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LINKSMART WIRELESS TECHNOLOGY, LLC

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

LINKSMART WIRELESS
TECHNOLOGY, LLC

Plaintiff,

v.

AIR CANADA

Defendant.

**COMPLAINT FOR PATENT
INFRINGEMENT**

DEMAND FOR JURY TRIAL

1 **Complaint**

2 1. Plaintiff Linksmart Wireless Technology, LLC (“Linksmart” or
3 “Plaintiff”), files this Complaint against Defendant Air Canada (“Air Canada” or
4 “Defendant”), 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. Air Canada has 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. Air Canada, however, has
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. Defendant Air Canada is a corporation organized and existing under the
25 laws of Canada.

26 **Jurisdiction**

27 11. Subject matter jurisdiction is conferred on this Court pursuant to 28
28 U.S.C. §§ 1381 and 1338(a).

12. Defendant Air Canada is subject to this Court's personal jurisdiction because it has a regular and established place of business in this District, including at its ground operations and other permanent business operations located at Los Angeles International Airport, Terminal 6, 600 World Way, Los Angeles, California. Air Canada is also subject to this Court's personal jurisdiction because Air Canada has committed and induced acts of patent infringement and has regularly and systematically conducted and solicited business in this District by and through at least its sales and offers for sale of its products and services, including wireless Internet products and services, and other contractual arrangements with customers and third parties using such Air Canada products and services located in and/or doing business in this District.

Venue

13. As set forth above, Air Canada has a regular and established place of business in the Central District of California. In particular, for example, Air Canada maintains ground operations and other permanent business operations at Los Angeles International Airport, Terminal 6, which is located in this District at 600 World Way, Los Angeles, California, and at Air Canada Cargo's facility located at 5721 West Imperial Highway, Los Angeles, California. Further, Air Canada has committed acts of infringement in this District, including, developing, testing, distributing, advertising, operating, selling, offering for sale, using and/or supporting products or services that fall within one or more claims of the Asserted Patent. Accordingly, venue to adjudicate whether the Asserted Patent is infringed is appropriate in the Central District of California pursuant to 28 U.S.C. §§ 1391 and 1400(b).

Linksmart's Patented Invention

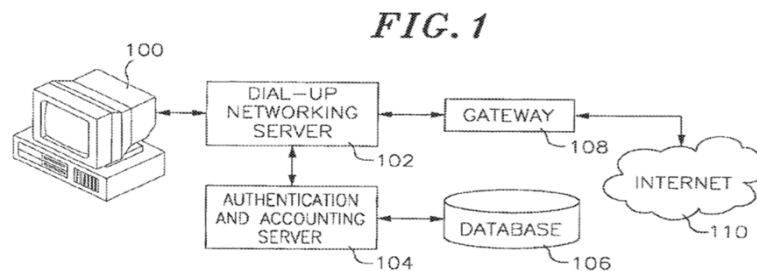
14. The '459 patent is directed to a system for Internet access in a server that dynamically redirects users, i.e., a "redirection server," based on rules that are dynamically and automatically modified by the redirection server itself based on a

1 function of factors that may include, among others, time, user input, data transmitted
2 to the user, or the Internet location accessed by the user.

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

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

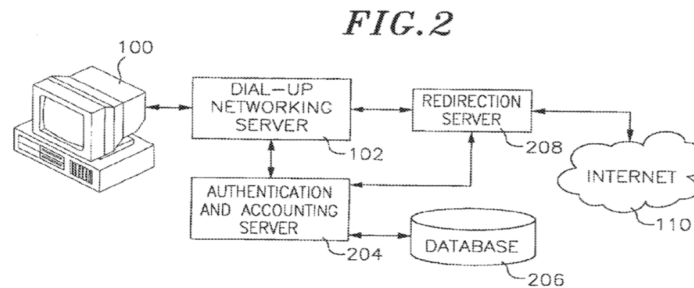
19 17. Figure 1 of the '459 patent shows an ISP environment for Internet
20 access in the absence of redirection:



22
23
24
25
26 18. In such a conventional ISP environment, a user accesses the Internet by
27 connecting to the ISP, at which point networking software at the user end and the
28 ISP begin "negotiating." The ISP authenticates a user's login information, typically

1 from a database. Once authentication is successful, a network connection is
 2 established through the Internet gateway at the ISP. A commercial ISP may also send
 3 an accounting request to bill the user for the access.

