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LINKSMART WIRELESS TECHNOLOGY, LLC

11
12 **UNITED STATES DISTRICT COURT**
13 **CENTRAL DISTRICT OF CALIFORNIA**

14
15 LINKSMART WIRELESS
TECHNOLOGY, LLC

16 *Plaintiff,*

17
18 *v.*

19 SOCIÉTÉ AIR FRANCE and
KONINKLIJKE LUCHTVAART
20 MAATSCHAPPIJ, N.V.

21 *Defendants.*
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Case No. 2:18-cv-03341-AG(JDEx)

[Assigned to The Honorable Andrew J.
Guilford, Courtroom 10D]

**FIRST AMENDED COMPLAINT;
DEMAND FOR JURY TRIAL**

Original Complaint Filed:
April 20, 2018

1 1. Plaintiff Linksmart Wireless Technology, LLC (“Linksmart” or
2 “Plaintiff”), files this Amended Complaint against Defendants SOCIÉTÉ AIR
3 FRANCE (“Air France”) and KONINKLIJKE LUCHTVAART MAATSCHAPPIJ,
4 N.V. (“KLM”) (collectively, “Defendants”), and alleges as follows:

5 **Nature of the Action**

6 2. This is a civil action for patent infringement arising under the patent
7 laws of the United States, Title 35, United States Code, including 35 U.S.C. §§ 271
8 *et seq.* and 281-285.

9 3. On June 27, 2017, the U.S. Patent and Trademark Office duly and
10 legally issued U.S. Reissued Patent No. RE46,459 (the “’459 patent” or “Asserted
11 Patent”), entitled “User specific automatic data redirection system,” to Koichiro
12 Ikudome and Moon Tai Yeung as the named inventors after full and fair
13 examination. A true and correct copy of the ’459 patent is attached hereto as Exhibit
14 A and incorporated herein by reference.

15 4. Defendants have infringed and continues to infringe one or more claims
16 of the Asserted Patent.

17 **The Parties**

18 5. Linksmart was founded by Koichuru (“Ko”) Ikudome, who along with
19 co-inventor Moon Tai Yeung, created the innovation claimed by the ’459 patent.

20 6. In 1996, Mr. Ikudome, after over a decade of IT industry and business
21 experience in Japan and the United States, founded and became the CEO of Auric
22 Web Systems, Inc. (later renamed AuriQ Systems, Inc.). Mr. Ikudome and Mr.
23 Yeung, Auric’s Director of Technology, developed innovative and fundamental
24 technologies for users and Internet service providers (ISPs) to enable access to
25 information and commerce on the then-nascent Internet and World Wide Web.

26 7. Among Auric’s significant product innovations was the “WEBGate
27 card.” Auric created the WEBGate card as a prepaid long-distance Internet access
28 card with a pre-determined time limit. Like a prepaid phone card, the Auric’s

1 innovative WEBGate card allowed Internet access from anywhere in the United
2 States without paying a long-distance phone bill or looking up local access numbers
3 when users were away from their home or office. As Auric further developed the
4 technology needed to make WEBGate work, Auric also developed other innovative
5 products to enable electronic commerce on the Internet, such as EC Gateway, which
6 combined an access control system at an ISP system with a CGI module to add
7 customizable graphical buttons to a merchant's homepage to allow customers to
8 make purchases more easily and add value to Internet services.

9 8. While Auric's Internet access products received substantial interest and
10 found some customers, the dot-com crash intervened and directly damaged the
11 potential customers for this product. Auric was thus forced to seek out new business
12 directions, ultimately resulting in AuriQ Systems' present-day business focused on
13 data analytics. Mr. Ikudome subsequently formed Linksmart as a way to continue to
14 derive value from the intellectual property of his and Auric's innovative
15 technological contributions, including the Asserted Patent. Many companies have
16 directly benefitted from the licensed use of Linksmart's patented technology in the
17 products and services they provide to their customers. Defendants, however, have
18 taken advantage of Linksmart's patented technology, selling products and services
19 that practice the '459 patent, in wanton disregard of Linksmart's exclusive property
20 rights.

21 9. Plaintiff Linksmart is a limited liability company organized and
22 existing under the laws of State of California with its principal place of business at
23 199 S. Los Robles, Suite 440, Pasadena, California 91101.

