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**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION**

MODERN TELECOM SYSTEMS
LLC, a California limited liability
company,

Plaintiff,

vs.

JUNO ONLINE SERVICES, INC., a
Delaware corporation, and NETZERO,
INC., a Delaware corporation,

Defendants.

Case No. SACV14-00348 AG (ANx)

**SECOND AMENDED COMPLAINT
FOR PATENT INFRINGEMENT**

JURY TRIAL DEMANDED

This is an action for patent infringement in which Plaintiff Modern Telecom Systems LLC (“MTS”) makes the following allegations against Juno Online Services, Inc. (“Juno”) and Netzero, Inc. (“Netzero”) (collectively, “Defendants”):

THE PARTIES

1. MTS is a California limited liability company.

2. On information and belief, Juno Online Services, Inc. is a Delaware corporation with its principal place of business at 21301 Burbank Blvd, Woodland Hills, CA 91367. On information and belief, Juno Online Services, Inc. can be served through its registered agent, National Registered Agents, Inc., 818 W Seventh St, Los Angeles, CA 90017.

3. On information and belief, Netzero, Inc. is a Delaware corporation with its principal place of business at 21301 Burbank Blvd, Woodland Hills, CA 91367. On information and belief, Netzero, Inc. can be served through its registered agent, National Registered Agents, Inc., 818 W Seventh St, Los Angeles, CA 90017.

JURISDICTION

4. This action arises under the patent laws of the United States, 35 U.S.C. § 1, et seq., including § 271. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

5. This Court has personal jurisdiction over Defendants because, on information and belief, Defendants have done business in this District, have committed and continue to commit acts of patent infringement in this District, and/or have harmed and continue to harm MTS in this District, by, among other things, using, selling, offering for sale, and/or importing infringing products and services in this District. In addition, Defendants are registered to do business in California and have their principal places of business in this District.

6. Venue is proper in this District under 28 U.S.C. §§ 1391(b)-(d) and 1400(b) because, among other reasons, Defendants are subject to personal jurisdiction in this District, and have committed and continue to commit acts of patent infringement in this District. On information and belief, for example, Defendants have used, sold, offered for sale, and/or imported infringing products or services in this District.

FACTUAL BACKGROUND

7. The technology claimed in the patents asserted in this action was invented during the research and development activities of the Rockwell, Conexant, and Mindspeed family of companies. In 1999, Rockwell International spun off Rockwell Semiconductor group as Conexant Systems Inc. Conexant inherited Rockwell's mixed signal semiconductor expertise and intellectual property portfolio, and was focused on developing semiconductor products for a broad range of communications applications. These applications included wireline and wireless voice and data communication networks. Conexant's Internet Infrastructure group was incorporated as Mindspeed Technologies (as a wholly-owned subsidiary) in 2001 and spun-off as an independent entity in 2003. Mindspeed's focus is on semiconductor and software solutions for Internet access devices, switching fabric, and network processors.

8. MTS is the owner of the patents asserted in this action and has the exclusive right to sue for past, present, and future infringement of these patents. MTS assumed all the rights and obligations related to these patents from Glocom Patents Licensing, LLC, which in turn assumed all the rights and obligations related to these patents from V-Dot Technologies, LLC (formerly V-Dot Technologies, Limited) ("VDOT"), which in turn assumed all the rights and obligations related to these patents from Telecom Technology Licensing, LLC ("TTL"), which in turn assumed all the rights and obligations related to these patents from Mindspeed Technologies, Inc.

9. MTS does not make, offer for sale, or sell within the United States any article covered by the patents asserted in this action, nor does MTS import any article covered by the patents asserted in this action into the United States. Accordingly, MTS has complied with 35 USC § 287.

COUNT I

INFRINGEMENT OF U.S. PATENT NO. 6,504,886

10. United States Patent No. 6,504,886 (“the ‘886 patent”), entitled “Communication of an impairment learning sequence according to an impairment learning sequence descriptor,” issued on January 7, 2003 from United States Patent Application No. 09/956,207 filed on September 19, 2001. Application No. 09/956,207 is a Continuation of U.S. Patent Application Ser. No. 08/969,971, entitled Method and Apparatus for Generating a Line Impairment Learning Signal for a Data Communication System, filed Nov. 13, 1997 now U.S. Pat. No. 6,332,009, which is a Continuation-In-Part of U.S. Patent Application Ser. No. 08/922,851, entitled Method and Apparatus for Generating a Programmable Synchronization Signal for a Data Communication System, filed Sep. 3, 1997, now U.S. Pat. No. 6,212,247. A true and correct copy of the ‘886 patent is attached as Exhibit A.

