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9

10 UNITED STATES DISTRICT COURT
11 CENTRAL DISTRICT OF CALIFORNIA
12 SOUTHERN DIVISION

13

14 INTERNATIONAL LICENSE
15 EXCHANGE OF AMERICA, LLC,

16 Plaintiff,

17 v.

18 MONOPRICE, INC.,

19 Defendant.
20

) Case No.: 8:20-cv-00756

) **COMPLAINT FOR PATENT
INFRINGEMENT**

) JURY TRIAL DEMANDED

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1 **COMPLAINT FOR PATENT INFRINGEMENT**

2 Plaintiff International License Exchange of America, LLC (“ILEA” or
3 “Plaintiff”), for its Complaint against Defendant Monoprice, Inc. (“Monoprice” or
4 “Defendant”), alleges the following:

5 **NATURE OF THE ACTION**

6 1. This is an action for patent infringement arising under the Patent Laws of
7 the United States, 35 U.S.C. § 1 *et seq.*, seeking monetary damages and other relief
8 against Defendant due to its infringement of United States Patent Nos. RE44,775 (the
9 “775 patent”), RE45,065 (the “065 patent”), RE45,081 (the “081 patent”),
10 RE45,095 (the “095 patent”), RE40,999 (the “999 patent”), and 5,959,990 (the “990
11 patent”), together the “patents in suit,” in accordance with 35 U.S.C. § 271.

12 **THE PARTIES**

13 2. Plaintiff is a corporation organized under the laws of the State of
14 Delaware with a place of business at 10 Balligomingo Rd., West Conshohocken, PA
15 19428.

16 3. Upon information and belief, Monoprice is a corporation organized and
17 existing under the laws of California, with a place of business at 11701 6th Street,
18 Rancho Cucamonga, CA 91730, and can be served through its registered agent
19 Bernard Luthi, One Pointe Dr. Suite 400, Brea, CA 92821.

20 **JURISDICTION AND VENUE**

21 4. This is an action for patent infringement arising under the Patent Laws of
22 the United States, Title 35 of the United States Code.

23 5. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and
24 1338(a).

25 6. On information and belief, Defendant is subject to this Court’s specific
26 and general personal jurisdiction, pursuant to due process and the California long-arm
27 statute, CAL. CODE OF CIVIL PROCEDURE § 410.10, due at least to its business in
28 this forum, including at least a portion of the infringements alleged herein.

1 Furthermore, Defendant is subject to this Court’s specific and general personal
2 jurisdiction because Defendant is a California corporation.

3 7. Plaintiff’s claims arise directly from Defendant’s business contacts and
4 other activities in the State of California and in the Central District of California:
5 Defendant is present within or has minimum contacts within the State of California
6 and the Central District of California; Defendant has purposefully availed itself of the
7 privileges of conducting business in the State of California and in the Central District
8 of California; Defendant has sought protection and benefit from the laws of the State
9 of California; and, Defendant regularly conducts business within the State of
10 California and within the Central District of California.

11 8. Defendant directly or through intermediaries, makes, uses, offers for sale,
12 imports, sells, advertises or distributes products and services in the United States, the
13 State of California, and the Central District of California. This Court also has
14 personal jurisdiction over Defendant because Defendant has committed acts of patent
15 infringement in California, including in this District.

16 9. Defendant has systematically and continuously harmed Plaintiff in this
17 jurisdiction by infringing one or more claims of the patents in suit.

18 10. Venue is proper in this judicial district under 28 U.S.C. §§ 1391(a) & (c),
19 and 1400(b). On information and belief, Defendant is a California corporation. On
20 information and belief, Defendant has committed acts of infringement in this district
21 and has places of business at 11701 6th Street, Rancho Cucamonga, CA 91730 and
22 One Pointe Dr. Suite 400, Brea, CA 92821 in this district.

23 COUNT I – INFRINGEMENT OF U.S. PATENT NO. 5,959,990

24 11. The allegations set forth in the foregoing paragraphs 1 through 10 are
25 incorporated into this First Claim for Relief.

26 12. On September 28, 1999, U.S. Patent No. 5,959,990 (the “’990 patent”),
27 entitled “VLAN Frame Format,” was duly and legally issued by the United States
28 Patent and Trademark Office. A true and correct copy of the ’990 patent is attached

1 as Exhibit 1. The application leading to the '990 patent is the ultimate priority
2 application for U.S. Pat. Nos. RE40999, RE44775, RE45065, RE45081, RE45095,
3 RE45121, RE45521, RE45598, RE45708, each of which recites subject matter
4 supported by the same written description.

5 13. The inventive embodiments of the '990 patent resolve technical problems
6 related to virtual local area network ("VLAN") and methods to format a data frame in
7 VLAN network devices. Such technologies are a required part of the IEEE 802.1Q
8 standard for VLAN tagging for ethernet frames and accompanying procedures used by
9 networking equipment (such as bridges, switches, or routers) in handling VLAN-
10 tagged frames. Thus, 802.1Q-certified local area networks and equipment, and
11 uncertified equipment that nonetheless implements the mandatory features of the
12 802.1Q standard, necessarily meet the claim limitations of the '990 patent.

13 14. The claims of the '990 patent do not merely recite the performance of
14 some business practice known from the pre-Internet world along with a requirement to
15 perform it on the Internet. Instead, the claims of the '990 patent recite one or
16 more inventive concepts that are rooted in computerized electronic data
17 communications networks, and an improved method to operate such networks and to
18 maintain the interoperability of different physical configurations of such networks.

19 15. The claims of the '990 patent recite an invention that is not merely the
20 routine or conventional use of electronic devices for communications. Instead, for
21 example, the invention adds new features to integrate Ethernet and other protocols
22 together on a shared network. The '990 patent claims thus include improvements for,
23 for example, formatting data frames to yield a desired result.

24 16. The technology claimed in the '990 patent does not preempt all ways of
25 using computerized devices or transmitting information over networks, nor preempt
26 any other well-known or prior art technology.

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1 17. Accordingly, each claim of the '990 patent recites a combination of
2 elements sufficient to ensure that the claim in practice amounts to significantly more
3 than a patent on an ineligible concept.

4 18. Plaintiff is the assignee and owner of the right, title and interest in and to
5 the '990 patent, including the right to assert all causes of action arising under the
6 patents and the right to any remedies for infringement of them.

7 19. Upon information and belief, Defendant directly infringed at least claim
8 1 of the '990 patent by having made, used, sold, imported and/or provided for use
9 without authority within the United States, 802.1Q-compliant local area networks and
10 equipment performing a method to format a data frame in VLAN network devices; for
11 example, depending on the physical configuration of a VLAN, the embodiments
12 include a method to adjust the format of a data frame to reflect the characteristics of
13 the particular physical configuration of the VLAN (the "'990 Accused
14 Instrumentalities"). The '990 Accused Instrumentalities include at least the following
15 products: Monoprice's Ethernet SNMP Switches and Web Smart Switches.