24 10. Upon information and belief, Defendant Air France is a company
25 organized and existing under the laws of France.

26 11. Upon information and belief, Defendant KLM is a company organized
27 and existing under the laws of the Netherlands.
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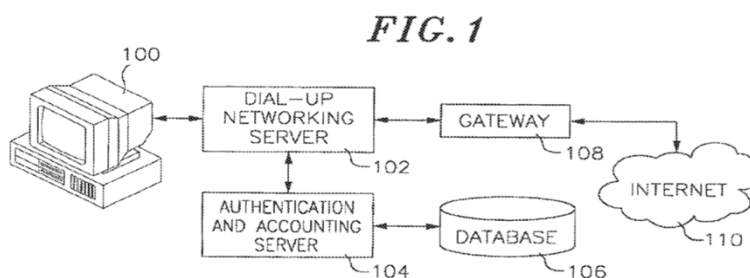
Linksmart's Patented Invention

16. The '459 patent is directed to a system for Internet access in a server that dynamically redirects users, i.e., a "redirection server," based on rules that are dynamically and automatically modified by the redirection server itself based on a function of factors that may include, among others, time, user input, data transmitted to the user, or the Internet location accessed by the user.

17. The innovative technology underlying the '459 patent is described in "User Specific Automatic Web Redirection System," a technical innovation report co-authored by Mr. Ikudome and Mr. Yeung. This report was filed as U.S. Provisional Pat. App. No. 60/084,014 (the "'014 app."), which is attached hereto as Exhibit B and is incorporated herein by reference. The '459 patent claims priority to this provisional application, and its disclosure is incorporated fully in the '459 patent's disclosure by reference.

18. The automatic redirection system described in the '459 patent provides a novel architecture for Internet access. At the time of the invention, it was conventionally understood that the World Wide Web was inherently a "passive system," in which the "user must supply the exact destination, a Web site, before the desired information can be retrieved." *See* '014 app. at 4. When a user was connected to the Internet, and the user requested a particular location on the Internet, the user was sent to that requested location. Ikudome and Yeung developed an innovative automatic redirection system that could provide a more flexible way to mediate a user's access to the Internet.

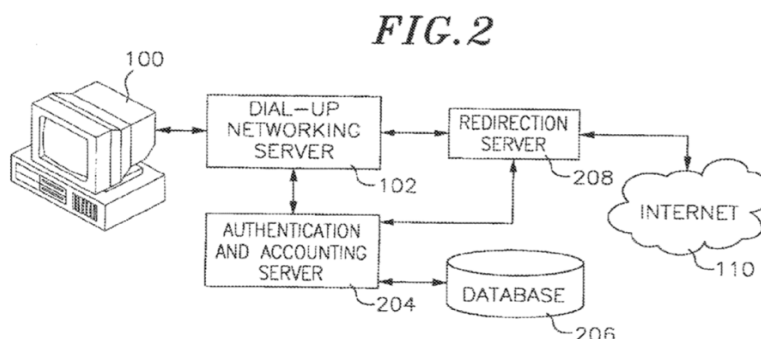
19. Figure 1 of the '459 patent shows an ISP environment for Internet



access in the absence of redirection:

20. In such a conventional ISP environment, a user accesses the Internet by connecting to the ISP, at which point networking software at the user end and the ISP begin “negotiating.” The ISP authenticates a user’s login information, typically from a database. Once authentication is successful, a network connection is established through the Internet gateway at the ISP. A commercial ISP may also send an accounting request to bill the user for the access.

21. Figure 2 of the '459 patent shows the role of a redirection server, as provided by the '459 patent, in the ISP environment:



22. In one embodiment described in the '459 patent, a redirection server runs on the gateway to the Internet. Once the user is connected to the ISP in this case, the user’s requests to the Internet first go to the redirection server. There, the redirection server can filter the requests based on a rule set to either the location requested by the user, or some other location based on rule sets programmed in the redirection server. By way of example, rule sets could be programmed such that a user would need to access a location, e.g., a page with advertising, before being able

1 to freely surf the Web. *See, e.g.,* '459 pat. at 7:10-13. As another example, a rule set
2 could require a user to access a questionnaire before accessing the Internet. *See* '459
3 pat. at 8:9-14.