11. Defendants have been and now are directly infringing one or more claims of the ‘886 Patent, in this judicial District and elsewhere in the United States, by, among other things, practicing a method of communicating a learning sequence, said method comprising: receiving a first parameter specifying a number of segments in said learning sequence; receiving a second parameter specifying a sign pattern of each of said segments; receiving a third parameter specifying a training pattern of each of said segments, wherein said training pattern is indicative of an ordering of a reference symbol and a training symbol in each of said segments; constructing said learning sequence based on said parameters; and transmitting said learning sequence. Upon information and belief, Defendants practice the claimed method during commercial operation of their dial-up internet services using the International Telecommunications Union (“ITU”) V.90 or V.92 (56Kbps) connection protocol.

12. Defendants have had knowledge of the '886 patent no later than March 20, 2014 or shortly thereafter, when Defendants were provided with a copy of the original Complaint in this action (D.I. 1), and Defendants have induced their customers, users of Juno and Netzero dial-up internet services who connect using modems operating according to the ITU V.90 or V.92 (56Kbps) specifications, to practice a method of communicating a learning sequence descriptor for use in constructing a learning sequence, said method comprising: transmitting a first parameter specifying a number of segments in said learning sequence; transmitting a second parameter specifying a sign pattern of each of said segments; and transmitting a third parameter specifying a training pattern of each of said segments, wherein said training pattern is indicative of an ordering of a reference symbol and a training symbol in each of said segments.

13. For example, Juno indicates on its website, "Juno Platinum members can access Juno's services at speeds up to 56k, using compression technology." See <https://help.juno.com/support/modem/mo-speed.html>. Juno also promotes the benefits of connecting using the V.92 protocol on its website, where it indicates, "With your V.92 modem, you will be able to ...Get online faster! Using V.92 technology, your V.92 modem learns and remembers how you usually connect to the Internet. This shortens the time it takes for your modem and Juno to connect, so you can start surfing faster." See <http://help.qa2.juno.com/support/modem/mo-v92.html>. Juno also provides instructions on its website as to "How to find and use our V.92 compatible access numbers". See <http://help.qa4.juno.com/support/modem/mo-v92a.html>.

14. Similarly, Netzero also indicates on its website, "NetZero Platinum members can access NetZero's services at speeds up to 56k, using compression technology." See <http://help.netzero.net/support/modem/mo-speed.html>. See also <http://web.archive.org/web/20130109211930/http://help.netzero.net/support/mode>

1 m/mo-speed.html (“NetZero Free and Platinum members can access NetZero's
 2 services at speeds up to 56k, using V.90 compression technology. ... Does NetZero
 3 support V.92? On many of our access numbers, yes! You can identify V.92
 4 numbers by looking for the V.92 label next to certain access numbers on the
 5 Access Number page on the NetZero Web site. Click here for detailed instructions
 6 on how to find and use our V.92 compatible access numbers.”). Netzero also
 7 promotes the benefits of connecting using the V.92 protocol on its website, where
 8 it indicates, “With your V.92 modem, you will be able to ... Get online faster!
 9 Using V.92 technology, your V.92 modem learns and remembers how you usually
 10 connect to the Internet. This shortens the time it takes for your modem and
 11 NetZero to connect, so you can start surfing faster.” *See*
 12 <http://help.qa5.netzero.net/support/modem/mo-v92.html>. Netzero also provides
 13 instructions on its website as to “How to find and use our V.92 compatible access
 14 numbers”. *See* <http://help.qa5.netzero.net/support/modem/mo-v92a.html>.

15 15. In indicating that they support the use of 56K V.90 and V.92 modem
 16 connections, and promoting the use of V.92 in particular, Defendants specifically
 17 intended to encourage their customers to dial into these numbers using V.90 or
 18 V.92 modems to connect to the Juno and Netzero dial-up internet services using
 19 the 56K V.90 or V.92 protocols in an infringing manner, knowing that the use of
 20 such protocols constituted infringement of the ‘886 patent. Thus, Defendants have
 21 induced their customers to infringe the ‘886 Patent literally and/or under the
 22 doctrine of equivalents. Upon information and belief, Defendants acted with the
 23 specific intent to induce their customers to connect to their dial-up internet services
 24 using the method claimed by the ‘886 Patent by continuing the above-mentioned
 25 activities with knowledge of the ‘886 Patent.