16 20. In particular, claim 1 of the '990 patent generally recites a method in a
17 network device. The method includes transmitting, on a shared communications
18 medium coupled to the network device, a data frame associated with a virtual
19 network, comprising the steps of: a) transmitting a data frame having a type field
20 whose contents indicate the data frame comprises a virtual network identifier field;
21 and, b) transmitting the virtual network identifier field whose contents indicate the
22 virtual network associated with the data frame.

23 21. On information and belief, use of the '990 Accused Instrumentalities
24 reads on and infringes at least claim 1 of the '990 patent. (*See, e.g.*,
25 https://www.monoprice.com/product?p_id=18520 (last accessed April 10, 2020);
26 https://www.monoprice.com/product?p_id=21513 (last accessed April 10, 2020);
27 https://www.monoprice.com/product?p_id=10744 (last accessed April 10, 2020);
28 https://www.monoprice.com/product?p_id=18522 (last accessed April 10, 2020);

1 https://www.monoprice.com/product?p_id=10743 (last accessed April 10, 2020);
2 https://www.monoprice.com/product?p_id=10742 (last accessed April 10, 2020);
3 https://www.monoprice.com/product?p_id=10741 (last accessed April 10, 2020);
4 https://www.monoprice.com/product?p_id=30739 (last accessed April 10, 2020);
5 https://www.monoprice.com/product?p_id=30740 (last accessed April 10, 2020); *see*
6 *also* the IEEE Standard for Local and metropolitan area networks: Media Access
7 Control (MAC) Bridges and Virtual Bridge Local Area Networks, IEEE Std
8 802.1QTM-2011 (Revision of IEEE Std 802.1Q-2005), 31 August 2011 (*e.g.* p. 1, 23,
9 98, 103-105, 149-150, 1269); IEEE Std 802.1QTM-2014; IEEE Std 802.3TM-2012
10 (*e.g.* p. 53); IEEE 802.1Q VLAN Tutorial (Graham Shaw, *available at*
11 <http://www.microhowto.info/tutorials/802.1Q.html> (last accessed June 11, 2019));
12 <https://wiki.openwrt.org/doc/howto/wireless.security.8021x> (last accessed June 11,
13 2019).)

14 22. On information and belief, the '990 Accused Instrumentalities are used,
15 marketed, provided to, and/or used by or for each of Defendant's partners, clients,
16 customers and end users across the country and in this District.

17 23. Plaintiff has been harmed by Defendant's infringing activities.

18 COUNT II – INFRINGEMENT OF U.S. PATENT NO. RE40,999

19 24. The allegations set forth in the foregoing paragraphs 1 through 23 are
20 incorporated into this Second Claim for Relief.

21 25. On November 24, 2009, U.S. Patent No. RE40,999 ("the '999 patent"),
22 entitled "VLAN Frame Format," was duly and legally issued by the United States
23 Patent and Trademark Office. A true and correct copy of the '999 patent is attached
24 as Exhibit 2. The '999 patent is part of a family of eleven U.S. patents stemming from
25 U.S. Pat. No. 5,959,990.

26 26. The inventive embodiments of the '999 patent resolve technical problems
27 related to virtual local area network ("VLAN") and methods to format a data frame in
28 VLAN network devices. Such technologies are a required part of the IEEE 802.1Q

1 standard for VLAN tagging for ethernet frames and accompanying procedures used by
2 networking equipment (such as bridges, switches, or routers) in handling VLAN-
3 tagged frames. Thus, 802.1Q-certified local area networks and equipment, and
4 uncertified equipment that nonetheless implements the mandatory features of the
5 802.1Q standard, necessarily meet the claim limitations of the '999 patent.

6 27. The claims of the '999 patent do not merely recite the performance of
7 some business practice known from the pre-Internet world along with a requirement to
8 perform it on the Internet. Instead, the claims of the '999 patent recite one or
9 more inventive concepts that are rooted in computerized electronic data
10 communications networks, and an improved method to operate such networks and to
11 maintain the interoperability of different physical configurations of such networks.

12 28. The claims of the '999 patent recite an invention that is not merely the
13 routine or conventional use of electronic devices for communications. Instead, among
14 other things, the invention adds new features to integrate Ethernet and other protocols
15 together on a shared network. The '999 patent claims thus include improvements for,
16 for example, formatting data frames to yield a desired result.

17 29. The technology claimed in the '999 patent does not preempt all ways of
18 using computerized devices or transmitting information over networks, nor preempt
19 any other well-known or prior art technology.

20 30. Accordingly, each claim of the '999 patent recites a combination of
21 elements sufficient to ensure that the claim in practice amounts to significantly more
22 than a patent on an ineligible concept.

23 31. Plaintiff is the assignee and owner of the right, title and interest in and to
24 the '999 patent, including the right to assert all causes of action arising under said
25 patents and the right to any remedies for infringement of them.

26 32. Upon information and belief, Defendant had and continued to directly
27 infringe at least claims 1 and 7 of the '999 patent by having made, used, sold,
28 imported and/or provided for use without authority within the United States, 802.1Q-

1 compliant local area networks and equipment performing a method of identifying a
2 virtual network associated with a data frame in VLAN network devices (the “’999
3 Accused Instrumentalities”). The ’999 Accused Instrumentalities include at least the
4 following products: Monoprice’s Ethernet SNMP Switches and Web Smart Switches.

5 33. In particular, claim 1 of the ’999 patent generally recites a method of
6 identifying a virtual network associated with a data frame when transmitting the data
7 frame between a communications medium and a shared communications medium;
8 where the method comprises: a) receiving the data frame from the communications
9 medium, where the data frame includes a first type field and a data field; b) inserting a
10 second type field at a location within the data frame preceding the first type field, a
11 value of the second type field indicating the data frame include a virtual network
12 identifier field, c) inserting the virtual network identifier field at a location between
13 the second type field and the first type field; d) assigning a first value to the virtual
14 network identifier field, the first value corresponding to the virtual network; and
15 e) transmitting the data frame over the shared communications medium.

16 34. On information and belief, use of the ’999 Accused Instrumentalities
17 reads on and infringes at least claim 1 of the ’999 patent. (*See, e.g.*,
18 https://www.monoprice.com/product?p_id=18520 (last accessed April 10, 2020);
19 https://www.monoprice.com/product?p_id=21513 (last accessed April 10, 2020);
20 https://www.monoprice.com/product?p_id=10744 (last accessed April 10, 2020);
21 https://www.monoprice.com/product?p_id=18522 (last accessed April 10, 2020);
22 https://www.monoprice.com/product?p_id=10743 (last accessed April 10, 2020);
23 https://www.monoprice.com/product?p_id=10742 (last accessed April 10, 2020);
24 https://www.monoprice.com/product?p_id=10741 (last accessed April 10, 2020);
25 https://www.monoprice.com/product?p_id=30739 (last accessed April 10, 2020);
26 https://www.monoprice.com/product?p_id=30740 (last accessed April 10, 2020); *see*
27 *also* the IEEE Standard for Local and metropolitan area networks: Media Access
28 Control (MAC) Bridges and Virtual Bridge Local Area Networks, IEEE Std

1 802.1QTM-2011 (Revision of IEEE Std 802.1Q-2005), 31 August 2011 (*e.g.* p. 1, 23,
2 98, 103-105, 149-150, 1269); IEEE Std 802.1QTM-2014; IEEE Std 802.3TM-2012
3 (*e.g.* p. 53); IEEE 802.1Q VLAN Tutorial (Graham Shaw, *available at*
4 <http://www.microhowto.info/tutorials/802.1Q.html> (last accessed June 11, 2019));
5 <https://wiki.openwrt.org/doc/howto/wireless.security.8021x> (last accessed June 11,
6 2019).)