4 23. Another embodiment described in the '459 patent further provides that
5 the redirection server is configured to be able to automatically modify the rule sets
6 dynamically. For example, if a questionnaire provided by an external server is filled
7 out, the rule set can be changed so that the user no longer needs to access the
8 questionnaire to gain access to the Internet. *See* '459 pat. at 14-18. As another
9 example of the redirection server automatically modifying the rule set if a user has
10 obtained access to the Internet through paid access for a limited time, the user's
11 Internet access could be disabled once that time has been exceeded. *See* '459 pat. at
12 7:65-8:2.

13 24. The unconventional features of the embodiments described by the '459
14 patent provided improvements to and solved problems associated with redirection
15 methods and systems that existed at the time of the invention, as described in the
16 '459 patent's disclosure. *See id.* at 1:48-3:3.

17 25. In the prior art, redirection was conventionally performed by html code
18 on a web page that a user would need to manually access after the user has already
19 gained access to the Internet. The '459 patent, however, describes embodiments that
20 allow redirection to occur at the Internet gateway or before the user can access to
21 remote web servers. *See id.* at 2:6-11.

22 26. Another way in which redirection could be implemented in the prior art
23 was packet filtering at the Internet Protocol (IP) layer, for example, through a
24 firewall device or firewall at the Internet router. Information about an IP packet
25 being sent through a network could be used to allow filtering of the packet to
26 different network locations. However, while packet filtering, e.g., at a firewall, could
27 be controlled locally by a network administrator, it was a static technology, in which
28

1 the rule set could only be changed by manually reprogramming the packet filtering
2 device. '459 pat. at 2:29-36.

3 27. The '459 patent also describes prior methods in which packet filter
4 devices were used with proxy systems to control access to the Internet. In such a
5 method, a packet filter or firewall can prevent web access requests with the exception
6 of traffic coming from a proxy server. The way that proxy servers worked was that
7 a terminal had to be allowed access to a proxy server through which to send web
8 requests. The proxy server was programmed with a list of blocked or allowed
9 addresses, and requests to addresses were blocked or allowed according to that list.
10 As the '459 patent describes, such systems were limited in that they could only block
11 or allow specific terminals or sets of terminals' access to remote sites, and the rules
12 for access were static and needed to be reprogrammed, i.e., by some external server,
13 in order to change which locations specific terminals could access. *See* '459 pat. at
14 2:65-3:3.

15 28. The '459 patent issued from U.S. Patent App. No. 14/691,246. The file
16 history of the application from which the patent issued is available from the United
17 States Patent and Trademark Office, including electronically through the Office's
18 Public Patent Application Information Retrieval (PAIR) website, and is in
19 incorporated by reference herein.

20 29. The '459 patent, therefore, provides an advantageous technological
21 solution to the problem of mediating user access to the Internet through a redirection
22 server which can automatically modify rule sets for redirection dynamically while
23 connected to a user through a network connection. Among the benefits of the '459
24 patent's novel redirection system solution is that (1) redirection is automatic, i.e., a
25 user does not need to request a particular external address; it can be reconfigured for
26 specific users or categories of users; (2) the system can be easily installed and
27 configured by the ISP and it is resilient to potential failures; and (3) the system can
28 dynamically reconfigure the rule set controlling the user's access to the Internet,

such as by a function of time or user or external inputs while the user is connected. *See, e.g., '014 app. at 8; see also the '459 patent.*

Cause of Action

Infringement of the Linksmart Patent

30. The foregoing paragraphs are incorporated by reference as if fully set forth herein.

31. Defendants are unlawfully using Linksmart's patented technology. Defendants rely on technology covered by the Asserted Patent to enable their core services, for example by providing Internet access to passengers traveling on board aircraft.