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



11 20. In one embodiment described in the '459 patent, a redirection server
 12 runs on the gateway to the Internet. Once the user is connected to the ISP in this
 13 case, the user's requests to the Internet first go to the redirection server. There, the
 14 redirection server can filter the requests based on a rule set to either the location
 15 requested by the user, or some other location based on rule sets programmed in the
 16 redirection server. By way of example, rule sets could be programmed such that a
 17 user would need to access a location, e.g., a page with advertising, before being able
 18 to freely surf the Web. *See, e.g.,* '459 pat. at 7:10-13. As another example, a rule set
 19 could require a user to access a questionnaire before accessing the Internet. *See* '459
 20 pat. at 8:9-14.

21 21. Another embodiment described in the '459 patent further provides that
 22 the redirection server is configured to be able to automatically modify the rule sets
 23 dynamically. For example, if a questionnaire provided by an external server is filled
 24 out, the rule set can be changed so that the user no longer needs to access the
 25 questionnaire to gain access to the Internet. *See* '459 pat. at 14-18. As another
 26 example of the redirection server automatically modifying the rule set if a user has
 27 obtained access to the Internet through paid access for a limited time, the user's
 28

1 Internet access could be disabled once that time has been exceeded. *See* '459 pat. at
2 7:65-8:2.

3 22. The unconventional features of the embodiments described by the '459
4 patent provided improvements to and solved problems associated with redirection
5 methods and systems that existed at the time of the invention, as described in the
6 '459 patent's disclosure. *See id.* at 1:48-3:3.

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

12 24. Another way in which redirection could be implemented in the prior art
13 was packet filtering at the Internet Protocol (IP) layer, for example, through a
14 firewall device or firewall at the Internet router. Information about an IP packet
15 being sent through a network could be used to allow filtering of the packet to
16 different network locations. However, while packet filtering, e.g., at a firewall, could
17 be controlled locally by a network administrator, it was a static technology, in which
18 the rule set could only be changed by manually reprogramming the packet filtering
19 device. '459 pat. at 2:29-36.

20 25. The '459 patent also describes prior methods in which packet filter
21 devices were used with proxy systems to control access to the Internet. In such a
22 method, a packet filter or firewall can prevent web access requests with the exception
23 of traffic coming from a proxy server. The way that proxy servers worked was that
24 a terminal had to be allowed access to a proxy server through which to send web
25 requests. The proxy server was programmed with a list of blocked or allowed
26 addresses, and requests to addresses were blocked or allowed according to that list.
27 As the '459 patent describes, such systems were limited in that they could only block
28 or allow specific terminals or sets of terminals' access to remote sites, and the rules

1 for access were static and needed to be reprogrammed, i.e., by some external server,
2 in order to change which locations specific terminals could access. *See* '459 pat. at
3 2:65-3:3.

4 26. The '459 patent issued from U.S. Patent App. No. 14/691,246. The file
5 history of the application from which the patent issued is available from the United
6 States Patent and Trademark Office, including electronically through the Office's
7 Public Patent Application Information Retrieval (PAIR) website, and is in
8 incorporated by reference herein.

