

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

PARITY NETWORKS LLC,

Plaintiff,

v.

BEIJER ELECTRONICS GROUP AB, BEIJER
ELECTRONICS, INC., WESTERMO DATA
COMMUNICATIONS, INC., AND KORENIX
TECHNOLOGY CO., LTD,

Defendant.

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CIVIL ACTION NO. _____

JURY TRIAL DEMANDED

ORIGINAL COMPLAINT

Plaintiff Parity Networks LLC (“Plaintiff” or “Parity Networks”), by and through its attorneys, for its Original Complaint against Beijer Electronics Group AB (“Beijer Group”), Beijer Electronics, Inc. (“Beijer Electronics”), Westermo Data Communications, Inc. (“Westermo”), and Korenix Technology Co., Ltd. (“Korenix”) (collectively, “Defendants”), and demanding trial by jury, hereby alleges as follows:

I. NATURE OF THE ACTION

1. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 271, *et seq.*, to enjoin and obtain damages resulting from Defendants’ unauthorized use, sale, and offer to sell in the United States of products, methods, processes, services and/or systems that infringe Parity Networks’ United States patents, as described herein.

2. Defendants manufacture, provide, use, sell, offer for sale, import, and/or distribute infringing products and services; and encourage others to use its products and services in an infringing manner, including their customers, as set forth herein.

3. Parity Networks seeks past damages and prejudgment and post-judgment interest for Defendants' past infringement of the Patents-in-Suit, as defined below.

II. PARTIES

4. Plaintiff Parity Networks is a limited liability company organized and existing under the laws of the State of Texas.

5. On information and belief, Defendant Beijer Group is a corporation organized under the laws of Sweden, with a place of business located at Stora Varvsgatan 13A, 211 75 Malmö, Sweden.

6. On information and belief, Defendant Beijer Electronics is a corporation organized under the laws of Utah, with a place of business located at 1865 West 2100 South, Salt Lake City, UT 84119. Beijer Electronics is a wholly owned subsidiary of Beijer Group.



https://www.beijerelectronics.com/en/Beijer_Group/About_us/Business_entities/Beijer_Electronics

7. On information and belief, Defendant Westermo is a corporation organized under the laws of Delaware, with a place of business located at 2531 Technology Drive, Suite 307, Elgin, IL 60124. Westermo's registered agent for service of process in Delaware is Corporation Service Company, 251 Little Falls Drive, Wilmington, DE 19808. Westermo is a wholly owned subsidiary of Beijer Group.



https://www.beijerelectronics.com/en/Beijer_Group/About_us/Business_entities/Westermo

8. On information and belief, Defendant Korenix is a limited company organized under the laws of Taiwan, with a place of business located at 14F, No. 213, Sec. 3, Beixin Rd., Xindian Dist., New Taipei City 23143, Taiwan (R.O.C.). Korenix is a wholly owned subsidiary of Beijer Group.



<https://www.korenix.com/en/about/index.aspx?kind=3>

9. On information and belief, Defendants Beijer Electronics and Korenix have operated as a single entity since January 1, 2022.

BEIJER GROUP has decided that the two business entities Beijer Electronics and Korenix should be reported as one segment named Beijer Electronics. The change will enter into force as of January 1, 2022.

<https://www.beijergroup.com/en/Media/Pressmeddelanden/cision-detail?cisionId=EC74D4CA2B8FDF64>

10. On information and belief, Defendants Beijer Electronics and Westermo operate as a single entity under the control of Defendant Beijer Group. The board of directors of the Beijer Group, the parent company for the other Defendants, includes both the CEO of Beijer Electronics, Stefan Lager, and the CEO Westermo, Jenny Sjö Dahl. Jenny Sjö Dahl also serves as President and CEO of Defendant Beijer Group.



Jenny Sjö Dahl

President and CEO of Beijer Electronics Group AB.
CEO of Westermo business entity . *Born in 1973.*
With Westermo since 2016.
Other assignments: Board member of Gunnebo Holding AB.
Holdings in Beijer Electronics Group AB: 9,862 shares and 100,000 call options.
In addition, conditional right to 12,238 shares*.

**Within the framework of share program.*



Stefan Lager

CEO of Beijer Electronics business entity . *Born in 1962.*
With Beijer Electronics since 2016.
Holdings in Beijer Electronics Group AB: 37,827. In addition, conditional right to 12,238 shares*.

**Within the framework of share program.*

https://www.beijergroup.com/en/Corporate_Governance/Senior_Executives

III. JURISDICTION AND VENUE

11. This is an action for patent infringement arising under the Patent Laws of the United States, in particular 35 U.S.C. §271, 281, 283, 284, and 285. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §1331 and 1338(a).

12. Upon information and belief, Defendants transact substantial business in the State of Delaware and in this District. Defendants, directly and through subsidiaries or intermediaries

(including distributors, retailers, resellers and others), have purposefully and voluntarily placed one or more of their infringing products, as described below, into the stream of commerce with the expectation that these infringing products will be purchased and used by customers in the District. Defendants have committed acts of patent infringement within the District.

13. This Court has personal jurisdiction over Defendants because they have committed acts giving rise to this action within the State of Delaware and within this District. The Court's exercise of jurisdiction over Defendants would not offend traditional notions of fair play and substantial justice because Defendants have established minimum contacts with the forum with respect to both general and specific jurisdiction.

14. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1400(b) and 28 U.S.C. § 1391(b), (c) because Defendant Westermo resides here, because the Defendants collectively operate as a single entity, because Defendant Korenix is a foreign entity not incorporated in the United States, and because Defendants have committed acts of infringement in this judicial district.

