet" (available at https://www.arista.com/assets/data/pdf/Datasheets/7060X4-Datasheet.pdf) ("The expansion of applications for machine learning and artificial intelligence driven by faster CPUs, flash storage and server less compute is driving the next generation of datacenter cloud networks based on 400G Ethernet. Evolution to 400G requires systems that deliver higher performance, to address the growth demands, and increased scale optimized for modern hyper-scale cloud environments, in addition to backward compatibility and a consistent proven architecture. The Arista 7060X4 series deliver high density 400G switching with line rate performance, proven layer 2 and layer 3 features, and advances in traffic awareness, congestion handling and instrumentation for the largest scale cloud networks. The Arista 7060X4 series, with the Arista 7060X and 7260X portfolio of data center switches, deliver a rich choice of port speed and density including 25GbE, 100GbE, 200GbE and 400GbE enabling consistent network architectures that seamlessly scale from small dedicated clusters to the needs of the largest multi-tier networks."); "Arista EOS User Manual" (available at https://www.arista.com/assets/data/pdf/user-manual/um-books/EOS-4.29.2F-Manual.pdf) at 959 ("100 Gigabit Ethernet implements full duplex point to point links connected by network switches. Arista switches support 100GBASE-10SR through MXP ports."). For further example, the ports are arranged in parallel, for example, as part of a link aggregation group (LAG), which the Arista 7060X4-32S-C supports through the use of a Link Aggregation Control Protocol (LACP). *See, e.g.*, "Arista EOS User Manual" (available at https://www.arista.com/assets/data/pdf/user-manual/um-books/EOS-4.29.2F-Manual.pdf) at 1096 ("Arista's switching platforms support industry-standard link aggregation protocols."); "Arista 7060X Series" (available at https://www.arista.com/en/products/7060x-series/7060x4-specifications):

Common system resources:

Resources *	7060X4
MAC Table Size	8K
Maximum v4/v6 Host Routes	80K
Maximum IPv4 Route Prefixes	480K
Maximum IPv6 Route Prefixes	300K
Maximum Multicast Groups	8K with 511 groups
Maximum LAG Groups	128 (in breakout modes)
Maximum LAG Members	64 Ports
Maximum ECMP Fanout	128-way

* All resource values are maximum hardware capacity

42. The '740 Accused Products, including the Arista 7060X4-32S-C, are used to couple each of the one or more interface modules to a communication network using a second group of second physical links arranged in parallel, at least one of said second physical links being a bi-directional link operative to communicate in both an upstream direction and a downstream direction. Upon information and belief, the Arista 7060X4-32S-C can be used to couple the network interface modules in the Arista 7060X4-32S-C to a communication network with a second group of physical links, for example, a variety of paths such as custom-designed ASICs, interconnects, ports, and/or high-speed electrical pathways that connect the network interface module to a network. Upon information and belief, the second physical links are bi-directional links operative to communicate in both an upstream and a downstream direction, for example, they are designed to allow for full-duplex communication between the network interface module and the network. *See, e.g.*, "Arista EOS User Manual" (available at https://www.arista.com/assets/data/pdf/user-manual/um-books/EOS-4.29.2F-Manual.pdf) at 959 ("100 Gigabit Ethernet implements full duplex point to point links connected by network switches. Arista switches support 100GBASE-10SR through MXP ports.").

43. The '740 Accused Products, including the Arista 7060X4-32S-C, are used to receive a data frame having frame attributes sent between the communication network and the network node. For example, the Arista 7060X4-32S-C is used to receive a data frame, which is then processed to perform various operations, including parsing the frame attributes and performing forwarding decisions based on the information contained in the frame. *See, e.g.,* "Arista EOS User Manual" (available at https://www.arista.com/assets/data/pdf/user-manual/um-books/EOS-4.29.2F-Manual.pdf) at 1216 ("Arista switches transfer data through switching, routing, and Layer 3 switching."). For further example, the switch may also apply additional processing based on the frame attributes, such as queuing the frame for prioritized forwarding based on QoS information. *See, e.g.,* "Arista EOS User Manual" (available at https://www.arista.com/assets/data/pdf/user-manual/um-books/EOS-4.29.2F-Manual.pdf) at 652 ("QoS processes apply to traffic that flows through Ethernet ports and control planes. These processes can modify data fields (CoS or DSCP) or assign data streams to traffic classes for prioritized handling. Transmission queues are configurable for individual Ethernet ports to shape traffic based on its traffic class.").