9 27. The '459 patent, therefore, provides an advantageous technological
10 solution to the problem of mediating user access to the Internet through a redirection
11 server which can automatically modify rule sets for redirection dynamically while
12 connected to a user through a network connection. Among the benefits of the '459
13 patent's novel redirection system solution is that (1) redirection is automatic, i.e., a
14 user does not need to request a particular external address; it can be reconfigured for
15 specific users or categories of users; (2) the system can be easily installed and
16 configured by the ISP and it is resilient to potential failures; and (3) the system can
17 dynamically reconfigure the rule set controlling the user's access to the Internet,
18 such as by a function of time or user or external inputs while the user is connected.
19 *See, e.g.,* '014 app. at 8; *see also* the '459 patent.

20 Cause of Action

21 Infringement of the Linksmart Patent

22 28. The foregoing paragraphs are incorporated by reference as if fully set
23 forth herein.

24 29. Air Canada is unlawfully using Linksmart's patented technology. Air
25 Canada relies on technology covered by the Asserted Patent to enable its core
26 service, for example by providing Internet access to passengers traveling on board
27 aircraft.
28

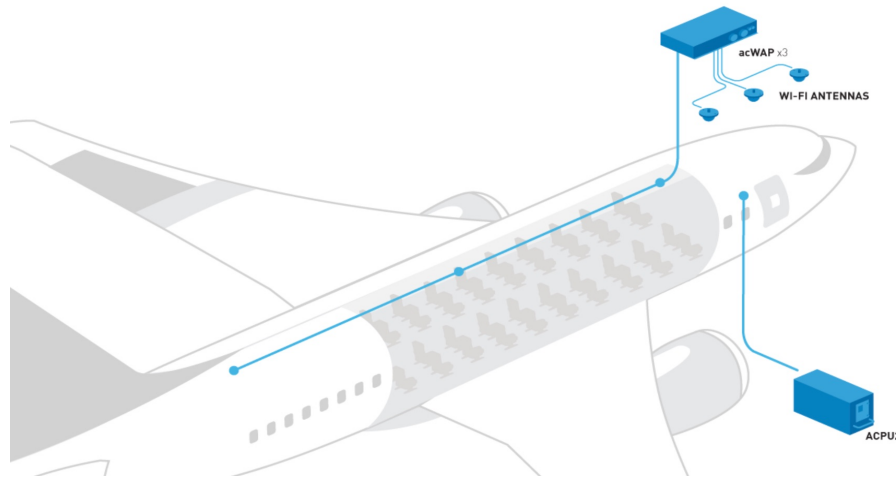
1 30. Air Canada has used, made, offered for sale, and/or sold Internet access
2 systems for use in aviation operations, and elsewhere, that infringed the Asserted
3 Patent, or induce or contribute to the infringement of the Asserted Patent.

4 31. Air Canada has directly infringed and will continue to infringe, directly
5 and indirectly through induced infringement, one or more claims of the '459 patent,
6 including at least claim 91, among other claims, by making, using, selling, offering
7 for sale, or importing in this District and elsewhere into the United States systems
8 and/or methods covered by one or more claims of the '459 patent including, but not
9 limited to the system that it has installed in its aircraft that uses Gogo technology for
10 Air Canada's passengers to access ISP services for aviation operations (the
11 "Accused System"). Further discovery may reveal additional infringing products,
12 devices, systems and/or methods.

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

- 18 a. *a redirection server programmed with a user's rule set*
19 *correlated to a temporarily assigned network address.* Air
20 Canada has a system that employs Gogo technology to enable
21 Air Canada's aircraft passengers to access the Internet. *See, e.g.,*
22 *"Air Canada Plan,"* [https://www.gogoair.com/ac-bbyf/air-](https://www.gogoair.com/ac-bbyf/air-canada-plan/)
23 *canada-plan/*. As an illustration of Air Canada's Accused
24 System, Gogo's corporate website describes hardware
25 components onboard aircraft that are connected to Gogo's
26 communication network. As shown below, Gogo shows that
27 aircraft are equipped with "ACPU-2," described as a "[n]ext-
28 generation onboard server unit that uploads and downloads data

to the aircraft both inflight and on the ground. *See* “In-Cabin Network Hardware for inflight connectivity and entertainment,” <https://www.gogoair.com/commercial/in-cabin-network>.