IV. FACTUAL ALLEGATIONS

PATENTS-IN-SUIT

15. Parity Networks is the owner of all right, title, and interest in and to U.S. Patent No. 6,763,394 (the "'394 Patent," attached as **Exhibit 1**), entitled "Virtual Egress Patent Classification at Ingress," issued on July 13, 2004.

16. Parity Networks is the owner of all right, title, and interest in and to U.S. Patent No. 6,870,844 (the "'844 Patent," attached as **Exhibit 2**), entitled "Apparatus and Methods for Efficient Multicasting of Data Packets," issued March 22, 2005.

17. Parity Networks is the owner of all right, title, and interest in and to U.S. Patent No. 7,103,046 (the "'046 Patent," attached as **Exhibit 3**), entitled "Method and Apparatus for

Intelligent Sorting and Process Determination of Data Packets Destined to a Central Processing Unit of a Router or Server on a Data Packet Network,” issued on September 5, 2006.

18. Parity Networks is the owner of all right, title, and interest in and to U.S. Patent No. 7,107,352 (the “’352 Patent,” attached as **Exhibit 4**), entitled “Virtual Egress Packet Classification at Ingress,” issued on September 12, 2006.

19. Parity Networks is the owner of all right, title, and interest in and to U.S. Patent No. 7,719,963 (the “’963 Patent,” attached as **Exhibit 5**), entitled “System for Fabric Packet Control,” issued on May 18, 2010.

20. Together, the foregoing patents are referred to herein as the “Patents-in-Suit.” Parity Networks is the assignee of the Patents-in-Suit and has all rights to sue for infringement and collect past damages for the infringement thereof.

DEFENDANTS’ ACTS

21. Defendants collectively operate as a provider of data networking products and solutions and provides hardware and software directed to switching and routing network data to its customers in the United States, including in this District. Defendants provide a variety of networking switches.

22. On information and belief, Defendants design, develop, support, and coordinate the importation into the United States of the exemplary accused products set forth below.

23. Defendants provide instructions on how to make and use the patented inventions of both the ’394 Patent and the ’352 Patent by configuring access control lists (ACL’s) on ingress and egress traffic in its accused switches and routers in accordance with its instructions and specifications.

24. Defendants describe configuring pass/drop rules for ACL’s using packet header information with or without an egress port identity:

4.11.1 Filter Set (Access Control List)

The Filter Set is known as Access Control List feature. There are 2 major types, one is MAC Filter, it is also known as Port Security in other JetNet series. It allows user to define the access rule based on the MAC address flexibility. Another one is IP Filter. It includes the IP security known in other JetNet series, IP Standard access list and advanced IP based access lists.

ACE is short of Access Control Entry, user defines the Permit or Deny rule for specific IP/MAC address or IP groups by network mask in each ACE. One ACL may include several ACEs, the system checks the ACEs one after one and forward based on the result. Once the rules conflict, the old entry is selected as the forward rule.

Korenix JetNet 6728G series - User Manual, Page 119,
<https://www.korenix.com/en/product/show.aspx?num=140>

IP Extended Access List: This kind of ACL allows user to define filter rules according to the source IP address, destination IP address, Source TCP/UDP port, destination TCP/UDP port and ICMP.

Click Add to configure the IP Filter Rules.

IP Filter Setting

Group Number	123
Source IP	
Source Wildcard	any
Destination IP	
Destination Wildcard	any
Protocol	IP
Egress Port	
Action	<input checked="" type="radio"/> Permit <input type="radio"/> Deny
<input type="button" value="Add"/>	

IP Filter List

Group Number	Type	Source IP	Source Wildcard	Destination IP	Destination Wildcard	Protocol	Action	Egress Port	Select
123		any	any	any	any	icmp	deny		<input type="checkbox"/>

Korenix JetNet 6728G series - User Manual, Page 122,
<https://www.korenix.com/en/product/show.aspx?num=140>

Protocols and Functionality	
Ethernet Technologies	-IEEE 802.3 for 10BaseT -IEEE 802.3u for 100BaseTX
Layer-2 QoS	-IEEE 802.1p Class of Service
IP Routing, Firewall, VPN and Cyber Security	-Static IP routing -Stateful inspection Firewall / ACL, NAT, Port Forwarding -3 x IPsec VPN ³ , PSK & X.509, Fail-over, SHA-2 and Xauth Server/Client -1 x OpenVPN / SSL VPN client -Simple Certificate Enrollment Protocol (SCEP) -RADIUS -PPP Dial in/Dial out

Westermo_ds_mrd-405 Datasheet, Page 3, <https://www.westermo.com/-/media/Files/Data->

[sheets/westermo_ds_mrd-405_2005_en_revf.pdf](#)

Custom Filters

The Custom Filter area is where the firewall's packet filter is configured to either allow or deny IP packets based on certain criteria. Packets can be matched based on the router's inbound or outbound network interface, the protocol, the source or destination addresses and ports.

The following options are available for each custom filter.

Enabled: Set the enabled check box to have the rule installed in the firewall. A rule can be temporarily disabled by unchecking this box.

Apply to Custom filters can be applied at three separate points in the router:

- **Forwarded packets:** This filter applies to packets that are received from one network interface and then routed out another network interface.
- **Locally destined packets:** This filter applies to packets destined for the router's internal services.
- **Locally generated packets:** This filter applies to packets generated by one of the router's internal services.

Incoming interface: If selected, packets will be matched based on the network interface they have been received on.

Outgoing interface: If selected, packets will be matched based on the network interface they will be transmitted from.

Protocol: If selected, packets will be matched based on their protocol type. To filter on a specific source or destination ports, the protocol must be set to TCP or UDP.

Destination address: Similar to the Source address, but instead matching on the destination address.

Destination port or range: Similar to the Source port or range, but instead matching on the destination port.