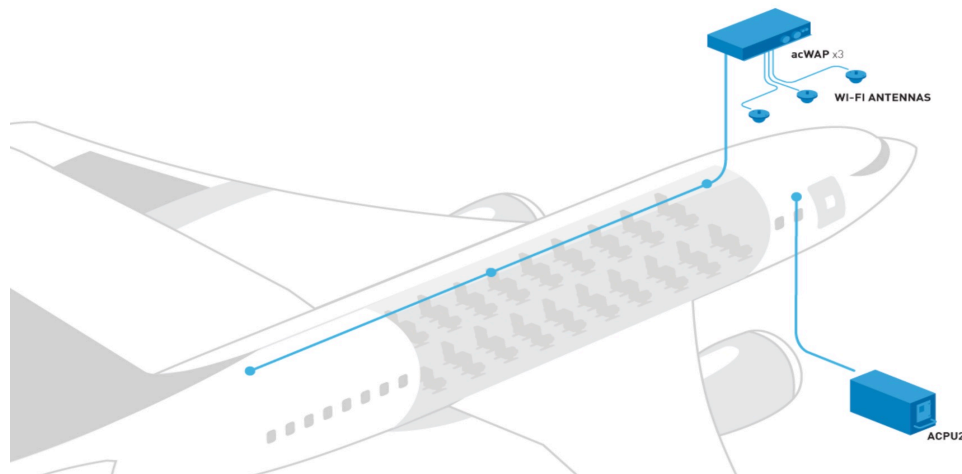
32. Defendants have used, made, offered for sale, and/or sold Internet access systems for use in aviation operations, and elsewhere, that infringed the Asserted Patent, or induce or contribute to the infringement of the Asserted Patent.

33. Defendants have directly infringed and will continue to infringe, directly and indirectly through induced infringement, one or more claims of the '459 patent, including at least claim 91, among other claims, by making, using, selling, offering for sale, or importing in this District and elsewhere into the United States systems and/or methods covered by one or more claims of the '459 patent including, but not limited to at least the systems that they have installed in their aircraft that use Gogo technology for Defendants' passengers to access ISP services for aviation operations (the "Accused Gogo System") and the systems that they have installed in their aircraft that use Panasonic Avionics technology for Defendants' passengers to access ISP services for aviation operations (the "Accused Panasonic System") (collectively the "Accused Systems"). Further discovery may reveal additional infringing products, devices, systems and/or methods.

34. By way of example only, the Accused Gogo System infringes an exemplary claim of the '459 patent, claim 91, as in the following description, which Linksmart provides without the benefit of information about the Accused Gogo

1 System obtained through discovery. Claim 91 claims a system, such as the Accused
2 Gogo System, comprising:

- 3 a. *a redirection server programmed with a user's rule set*
4 *correlated to a temporarily assigned network address.* For
5 example, Defendants' aircraft have systems that employ Gogo
6 technology to enable Defendants' aircraft passengers to access
7 the Internet.¹ As an exemplary illustration of Defendants'
8 Accused Gogo System, Gogo's corporate website describes
9 hardware components onboard aircraft that are connected to
10 Gogo's communication network. As shown below, Gogo shows



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19 that aircraft are equipped with “ACPU-2,” described as a “[n]ext-
20 generation onboard server unit that uploads and downloads data
21 to the aircraft both inflight and on the ground. See “In-Cabin
22 Network Hardware for inflight connectivity and entertainment,”
23 <https://www.gogoair.com/commercial/in-cabin-network>.

24
25 ¹ See, e.g., “Air France-KLM Selects Gogo for In-flight Connectivity,” September
26 19, 2016, [http://concourse.gogoair.com/air-france-klm-selects-gogo-flight-](http://concourse.gogoair.com/air-france-klm-selects-gogo-flight-connectivity/)
27 [connectivity/](http://concourse.gogoair.com/air-france-klm-selects-gogo-flight-connectivity/) (“Today, we are announcing that we will partner with Air France-KLM
28 to connect their existing long-haul fleet representing 124 aircraft, with an airline
option to install the technology on additional aircraft in the future. The fleet of
aircraft receiving Gogo’s 2Ku technology will include numerous aircraft types,
including the Boeing 777 and Airbus A330s.”)

When a user accesses Gogo's network through the server, the user does so through a temporarily assigned network address. A rule set programmed in the redirection server initially forces and redirects the user's web browser to the Gogo inflight wi-fi service portal, i.e., the "Gogo Portal." *See, e.g., "Passenger Services,"* <https://www.gogoair.com/commercial/passenger-services/>. ("The Gogo Portal is the interface providing passengers access to the Internet and other inflight entertainment options on board.").