26 **COUNT II**

27 **INFRINGEMENT OF U.S. PATENT NO. 6,332,009**

1 16. United States Patent No. 6,332,009 (“the ‘009 patent”), entitled
2 “Method and apparatus for generating a line impairment learning signal for a data
3 communication system,” issued on December 18, 2001 from United States Patent
4 Application No. 08/969,971 filed on November 13, 1997. Application No.
5 08/969,971 is a Continuation-In-Part of U.S. Patent Application Ser. No.
6 08/922,851, entitled Method and Apparatus for Generating a Programmable
7 Synchronization Signal for a Data Communication System, filed Sep. 3, 1997. A
8 true and correct copy of the ‘009 patent is attached as Exhibit B.

9 17. Defendants have been and now are directly infringing one or more
10 claims of the ‘009 Patent, in this judicial District and elsewhere in the United
11 States, by, among other things, practicing an impairment learning method for use
12 over a communication channel, said method comprising: receiving a learning
13 sequence descriptor over said communication channel, said learning sequence
14 descriptor having a training symbol order; and transmitting a learning signal over
15 said communication channel capable of use by a device for learning an impairment
16 of said communication channel; wherein said learning signal includes a number of
17 segments, each of said segments being associated with a sequence of symbols
18 configured in accordance with said learning sequence descriptor, and wherein said
19 training symbol order is indicative of an assignment of a plurality of training
20 symbols to said number of segments. Upon information and belief, Defendants
21 practice the claimed method during commercial operation of their dial-up internet
22 services using the International Telecommunications Union (“ITU”) V.90 or V.92
23 (56Kbps) connection protocol.

24 18. Defendants have had knowledge of the ‘009 patent no later than
25 March 20, 2014 or shortly thereafter, when Defendants were provided with a copy
26 of the original Complaint in this action (D.I. 1), and Defendants have induced their
27 customers, users of Juno and Netzero dial-up internet services who connect using
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1 modems operating according to the ITU V.90 or V.92 (56Kbps) specifications, to
 2 practice an impairment learning method for use over a communication channel,
 3 said method comprising: transmitting a learning sequence descriptor over said
 4 communication channel, said learning sequence descriptor having a training
 5 symbol order; receiving a learning signal over said communication channel, said
 6 learning signal having a member of segments, each of said segments being
 7 associated with a sequence of symbols configured in accordance with said learning
 8 sequence descriptor, wherein said training symbol order is indicative of an
 9 assignment of a plurality of training symbols to said number of segments; and
 10 learning an impairment of said communication channel according to said learning
 11 signal.

12 19. For example, Juno indicates on its website, “Juno Platinum members
 13 can access Juno's services at speeds up to 56k, using compression technology.”
 14 See <https://help.juno.com/support/modem/mo-speed.html>. Juno also promotes the
 15 benefits of connecting using the V.92 protocol on its website, where it indicates,
 16 “With your V.92 modem, you will be able to ...Get online faster! Using V.92
 17 technology, your V.92 modem learns and remembers how you usually connect to
 18 the Internet. This shortens the time it takes for your modem and Juno to connect, so
 19 you can start surfing faster.” See [http://help.qa2.juno.com/support/modem/mo-](http://help.qa2.juno.com/support/modem/mo-v92.html)
 20 [v92.html](http://help.qa2.juno.com/support/modem/mo-v92.html). Juno also provides instructions on its website as to “How to find and use
 21 our V.92 compatible access numbers”. See
 22 <http://help.qa4.juno.com/support/modem/mo-v92a.html>.

23 20. Similarly, Netzero also indicates on its website, “NetZero Platinum
 24 members can access NetZero's services at speeds up to 56k, using compression
 25 technology.” See <http://help.netzero.net/support/modem/mo-speed.html>. See also
 26 <http://web.archive.org/web/20130109211930/http://help.netzero.net/support/mode>
 27 [m/mo-speed.html](http://web.archive.org/web/20130109211930/http://help.netzero.net/support/mode/m/mo-speed.html) (“NetZero Free and Platinum members can access NetZero's
 28

1 services at speeds up to 56k, using V.90 compression technology. ... Does NetZero
 2 support V.92? On many of our access numbers, yes! You can identify V.92
 3 numbers by looking for the V.92 label next to certain access numbers on the
 4 Access Number page on the NetZero Web site. Click here for detailed instructions
 5 on how to find and use our V.92 compatible access numbers.”). Netzero also
 6 promotes the benefits of connecting using the V.92 protocol on its website, where
 7 it indicates, “With your V.92 modem, you will be able to ... Get online faster!
 8 Using V.92 technology, your V.92 modem learns and remembers how you usually
 9 connect to the Internet. This shortens the time it takes for your modem and
 10 NetZero to connect, so you can start surfing faster.” See
 11 <http://help.qa5.netzero.net/support/modem/mo-v92.html>. Netzero also provides
 12 instructions on its website as to “How to find and use our V.92 compatible access
 13 numbers”. See <http://help.qa5.netzero.net/support/modem/mo-v92a.html>.