44. The '740 Accused Products, including the Arista 7060X4-32S-C, are used to select, in a single computation based on at least one of the frame attributes, a first physical link out of the first group and a second physical link out of the second group. For example, the Arista 7060X4-32S-C is used to determine a network path for a data stream—and therefore selects the physical links from a first and second group used to receive and/or transmit data—by, among other things, performing a hash-based algorithm that uses frame attributes such as header information to select those physical links. *See, e.g.,* "Arista EOS User Manual" (available at https://www.arista.com/assets/data/pdf/user-manual/um-books/EOS-4.29.2F-Manual.pdf) at 1106

("The switch balances packet load across multiple links in a port channel by calculating a hash value based on packet header fields. The hash value determines the active member link through which the packet is transmitted. This method, in addition to balancing the load in the LAG, ensures that all packets in a data stream follow the same network path."). Upon information and belief, the selection of both the first link from the first group and the second link in the second group are done in a single computation.

45. The '740 Accused Products, including the Arista 7060X4-32S-C, are used to send the data frame over the selected first and second physical links. For example, the Arista 7060X4-32S-C is used to transmit data between a network node and a network (*see supra*) via a network module connected to the network node through a first group of links (*e.g.*, ports) and to a switch fabric via a second group of links (*e.g.*, switch fabric ports, interconnects, electrical pathways); it is therefore used to send a data frame over the selected first and second physical links, as described *supra*. Moreover, as described *supra*, the sending comprises communicating along at least one of said bi-directional links, for example, as discussed *supra*, the links support full duplex communication.

46. With knowledge of the '740 Patent, Arista has actively induced and continues to induce the direct infringement of one or more claims of the '740 Patent, including claim 1, in violation of 35 U.S.C. § 271(b) by its customers and/or end users of their products, including at least the '740 Accused Products, by selling products with a particular design, providing support for, providing instructions for use of, and/or otherwise encouraging its customers and/or end-users to directly infringe, either literally and/or under the doctrine of equivalents, one or more claims of the '740 Patent, including claim 1, with the intent to encourage those customers and/or end-users to infringe the '740 Patent.

47. By way of example, Arista actively induces infringement of the '740 Patent by encouraging, instructing, and aiding one or more persons in the United States, including but not limited to customers and end users who purchase, test, operate, and use Arista's products, including at least the '740 Accused Products, to make, use, sell, and/or offer to sell Arista's products, including at least the '740 Accused Products, in a manner that infringes at least one claim of the '740 Patent, including claim 1.

48. As a result of Arista's inducement of infringement, its customers and/or end users made, used, sold, offered for sale, or imported, and continue to make, use, sell, offer to sell, or import Arista's products, including the '740 Accused Products, in ways that directly infringe one or more claims of the '740 Patent, including claim 1, such as in the manner described above with respect to the Arista 7060X4-32S-C. Arista has had knowledge of its customers' and/or end users' direct infringement at least by virtue of its sales, instruction, and/or promotion of Arista's products, including the '740 Accused Products, no later than the filing of this Complaint.

49. Arista has also contributed to and continues to contribute to the infringement by others, including its customers and/or the end users of its products, of at least claim 1 of the '740 Patent under 35 U.S.C. § 271(c) by, among other things, selling, offering for sale within the United States and/or importing into the United States or otherwise making available the '740 Accused Products for use in practicing the patented inventions of the '740 Patent, knowing that the '740 Accused Products are especially made or adapted for use in infringement of the '740 Patent, are used in practicing the method and process claims of the '740 Patent, embody a material part of the inventions claimed in the '740 Patent, and are not staple articles of commerce suitable for substantial non-infringing use. Arista's customers and/or the end users of the '740 Accused Products directly infringe the '740 Patent by using the '740 Accused Products.

50. With knowledge of the ’740 Patent, Arista has willfully, deliberately, and intentionally infringed the ’740 Patent, and continues to willfully, deliberately, and intentionally infringe the ’740 Patent. Arista had actual knowledge of the ’740 Patent and Arista’s infringement of the ’740 Patent as set forth above. After acquiring that knowledge, Arista directly and indirectly infringed the ’740 Patent as set forth above. Arista knew or should have known that its conduct amounted to infringement of the ’740 Patent.