- b. *wherein the rule set contains at least one of a plurality of functions used to control data passing between the user and a public network.* The server that provides the passenger's gateway to the Internet from on board the aircraft is configured to be able to redirect the passenger to the Gogo Portal regardless of which Internet address the passenger requests.
- c. *wherein the redirection server is configured to automatically modify at least a portion of the rule set while the rule set is correlated to the temporarily assigned network address.* For example, upon a passenger's payment or other login authentication by the server on board the aircraft, the server modifies its rule set to allow that passenger access to the Internet. By way of another example, "Gogo's digital ad server displays advertisements within the portal, and ads can even be tailored to certain routes, devices, and targeted audiences." *See also "Gogo Portal Brochure"* at 12, *available for download at* <https://www.gogoair.com/learning-center/gogo-portal-brochure/?download=true>.

d. *wherein the redirection server is configured to modify at least a portion of the rule set as a function of some combination of time, data transmitted to or from the user, or location the user accesses.* For example, upon payment or authentication of a passenger's credentials, i.e., use of a pre-determined pass or login that provides access, a portion of the rule set is modified by providing the user with Internet access for a limited amount of time (e.g., 30 minutes), while the rule set is correlated to the temporarily assigned network address given to the user.

e. *wherein the redirection server is configured to modify at least a portion of the rule set as a function of time while the rule set is correlated to the temporarily assigned network address.* For example, upon payment for a limited time of Internet use, a portion of the rule set is modified by providing the user with Internet access for a limited amount of time (e.g., 30 minutes), while the rule set is correlated to the temporarily assigned network address given to the user.

35. By way of example only, the Accused Panasonic System also infringes an exemplary claim of the '459 patent, claim 91, as in the following description, which Linksmart provides without the benefit of information about the Accused Panasonic System obtained through discovery. Claim 91 claims a system, such as the Accused Panasonic System, comprising:

a. *a redirection server programmed with a user's rule set correlated to a temporarily assigned network address.* For example, Defendants' aircraft have systems that employ Panasonic Avionics technology to enable Defendants' aircraft

1 passengers to access the Internet.² As an exemplary illustration
 2 of Defendants' Accused Panasonic System, Panasonic Avionics
 3 describes the Global Communications Service (GCS) project it
 4 provides, which extends its inflight entertainment and
 5 communications (IFEC) offerings to provide internet
 6 connectivity for aircraft passengers. *See, e.g.*, "Global
 7 Communications Services," [https://www.panasonic.aero/
 8 inflight-connectivity/global-communications-services/](https://www.panasonic.aero/inflight-connectivity/global-communications-services/). By way
 9 of further example, Panasonic's eXConnect product provides
 10 "global inflight broadband connectivity" through "the
 11 company's global Ku-band aeronautical network. . . . This
 12 connectivity service enables passengers to access the Internet,
 13 compose and send email, log onto their favorite social media
 14 sites, or even watch Panasonic's eXTV global television
 15 service." *See, e.g.*, "eXConnect," [https://www.panasonic.aero/
 16 inflight-connectivity/global-communications-services/broadba
 17 nd-connectivity/](https://www.panasonic.aero/inflight-connectivity/global-communications-services/broadband-connectivity/). Panasonic's eXConnect broadband connectivity
 18 allows Internet access, for example, extending the IFEC services
 19 that are provided by server hardware that Panasonic Avionics
 20 provides as part of its system. When a user accesses Panasonic
 21 Avionics' network through the internet server, the user does so

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 23 ² *See, e.g.*, "Panasonic Avionics Corporation Selected by Air France - KLM to
 24 Provide World Class Entertainment on Air France's New B777-300ER," September
 25 17, 2008, [https://www.businesswire.com/news/home/20080917006498/
 26 en/Panasonic-Avionics-Corporation-Selected-Air-France--](https://www.businesswire.com/news/home/20080917006498/en/Panasonic-Avionics-Corporation-Selected-Air-France--) ("Panasonic Avionics
 27 Corporation (Panasonic), the world leader in state-of-the-art in-flight entertainment
 28 (IFE) and communication systems, today announced an agreement with Air France
 - KLM, the largest airline consortium, in terms of operating revenue, in the world.
 Under this agreement, Panasonic's eX2 IFE system will be installed on ten (10) new
 B777-300ER aircraft of Air France.")

1 through a temporarily assigned network address. A rule set
 2 programmed in the redirection server initially forces and
 3 redirects the user's web browser to the Panasonic Avionics
 4 inflight Wi-Fi service portal, through which a user may gain
 5 Internet access.