7 35. Claim 7 of the '999 patent generally recites the method of identifying a
8 virtual network associated with a data frame when transmitting the data frame
9 between a communications medium and a shared communications medium, where the
10 method comprises: a) receiving the data frame from the communications medium, the
11 data frame including a length field and a data field; b) inserting a type field at a
12 location within the data frame preceding the length field, a value of the type field
13 indicating the data frame includes a virtual network identifier field; c) inserting the
14 virtual network identifier field at a location between the type field and the length field,
15 d) assigning a first value to the virtual network identifier field, the first value
16 corresponding to the virtual network; and e) transmitting the data frame over the
17 shared communications medium.

18 36. On information and belief, use of the '999 Accused Instrumentalities
19 reads on and infringes at least claim 7 of the '999 patent. (*See, e.g.*,
20 https://www.monoprice.com/product?p_id=18520 (last accessed April 10, 2020);
21 https://www.monoprice.com/product?p_id=21513 (last accessed April 10, 2020);
22 https://www.monoprice.com/product?p_id=10744 (last accessed April 10, 2020);
23 https://www.monoprice.com/product?p_id=18522 (last accessed April 10, 2020);
24 https://www.monoprice.com/product?p_id=10743 (last accessed April 10, 2020);
25 https://www.monoprice.com/product?p_id=10742 (last accessed April 10, 2020);
26 https://www.monoprice.com/product?p_id=10741 (last accessed April 10, 2020);
27 https://www.monoprice.com/product?p_id=30739 (last accessed April 10, 2020);
28 https://www.monoprice.com/product?p_id=30740 (last accessed April 10, 2020); *see*

1 *also* the IEEE Standard for Local and metropolitan area networks: Media Access
2 Control (MAC) Bridges and Virtual Bridge Local Area Networks, IEEE Std
3 802.1QTM-2011 (Revision of IEEE Std 802.1Q-2005), 31 August 2011 (*e.g.* p. 1, 23,
4 98, 103-105, 149-150, 1269); IEEE Std 802.1QTM-2014; IEEE Std 802.3TM-2012
5 (*e.g.* p. 53); IEEE 802.1Q VLAN Tutorial (Graham Shaw, *available at*
6 <http://www.microhowto.info/tutorials/802.1Q.html> (last accessed June 11, 2019));
7 <https://wiki.openwrt.org/doc/howto/wireless.security.8021x> (last accessed June 11,
8 2019).)

9 37. On information and belief, the '999 Accused Instrumentalities are used,
10 marketed, provided to, and/or used by or for each of Defendant's partners, clients,
11 customers and end users across the country and in this District.

12 38. Plaintiff has been harmed by Defendant's infringing activities.

13 COUNT III – INFRINGEMENT OF U.S. PATENT NO. RE44,775

14 39. The allegations set forth in the foregoing paragraphs 1 through 38 are
15 incorporated into this Third Claim for Relief.

16 40. On February 25, 2014, U.S. Patent No. RE44,775 ("the '775 patent"),
17 entitled "VLAN Frame Format," was duly and legally issued by the United States
18 Patent and Trademark Office. A true and correct copy of the '775 patent is attached
19 as Exhibit 3. The '775 patent is part of a family of eleven U.S. patents stemming from
20 U.S. Pat. No. 5,959,990.

21 41. The inventive embodiments of the '775 patent resolve technical problems
22 related to virtual local area network ("VLAN") and methods to format a data frame in
23 VLAN network devices. Such technologies are a required part of the IEEE 802.1Q
24 standard for VLAN tagging for ethernet frames and accompanying procedures used by
25 networking equipment (such as bridges, switches, or routers) in handling VLAN-
26 tagged frames. Thus, 802.1Q-certified local area networks and equipment, and
27 uncertified equipment that nonetheless implements the mandatory features of the
28 802.1Q standard, necessarily meet the claim limitations of the '775 patent.

1 42. The claims of the '775 patent do not merely recite the performance of
2 some business practice known from the pre-Internet world along with a requirement to
3 perform it on the Internet. Instead, the claims of the '775 patent recite one or
4 more inventive concepts that are rooted in computerized electronic data
5 communications networks, and an improved method to operate such networks and to
6 maintain the interoperability of different physical configurations of such networks.

7 43. The claims of the '775 patent recite an invention that is not merely the
8 routine or conventional use of electronic devices for communications. Instead, among
9 other things, the invention adds new features to integrate Ethernet and other protocols
10 together on a shared network. The '775 patent claims thus include improvements for,
11 for example, formatting data frames to yield a desired result.

12 44. The technology claimed in the '775 patent does not preempt all ways of
13 using computerized devices or transmitting information over networks, nor preempt
14 any other well-known or prior art technology.

15 45. Accordingly, each claim of the '775 patent recites a combination of
16 elements sufficient to ensure that the claim in practice amounts to significantly more
17 than a patent on an ineligible concept.

18 46. Plaintiff is the assignee and owner of the right, title and interest in and to
19 the '775 patent, including the right to assert all causes of action arising under said
20 patents and the right to any remedies for infringement of them.

21 47. Upon information and belief, Defendant had and continued to directly
22 infringe at least claims 43, 44, 49, and 50 of the '775 patent by having made, used,
23 sold, imported and/or provided for use without authority within the United States,
24 802.1Q-compliant local area networks and equipment performing a method of
25 receiving a data frame in VLAN network devices (the "'775 Accused
26 Instrumentalities"). The '775 Accused Instrumentalities include at least the following
27 products: Monoprice's Ethernet SNMP Switches and Web Smart Switches.
28

1 48. In particular, claim 43 of the '775 patent generally recites a method of
2 receiving a data frame in a network device comprising a port coupled to a shared
3 communications medium; where the method comprises: a) receiving destination and
4 source media access control addresses; b) receiving a virtual network type field having
5 a value indicating that a virtual network identifier field will be transmitted, and
6 c) receiving the virtual network identifier field having a value including reading the
7 virtual network identifier field in accordance with the virtual network type field value
8 to determine the value.