51. Arista will continue to infringe the ’740 Patent unless and until it is enjoined by this Court. Arista, by way of its infringing activities, has caused and continues to cause Orckit to suffer damages in an amount to be determined, and has caused and is causing Orckit irreparable harm. Orckit has no adequate remedy at law against Arista’s acts of infringement and, unless it is enjoined from its infringement of the ’740 Patent, Orckit will continue to suffer irreparable harm.

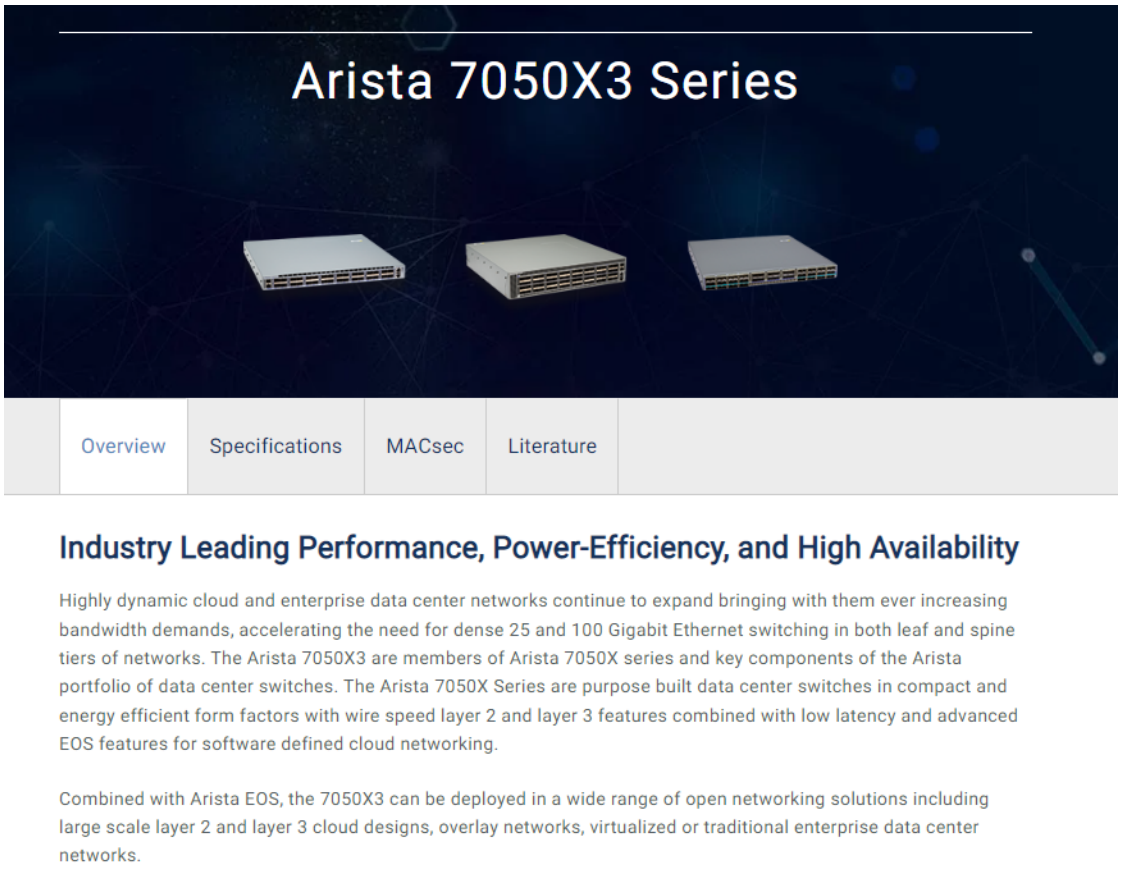
52. Orckit is entitled to recover from Arista damages at least in an amount adequate to compensate for its infringement of the ’740 Patent, which amount has yet to be determined, together with interest and costs determined by the Court.