Action: Determines what action on packets who meet all of the matching criteria for the filter. If set to Deny, the packet will be dropped. If set to allow, the packet will be passed.

Firewall - Access Control, Port Forwarding, Custom NAT and Packet Filtering, Page 13,
https://www.westermo.com/-/media/Files/Applications/westermo_an_firewall_for_xrd_range_and_brd-355.pdf

25. Defendants instruct and encourage customers to make and use the patented inventions of the '844 Patent by operating the "multicast filtering" software components of its products in accordance with its instructions and specifications. Defendants specifically intend its customers to infringe by implementing "multicast filtering" software modules in its switches that

implement multicast protocols, such as Internet Group Management Protocol (IGMP), with a multicast-capable component coupled to the egress and ingress paths of the port in the manner claimed.

26. Defendants instruct and encourage users to configure the Internet Group Management Protocol. For example:

4.8 Multicast Filtering

For multicast filtering, *JetNet 6528Gf* uses IGMP Snooping technology. IGMP (Internet Group Management Protocol) is an Internet Protocol that provides a way for internet device to report its multicast group membership to adjacent routers. Multicasting allows one computer on the internet to send data to a multitude of other computers that have identified themselves as being interested in receiving the originating computers data.

Multicasting is useful for such applications as updating the address books of mobile computer users in the field, sending out newsletters to a distribution list, and broadcasting streaming media to an audience that has tuned into the event by setting up multicast group membership.

In effect, IGMP Snooping manages multicast traffic by making use of switches, routers, and hosts that support IGMP. Enabling IGMP Snooping allows the ports to detect IGMP queries, report packets, and manage multicast traffic through the switch. IGMP has three fundamental types of messages, as shown below:

Korenix JetNet 6528Gf Series - User Manual, Page 109,
<https://www.korenix.com/en/product/show.aspx?num=118>

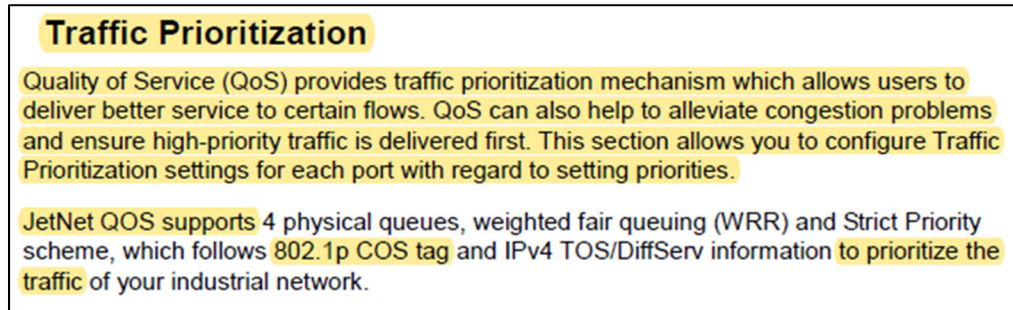
21.1.1 IGMP Snooping

With IGMP Snooping enabled, switches continuously track subscribed multicast groups and limit their reach to the abilities of the underlying switch fabric. Most devices support limiting up to 2048 groups, with exceptions for devices with fewer ports and hashing algorithms in the switch MAC database. When this resource is exhausted³, the device can be configured to either drop new flows or flood them on all ports (in the same VLAN).

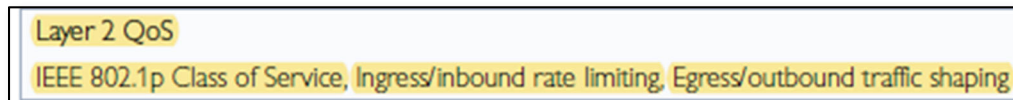
Westermo OS Management Guide Version 4.32.3-0, Page 517, https://www.westermo.com/-/media/Files/User-guides/westermo_mg_6101-3201_weos.pdf

27. Defendants provide instructions on how to make and use the patented inventions of the '046 Patent by configuring QoS, CoS, and 802.1p Priority software components in its accused

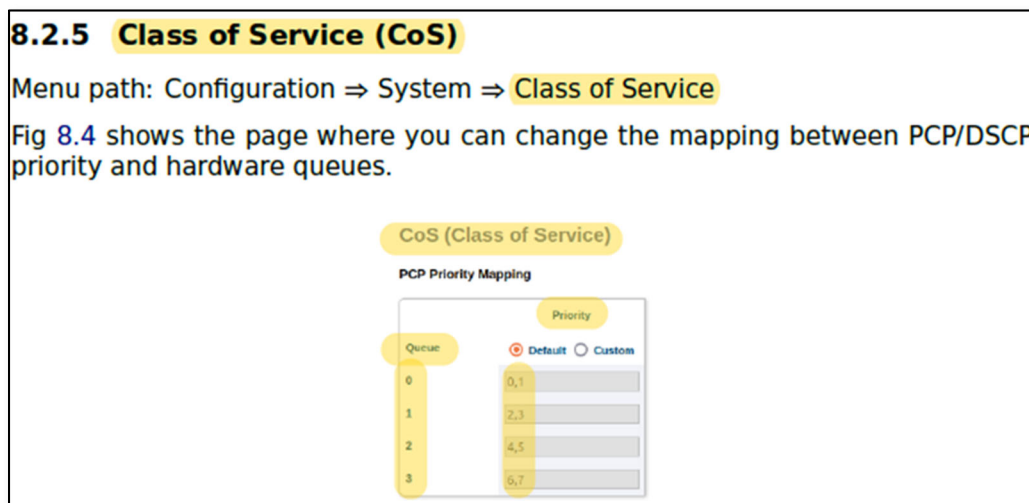
switches and routers in accordance with its instructions and specifications. For example, Defendants instruct as follows:



Beijer Electronics JetNet 6628X-4F Switch User Manual, Page 102,
<https://www.korenix.com/en/product/show.aspx?num=52#tab-3>



Westermo L105-S1 Managed Layer 2 Switch Datasheet, Page 5, https://www.westermo.com/-/media/Files/Data-sheets/westermo_ds_lynx_100-and-200-series_2205_en_revq.pdf



Westermo OS (Version 4) Management Guide, Page 181, https://www.westermo.com/-/media/Files/User-guides/westermo_mg_6101-3201_weos.pdf

28. Defendants describe using configuring its switches and routers as access controllers providing 802.1 port authentication:

After the configuration of Radius Server or Local user list, user also need configure the authentication mode, authentication behavior, applied VLAN for each port and permitted communication. The following information will explain the port configuration.