9 49. On information and belief, use of the '775 Accused Instrumentalities
10 reads on and infringes at least claim 43 of the '775 patent. (*See, e.g.*,
11 https://www.monoprice.com/product?p_id=18520 (last accessed April 10, 2020);
12 https://www.monoprice.com/product?p_id=21513 (last accessed April 10, 2020);
13 https://www.monoprice.com/product?p_id=10744 (last accessed April 10, 2020);
14 https://www.monoprice.com/product?p_id=18522 (last accessed April 10, 2020);
15 https://www.monoprice.com/product?p_id=10743 (last accessed April 10, 2020);
16 https://www.monoprice.com/product?p_id=10742 (last accessed April 10, 2020);
17 https://www.monoprice.com/product?p_id=10741 (last accessed April 10, 2020);
18 https://www.monoprice.com/product?p_id=30739 (last accessed April 10, 2020);
19 https://www.monoprice.com/product?p_id=30740 (last accessed April 10, 2020); *see*
20 *also* the IEEE Standard for Local and metropolitan area networks: Media Access
21 Control (MAC) Bridges and Virtual Bridge Local Area Networks, IEEE Std
22 802.1QTM-2011 (Revision of IEEE Std 802.1Q-2005), 31 August 2011 (*e.g.* p. 1, 23,
23 98, 103-105, 149-150, 1269); IEEE Std 802.1QTM-2014; IEEE Std 802.3TM-2012
24 (*e.g.* p. 53); IEEE 802.1Q VLAN Tutorial (Graham Shaw, *available at*
25 <http://www.microhowto.info/tutorials/802.1Q.html> (last accessed June 11, 2019));
26 <https://wiki.openwrt.org/doc/howto/wireless.security.8021x> (last accessed June 11,
27 2019).)
28

1 50. Claim 44 of the '775 patent depends from claim 43 and recites the added
2 limitation wherein the receiving operations occur in an order of: receiving a
3 destination media access control address, receiving a source media access control
4 address, receiving a virtual network type field, then receiving a virtual network
5 identifier field.

6 51. On information and belief, use of the '775 Accused Instrumentalities
7 reads on and infringes at least claim 44 of the '775 patent. (*See, e.g.*,
8 https://www.monoprice.com/product?p_id=18520 (last accessed April 10, 2020);
9 https://www.monoprice.com/product?p_id=21513 (last accessed April 10, 2020);
10 https://www.monoprice.com/product?p_id=10744 (last accessed April 10, 2020);
11 https://www.monoprice.com/product?p_id=18522 (last accessed April 10, 2020);
12 https://www.monoprice.com/product?p_id=10743 (last accessed April 10, 2020);
13 https://www.monoprice.com/product?p_id=10742 (last accessed April 10, 2020);
14 https://www.monoprice.com/product?p_id=10741 (last accessed April 10, 2020);
15 https://www.monoprice.com/product?p_id=30739 (last accessed April 10, 2020);
16 https://www.monoprice.com/product?p_id=30740 (last accessed April 10, 2020); *see*
17 *also* the IEEE Standard for Local and metropolitan area networks: Media Access
18 Control (MAC) Bridges and Virtual Bridge Local Area Networks, IEEE Std
19 802.1QTM-2011 (Revision of IEEE Std 802.1Q-2005), 31 August 2011 (*e.g.* p. 1, 23,
20 98, 103-105, 149-150, 1269); IEEE Std 802.1QTM-2014; IEEE Std 802.3TM-2012
21 (*e.g.* p. 53); IEEE 802.1Q VLAN Tutorial (Graham Shaw, *available at*
22 <http://www.microhowto.info/tutorials/802.1Q.html> (last accessed June 11, 2019));
23 <https://wiki.openwrt.org/doc/howto/wireless.security.8021x> (last accessed June 11,
24 2019).)

25 52. Claim 49 of the '775 patent depends from claim 43 and recites the added
26 limitation wherein receiving destination and source media access control addresses,
27 receiving a virtual network type field and receiving a virtual network identifier field
28 comprises receiving a data frame comprising the destination and source media access

1 control addresses, the virtual network type field and the virtual network identifier
2 field, the method further comprising forwarding at least part of the received data
3 frame on a port selected based at least in part on the value of the virtual network
4 identifier field.

5 53. On information and belief, use of the '775 Accused Instrumentalities
6 reads on and infringes at least claim 49 of the '775 patent. (*See, e.g.*,
7 https://www.monoprice.com/product?p_id=18520 (last accessed April 10, 2020);
8 https://www.monoprice.com/product?p_id=21513 (last accessed April 10, 2020);
9 https://www.monoprice.com/product?p_id=10744 (last accessed April 10, 2020);
10 https://www.monoprice.com/product?p_id=18522 (last accessed April 10, 2020);
11 https://www.monoprice.com/product?p_id=10743 (last accessed April 10, 2020);
12 https://www.monoprice.com/product?p_id=10742 (last accessed April 10, 2020);
13 https://www.monoprice.com/product?p_id=10741 (last accessed April 10, 2020);
14 https://www.monoprice.com/product?p_id=30739 (last accessed April 10, 2020);
15 https://www.monoprice.com/product?p_id=30740 (last accessed April 10, 2020); *see*
16 *also* the IEEE Standard for Local and metropolitan area networks: Media Access
17 Control (MAC) Bridges and Virtual Bridge Local Area Networks, IEEE Std
18 802.1QTM-2011 (Revision of IEEE Std 802.1Q-2005), 31 August 2011 (*e.g.* p. 1, 23,
19 98, 103-105, 149-150, 1269); IEEE Std 802.1QTM-2014; IEEE Std 802.3TM-2012
20 (*e.g.* p. 53); IEEE 802.1Q VLAN Tutorial (Graham Shaw, *available at*
21 <http://www.microhowto.info/tutorials/802.1Q.html> (last accessed June 11, 2019));
22 <https://wiki.openwrt.org/doc/howto/wireless.security.8021x> (last accessed June 11,
23 2019).)

24 54. Claim 50 of the '775 patent depends from claim 49 and further recites
25 wherein when the port selected based at least in part on the value of the virtual
26 network identifier field is connected to a dedicated communications medium,
27 forwarding at least part of the received data frame comprises: a) removing the virtual
28 network type field and the virtual network identifier field from the data frame; and

1 b) forwarding the data frame without the virtual network type field and without the
2 virtual network identifier field on the selected port of the network device.