53. Orckit has complied with the requirements of 35 U.S.C. § 287 with respect to the ’740 Patent.

COUNT TWO: INFRINGEMENT OF U.S. PATENT 8,830,821

54. Arista directly infringes at least claim 14 of the ’821 Patent by making, using, offering for sale, selling, and/or importing products, including at least the Accused Products, which include but are not limited to the products set forth in Appendix B (“the ’821 Accused Products”), that meet every limitation, either literally or under the doctrine of equivalents, of at least claim 14 of the ’821 Patent, in violation of 35 U.S.C. § 271(a).

55. The '821 Accused Products, including the Arista 7050X3 Series ("Arista 7050X3"), which is exemplary of all of the '821 Accused Products, constitute systems for selecting entities within an MPLS network. *See, e.g.*, "Arista 7050X3 Series" (available at https://www.arista.com/en/products/7050x3-series):



See also "Arista 7050X3 Series 10/25/40/50/100G Data Center Switches Data Sheet" (available at https://www.arista.com/assets/data/pdf/Datasheets/7050X3-Datasheet.pdf) at 1 ("The Arista 7050X3 series runs the same Arista EOS software as all Arista products, simplifying network administration. Arista EOS is a modular switch operating system with a unique state sharing architecture that cleanly separates switch state from protocol processing and application logic. Built on top of a standard Linux kernel, all EOS processes run in their own protected memory space and exchange state through an in-memory database. This multi-process state sharing

architecture provides the foundation for in-service-software updates and self-healing resiliency."); *see also* "Arista User Manual, Arista EOS version 4.29.2F" (available at https://www.arista.com/assets/data/pdf/user-manual/um-books/EOS-4.29.2F-Manual.pdf) at 3405 ("Multiprotocol Label Switching (MPLS) is a networking process that replaces complete network addresses with short path labels for directing data packets to network nodes. The labels identify virtual links (paths) between distant nodes rather than endpoints. MPLS is scalable and protocol-independent. Data packets are assigned labels, which are used to determine packet forwarding destinations without examining the packet."). For example, the '821 Accused Products, including the Arista 7050X3, are MPLS networking platforms, *i.e.,* systems for selecting entities within an MPLS network.

56. The '821 Accused Products, including the Arista 7050X3, comprise a data structure comprising a plurality of transport entity descriptors and an entity protection switch configured to switch between a working entity and a protection entity. *See, e.g.*, *id*. at 3420 ("In the Service Provider's core network there should be MPLS LSPs between the Pes"); *id*. at 3455 ("A secondary LSP is specified which provides a fallback in case the primary LSP is not available"). For example, the '821 Accused Products, including the Arista 7050X3, include label-switched paths ("LSPs") that include primary and secondary paths, *i.e.*, they comprise a data structure comprising a plurality of transport entity descriptors.

57. The '821 Accused Products, including the Arista 7050X3, comprise digital logic configured to select said working entity and said protection entity from said plurality of transport entity descriptors, comprising: logic configured to determine a probability of concurrent failure of said working entity and said protection entity. *See, e.g.*, *id.* at 3494 ("The srlg command specifies if link SRLGs of a primary LSP are to be considered as constraints while creating a fast-

reroute bypass tunnel with either link or node protection"). For example, the '821 Accused Products, including the Arista 7050X3, detect failures in the paths between nodes, *i.e.*, they comprise digital logic configured to select said working entity and said protection entity from said plurality of transport entity descriptors, comprising: logic configured to determine a probability of concurrent failure of said working entity and said protection entity.

58. The '821 Accused Products, including the Arista 7050X3, comprise logic configured to determine an entity cost of said plurality of transport entity descriptors. *See, e.g.*, *id.* at 3455 ("Use the bandwidth command to reserve bandwidth along the path. The bandwidth is explicitly configured."); *id*. at 3451 ("RSVP-TE, the Resource Reservation Protocol (RSVP) for Traffic Engineering (TE), is used to distribute MPLS labels for steering traffic and reserving bandwidth. The Label Edge Router (LER) feature implements the headend functionality, such as, RSVP-TE tunnels can originate at an LER which is used to steer traffic into the tunnel"). For example, the '821 Accused Products, including the Arista 7050X3, determine entity costs of the entities, such as traffic engineering ("TE") and bandwidth data, *i.e.*, they comprise logic configured to determine an entity cost of said plurality of transport entity descriptors.