- 6 b. *wherein the rule set contains at least one of a plurality of*
 7 *functions used to control data passing between the user and a*
 8 *public network.* The server that provides the passenger's gateway
 9 to the Internet from on board the aircraft is configured to be able
 10 to redirect users to the Panasonic Avionics portal regardless of
 11 the Internet address that the user requests.
- 12 c. *wherein the redirection server is configured to automatically*
 13 *modify at least a portion of the rule set while the rule set is*
 14 *correlated to the temporarily assigned network address.* For
 15 example, upon a passenger's payment or other login
 16 authentication by the server on board the aircraft, the server
 17 modifies its rule set to allow that passenger access to the Internet.
- 18 d. *wherein the redirection server is configured to modify at least a*
 19 *portion of the rule set as a function of some combination of time,*
 20 *data transmitted to or from the user, or location the user*
 21 *accesses.* For example, upon payment or authentication of a
 22 passenger's credentials, i.e., use of a pre-determined pass or
 23 login that provides access, a portion of the rule set is modified by
 24 providing the user with Internet access for a limited amount of
 25 time (e.g., 30 minutes), while the rule set is correlated to the
 26 temporarily assigned network address given to the user.
- 27 e. *wherein the redirection server is configured to modify at least a*
 28 *portion of the rule set as a function of time while the rule set is*

1 41. As a result of Defendants' acts of infringement, Linksmart has suffered
2 actual and consequential damages; however, Linksmart does not yet know the full
3 extent of the infringement. The extent of Defendants' infringement and damages
4 suffered by Linksmart cannot be ascertained except through discovery and special
5 accounting. To the fullest extent permitted by law, Linksmart seeks recovery of
6 damages at least for reasonable royalties, unjust enrichment, and benefits received
7 by Defendants as a result of infringing the patents-in-suit. Linksmart further seeks
8 any other damages to which Linksmart is entitled under law or in equity.

9 **Irreparable Harm to Linksmart**

10 42. The foregoing paragraphs are incorporated by reference as if fully set
11 forth herein.

12 43. Linksmart has been irreparably harmed by Defendants' acts of
13 infringement. Linksmart will continue to be irreparably harmed unless and until
14 Defendants' acts of infringement are enjoined by this Court. Linksmart has no
15 adequate remedy at law to redress Defendants' continuing acts of infringement. The
16 hardships that would be imposed upon Defendants are less than those faced by
17 Linksmart should an injunction not issue. Furthermore, the public interest would be
18 served by issuance of an injunction.

19 **Attorneys' Fees**

20 44. Defendants' infringement of the Asserted Patent is exceptional, and
21 Linksmart is entitled to recover reasonable and necessary attorneys' fees under
22 applicable law.

23 **Prayer for Relief**

24 **WHEREFORE**, Linksmart respectfully requests that this Court enter
25 judgment in its favor and grant the following relief:

- 26 a. A judgment that Defendants directly and/or indirectly infringe the '459
27 patent;
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- b. An Order enjoining, permanently, Defendants and their respective officers, directors, agents, partners, servants, employees, attorneys, licensees, successors, and assigns, and those in active concert or participation with any of them, from engaging in infringing activities with respect to the '459 patent;
- c. A judgment that Defendants' infringement has been willful and that Defendants' continued infringement of the '459 patent is willful;
- d. A ruling that this case is exception and awarding Linksmart its reasonable attorneys' fees under 35 U.S.C. § 285;
- e. A judgment and order requiring Defendants to pay Linksmart damages in an amount adequate to compensate Linksmart for Defendants' infringement, but in no event less than a reasonable royalty under 35 U.S.C. § 284, including supplemental damages for any continuing post-verdict infringement up until entry of judgment, with an accounting, as needed, as well as treble damages for willful infringement under 35 U.S.C. § 284;
- f. Award enhanced damages pursuant to 35 U.S.C. § 284;
- g. A judgment and order requiring Defendants to pay Linksmart's costs of this action (including all disbursements);
- h. An order for an accounting of damages;
- i. A judgment and order requiring Defendants to pay pre-judgment and post-judgment interest to the full extent allowed under the law; and
- j. Award such other and further relief as the Court may deem just and proper under the circumstances.

Demand for Jury Trial

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, plaintiff Linksmart Wireless Technology, LLC demands trial by jury on all issues so triable.

Respectfully submitted,

Dated: July 11, 2018

RUSS AUGUST & KABAT

By: /s/ Kent N. Shum

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