3 55. On information and belief, use of the '775 Accused Instrumentalities
4 reads on and infringes at least claim 50 of the '775 patent. (*See, e.g.*,
5 https://www.monoprice.com/product?p_id=18520 (last accessed April 10, 2020);
6 https://www.monoprice.com/product?p_id=21513 (last accessed April 10, 2020);
7 https://www.monoprice.com/product?p_id=10744 (last accessed April 10, 2020);
8 https://www.monoprice.com/product?p_id=18522 (last accessed April 10, 2020);
9 https://www.monoprice.com/product?p_id=10743 (last accessed April 10, 2020);
10 https://www.monoprice.com/product?p_id=10742 (last accessed April 10, 2020);
11 https://www.monoprice.com/product?p_id=10741 (last accessed April 10, 2020);
12 https://www.monoprice.com/product?p_id=30739 (last accessed April 10, 2020);
13 https://www.monoprice.com/product?p_id=30740 (last accessed April 10, 2020); *see*
14 *also* the IEEE Standard for Local and metropolitan area networks: Media Access
15 Control (MAC) Bridges and Virtual Bridge Local Area Networks, IEEE Std
16 802.1QTM-2011 (Revision of IEEE Std 802.1Q-2005), 31 August 2011 (*e.g.* p. 1, 23,
17 98, 103-105, 149-150, 1269); IEEE Std 802.1QTM-2014; IEEE Std 802.3TM-2012
18 (*e.g.* p. 53); IEEE 802.1Q VLAN Tutorial (Graham Shaw, *available at*
19 <http://www.microhowto.info/tutorials/802.1Q.html> (last accessed June 11, 2019));
20 <https://wiki.openwrt.org/doc/howto/wireless.security.8021x> (last accessed June 11,
21 2019).)

22 56. On information and belief, the '775 Accused Instrumentalities are used,
23 marketed, provided to, and/or used by or for each of Defendant's partners, clients,
24 customers and end users across the country and in this District.

25 57. Plaintiff has been harmed by Defendant's infringing activities.

26 COUNT IV – INFRINGEMENT OF U.S. PATENT NO. RE45,081

27 58. The allegations set forth in the foregoing paragraphs 1 through 57 are
28 incorporated into this Fourth Claim for Relief.

1 59. On August 19, 2014, U.S. Patent No. RE45,081 (“the ’081 patent”),
2 entitled “VLAN Frame Format,” was duly and legally issued by the United States
3 Patent and Trademark Office. A true and correct copy of the ’081 patent is attached
4 as Exhibit 4. The ’081 patent is part of a family of eleven U.S. patents stemming from
5 U.S. Pat. No. 5,959,990.

6 60. The inventive embodiments of the ’081 patent resolve technical problems
7 related to virtual local area network (“VLAN”) and methods to format a data frame in
8 VLAN network devices. Such technologies are a required part of the IEEE 802.1Q
9 standard for VLAN tagging for ethernet frames and accompanying procedures used by
10 networking equipment (such as bridges, switches, or routers) in handling VLAN-
11 tagged frames. Thus, 802.1Q-certified local area networks and equipment, and
12 uncertified equipment that nonetheless implements the mandatory features of the
13 802.1Q standard, necessarily meet the claim limitations of the ’081 patent.

14 61. The claims of the ’081 patent do not merely recite the performance of
15 some business practice known from the pre-Internet world along with a requirement to
16 perform it on the Internet. Instead, the claims of the ’081 patent recite one or
17 more inventive concepts that are rooted in computerized electronic data
18 communications networks, and an improved method to operate such networks and to
19 maintain the interoperability of different physical configurations of such networks.

20 62. The claims of the ’081 patent recite an invention that is not merely the
21 routine or conventional use of electronic devices for communications. Instead, among
22 other things, the invention adds new features to integrate Ethernet and other protocols
23 together on a shared network. The ’081 patent claims thus include improvements for,
24 for example, formatting data frames to yield a desired result.

25 63. The technology claimed in the ’081 patent does not preempt all ways of
26 using computerized devices or transmitting information over networks, nor preempt
27 any other well-known or prior art technology.
28

1 64. Accordingly, each claim of the '081 patent recites a combination of
2 elements sufficient to ensure that the claim in practice amounts to significantly more
3 than a patent on an ineligible concept.

4 65. Plaintiff is the assignee and owner of the right, title and interest in and to
5 the '081 patent, including the right to assert all causes of action arising under said
6 patents and the right to any remedies for infringement of them.

7 66. Upon information and belief, Defendant had and continued to directly
8 infringe at least claims 17, 21, and 25 of the '081 patent by having made, used, sold,
9 imported and/or provided for use without authority within the United States, 802.1Q-
10 compliant local area networks and equipment performing a method to transmit a data
11 frame associated with a virtual network in VLAN network devices (the "'081 Accused
12 Instrumentalities"). The '081 Accused Instrumentalities include at least the following
13 products: Monoprice's Ethernet SNMP Switches and Web Smart Switches.

14 67. In particular, claim 17 of the '081 patent recites a method of transmitting
15 a data frame associated with a virtual network between a communications medium
16 and a shared communications medium; where the method comprises: at a first network
17 device coupled to the shared communications medium, a) receiving the data frame
18 from the communications medium, the data frame comprising a destination MAC
19 address, a source MAC address and a data field; b) inserting a type field at a location
20 within the data frame between the MAC addresses and the data field, a value of the
21 type field indicating that the data frame comprises a virtual network identifier field;
22 c) inserting the virtual network identifier field at a location between the type field and
23 the data field; d) assigning a value to the virtual network identifier field, the value
24 corresponding to the virtual network, and e) transmitting the data frame over the
25 shared communications medium; and at a second network device comprising a port
26 coupled to the shared communications medium: a) receiving the data frame,
27 comprising: i) receiving the destination and source media access control addresses;
28 ii) receiving the type field having the value indicating that the data frame comprises a

1 virtual network identifier field; and iii) receiving the virtual network identifier field
2 including reading the virtual network identifier field in accordance with the value of
3 the type field to determine the value of the virtual network identifier field; and
4 b) transmitting the data frame at least toward the virtual network corresponding to the
5 value of the virtual network identifier field.

6 68. On information and belief, use of the '081 Accused Instrumentalities
7 reads on and infringes at least claim 17 of the '081 patent. (*See, e.g.*,
8 https://www.monoprice.com/product?p_id=18520 (last accessed April 10, 2020);
9 https://www.monoprice.com/product?p_id=21513 (last accessed April 10, 2020);
10 https://www.monoprice.com/product?p_id=10744 (last accessed April 10, 2020);
11 https://www.monoprice.com/product?p_id=18522 (last accessed April 10, 2020);
12 https://www.monoprice.com/product?p_id=10743 (last accessed April 10, 2020);
13 https://www.monoprice.com/product?p_id=10742 (last accessed April 10, 2020);
14 https://www.monoprice.com/product?p_id=10741 (last accessed April 10, 2020);
15 https://www.monoprice.com/product?p_id=30739 (last accessed April 10, 2020);
16 https://www.monoprice.com/product?p_id=30740 (last accessed April 10, 2020); *see*
17 *also* the IEEE Standard for Local and metropolitan area networks: Media Access
18 Control (MAC) Bridges and Virtual Bridge Local Area Networks, IEEE Std
19 802.1QTM-2011 (Revision of IEEE Std 802.1Q-2005), 31 August 2011 (*e.g.* p. 1, 23,
20 98, 103-105, 149-150, 1269); IEEE Std 802.1QTM-2014; IEEE Std 802.3TM-2012
21 (*e.g.* p. 53); IEEE 802.1Q VLAN Tutorial (Graham Shaw, *available at*
22 <http://www.microhowto.info/tutorials/802.1Q.html> (last accessed June 11, 2019));
23 <https://wiki.openwrt.org/doc/howto/wireless.security.8021x> (last accessed June 11,
24 2019).)