59. The '821 Accused Products, including the Arista 7050X3, comprise logic configured to reselect said working entity and said protection entity from said plurality of transport entity descriptors upon a reselection event. *See, e.g.*, *id.* at 3442 ("Periodic tunnel optimization is configured globally as well as individually for a specific tunnel"). For example, the '821 Accused Products, including the Arista 7050X3, resizes, readjusts, and reoptimizes tunnels when necessary to align the tunnels with network traffic, *i.e.*, they comprise logic configured to reselect said working entity and said protection entity from said plurality of transport entity descriptors upon a reselection event.

60. The ’821 Accused Products, including the Arista 7050X3, comprise said reselection event being selected from a group consisting of adding an entity to said plurality of transport entities, removing an entity from said plurality of transport entities, an operational status change for one of said plurality of transport entities, and a change in overall cost for one of said plurality of transport entities. *See, e.g.*, *id.* For example, the ’821 Accused Products, including the Arista 7050X3, resizes, readjusts, and reoptimizes tunnels when necessary to align the tunnels with network traffic, including when an operational status change or overall cost change occurs, *i.e.*, said reselection event is selected from a group consisting of adding an entity to said plurality of transport entities, removing an entity from said plurality of transport entities, an operational status change for one of said plurality of transport entities, and a change in overall cost for one of said plurality of transport entities.

61. With knowledge of the ’821 Patent, Arista has actively induced and continues to induce the direct infringement of one or more claims of the ’821 Patent, including claim 14, in violation of 35 U.S.C. § 271(b) by its customers and/or end users of their products, including at least the ’821 Accused Products, by selling products with a particular design, providing support for, providing instructions for use of, and/or otherwise encouraging its customers and/or end-users to directly infringe, either literally and/or under the doctrine of equivalents, one or more claims of the ’821 Patent, including claim 14, with the intent to encourage those customers and/or end-users to infringe the ’821 Patent.

62. By way of example, Arista actively induces infringement of the ’821 Patent by encouraging, instructing, and aiding one or more persons in the United States, including but not limited to customers and end users who purchase, test, operate, and use Arista’s products, including at least the ’821 Accused Products, to make, use, sell, and/or offer to sell Arista’s

products, including at least the '821 Accused Products, in a manner that infringes at least one claim of the '821 Patent, including claim 14.

63. As a result of Arista's inducement of infringement, its customers and/or end users made, used, sold, offered for sale, or imported, and continue to make, use, sell, offer to sell, or import Arista's products, including the '821 Accused Products, in ways that directly infringe one or more claims of the '821 Patent, including claim 14, such as in the manner described above with respect to the Arista 7050X3. Arista has had knowledge of its customers' and/or end users' direct infringement at least by virtue of its sales, instruction, and/or promotion of Arista's products, including the '821 Accused Products, at least as of the filing of this Complaint.

64. Arista has also contributed to and continues to contribute to the infringement by others, including its customers and/or the end users of its products, of at least claim 14 of the '821 Patent under 35 U.S.C. § 271(c) by, among other things, selling, offering for sale within the United States and/or importing into the United States or otherwise making available the '821 Accused Products for use in practicing the patented inventions of the '821 Patent, knowing that the '821 Accused Products are especially made or adapted for use in infringement of the '821 Patent, are used in practicing the method and process claims of the '821 Patent, embody a material part of the inventions claimed in the '821 Patent, and are not staple articles of commerce suitable for substantial non-infringing use. Arista's customers and/or the end users of the '821 Accused Products directly infringe the '821 Patent by using the '821 Accused Products.

65. With knowledge of the '821 Patent, Arista has willfully, deliberately, and intentionally infringed the '821 Patent, and continues to willfully, deliberately, and intentionally infringe the '821 Patent. Arista had actual knowledge of the '821 Patent and Arista's infringement of the '821 Patent as set forth above. After acquiring that knowledge, Arista directly and indirectly

infringed the '821 Patent as set forth above. Arista knew or should have known that its conduct amounted to infringement of the '821 Patent.

66. Arista will continue to infringe the '821 Patent unless and until it is enjoined by this Court. Arista, by way of its infringing activities, has caused and continues to cause Orckit to suffer damages in an amount to be determined, and has caused and is causing Orckit irreparable harm. Orckit has no adequate remedy at law against Arista's acts of infringement and, unless it is enjoined from its infringement of the '821 Patent, Orckit will continue to suffer irreparable harm.