14 21. In indicating that they support the use of 56K V.90 and V.92 modem
 15 connections, and promoting the use of V.92 in particular, Defendants specifically
 16 intended to encourage their customers to dial into these numbers using V.90 or
 17 V.92 modems to connect to the Juno and Netzero dial-up internet services using
 18 the 56K V.90 or V.92 protocols in an infringing manner, knowing that the use of
 19 such protocols constituted infringement of the ‘009 patent. Thus, Defendants have
 20 induced their customers to infringe the ‘009 Patent literally and/or under the
 21 doctrine of equivalents. Upon information and belief, Defendants acted with the
 22 specific intent to induce their customers to connect to their dial-up internet services
 23 using the method claimed by the ‘009 Patent by continuing the above-mentioned
 24 activities with knowledge of the ‘009 Patent.

25 COUNT III

26 INFRINGEMENT OF U.S. PATENT NO. 6,570,932

22. United States Patent No. 6,570,932 (“the ‘932 patent”), entitled “Calculation and verification of transmit power levels in a signal point transmission system,” issued on May 27, 2003 from United States Patent Application No. 10/026,096 filed on December 21, 2001. Application No. 10/026,096 is a continuation of U.S. Patent Application Ser. No. 09/740,567, filed Dec. 18, 2000, now U.S. Pat. No. 6,359,932, which is a continuation of U.S. Patent Application Ser. No. 09/075,719, filed May 11, 1998, now U.S. Pat. No. 6,163,570. A true and correct copy of the ‘932 patent is attached as Exhibit C.

23. Defendants have been and now are directly infringing one or more claims of the ‘932 patent, in this judicial District and elsewhere in the United States, by, among other things, practicing a method of communicating over a communication channel using a constellation including a plurality of signal points, said method comprising: determining a probability of transmission of each signal point of said constellation; calculating an average power of said signal points using a power formula based on said probability of transmission of each said signal point; and comparing said average power with a transmit power limit. Upon information and belief, Defendants practice the claimed method while testing their dial-up internet services using the ITU V.90 or V.92 (56Kbps) connection protocol.

24. Defendants have had knowledge of the ‘932 patent no later than March 20, 2014 or shortly thereafter, when Defendants were provided with a copy of the original Complaint in this action (D.I. 1), and Defendants have induced their customers, users of Juno and Netzero dial-up internet services who connect using modems operating according to the ITU V.90 or V.92 (56Kbps) specifications, to practice a method of communicating over a communication channel using a constellation including a plurality of signal points, said method comprising: determining a probability of transmission of each signal point of said constellation;

1 calculating an average power of said signal points using a power formula based on
2 said probability of transmission of each said signal point; and comparing said
3 average power with a transmit power limit.

4 25. For example, Juno indicates on its website, “Juno Platinum members
5 can access Juno's services at speeds up to 56k, using compression technology.”
6 See <https://help.juno.com/support/modem/mo-speed.html>. Juno also promotes the
7 benefits of connecting using the V.92 protocol on its website, where it indicates,
8 “With your V.92 modem, you will be able to ...Get online faster! Using V.92
9 technology, your V.92 modem learns and remembers how you usually connect to
10 the Internet. This shortens the time it takes for your modem and Juno to connect, so
11 you can start surfing faster.” See [http://help.qa2.juno.com/support/modem/mo-](http://help.qa2.juno.com/support/modem/mo-v92.html)
12 [v92.html](http://help.qa2.juno.com/support/modem/mo-v92.html). Juno also provides instructions on its website as to “How to find and use
13 our V.92 compatible access numbers”. See
14 <http://help.qa4.juno.com/support/modem/mo-v92a.html>.