25 69. Claim 21 of the '081 patent recites a method of transmitting a data frame
26 associated with a virtual network between a communications medium and a shared
27 communications medium, where the method comprises: at a first network device
28 coupled to the shared communications medium: a) receiving the data frame from the

1 communications medium, the data frame comprising a destination MAC address, a
2 source MAC address and a data field; b) inserting a type field at a location within the
3 data frame between the MAC addresses and the data field, a value of the type field
4 indicating that the data frame comprises a virtual network identifier field; c) inserting
5 the virtual network identifier field at a location between the type field and the data
6 field; d) assigning a value to the virtual network identifier field, the value
7 corresponding to the virtual network; and e) transmitting the data frame over the
8 shared communications medium; and at a second network device comprising a port
9 coupled to the shared communications medium: a) receiving the data frame,
10 comprising: i) receiving the destination and source media access control addresses;
11 ii) receiving the type field having the value indicating that the data frame comprises
12 the virtual network identifier field; and iii) receiving the virtual network identifier
13 field having the value associated with the virtual network including reading the virtual
14 network identifier field in accordance with the value of the type field to determine the
15 value associated with the virtual network; and b) transmitting the data frame at least
16 toward the virtual network corresponding to the value of the virtual network identifier
17 field.

18 70. On information and belief, use of the '081 Accused Instrumentalities
19 reads on and infringes at least claim 21 of the '081 patent. (*See, e.g.*,
20 https://www.monoprice.com/product?p_id=18520 (last accessed April 10, 2020);
21 https://www.monoprice.com/product?p_id=21513 (last accessed April 10, 2020);
22 https://www.monoprice.com/product?p_id=10744 (last accessed April 10, 2020);
23 https://www.monoprice.com/product?p_id=18522 (last accessed April 10, 2020);
24 https://www.monoprice.com/product?p_id=10743 (last accessed April 10, 2020);
25 https://www.monoprice.com/product?p_id=10742 (last accessed April 10, 2020);
26 https://www.monoprice.com/product?p_id=10741 (last accessed April 10, 2020);
27 https://www.monoprice.com/product?p_id=30739 (last accessed April 10, 2020);
28 https://www.monoprice.com/product?p_id=30740 (last accessed April 10, 2020); *see*

1 *also* the IEEE Standard for Local and metropolitan area networks: Media Access
2 Control (MAC) Bridges and Virtual Bridge Local Area Networks, IEEE Std
3 802.1QTM-2011 (Revision of IEEE Std 802.1Q-2005), 31 August 2011 (*e.g.* p. 1, 23,
4 98, 103-105, 149-150, 1269); IEEE Std 802.1QTM-2014; IEEE Std 802.3TM-2012
5 (*e.g.* p. 53); IEEE 802.1Q VLAN Tutorial (Graham Shaw, *available at*
6 <http://www.microhowto.info/tutorials/802.1Q.html> (last accessed June 11, 2019));
7 <https://wiki.openwrt.org/doc/howto/wireless.security.8021x> (last accessed June 11,
8 2019).)

9 71. Claim 25 of the '081 patent recites a method of transmitting a data frame
10 associated with a virtual network between a communications medium and a shared
11 communications medium, where the method comprises: at a first network device
12 coupled to the shared communications medium: a) receiving the data frame from the
13 communications medium, the data frame comprising a destination MAC address, a
14 source MAC address, an original type or length field and a data field; b) inserting a
15 type field at a location within the data frame between the MAC addresses and the
16 original type or length field, a value of the type field indicating that the data frame is
17 associated with a virtual network, and that the data frame comprises a virtual network
18 header including a virtual network identifier field and at least one other field, the
19 virtual network identifier field having a value corresponding to the virtual network;
20 c) inserting the virtual network header at a location between the type field and the data
21 field; d) assigning a value to the virtual network identifier field, the value
22 corresponding to the virtual network; and e) transmitting the data frame over the
23 shared communications medium; and at a second network device coupled to the
24 shared communications medium: a) receiving the data frame, the data frame
25 comprising the type field and the virtual network header; b) reading the type field and
26 determining that the data frame is associated with a virtual network; c) in response to
27 determining that the data frame is associated with a virtual network, reading the value
28 of the virtual network identifier field to determine the virtual network with which the

1 data frame is associated; and d) transmitting the data frame at least toward the virtual
2 network corresponding to the value of the virtual network identifier field.

3 72. On information and belief, use of the '081 Accused Instrumentalities
4 reads on and infringes at least claim 25 of the '081 patent. (*See, e.g.*,
5 https://www.monoprice.com/product?p_id=18520 (last accessed April 10, 2020);
6 https://www.monoprice.com/product?p_id=21513 (last accessed April 10, 2020);
7 https://www.monoprice.com/product?p_id=10744 (last accessed April 10, 2020);
8 https://www.monoprice.com/product?p_id=18522 (last accessed April 10, 2020);
9 https://www.monoprice.com/product?p_id=10743 (last accessed April 10, 2020);
10 https://www.monoprice.com/product?p_id=10742 (last accessed April 10, 2020);
11 https://www.monoprice.com/product?p_id=10741 (last accessed April 10, 2020);
12 https://www.monoprice.com/product?p_id=30739 (last accessed April 10, 2020);
13 https://www.monoprice.com/product?p_id=30740 (last accessed April 10, 2020); *see*
14 *also* the IEEE Standard for Local and metropolitan area networks: Media Access
15 Control (MAC) Bridges and Virtual Bridge Local Area Networks, IEEE Std
16 802.1QTM-2011 (Revision of IEEE Std 802.1Q-2005), 31 August 2011 (*e.g.* p. 1, 23,
17 98, 103-105, 149-150, 1269); IEEE Std 802.1QTM-2014; IEEE Std 802.3TM-2012
18 (*e.g.* p. 53); IEEE 802.1Q VLAN Tutorial (Graham Shaw, *available at*
19 <http://www.microhowto.info/tutorials/802.1Q.html> (last accessed June 11, 2019));
20 <https://wiki.openwrt.org/doc/howto/wireless.security.8021x> (last accessed June 11,
21 2019).)

22 73. On information and belief, the '081 Accused Instrumentalities are used,
23 marketed, provided to, and/or used by or for each of Defendant's partners, clients,
24 customers and end users across the country and in this District.

25 74. Plaintiff has been harmed by Defendant's infringing activities.

26 COUNT V – INFRINGEMENT OF U.S. PATENT NO. RE45,065

27 75. The allegations set forth in the foregoing paragraphs 1 through 74 are
28 incorporated into this Fifth Claim for Relief.