802.1X Port Configuration Help

802.1X Port Configuration

Port	Port Control	MAB	Re-authentication	Max Request	Guest VLAN	Host Mode	Admin Control Direction
<input type="checkbox"/> 1	Force Authorized ▼	Disable ▼	Disable ▼	2	0	Single ▼	Both ▼
<input type="checkbox"/> 2	Force Authorized ▼	Disable ▼	Disable ▼	2	0	Single ▼	Both ▼
<input type="checkbox"/> 3	Force Authorized ▼	Disable ▼	Disable ▼	2	0	Single ▼	Both ▼
<input type="checkbox"/> 4	Force Authorized ▼	Disable ▼	Disable ▼	2	0	Single ▼	Both ▼
<input type="checkbox"/> 5	Force Authorized ▼	Disable ▼	Disable ▼	2	0	Single ▼	Both ▼

Beijer Electronics JetNet 6628X-4F Switch User Manual, Page 121, <https://www.korenix.com/en/product/show.aspx?num=52#tab-3>

15.2 Port-based network access control

WeOS supports port-based network access control (PNAC). This security feature is used to stop unauthorised PCs or other equipment to access the network. Authentication is required to gain access. WeOS provides two authentication methods: IEEE 802.1X and MAC based authentication.

Ports with access control enabled (i.e., *controlled ports*) will by default be *blocked* for incoming traffic. Only when a connected device has successfully authenticated itself will it be allowed/authorised to send data through the port. Packets from unauthorised devices are still dropped, i.e., only packets with a source MAC address of devices authorised via 802.1X or MAC authentication are allowed.

Incoming broadcast and multicast packets from unauthorised devices will also be blocked. *Outgoing* broadcast and multicast packets will, however, **not** be blocked and are sent out as usual on *controlled ports*. IGMP joining of multicast groups will not work for unauthorised clients, as incoming IGMP join messages are dropped until the client is granted access.

Westermo OS (Version 4) Management Guide, Page 383, https://www.westermo.com/-/media/Files/User-guides/westermo_mg_6101-3201_weos.pdf

29. Defendants provide instructions on how to make and use the patented inventions of the '963 Patent by operating the “queuing” software components of its switches and routers that implement a WRED algorithm on packet queues to drop packets as a function of queue size (or

buffer) in order to manage congestion in the switch in accordance with its instructions and specifications.

30. Defendants describe the configuration and use of WRED queuing. For example:

The IP packet Type Of Service (TOS) field is used to indicate how a packet should be prioritised. Using the top 6 bits of the TOS field, a router that supports QOS will assign a DSCP (Differentiated Services Code Point) code to the packet. This may take place within the router when it receives the packet or another router closer to the packet source may have already assigned it. Based on the DSCP code, the router will assign the packet to a priority queue. There are currently four such queues for each PPP instance within the routers and each queue can be configured to behave in a particular way so that packets in that queue are prioritised for routing according to predefined rules.

There are two principle ways in which prioritisation may be effected:

- ◆ A priority queue can be configured to allow packets to be routed at a specified data rate (providing that queues of higher priority are not already using the available bandwidth)
- ◆ Weighted Random Early Dropping (WRED) of packets may be used as queues become busy in an attempt to get the TCP socket generating the packets to "back-off" it's transmit timers, thus preventing the queue overflow (which would result in all subsequent packets being dropped)

QOS is a complex subject and can have a significant impact on the performance of your router. For detailed background information on QOS refer to RFC2474 (Definition of the Differential Services Field).

Web Interface and Command Line Reference Guide - MR-200, Page 158,

https://www.westermo.com/-/media/Files/User-guides/westermo_mg_6622-3201_mr200_dr-200.pdf

Maximum packet Q length:

This parameter specifies the maximum length of a queue (in terms of the number of packets in the queue). Any packets received that would cause the maximum length to be exceeded are dropped.

WRED minimum threshold:

This parameter specifies the minimum queue length threshold for using the WRED algorithm to drop packets. Once the queue length exceeds this value the WRED algorithm may cause packets to be dropped.

WRED maximum threshold:

This parameter specifies the maximum queue length threshold for using the WRED algorithm to drop packets. Once the queue length exceeds this value the WRED algorithm will cause all packets to be dropped.

WRED maximum drop probability (%)

This parameter is used to set the maximum % probability used by the WRED algorithm to determine whether or not a packet should be dropped when the queue length is approaching the WRED maximum threshold value.

Note:

If the length of a queue is less than the WRED minimum threshold value, there is 0% chance that a packet will be dropped. When the queue length is between the WRED minimum and maximum values, the % chance of a packet being dropped increases linearly up to the WRED maximum drop probability %.

Web Interface and Command Line Reference Guide - MR-200, Page 160,
https://www.westermo.com/-/media/Files/User-guides/westermo_mg_6622-3201_mr200_dr-200.pdf

31. On information and belief, Defendants' customers deploy the accused products on networks in combination with other products. The specific code portions and modules directed to the infringing functionality will be identified as those systems are made available for inspection and review by Parity Networks.