15 26. Similarly, Netzero also indicates on its website, “NetZero Platinum
16 members can access NetZero's services at speeds up to 56k, using compression
17 technology.” See <http://help.netzero.net/support/modem/mo-speed.html>. See also
18 [http://web.archive.org/web/20130109211930/http://help.netzero.net/support/mo-](http://web.archive.org/web/20130109211930/http://help.netzero.net/support/mo/mo-speed.html)
19 [mo-speed.html](http://web.archive.org/web/20130109211930/http://help.netzero.net/support/mo/mo-speed.html) (“NetZero Free and Platinum members can access NetZero's
20 services at speeds up to 56k, using V.90 compression technology. ... Does NetZero
21 support V.92? On many of our access numbers, yes! You can identify V.92
22 numbers by looking for the V.92 label next to certain access numbers on the
23 Access Number page on the NetZero Web site. Click here for detailed instructions
24 on how to find and use our V.92 compatible access numbers.”). Netzero also
25 promotes the benefits of connecting using the V.92 protocol on its website, where
26 it indicates, “With your V.92 modem, you will be able to ... Get online faster!
27 Using V.92 technology, your V.92 modem learns and remembers how you usually
28

1 connect to the Internet. This shortens the time it takes for your modem and
 2 NetZero to connect, so you can start surfing faster.” See
 3 <http://help.qa5.netzero.net/support/modem/mo-v92.html>. Netzero also provides
 4 instructions on its website as to “How to find and use our V.92 compatible access
 5 numbers”. See <http://help.qa5.netzero.net/support/modem/mo-v92a.html>.

6 27. In indicating that they support the use of 56K V.90 and V.92 modem
 7 connections, and promoting the use of V.92 in particular, Defendants specifically
 8 intended to encourage their customers to connect to the Juno and Netzero dial-up
 9 internet services using the 56K V.90 or V.92 protocols in an infringing manner,
 10 knowing that the use of such protocols constituted infringement of the ‘932 patent.
 11 Thus, Defendants have induced their customers to infringe the ‘932 Patent literally
 12 and/or under the doctrine of equivalents. Upon information and belief, Defendants
 13 acted with the specific intent to induce their customers to connect to their dial-up
 14 internet services using the method claimed by the ‘932 Patent by continuing the
 15 above-mentioned activities with knowledge of the ‘932 Patent.

16 COUNT IV

17 INFRINGEMENT OF U.S. PATENT NO. 7,062,022

18 28. United States Patent No. 7,062,022 (“the ‘022 patent”), entitled
 19 “Method and apparatus for fast V.90 modem startup,” issued on June 13, 2006
 20 from a United States Patent Application No. 10/753,570 filed on January 8, 2004.
 21 Application No. 10/753,570 is a Continuation of U.S. Patent Application Ser. No.
 22 09/361,842, filed Jul. 27, 1999 now U.S. Pat. No. 6,819,749, which claims the
 23 benefit of U.S. Provisional Application Ser. No. 60/128,874, filed Apr. 12, 1999.
 24 A true and correct copy of the ‘022 patent is attached as Exhibit D.

25 29. Defendants have been and now are directly infringing one or more
 26 claims of the ‘022 Patent, in this judicial District and elsewhere in the United
 27 States, by, among other things, practicing a method for reducing startup latency
 28

1 associated with a data transmission system having a first device configured to
2 communicate with a second device over a communication channel, said method
3 comprising the steps of: establishing a call between said first device and said
4 second device; determining whether a characteristic of said communication
5 channel is similar to a corresponding characteristic associated with a previously
6 established communication channel; and initializing at least one of said first and
7 second devices using a number of stored parameters associated with said
8 previously established communication channel, said initializing step being
9 performed if said determining step determines that said characteristic is similar to
10 said corresponding characteristic. Upon information and belief, Defendants
11 practice the claimed method while testing their dial-up internet services using the
12 ITU V.92 (56Kbps) connection protocol.

13 30. Defendants have had knowledge of the '022 patent no later than
14 March 20, 2014 or shortly thereafter, when Defendants were provided with a copy
15 of the original Complaint in this action (D.I. 1), and Defendants have induced their
16 customers, users of Juno and Netzero dial-up internet service who connect using
17 modems operating according to the ITU V.92 (56Kbps) specification, to practice a
18 method for reducing startup latency associated with a data transmission system
19 having a first device configured to communicate with a second device over a
20 communication channel, said method comprising the steps of: establishing a call
21 between said first device and said second device; determining whether a
22 characteristic of said communication channel is similar to a corresponding
23 characteristic associated with a previously established communication channel; and
24 initializing at least one of said first and second devices using a number of stored
25 parameters associated with said previously established communication channel,
26 said initializing step being performed if said determining step determines that said
27 characteristic is similar to said corresponding characteristic.