1 76. On August 5, 2014, U.S. Patent No. RE45,065 (“the ’065 patent”),
2 entitled “VLAN Frame Format,” was duly and legally issued by the United States
3 Patent and Trademark Office. A true and correct copy of the ’065 patent is attached
4 as Exhibit 5. The ’065 patent is part of a family of eleven U.S. patents stemming from
5 U.S. Pat. No. 5,959,990.

6 77. The inventive embodiments of the ’065 patent resolve technical problems
7 related to virtual local area network (“VLAN”) and methods to format a data frame in
8 VLAN network devices. Such technologies are a required part of the IEEE 802.1Q
9 standard for VLAN tagging for ethernet frames and accompanying procedures used by
10 networking equipment (such as bridges, switches, or routers) in handling VLAN-
11 tagged frames. Thus, 802.1Q-certified local area networks and equipment, and
12 uncertified equipment that nonetheless implements the mandatory features of the
13 802.1Q standard, necessarily meet the claim limitations of the ’065 patent.

14 78. Plaintiff is the assignee and owner of the right, title and interest in and to
15 the ’065 patent, including the right to assert all causes of action arising under said
16 patents and the right to any remedies for infringement of them.

17 79. Upon information and belief, Defendant had and continued to directly
18 infringe at least claims 17 and 28 of the ’065 patent by having made, used, sold,
19 imported and/or provided for use without authority within the United States, 802.1Q-
20 compliant local area networks and equipment performing a method to transmit a data
21 frame associated with a virtual network in VLAN network devices (the “’065 Accused
22 Instrumentalities”). The ’065 Accused Instrumentalities include at least the following
23 products: Monoprice’s Ethernet SNMP Switches and Web Smart Switches.

24 80. In particular, claim 17 of the ’065 patent recites a network device for
25 transmitting a data frame to a virtual network associated with the data frame between
26 a communications medium and a shared communications medium, where the network
27 device comprises: at least one respective port connected to each of the
28 communications medium and the shared communications medium; and a processing

1 unit configured a) to receive the data frame, the data frame comprising a type field,
2 and a virtual network header including a virtual network identifier field and at least
3 one other field, the type field having a value indicating that the data frame is
4 associated with a virtual network, and the virtual network identifier field having a
5 virtual network identifier field value corresponding to the virtual network; b) to read
6 the type field and determine that the data frame is associated with a virtual network;
7 c) in response to determining that the data frame is associated with a virtual network,
8 to read the virtual network identifier field value to determine the virtual network with
9 which the data frame is associated; and d) to transmit the data frame at least toward
10 the virtual network corresponding to the virtual network identifier field value.

11 81. On information and belief, use of the '065 Accused Instrumentalities
12 reads on and infringes at least claim 17 of the '065 patent. (*See, e.g.*,
13 https://www.monoprice.com/product?p_id=18520 (last accessed April 10, 2020);
14 https://www.monoprice.com/product?p_id=21513 (last accessed April 10, 2020);
15 https://www.monoprice.com/product?p_id=10744 (last accessed April 10, 2020);
16 https://www.monoprice.com/product?p_id=18522 (last accessed April 10, 2020);
17 https://www.monoprice.com/product?p_id=10743 (last accessed April 10, 2020);
18 https://www.monoprice.com/product?p_id=10742 (last accessed April 10, 2020);
19 https://www.monoprice.com/product?p_id=10741 (last accessed April 10, 2020);
20 https://www.monoprice.com/product?p_id=30739 (last accessed April 10, 2020);
21 https://www.monoprice.com/product?p_id=30740 (last accessed April 10, 2020); *see*
22 *also* the IEEE Standard for Local and metropolitan area networks: Media Access
23 Control (MAC) Bridges and Virtual Bridge Local Area Networks, IEEE Std
24 802.1QTM-2011 (Revision of IEEE Std 802.1Q-2005), 31 August 2011 (*e.g.* p. 1, 23,
25 98, 103-105, 149-150, 1269); IEEE Std 802.1QTM-2014; IEEE Std 802.3TM-2012
26 (*e.g.* p. 53); IEEE 802.1Q VLAN Tutorial (Graham Shaw, *available at*
27 <http://www.microhowto.info/tutorials/802.1Q.html> (last accessed June 11, 2019));
28

1 <https://wiki.openwrt.org/doc/howto/wireless.security.8021x> (last accessed June 11,
2 2019).)

3 82. Claim 28 of the '065 patent recites a network device for transmitting a
4 data frame to a virtual network associated with the data frame between a
5 communications medium and a shared communications medium, where the network
6 device comprises: at least one respective port connected to each of the
7 communications medium and the shared communications medium; and a processing
8 unit configured: a) to receive the data frame, the data frame comprising a type field,
9 and a virtual network header having an associated format and including a virtual
10 network identifier field, the type field having a value indicating which of a plurality of
11 formats the associated format is and that the data frame is associated with a virtual
12 network, and the virtual network identifier field having a virtual network identifier
13 field value corresponding to the virtual network; b) to read the type field and
14 determine that the data frame is associated with a virtual network and determine the
15 format; c) in response to determining that the data frame is associated with a virtual
16 network and determining the format, to read the virtual network identifier field in
17 accordance with the determined format to determine the virtual network with which
18 the data frame is associated; and d) to transmit the data frame at least toward the
19 virtual network corresponding to the virtual network identifier field value.

20 83. On information and belief, use of the '065 Accused Instrumentalities
21 reads on and infringes at least claim 28 of the '065 patent. (*See, e.g.*,
22 https://www.monoprice.com/product?p_id=18520 (last accessed April 10, 2020);
23 https://www.monoprice.com/product?p_id=21513 (last accessed April 10, 2020);
24 https://www.monoprice.com/product?p_id=10744 (last accessed April 10, 2020);
25 https://www.monoprice.com/product?p_id=18522 (last accessed April 10, 2020);
26 https://www.monoprice.com/product?p_id=10743 (last accessed April 10, 2020);
27 https://www.monoprice.com/product?p_id=10742 (last accessed April 10, 2020);
28 https://www.monoprice.com/product?p_id=10741 (last accessed April 10, 2020);

1 https://www.monoprice.com/product?p_id=30739 (last accessed April 10, 2020);
2 https://www.monoprice.com/product?p_id=30740 (last accessed April 10, 2020); *see*
3 *also* the IEEE Standard for Local and metropolitan area networks: Media Access
4 Control (MAC) Bridges and Virtual Bridge Local Area Networks, IEEE Std
5 802.1QTM-2011 (Revision of IEEE Std 802.1Q-2005), 31 August 2011 (*e.g.* p. 1, 23,
6 98, 103-105, 149-150, 1269); IEEE Std 802.1QTM-2014; IEEE Std 802.3TM-2012
7 (*e.g.* p. 53); IEEE 802.1Q VLAN Tutorial (Graham Shaw, *available at*
8 <http://www.microhowto.info/tutorials/802.1Q.html> (last accessed June 11, 2019));
9 <https://wiki.openwrt.org/doc/howto/wireless.security.8021x> (last accessed June 11,
10 2019).)