32. On information of belief, Defendants also implement contractual protections in the form of license and use restrictions with its customers to preclude the unauthorized reproduction, distribution, and modification of its software.

33. Moreover, on information and belief, Defendants implement technical precautions to attempt to thwart customers who would circumvent the intended operation of Defendants' products.

NOTICE

34. Defendants had actual and/or constructive knowledge of the Patents-in-Suit and the infringing conduct as early as October 5, 2016 and November 28, 2016, when Defendant Korenix was sent notice letters by Parity. *See* Exhibit 6 (10.05.2016 Notice Letter); Exhibit 7 (11.28.2016 Notice Letter). In addition, Defendants have been provided with formal legal notice on the date when Parity Networks effected service of the Original Complaint.

V. COUNTS OF PATENT INFRINGEMENT

COUNT ONE

INFRINGEMENT OF U.S. PATENT NO. 6,763,394

35. Parity Networks incorporates by reference its allegations in the preceding paragraphs as if fully restated in this paragraph.

36. Parity Networks is the assignee and owner of all right, title, and interest to the '394 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

37. On information and belief, at least since the release of the '394 Exemplary Infringing Products and until the expiration of the '394 Patent, without authorization or license from Parity Networks, Defendants were directly infringing each and every element of at least claim 1 of the '394 Patent, either literally or equivalently, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling, and offering for sale methods and articles infringing one or more claims of the '394 Patent. Defendants are thus liable for direct infringement of the '394 Patent pursuant to 35 U.S.C. § 271(a).

38. Exemplary infringing products include Defendant Beijer Electronics' JetNet 6528Gf Series, JetNet 6628X-4F, JetNet 7628X-4F, JetNet 6628XP-4F, JetNet 6728G series, JetNet 5728G series, JetNet 4508f V2, JetNet 4508 V2, JetNet 4510 Series, JetNet 5010G Series, JetNet 5208G Series, JetNet 5210G-2C, JetNet 5212G-2C2F, JetNet 5612G-4F, JetNet 7014G V2, JetNet 7612G-4F, JetNet 6828Gf, JetNet 5612GP-4F, JetNet 7612GP-4F, JetNet 5208GP/JetNet 5208GP-2F, JetNet 5210GP-2C Series, JetNet 5212GP-2C2F Series, JetNet 6910G-M12, Defendant Westermo's MRD-405, MRD-415, MRD-455, MRD-455-NA, BRD-355A, BRD-355B, all substantially similar switches, all associated computer hardware, software and digital content, and all products operating in a substantially similar manner ("'394 Exemplary Infringing Products"). The '394 Exemplary Infringing Products use access control lists to perform filtering and dropping of packets at the ingress port for egress pass/drop determination, as set forth above and in the excerpts from Defendants' technical manuals.

39. On information and belief, at least since the release of the '394 Exemplary Infringing Products and until the expiration of the '394 Patent, without authorization or license from Parity Networks, Defendants were indirectly infringing each and every element of at least claim 1 of the '394 Patent, either literally or equivalently, including actively and knowingly inducing infringement of the '394 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Defendants know or should know infringe one or more claims of the '394 Patent. Defendants instruct and encourage customers to make and use the patented inventions of the '394 Patent by operating Defendants' products in accordance with Defendants' instructions and specifications. Defendants specifically intend its customers to infringe by implementing access control lists for filtering and dropping of packets implemented at the ingress port for egress pass/drop determination, as set forth above and in the excerpts from Defendants' technical manuals.

40. On information and belief, at least since the release of the '394 Exemplary Infringing Products and until the expiration of the '394 Patent, without authorization or license from Parity Networks, Defendants were indirectly infringing each and every element of at least claim 1 of the '394 Patent, including contributory infringement of the '394 Patent under 35 U.S.C. § 271(c) and/or § 271(f), either literally and/or under the doctrine of equivalents. Defendants' contributory infringement includes without limitation, Defendants' offer to sell, a component of a product or apparatus for use in a process, that (i) is material to practicing the invention claimed by claim 1 of the '394 Patent, (ii) is not a staple article or commodity of commerce suitable for substantial non-infringing use, and (iii) Defendants are aware or know to be especially made or especially adapted for use in infringement of the '394 Patent. Defendants specifically intend its

customers to infringe by implementing access control lists for filtering and dropping of packets implemented at the ingress port for egress pass/drop determination, as set forth above and in the excerpts from Defendants' technical manuals.

41. On information and belief, Defendants' customers deploy the accused products on networks in combination with other products. The specific code portions and modules directed to the infringing functionality will be identified as those systems are made available for inspection and review by Parity Networks.

42. As a result of Defendants' infringement of the '394 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT TWO
INFRINGEMENT OF U.S. PATENT NO. 6,870,844

43. Parity Networks incorporates by reference its allegations in the preceding paragraphs as if fully restated in this paragraph.

44. Parity Networks is the assignee and owner of all right, title, and interest to the '844 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

45. On information and belief, at least since the release of the '844 Exemplary Infringing Products and until the expiration of the '844 Patent, without authorization or license from Parity Networks, Defendants were directly infringing each and every element of at least claim 1 of the '844 Patent, either literally or equivalently, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling, and offering for sale methods and articles infringing one or more claims of the '844 Patent. Defendants are thus liable for direct infringement of the '844 Patent pursuant to 35 U.S.C. § 271(a).