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*

1 *correlated to the temporarily assigned network address.* For
2 example, upon a passenger's payment or other login
3 authentication by the server on board the aircraft, the server
4 modifies its rule set to allow that passenger access to the Internet.
5 By way of another example, "Gogo's digital ad server displays
6 advertisements within the portal, and ads can even be tailored to
7 certain routes, devices, and targeted audiences." *See also* "Gogo
8 Portal Brochure" at 12, *available for download at*
9 [https://www.gogoair.com/learning-center/gogo-portal-](https://www.gogoair.com/learning-center/gogo-portal-brochure/?download=true)
10 [brochure/?download=true](https://www.gogoair.com/learning-center/gogo-portal-brochure/?download=true).

- 11 d. *wherein the redirection server is configured to modify at least a*
12 *portion of the rule set as a function of some combination of time,*
13 *data transmitted to or from the user, or location the user*
14 *accesses.* For example, upon payment or authentication of a
15 passenger's credentials, i.e., use of a pre-determined pass or
16 login that provides access, a portion of the rule set is modified by
17 providing the user with Internet access for a limited amount of
18 time (e.g., 30 minutes), while the rule set is correlated to the
19 temporarily assigned network address given to the user.
- 20 e. *wherein the redirection server is configured to modify at least a*
21 *portion of the rule set as a function of time while the rule set is*
22 *correlated to the temporarily assigned network address.* For
23 example, upon payment for a limited time of Internet use, a
24 portion of the rule set is modified by providing the user with
25 Internet access for a limited amount of time (e.g., 30 minutes),
26 while the rule set is correlated to the temporarily assigned
27 network address given to the user.
28

33. Air Canada indirectly infringes the '459 patent, under 35 U.S.C. § 271(b), by actively inducing direct infringement by others, for example, Air Canada passengers who use the Accused System provided by Air Canada for Internet Access following Air Canada's instructions on how to access the Wi-Fi network. By at least the filing date and/or service date of this Complaint, Air Canada had knowledge of the '459 patent and that its actions resulted in direct infringement of the '459 patent. Air Canada also knew or was willfully blind that its actions would induce direct infringement by others and intended that its actions would do so.

34. In accordance with 35 U.S.C. § 287, Air Canada has had knowledge of the Asserted Patent at least as of the filing date of this Complaint and/or the date this Complaint was served.

35. Despite Air Canada's knowledge of the Asserted Patent and its infringing activities, Air Canada continues to make, use, market, offer for sale, and/or sell in the United States systems that infringe the Asserted Patent. Air Canada has continued to infringe in wanton disregard of Linksmart's patent rights.

36. Air Canada's continued infringement of the Asserted Patent has damaged and will continue to damage Linksmart.

Damages

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

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

Irreparable Harm to Linksmart

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

40. Linksmart has been irreparably harmed by Air Canada's acts of infringement. Linksmart will continue to be irreparably harmed unless and until Air Canada's acts of infringement are enjoined by this Court. Linksmart has no adequate remedy at law to redress Air Canada's continuing acts of infringement. The hardships that would be imposed upon Air Canada are less than those faced by Linksmart should an injunction not issue. Furthermore, the public interest would be served by issuance of an injunction.

Attorneys' Fees

41. Air Canada's infringement of the Asserted Patent is exceptional, and Linksmart is entitled to recover reasonable and necessary attorneys' fees under applicable law.

Prayer for Relief

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

- a. A judgment that Air Canada directly and/or indirectly infringes the '459 patent;
- b. An Order enjoining, permanently, Air Canada and its 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 Air Canada's infringement has been willful and that Air Canada's 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 Air Canada to pay Linksmart damages in an amount adequate to compensate Linksmart for Air Canada's 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 Air Canada 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 Air Canada 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: April 20, 2018

RUSS AUGUST & KABAT

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