1 31. For example, Juno indicates on its website, “Juno Platinum members
2 can access Juno's services at speeds up to 56k, using compression technology.”
3 See <https://help.juno.com/support/modem/mo-speed.html>. Juno also promotes the
4 benefits of connecting using the V.92 protocol on its website, where it indicates,
5 “With your V.92 modem, you will be able to ...Get online faster! Using V.92
6 technology, your V.92 modem learns and remembers how you usually connect to
7 the Internet. This shortens the time it takes for your modem and Juno to connect, so
8 you can start surfing faster.” See [http://help.qa2.juno.com/support/modem/mo-](http://help.qa2.juno.com/support/modem/mo-v92.html)
9 [v92.html](http://help.qa2.juno.com/support/modem/mo-v92.html). Juno also provides instructions on its website as to “How to find and use
10 our V.92 compatible access numbers”. See
11 <http://help.qa4.juno.com/support/modem/mo-v92a.html>.

12 32. Similarly, Netzero also indicates on its website, “NetZero Platinum
13 members can access NetZero's services at speeds up to 56k, using compression
14 technology.” See <http://help.netzero.net/support/modem/mo-speed.html>. See also
15 <http://web.archive.org/web/20130109211930/http://help.netzero.net/support/mode>
16 [m/mo-speed.html](http://web.archive.org/web/20130109211930/http://help.netzero.net/support/mode) (“NetZero Free and Platinum members can access NetZero's
17 services at speeds up to 56k, using V.90 compression technology. ... Does NetZero
18 support V.92? On many of our access numbers, yes! You can identify V.92
19 numbers by looking for the V.92 label next to certain access numbers on the
20 Access Number page on the NetZero Web site. Click here for detailed instructions
21 on how to find and use our V.92 compatible access numbers.”). Netzero also
22 promotes the benefits of connecting using the V.92 protocol on its website, where
23 it indicates, “With your V.92 modem, you will be able to ... Get online faster!
24 Using V.92 technology, your V.92 modem learns and remembers how you usually
25 connect to the Internet. This shortens the time it takes for your modem and
26 NetZero to connect, so you can start surfing faster.” See
27 <http://help.qa5.netzero.net/support/modem/mo-v92.html>. Netzero also provides
28

1 instructions on its website as to “How to find and use our V.92 compatible access
2 numbers”. See <http://help.qa5.netzero.net/support/modem/mo-v92a.html>.

3 33. In indicating that they support the use of 56K V.92 modem
4 connections and promoting the use of V.92, Defendants specifically intended to
5 encourage their customers to connect to the Juno and Netzero dial-up internet
6 services using the 56K V.92 protocol in an infringing manner, knowing that the use
7 of such protocol constituted infringement of the ‘022 patent. Thus, Defendants
8 have induced their customers to infringe the ‘022 Patent literally and/or under the
9 doctrine of equivalents. Upon information and belief, Defendants acted with the
10 specific intent to induce their customers to connect to their dial-up internet services
11 using the method claimed by the ‘022 Patent by continuing the above-mentioned
12 activities with knowledge of the ‘022 Patent.

13 **COUNT V**

14 **INFRINGEMENT OF U.S. PATENT NO. 5,970,100**

15 34. United States Patent No. 5,970,100 (“the ‘100 patent”), entitled
16 “System for controlling and shaping the spectrum and redundancy of signal-point
17 limited transmission,” issued on October 19, 1999 from United States Patent
18 Application No. 09/047,802 filed on March 25, 1998. Application No. 09/047,802
19 is a continuation-in-part of U.S. Pat. Application Serial No. 08/756,383 filed on
20 November 27, 1996. Application No. 08/756,383 is a continuation-in-part of U.S.
21 Pat. Application Ser. No. 08/746,731, filed November 15, 1996. A true and correct
22 copy of the ‘100 patent is attached as Exhibit E.

23 35. Defendants have been and now are directly infringing one or more
24 claims of the ‘100 patent, in this judicial District and elsewhere in the United
25 States, by practicing a method of spectrally shaping transmitted samples with a set
26 of predetermined frequency characteristics and a predetermined set of allowable
27 transmitted signal levels, wherein a transmitted sample is either of an unmodified
28