67. Orckit is entitled to recover from Arista damages at least in an amount adequate to compensate for its infringement of the '821 Patent, which amount has yet to be determined, together with interest and costs determined by the Court.

68. Orckit has complied with the requirements of 35 U.S.C. § 287 with respect to the '821 Patent.

COUNT THREE: INFRINGEMENT OF U.S. PATENT 10,652,111

69. Arista directly infringes at least claim 1 of the '111 Patent by using the Accused Products, which include but are not limited to the products set forth in Appendix C ("the '111 Accused Products"), in a manner that meets every limitation, either literally or under the doctrine of equivalents, of at least claim 1 of the '111 Patent, in violation of 35 U.S.C. § 271(a). For example, Arista directly infringes at least claim 1 of the '111 Patent, including by its own use of the '111 Accused Products in the infringing manner set forth below.

70. The '111 Accused Products are designed and operate in such manner that Arista's customers and/or end users of the Accused Products directly infringe every element of at least claim 1 of the '111 Patent when they follow the instructions described in various materials with which Arista induces its users to use the Accused Products. Induced by Arista's sale of the '111

Accused Products, its promotion and advertising of them for their intended infringing use, its instructions on their use in the infringing manner, and other inducing activities, Arista's customers and/or the end users of the Accused Products directly infringe through that use at least claim 1 of the '111 Patent by using the '111 Accused Products in a manner that practices every element of at least claim 1 of the '111 Patent.

71. For example, Arista induces its customers and/or end users of its products to use the '111 Accused Products, including the Arista 7050X3, which is exemplary of all of the '111 Accused Products, to practice a method for use with a packet network including a network node for transporting packets between first and second entities under control of a controller that is external to the network node. *See, e.g.*, "Arista 7050X3 Series" (available at https://www.arista.com/en/products/7050x3-series):

Industry Leading Performance, Power-Efficiency, and High Availability

Highly dynamic cloud and enterprise data center networks continue to expand bringing with them ever increasing bandwidth demands, accelerating the need for dense 25 and 100 Gigabit Ethernet switching in both leaf and spine tiers of networks. The Arista 7050X3 are members of Arista 7050X series and key components of the Arista portfolio of data center switches. The Arista 7050X Series are purpose built data center switches in compact and energy efficient form factors with wire speed layer 2 and layer 3 features combined with low latency and advanced EOS features for software defined cloud networking.

Combined with Arista EOS, the 7050X3 can be deployed in a wide range of open networking solutions including large scale layer 2 and layer 3 cloud designs, overlay networks, virtualized or traditional enterprise data center networks.

See also "Arista 7050X3 Series 10/25/40/50/100G Data Center Switches Data Sheet" (available at https://www.arista.com/assets/data/pdf/Datasheets/7050X3-Datasheet.pdf) at 3 ("Arista Software Driven Cloud Networking (SDCN), combines the principles that have made cloud computing the unstoppable force that it is: automation, self service provisioning, and linear scaling of both performance and economics coupled with the trend in Software Defined Networking that delivers: network virtualization, custom programmability, simplified architectures, and lower capital expenditure. This combination creates a best-in-class software foundation for maximizing the value of the network to both the enterprise and service provider data center. A new architecture for the most mission-critical location within the IT infrastructure that simplifies management and provisioning, speeds up service delivery, lowers costs and creates opportunities for competitive differentiation, while putting control and visibility back in the hands of the network and systems administrators"). For example, the '111 Accused Products, including the Arista 7050X3, employ software driven cloud networking to control a number of entities that communicate data packets over a network, *i.e.*, they are used by an end user to perform method for use with a packet network including a network node for transporting packets between first and second entities under control of a controller that is external to the network node.