11 84. On information and belief, the '065 Accused Instrumentalities are used,
12 marketed, provided to, and/or used by or for each of Defendant's partners, clients,
13 customers and end users across the country and in this District.

14 85. Plaintiff has been harmed by Defendant's infringing activities.

15 COUNT VI – INFRINGEMENT OF U.S. PATENT NO. RE45,095

16 86. The allegations set forth in the foregoing paragraphs 1 through 85 are
17 incorporated into this Sixth Claim for Relief.

18 87. On August 26, 2014, U.S. Patent No. RE45,095 ("the '095 patent"),
19 entitled "VLAN Frame Format," was duly and legally issued by the United States
20 Patent and Trademark Office. A true and correct copy of the '095 patent is attached
21 as Exhibit 6. The '095 patent is part of a family of eleven U.S. patents stemming from
22 U.S. Pat. No. 5,959,990.

23 88. The inventive embodiments of the '095 patent resolve technical problems
24 related to virtual local area network ("VLAN") and methods to format a data frame in
25 VLAN network devices. Such technologies are a required part of the IEEE 802.1Q
26 standard for VLAN tagging for ethernet frames and accompanying procedures used by
27 networking equipment (such as bridges, switches, or routers) in handling VLAN-
28 tagged frames. Thus, 802.1Q-certified local area networks and equipment, and

1 uncertified equipment that nonetheless implements the mandatory features of the
2 802.1Q standard, necessarily meet the claim limitations of the '095 patent.

3 89. The claims of the '095 patent do not merely recite the performance of
4 some business practice known from the pre-Internet world along with a requirement to
5 perform it on the Internet. Instead, the claims of the '095 patent recite one or
6 more inventive concepts that are rooted in computerized electronic data
7 communications networks, and an improved method to operate such networks and to
8 maintain the interoperability of different physical configurations of such networks.

9 90. The claims of the '095 patent recite an invention that is not merely the
10 routine or conventional use of electronic devices for communications. Instead, among
11 other things, the invention adds new features to integrate Ethernet and other protocols
12 together on a shared network. The '095 patent claims thus include improvements for,
13 for example, formatting data frames to yield a desired result.

14 91. The technology claimed in the '095 patent does not preempt all ways of
15 using computerized devices or transmitting information over networks, nor preempt
16 any other well-known or prior art technology.

17 92. Accordingly, each claim of the '095 patent recites a combination of
18 elements sufficient to ensure that the claim in practice amounts to significantly more
19 than a patent on an ineligible concept.

20 93. Plaintiff is the assignee and owner of the right, title and interest in and to
21 the '095 patent, including the right to assert all causes of action arising under said
22 patents and the right to any remedies for infringement of them.

23 94. Upon information and belief, Defendant had and continued to directly
24 infringe at least claim 17 of the '095 patent by having made, used, sold, imported
25 and/or provided for use without authority within the United States, 802.1Q-compliant
26 local area networks and equipment performing a method to transmit a data frame
27 associated with a virtual network in VLAN network devices (the "'095 Accused
28

1 Instrumentalities”). The ’095 Accused Instrumentalities include at least the following
2 products: Monoprice’s Ethernet SNMP Switches and Web Smart Switches.

3 95. In particular, claim 17 of the ’095 patent recites a method of transmitting a
4 virtual network identifier in a data frame transmitted on a shared communications
5 medium, where the method comprises: a) transmitting a destination address field
6 containing a destination address for the data frame; b) transmitting a source address
7 field containing a source address associated with the data frame; c) transmitting a
8 virtual network type field having a value indicative that the data frame is associated
9 with a virtual network; d) transmitting a virtual network identifier field having a value
10 indicative of the virtual network with which the data frame is associated, the value
11 being in one of a plurality of formats as indicated by the value of the virtual network
12 type field; e) transmitting a length field having contents indicating a length of a data
13 field; and f) transmitting the data field.

14 96. On information and belief, use of the ’095 Accused Instrumentalities
15 reads on and infringes at least claim 17 of the ’095 patent. (*See, e.g.*,
16 https://www.monoprice.com/product?p_id=18520 (last accessed April 10, 2020);
17 https://www.monoprice.com/product?p_id=21513 (last accessed April 10, 2020);
18 https://www.monoprice.com/product?p_id=10744 (last accessed April 10, 2020);
19 https://www.monoprice.com/product?p_id=18522 (last accessed April 10, 2020);
20 https://www.monoprice.com/product?p_id=10743 (last accessed April 10, 2020);
21 https://www.monoprice.com/product?p_id=10742 (last accessed April 10, 2020);
22 https://www.monoprice.com/product?p_id=10741 (last accessed April 10, 2020);
23 https://www.monoprice.com/product?p_id=30739 (last accessed April 10, 2020);
24 https://www.monoprice.com/product?p_id=30740 (last accessed April 10, 2020); *see*
25 *also* the IEEE Standard for Local and metropolitan area networks: Media Access
26 Control (MAC) Bridges and Virtual Bridge Local Area Networks, IEEE Std
27 802.1QTM-2011 (Revision of IEEE Std 802.1Q-2005), 31 August 2011 (*e.g.* p. 1, 23,
28 98, 103-105, 149-150, 1269); IEEE Std 802.1QTM-2014; IEEE Std 802.3TM-2012

1 (e.g. p. 53); IEEE 802.1Q VLAN Tutorial (Graham Shaw, *available at*
2 <http://www.microhowto.info/tutorials/802.1Q.html> (last accessed June 11, 2019));
3 <https://wiki.openwrt.org/doc/howto/wireless.security.8021x> (last accessed June 11,
4 2019).)

5 97. On information and belief, the '095 Accused Instrumentalities are used,
6 marketed, provided to, and/or used by or for each of Defendant's partners, clients,
7 customers and end users across the country and in this District.

8 98. Plaintiff has been harmed by Defendant's infringing activities.

9 JURY DEMAND

10 Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Plaintiff demands
11 a trial by jury on all issues triable as such.

12 PRAYER FOR RELIEF

13 WHEREFORE, Plaintiff demands judgment for itself and against Defendant as
14 follows:

15 A. An adjudication that Defendant has infringed the '990, '999, '775, '081,
16 '065, and '095 patents;

17 B. An award of damages to be paid by Defendant adequate to compensate
18 Plaintiff for Defendant's past infringement of the '990, '999, '775, '081, '065, and
19 '095 patents, including interest, costs, expenses and an accounting of all infringing
20 acts including, but not limited to, those acts not presented at trial;

21 C. A declaration that this case is exceptional under 35 U.S.C. § 285, and an
22 award of Plaintiff's reasonable attorneys' fees; and

23 D. An award to Plaintiff of such further relief at law or in equity as the
24 Court deems just and proper.

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2 Dated: April 17, 2020

By: /s/ Jeffrey Francis Craft
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