46. Exemplary infringing products include Defendant Beijer Electronics' JetNet 6528Gf Series, JetNet 6628X-4F, JetNet 7628X-4F, JetNet 7628XP-4F, JetNet 6628XP-4F, JetNet 6728G series, JetNet 5728G series, JetNet 4508i, JetNet 4508if, JetNet 4510 / 4510-w, JetNet 5020G, JetNet 5208G/JetNet 5208G-2F Series, JetNet 5210G Switch, JetNet 5210G-2C, JetNet 5212G-2C2F, JetNet 5612G-4F, JetNet 7014G V2, JetNet 7612G-4F, JetNet 6828Gf, JetNet 5612GP-4F, JetNet 5208GP/ JetNet 5208GP-2F/ JetNet 5208GP-2F-U, JetNet 5210GP-2C Series, JetNet 5212GP-2C2F Series, JetNet 7612GP-4F, JetNet 6910G-M12, Defendant Westermo's L105-S1, L106-F2G, L106-S2, L108-F2G-S2, L108-F2G-S2-12VDC, L110-F2G, L110-F2G-12VDC, Lynx-3510-F2G-P8G-LV, Lynx 5512-F4G-T8G-LV, Lynx 5612-F4G-T8G-LV, RedFox-5528-F16G-T12G-HV, RedFox-5528-F16G-T12G-LV, RedFox-5528-F16G-T12G-MV, RedFox-5528-F4G-T24G-HV, RedFox-5528-F4G-T24G-LV, RedFox-5528-F4G-T24G-MV, RedFox-5528-T28G-HV, RedFox-5528-T28G-LV, RedFox-5528-T28G-MV, RedFox-7528-F4G10-F12G-T12G-LV, RFI-111-F4G-T7G, RFI-119-F4G-T7G, RFI-211-F4G-T7G, RFI-211-T3G, RFI-219-F4G-T7G, RFI-219-F4G-T7G-F8, RFI-219-T3G, RFIR-127-F4G-T7G-AC, RFIR-127-F4G-T7G-DC, RFIR-219-F4G-T7G-AC, RFIR-219-F4G-T7G-DC, RFIR-227-F4G-T7G-AC, RFIR-227-F4G-T7G-DC, Viper-108-T8G, Viper-112A, Viper-112A-P8-HV, Viper-112A-P8-LV, Viper-112A-T3G, Viper-112A-T3G-P8-HV, Viper-112A-T3G-P8-LV, Viper-112A-T5G, Viper-112A-T5G-P8-HV, Viper-112A-T5G-P8-LV, Viper-120A, Viper-120A-P8-HV, Viper-120A-P8-LV, Viper-120A-T4G, Viper-120A-T4G-P8-HV, Viper-120A-T4G-P8-LV, L205-S1, L206-F2G, L206-S2, L208-F2G-S2, L208-F2G-S2-12VDC, L210-F2G, L210-F2G-12VDC, Lynx-3510-E-F2G-P8G-LV, Lynx 5512-E-F4G-T8G-LV, Lynx 5612-E-F4G-T8G-LV, RedFox-5528-E-F16G-T12G-HV, RedFox-5528-E-F16G-T12G-LV, RedFox-5528-E-F16G-T12G-MV, RedFox-5528-E-F4G-T24G-HV, RedFox-5528-E-F4G-T24G-LV, RedFox-5528-E-F4G-T24G-

MV, RedFox-5528-E-T28G-HV, RedFox-5528-E-T28G-LV, RedFox-5528-E-T28G-MV, Viper-208-T4G-TBN, Viper-208-T8G, Viper-208-T8G-TBN, Viper-208-TBN, Viper-212A, Viper-212A-P8-HV, Viper-212A-P8-LV, Viper-212A-T3G, Viper-212A-T3G-P8-HV, Viper-212A-T3G-P8-LV, Viper-212A-T5G, Viper-212A-T5G-P8-HV, Viper-212A-T5G-P8-LV, Viper-220A, Viper-220A-P8-HV, Viper-220A-P8-LV, Viper-220A-T4G, Viper-220A-T4G-P8-HV, Viper-220A-T4G-P8-LV, RedFox-5728-E-F16G-T12G-HV, RedFox-5728-E-F16G-T12G-HVHV, RedFox-5728-E-F16G-T12G-LV, RedFox-5728-E-F16G-T12G-LVLV, RedFox-5728-E-F4G-T24G-HV, RedFox-5728-E-F4G-T24G-HVHV, RedFox-5728-E-F4G-T24G-LV, RedFox-5728-E-F4G-T24G-LVLV, RedFox-5728-F16G-T12G-HV, RedFox-5728-F16G-T12G-HVHV, RedFox-5728-F16G-T12G-LV, RedFox-5728-F16G-T12G-LVLV, RedFox-5728-F4G-T24G-HV, RedFox-5728-F4G-T24G-HVHV, RedFox-5728-F4G-T24G-LV, RedFox-5728-F4G-T24G-LVLV, all substantially similar switches, all associated computer hardware, software and digital content, and all products operating in a substantially similar manner (“’844 Exemplary Infringing Products”). The ’844 Exemplary Infringing Products. These products implement multicast protocols such as Internet Group Management Protocol (IGMP) in the manner claimed.

47. On information and belief, at least since the release of the ’844 Exemplary Infringing Products and until the expiration of the ’844 Patent, without authorization or license from Parity Networks, Defendants were indirectly infringing each and every element of at least claim 1 of the ’844 Patent, either literally or equivalently, including actively and knowingly inducing infringement of the ’844 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Defendants know or should know infringe one or more claims of the ’844 Patent. Defendants instruct and encourage customers to make and

use the patented inventions of the '844 Patent by operating Defendants' products in accordance with Defendants' instructions and specifications. Defendants specifically intend its customers to infringe by implementing multicast protocols such as Internet Group Management Protocol (IGMP) in the manner claimed as set forth above and in the excerpts from Defendants' technical manuals.