72. Arista induces its customers and/or end users of its products to use the '111 Accused Products, including the Arista 7050X3, in such manner as to (i) send, by the controller to the network node over the packet network, an instruction and a packet-applicable criterion, (ii) receive, by the network node from the controller, the instruction and the criterion, and (iii) receive, by the network node from the first entity over the packet network, a packet addressed to the second entity. *See, e.g.*, "Arista Security for the Cloud Data Center" (available at https://www.arista.com/assets/data/pdf/Whitepapers/ARISTA_SecuritySolutionWP.pdf) at 9

("When DFA receives a flow-classification message from the firewall it validates the message and then parses out a "DFA Flow Specification". The Flow Specification includes a unique flow name, match criteria, desired action, priority and lifetime. Match criteria may include source and destination IP addresses, source and destination layer-4 ports and protocol (ICMP, TCP or UDP) depending on the type of flow and custom configuration file settings. The action on the switch will either be to drop packets in the flow or to output packets to a specific switch port in order to bypass the firewall or provide further analysis."). For example, the '111 Accused Products, including the Arista 7050X3, execute "DFA Flow Specification" that constitutes the claimed instruction and packet-applicable criteria and send them by the control plane to the data plane, *i.e.*, they are used by an end user for (i) sending by the controller to the network node over the packet network, an instruction and a packet-applicable criterion, (ii) receiving, by the network node from the controller, the instruction and the criterion; and (iii) receiving, by the network node from the first entity over the packet network, a packet addressed to the second entity.

73. Arista induces its customers and/or end users of its products to use the '111 Accused Products, including the Arista 7050X3, in such manner as to check, by the network node, if the packet satisfies the criterion. *See, e.g.*, *id*. For example, the '111 Accused Products, including the Arista 7050X3, examines data packets pursuant to the "DFA Flow Specification," i.e. they are used by an end user for checking, by the network node, if the packet satisfies the criterion.

74. Arista induces its customers and/or the end users of its products to use the '111 Accused Products, including the Arista 7050X3, such that responsive to the packet not satisfying the criterion, send, by the network node over the packet network, the packet to the second entity. *See, e.g.*, *id.* For example, the '111 Accused Products, including the Arista 7050X3, drop or

redirect packets that satisfy the "DFA Flow Specification," *i.e.*, they are used by an end user for, responsive to the packet not satisfying the criterion, sending, by the network node over the packet network, the packet to the second entity.

75. Arista induces its customers and/or the end users of its products to use the '111 Accused Products, including the Arista 7050X3, such that responsive to the packet satisfying the criterion, send the packet, by the network node over the packet network, to an entity that is included in the instruction and is other than the second entity. *See, e.g.*, *id.;* "Arista User Manual, Arista EOS version 4.29.2F" (available at https://www.arista.com/assets/data/pdf/user-manual/um-books/EOS-4.29.2F-Manual.pdf) at 2059 ("The match command allows you to configure a rule or a flow which could match on L2, L3, L4 fields of a packet and specify a certain action to modify, drop or redirect the packet. All traffic ingressing on the switch will be matched against the flows installed. In cases where none of the packets match, normal switching or routing behavior will take over. When multiple entries match a packet, precedence is given to the entry that was installed first"). For example, the '111 Accused Products, including the Arista 7050X3, direct packets to the designated destination if they do not satisfy the "DFA Flow Specification," *i.e.*, they are used by an end user for, responsive to the packet satisfying the criterion, sending the packet, by the network node over the packet network, to an entity that is included in the instruction and is other than the second entity.

76. With knowledge of the '111 Patent, Arista has actively induced and continues to induce the direct infringement of one or more claims of the '111 Patent, including claim 1, in violation of 35 U.S.C. § 271(b) by its customers and/or end users of its products, including at least the '111 Accused Products, by selling products with a particular design, providing support for, providing instructions for use of, and/or otherwise encouraging its customers and/or end-users to

directly infringe, either literally and/or under the doctrine of equivalents, one or more claims of the '111 Patent, including claim 1, with the intent to encourage those customers and/or end-users to infringe the '111 Patent.

77. By way of example, Arista knowingly and actively induced, aided, and abetted the direct infringement of the '111 Patent by encouraging, instructing, and aiding one or more persons in the United States, including but not limited to customers and end users who purchase, test, operate, and use Arista's products, including at least the '111 Accused Products, to use Arista's products, including at least the '111 Accused Products, in a manner that infringes at least one claim of the '111 Patent, including claim 1.