1 source sample or a dependent sample, the transmitted samples being transmitted in
 2 data frames, said method comprising the steps of: (a) calculating, for each of the
 3 transmitted samples, a Running Filter Sum of unwanted components up to the
 4 current sample, wherein said Running Filter Sum is based on a biquad filter; (b)
 5 computing an objective function in accordance with the Running Filter Sum
 6 obtained in Step (a); (c) selecting, for each data frame of transmitted samples, at
 7 least one redundant sample to be added or modified within the data frame such that
 8 the objective function of Step (b) is optimized. Upon information and belief,
 9 Defendants practice the claimed method during commercial operation of their dial-
 10 up internet services when Juno and Netzero customers connect using the ITU V.90
 11 or V.92 (56Kbps) connection protocol. See
 12 <https://help.juno.com/support/modem/mo-speed.html>;
 13 <http://help.qa2.juno.com/support/modem/mo-v92.html>;
 14 <http://help.qa4.juno.com/support/modem/mo-v92a.html>;
 15 <http://help.netzero.net/support/modem/mo-speed.html>;
 16 <http://web.archive.org/web/20130109211930/http://help.netzero.net/support/modem/mo-speed.html>;
 17 <http://help.qa5.netzero.net/support/modem/mo-v92.html>;
 18 <http://help.qa5.netzero.net/support/modem/mo-v92a.html>.

19 20 **COUNT VI**

21 **INFRINGEMENT OF U.S. PATENT NO. 6,163,570**

22 36. United States Patent No. 6,163,570 (the ‘570 patent”), entitled
 23 “Methods and apparatus for verifying transmit power levels in a signal point
 24 limited transmission system,” issued on December 19, 2000 from United States
 25 Patent Application No. 09/075,719 filed on May 11, 1998. A true and correct copy
 26 of the ‘570 patent is attached as Exhibit F.

1 37. Defendants have been and now are directly infringing one or more
2 claims of the ‘570 patent, in this judicial District and elsewhere in the United
3 States, by practicing a method for verifying transmit power levels in a signal point
4 limited transmission system, wherein said system having: a first device configured
5 to communicate with a second device over a communication channel; said method
6 comprising the steps of: receiving at said first device, a plurality of signal points
7 from said second device, said plurality of signal points having a first computed
8 transmit power, as determined by said second device, less than or equal to a
9 transmit power limit, said first computed transmit power being calculated in
10 accordance with a transmit power calculation formula; calculating, at said first
11 device, in accordance with said transmit power calculation formula, a second
12 computed transmit power of said plurality of signal points; and comparing, at said
13 first device, said second computed transmit power with said transmit power limit,
14 to determine whether said second computed transmit power is less than or equal to
15 said transmit power limit. Upon information and belief, Defendants practice the
16 claimed method during commercial operation of their dial-up internet services
17 using the International Telecommunications Union (“ITU”) V.90 or V.92 (56Kbps)
18 connection protocol.

19 38. Defendants have had knowledge of the ‘570 patent since at least the
20 filing of this Amended Complaint for Patent Infringement or shortly thereafter, and
21 Defendants have induced their customers, users of Defendants’ dial-up internet
22 services who connect using modems operating according to the ITU V.90 or V.92
23 (56Kbps) specification, to practice a method for verifying transmit power levels in
24 a signal point limited transmission system having a first device configured to
25 communicate with a second device over a communication channel, said method
26 comprising the steps of: receiving, at said second device, a transmit power limit
27 calculated in accordance with a predetermined power calculation formula;
28

1 selecting at least one signal point constellation such that said at least one signal
2 point constellation has a first computed transmit power less than or equal to said
3 transmit power limit, said first computed transmit power being calculated in
4 accordance with said predetermined power calculation formula; transmitting said at
5 least one signal point constellation from said second device to said first device; and
6 prompting said first device to verify that the transmit power of said at least one
7 signal point constellation is less than or equal to said transmit power limit.

8 39. For example, Juno indicates on its website, “Juno Platinum members
9 can access Juno's services at speeds up to 56k, using compression technology.”
10 See <https://help.juno.com/support/modem/mo-speed.html>. Juno also promotes the
11 benefits of connecting using the V.92 protocol on its website, where it indicates,
12 “With your V.92 modem, you will be able to ...Get online faster! Using V.92
13 technology, your V.92 modem learns and remembers how you usually connect to
14 the Internet. This shortens the time it takes for your modem and Juno to connect, so
15 you can start surfing faster.” See [http://help.qa2.juno.com/support/modem/mo-](http://help.qa2.juno.com/support/modem/mo-v92.html)
16 [v92.html](http://help.qa2.juno.com/support/modem/mo-v92.html). Juno also provides instructions on its website as to “How to find and use
17 our V.92 compatible access numbers”. See
18 <http://help.qa4.juno.com/support/modem/mo-v92a.html>.