48. On information and belief, at least since the release of the '844 Exemplary Infringing Products and until the expiration of the '844 Patent, without authorization or license from Parity, Defendants were indirectly infringing each and every element of at least claim 1 of the '844 Patent, including contributorily infringing the '844 Patent under 35 U.S.C. § 271(c). Defendants' contributory infringement includes without limitation, Defendants' offer to sell, a component of a product or apparatus for use in a process, that (i) is material to practicing the invention claimed by claim 1 of the '844 Patent, (ii) is not a staple article or commodity of commerce suitable for substantial non-infringing use, and (iii) Defendants are aware or knows to be especially made or especially adapted for use in infringement of the '844 Patent.

49. On information and belief, Defendants' customers deploy the accused products on networks in combination with other products. The specific code portions and modules directed to the infringing functionality will be identified as those systems are made available for inspection and review by Parity Networks.

50. As a result of Defendants' infringement of the '844 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT THREE
INFRINGEMENT OF U.S. PATENT NO. 7,103,046

51. Parity Networks incorporates by reference its allegations in the preceding paragraphs as if fully restated in this paragraph.

52. Parity Networks is the assignee and owner of all right, title, and interest to the '046 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

53. On December 22, 2020, certain claims of the '046 Patent were ruled indefinite by the U.S. District Court for the Central District of California.¹ *See Parity Networks v. Edgecore USA Corp. et. al.*, Civ. No. SACV 20-699JVS, in the U.S. District Court for the Central District of California at Dkt. No. 51 (the "Edgecore Case"). Subsequently, on January 13, 2021 while the Edgecore Case was still pending, the Court in the Western District of Texas, Waco Division, ruled those same claims as not indefinite. *See Parity Networks, LLC v. D-Link Corp.*, W-20-CV-00093-ADA, in the U.S. District Court for the Western District of the United States, Waco Division at Dkt. No. 41.

54. On information and belief, at least since the release of the '046 Exemplary Infringing Products and until the expiration of the '046 Patent, without authorization or license from Parity Networks, Defendants were directly infringing each and every element of at least claim 1 of the '046 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing

¹ *See also Parity Networks, LLC v. ZyXEL Communications, Inc.*, Civ. No. SACV 20-697JVS, in the U.S. District Court for the Central District of California; *Parity Networks, LLC v. Moxa Inc. et al.*, Civ. No. SACV 20-698JVS, in the U.S. District Court for the Central District of California.

one or more claims of the '046 Patent. Defendants are thus liable for direct infringement of the '046 Patent pursuant to 35 U.S.C. § 271(a).

55. Exemplary infringing products include Defendant Beijer Electronics' JetNet 6528Gf Series, JetNet 6628X-4F, JetNet 7628X-4F, JetNet 6628XP-4F, JetNet 6728G series, JetNet 5728G series, JetNet 4508f V2, JetNet 4508 V2, JetNet 4510 Series, JetNet 5010G Series, JetNet 5208G Series, JetNet 5210G-2C, JetNet 5212G-2C2F, JetNet 5612G-4F, JetNet 7014G V2, JetNet 7612G-4F, JetNet 6828Gf, JetNet 5612GP-4F, JetNet 7612GP-4F, JetNet 5208GP / JetNet 5208GP-2F, JetNet 5210GP-2C Series, JetNet 5212GP-2C2F Series, JetNet 6910G-M12, Defendant Westermo's L105-S1, L106-F2G, L106-S2, L108-F2G-S2, L108-F2G-S2-12VDC, L110-F2G, L110-F2G-12VDC, PMI-110-F2G, RFI-111-F4G-T7G, RFI-119-F4G-T7G, RFI-211-F4G-T7G, RFI-211-T3G, RFI-219-F4G-T7G, RFI-219-F4G-T7G-F8, RFI-219-T3G, RFIR-127-F4G-T7G-AC, RFIR-127-F4G-T7G-DC, RFIR-219-F4G-T7G-AC, RFIR-219-F4G-T7G-DC, RFIR-227-F4G-T7G-AC, RFIR-227-F4G-T7G-DC, Viper-112A, Viper-112A-P8-HV, Viper-112A-P8-LV, Viper-112A-T3G, Viper-112A-T3G-P8-HV, Viper-112A-T3G-P8-LV, Viper-112A-T5G, Viper-112A-T5G-P8-HV, Viper-112A-T5G-P8-LV, Viper-120A, Viper-120A-P8-HV, Viper-120A-P8-LV, Viper-120A-T4G, Viper-120A-T4G-P8-HV, Viper-120A-T4G-P8-LV, L205-S1, L206-F2G, L206-S2, L208-F2G-S2, L208-F2G-S2-12VDC, L210-F2G, L210-F2G-12VDC, Viper-212A, Viper-212A-P8-HV, Viper-212A-P8-LV, Viper-212A-T3G, Viper-212A-T3G-P8-HV, Viper-212A-T3G-P8-LV, Viper-212A-T5G, Viper-212A-T5G-P8-HV, Viper-212A-T5G-P8-LV, Viper-220A, Viper-220A-P8-HV, Viper-220A-P8-LV, Viper-220A-T4G, Viper-220A-T4G-P8-HV, Viper-220A-T4G-P8-LV, all substantially similar switches, all associated computer hardware, software and digital content, and all products operating in a substantially similar manner ("'046 Exemplary Infringing Products"). The '046 Exemplary

Infringing Products include one or more packet processors that categorize packets into categories based on the source of the packet and the packets are placed in a queue and processed by a CPU based on a priority of those categories, as set forth above and in the excerpts from Defendants' technical manuals.

56. As a result of Defendants' infringement of the '046 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT FOUR
INFRINGEMENT OF U.S. PATENT NO. 7,107,352

57. Parity Networks incorporates by reference its allegations in the preceding paragraphs as if fully restated in this paragraph.