78. For example, Arista updates and maintains a website with various materials addressed to end users of its products, including its customers, which instruct its customers on how to use the '111 Accused Products, which are designed in such manner as to infringe at least claim 1 of the '111 Patent when used in the manner shown in such materials. Said materials include, without limitation, quick-start guides, administration guides, user guides, operating instructions, blogs, white papers, data sheets, how-to videos, and other like materials, which cover in depth aspects of how to operate Arista routers/switches and/or other products, including the '111 Accused Products, and instruct end users how to operate these products in a manner that infringes at least claim 1 of the '111 Patent.

79. As a result of Arista's inducement of infringement, its customers and/or end users used and continue to use Arista's products, including the '111 Accused Products, in ways that directly infringe one or more claims of the '111 Patent, including claim 1, such as the ways described above with respect to the Arista 7050X3. Arista has had knowledge of its customers' and/or end users' direct infringement at least by virtue of its design, sales, instruction, and/or

otherwise promotion of Arista's products, including the '111 Accused Products, at least as of the filing of this Complaint.

80. Arista has also contributed to and continues to contribute to the infringement by others, including its customers and/or the end users of its products, of at least claim 1 of the '111 Patent under 35 U.S.C. § 271(c) by, among other things, selling, offering for sale within the United States and/or importing into the United States or otherwise making available the '111 Accused Products for use in practicing the patented inventions of the '111 Patent, knowing that the '111 Accused Products are especially made or adapted for use in infringement of the '111 Patent, are used in practicing the method and process claims of the '111 Patent, embody a material part of the inventions claimed in the '111 Patent, and are not staple articles of commerce suitable for substantial non-infringing use. Arista's customers and/or the end users of the '111 Accused Products directly infringe the '111 Patent by using the '111 Accused Products.

81. With knowledge of the '111 Patent, Arista has willfully, deliberately, and intentionally infringed the '111 Patent, and continues to willfully, deliberately, and intentionally infringe the '111 Patent. Arista had actual knowledge of the '111 Patent and Arista's infringement of the '111 Patent as set forth above. After acquiring that knowledge, Arista directly and indirectly infringed the '111 Patent as set forth above. Arista knew or should have known that its conduct amounted to infringement of the '111 Patent.

82. Arista will continue to infringe the '111 Patent unless and until it is enjoined by this Court. Arista, by way of its infringing activities, has caused and continues to cause Orckit to suffer damages in an amount to be determined, and has caused and is causing Orckit irreparable harm. Orckit has no adequate remedy at law against Arista's acts of infringement and, unless it is enjoined from its infringement of the '111 Patent, Orckit will continue to suffer irreparable harm.

83. Orckit is entitled to recover from Arista damages at least in an amount adequate to compensate for its infringement of the '111 Patent, which amount has yet to be determined, together with interest and costs determined by the Court.

84. Orckit has complied with the requirements of 35 U.S.C. § 287 with respect to the '111 Patent.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Orckit hereby demands a jury trial on all issues triable to a jury.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully prays for entry of judgment for Orckit and against Arista and enter the following relief:

a) A judgment that Arista has infringed and continues to infringe (directly and/or indirectly) one or more claims of the Asserted Patents, namely U.S. Patents Nos. 7,545,740 ("the '740 Patent"), 8,830,821 ("the '821 Patent"), and 10,652,111 ("the '111 Patent").

b) That Orckit recover all damages to which it is entitled under 35 U.S.C. § 284, but in no event less than a reasonable royalty;

c) That Arista be permanently enjoined from further infringement of the Asserted Patents;

d) That Orckit, as the prevailing party, shall recover from Arista all taxable costs of court;

e) That Orckit shall recover from Arista all pre- and post-judgment interest on the damages award, calculated at the highest interest rates allowed by law;

f) That Orckit shall recover from Arista an ongoing royalty in an amount to be determined for continued infringement after the date of judgment; and

g) That Arista's conduct was willful and that Orckit should therefore recover treble damages, including attorneys' fees, expenses, and costs incurred in this action, and an increase in the damage award pursuant to 35 U.S.C. § 284;

h) That this case is exceptional and that Orckit shall therefore recover its attorneys' fees and other recoverable expenses, under 35 U.S.C. § 285; and

i) That Orckit shall recover from Arista such other and further relief as the Court deems appropriate.

Dated: July 28, 2023

Respectfully submitted,

/s/ *Jacob R. Kirkham*

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