19 40. Similarly, Netzero also indicates on its website, “NetZero Platinum
20 members can access NetZero's services at speeds up to 56k, using compression
21 technology.” See <http://help.netzero.net/support/modem/mo-speed.html>. See also
22 <http://web.archive.org/web/20130109211930/http://help.netzero.net/support/mode>
23 [m/mo-speed.html](http://web.archive.org/web/20130109211930/http://help.netzero.net/support/mode) (“NetZero Free and Platinum members can access NetZero's
24 services at speeds up to 56k, using V.90 compression technology. ... Does NetZero
25 support V.92? On many of our access numbers, yes! You can identify V.92
26 numbers by looking for the V.92 label next to certain access numbers on the
27 Access Number page on the NetZero Web site. Click here for detailed instructions
28

1 on how to find and use our V.92 compatible access numbers.”). Netzero also
2 promotes the benefits of connecting using the V.92 protocol on its website, where
3 it indicates, “With your V.92 modem, you will be able to ... Get online faster!
4 Using V.92 technology, your V.92 modem learns and remembers how you usually
5 connect to the Internet. This shortens the time it takes for your modem and
6 NetZero to connect, so you can start surfing faster.” *See*
7 <http://help.qa5.netzero.net/support/modem/mo-v92.html>. Netzero also provides
8 instructions on its website as to “How to find and use our V.92 compatible access
9 numbers”. *See* <http://help.qa5.netzero.net/support/modem/mo-v92a.html>.

10 41. In indicating that they support the use of 56K V.90 and V.92 modem
11 connections, and promoting the use of V.92 in particular, Defendants specifically
12 intended to encourage their customers to connect to the Juno and Netzero dial-up
13 internet services using the 56K V.90 or V.92 protocols in an infringing manner,
14 knowing that the use of such protocols constituted infringement of the ‘570 patent.
15 Thus, Defendants have induced their customers to infringe the ‘570 Patent literally
16 and/or under the doctrine of equivalents. Upon information and belief, Defendants
17 acted with the specific intent to induce their customers to connect to its dial-up
18 internet service using the method claimed by the ‘570 Patent by continuing the
19 above-mentioned activities with knowledge of the ‘570 Patent.

20 *****

21 42. By engaging in the conduct described herein, Defendants have injured
22 MTS and are thus liable for infringement of the ‘886 patent, ‘009 patent, ‘932
23 patent, ‘022 patent, ‘100 patent, and ‘570 patent pursuant to 35 U.S.C. § 271.

24 43. Defendants have committed these acts of infringement without license
25 or authorization.

26 44. As a result of Defendants’ infringement of the ‘886 patent, ‘009
27 patent, ‘932 patent, ‘022 patent, ‘100 patent, and ‘570 patent, MTS has suffered
28

monetary damages and is entitled to a money judgment in an amount adequate to compensate for Defendants' infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendants, together with interest and costs as fixed by the Court.

45. MTS has also suffered and will continue to suffer severe and irreparable harm unless this Court issues a permanent injunction prohibiting Defendants, their agents, servants, employees, representatives, and all others acting in active concert therewith from infringing the '886 patent, '009 patent, '932 patent, '022 patent, '100 patent, and '570 patent. In particular, Defendants' disregard for MTS's property rights threatens MTS's relationships with the actual and potential licensees of this intellectual property, inasmuch as Defendants will derive a competitive advantage over any of MTS's current or future licensees by using MTS's patented technology without paying compensation for such use. Accordingly, unless and until Defendants' continued acts of infringement are enjoined, MTS will suffer further irreparable harm for which there is no adequate remedy at law.

PRAYER FOR RELIEF

WHEREFORE, MTS prays that this Court grant it the following relief:

A. A judgment in favor of MTS that Defendants have infringed the '886 patent, '009 patent, '932 patent, '022 patent, '100 patent, and '570 patent;

B. A permanent injunction enjoining Defendants and their officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in active concert therewith from infringement of the '886 patent, '009 patent, '932 patent, '022 patent, '100 patent, and '570 patent, or such other equitable relief the Court determines is warranted;

C. A judgment and order requiring Defendants to pay MTS their damages, costs, expenses, and prejudgment and post-judgment interest for

Defendants' infringement of the '886 patent, '009 patent, '932 patent, '022 patent, '100 patent, and '570 patent, as provided under 35 U.S.C. § 284;

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

E. A judgment and order requiring Defendants to provide an accounting and to pay supplemental damages to MTS, including without limitation, pre-judgment and post-judgment interest; and

F. Any and all other relief to which MTS may be entitled.

DEMAND FOR JURY TRIAL

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

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