58. Parity Networks is the assignee and owner of all right, title, and interest to the '352 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

59. On information and belief, at least since the release of the '352 Exemplary Infringing Products and until the expiration of the '352 Patent, without authorization or license from Parity Networks, Defendants were directly infringing each and every element of at least claim 1 of the '352 Patent, either literally or equivalently, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling, and offering for sale methods and articles infringing one or more claims of the '352 Patent. Defendants are thus liable for direct infringement of the '352 Patent pursuant to 35 U.S.C. § 271(a).

60. Exemplary infringing products include Defendant Beijer Electronics' JetNet 6528Gf Series, JetNet 6628X-4F, JetNet 7628X-4F, JetNet 6628XP-4F, JetNet 6728G series, JetNet 5728G series, JetNet 4508f V2, JetNet 4508 V2, JetNet 4510 Series, JetNet 5010G Series,

JetNet 5208G Series, JetNet 5210G-2C, JetNet 5212G-2C2F, JetNet 5612G-4F, JetNet 7014G V2, JetNet 7612G-4F, JetNet 6828Gf, JetNet 5612GP-4F, JetNet 7612GP-4F, JetNet 5208GP/JetNet 5208GP-2F, JetNet 5210GP-2C Series, JetNet 5212GP-2C2F Series, JetNet 6910G-M12, Defendant Westermo's MRD-405, MRD-415, MRD-455, MRD-455-NA, BRD-355A, BRD-355B, all substantially similar switches, all associated computer hardware, software and digital content, and all products operating in a substantially similar manner ("’352 Exemplary Infringing Products"). The ’352 Exemplary Infringing Products use access control lists to perform filtering and dropping of packets at the ingress port for egress pass/drop determination, as set forth above and in the excerpts from Defendants' technical manuals.

61. On information and belief, at least since the release of the ’352 Exemplary Infringing Products and until the expiration of the ’352 Patent, without authorization or license from Parity Networks, Defendants were indirectly infringing each and every element of at least claim 1 of the ’352 Patent, either literally or equivalently, including actively and knowingly inducing infringement of the ’352 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Defendants know or should know infringe one or more claims of the ’352 Patent. Defendants instruct and encourage customers to make and use the patented inventions of the ’352 Patent by operating Defendants' products in accordance with Defendants' instructions and specifications. Defendants specifically intend its customers to infringe by implementing access control lists for filtering and dropping of packets implemented at the ingress port for egress pass/drop determination, as set forth above and in the excerpts from Defendants' technical manuals.

62. On information and belief, at least since the release of the '352 Exemplary Infringing Products and until the expiration of the '352 Patent, without authorization or license from Parity Networks, Defendants were indirectly infringing each and every element of at least claim 1 of the '352 Patent, including contributory infringement of the '352 Patent under 35 U.S.C. § 271(c) and/or § 271(f), either literally and/or under the doctrine of equivalents. Defendants' contributory infringement includes without limitation, Defendants' offer to sell, a component of a product or apparatus for use in a process, that (i) is material to practicing the invention claimed by claim 1 of the '352 Patent, (ii) is not a staple article or commodity of commerce suitable for substantial non-infringing use, and (iii) Defendants are aware or know to be especially made or especially adapted for use in infringement of the '352 Patent. Defendants specifically intend its customers to infringe by implementing access control lists for filtering and dropping of packets implemented at the ingress port for egress pass/drop determination, as set forth above and in the excerpts from Defendants' technical manuals.

63. On information and belief, Defendants' customers deploy the accused products on networks in combination with other products. The specific code portions and modules directed to the infringing functionality will be identified as those systems are made available for inspection and review by Parity Networks.

64. As a result of Defendants' infringement of the '352 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT FIVE
INFRINGEMENT OF U.S. PATENT NO. 7,719,963

65. Parity Networks incorporates by reference its allegations in the preceding paragraphs as if fully restated in this paragraph.

66. Parity Networks is the assignee and owner of all right, title, and interest to the '963 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

67. On information and belief, at least since the release of the '963 Exemplary Infringing Products and until the expiration of the '963 Patent, without authorization or license from Parity Networks, Defendants were directly infringing each and every element of at least claim 1 of the '963 Patent, either literally or equivalently, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling, and offering for sale methods and articles infringing one or more claims of the '963 Patent. Defendants are thus liable for direct infringement of the '963 Patent pursuant to 35 U.S.C. § 271(a).

68. Exemplary infringing products include Defendant Westermo's DR-200, MR-200, MR-250, DR-250, all substantially similar switches, all associated computer hardware, software and digital content, and all products operating in a substantially similar manner ("'963 Exemplary Infringing Products"). The '963 Exemplary Infringing Products support Queue Management at each port for managing outgoing data traffic. The '963 Exemplary Infringing Products support a WRED algorithm on packet queues to drop packets as a function of queue size (or buffer) in order to manage congestion in the switch, as set forth above and in the excerpts from Defendants' technical manuals.

69. As a result of Defendants' infringement of the '963 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

VI. JURY DEMAND

70. Plaintiff Parity Networks demands a trial by jury of all matters to which it is entitled to trial by jury, pursuant to FED. R. CIV. P. 38.

VII. PRAYER FOR RELIEF

WHEREFORE, Parity Networks prays for judgment and seeks relief against Defendant as follows:

- A. That the Court determine that one or more claims of the Patents-in-Suit is infringed by Defendant, either literally or under the doctrine of equivalents;
- B. That the Court award damages adequate to compensate Parity Networks for the patent infringement that has occurred, together with prejudgment and post-judgment interest and costs, and an ongoing royalty for continued infringement; and
- C. That the Court award such other relief to Parity Networks as the Court deems just and proper.

Dated: November 21, 2022

Respectfully submitted,

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