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Complaint

1. Plaintiff Linksmart Wireless Technology, LLC ("Linksmart" or "Plaintiff"), files this Complaint against Defendants United Continental Holdings, Inc. and United Airlines, Inc. (collectively "United" or "Defendants"), and alleges as follows:

Nature of the Action

- 2. This is a civil action for patent infringement arising under the patent laws of the United States, Title 35, United States Code, including 35 U.S.C. §§ 271 *et seq.* and 281-285.
- 3. On June 27, 2017, the U.S. Patent and Trademark Office duly and legally issued U.S. Reissued Patent No. RE46,459 (the "'459 patent" or "Asserted Patent"), entitled "User specific automatic data redirection system," to Koichiro Ikudome and Moon Tai Yeung as the named inventors after full and fair examination. A true and correct copy of the '459 patent is attached hereto as Exhibit A and incorporated herein by reference.
- 4. United has infringed and continues to infringe one or more claims of the Asserted Patent.

The Parties

- 5. Linksmart was founded by Koichuru ("Ko") Ikudome, who along with co-inventor Moon Tai Yeung, created the innovation claimed by the '459 patent.
- 6. In 1996, Mr. Ikudome, after over a decade of IT industry and business experience in Japan and the United States, founded and became the CEO of Auric Web Systems, Inc. (later renamed AuriQ Systems, Inc.). Mr. Ikudome and Mr. Yeung, Auric's Director of Technology, developed innovative and fundamental technologies for users and Internet service providers (ISPs) to enable access to information and commerce on the then-nascent Internet and World Wide Web.
- 7. Among Auric's significant product innovations was the "WEBGate card." Auric created the WEBGate card as a prepaid long-distance Internet access

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

- 8. While Auric's Internet access products received substantial interest and found some customers, the dot-com crash intervened and directly damaged the potential customers for this product. Auric was thus forced to seek out new business directions, ultimately resulting in AuriQ Systems' present-day business focused on data analytics. Mr. Ikudome subsequently formed Linksmart as a way to continue to derive value from the intellectual property of his and Auric's innovative technological contributions, including the Asserted Patent. Many companies have directly benefitted from the licensed use of Linksmart's patented technology in the products and services they provide to their customers. United, however, has taken advantage of Linksmart's patented technology, selling products and services that practice the '459 patent, in wanton disregard of Linksmart's exclusive property rights.
- 9. Plaintiff Linksmart is a limited liability company organized and existing under the laws of State of California with its principal place of business at 199 S. Los Robles, Suite 440, Pasadena, California 91101.
- 10. Defendants are both corporations organized and existing under the laws of the State of Delaware. Defendant United Continental Holdings, Inc., is the holding company whose primary subsidiary is defendant United Airlines, Inc.

Jurisdiction

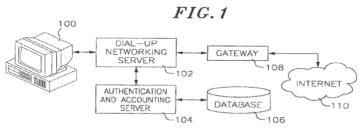
- 11. Subject matter jurisdiction is conferred on this Court pursuant to 28 U.S.C. §§ 1381 and 1338(a).
- 12. United is subject to this Court's personal jurisdiction because it has a regular and established place of business in this District, including its ground operations and other permanent business operations located at various facilities, including, by way of example, at Los Angeles International Airport, 1 World Way, Los Angeles, California. United is also subject to this Court's personal jurisdiction because United 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 United products and services located in and/or doing business in this District.

Venue

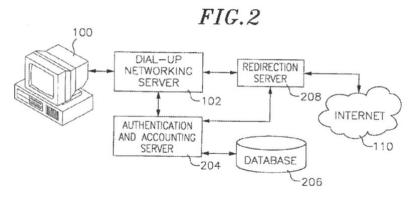
13. As set forth above, United has a regular and established place of business in the Central District of California. In particular, for example, United maintains ground operations and other permanent business operations at Los Angeles International Airport, 1 World Way, Los Angeles, California and other airports in this District, including, for example, John Wayne / Orange County Airport, 18601 Airport Way, Santa Ana, California, as well as at the United Cargo facility at 5832 W Century Blvd., Los Angeles, California. Further, United 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 function of factors that may include, among others, time, user input, data transmitted to the user, or the Internet location accessed by the user.
- 15. 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.
- 16. 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.
- 17. Figure 1 of the '459 patent shows an ISP environment for Internet access in the absence of redirection:



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



- 20. 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 to freely surf the Web. *See*, *e.g.*, '459 pat. at 7:10-13. As another example, a rule set could require a user to access a questionnaire before accessing the Internet. *See* '459 pat. at 8:9-14.
- 21. Another embodiment described in the '459 patent further provides that the redirection server is configured to be able to automatically modify the rule sets dynamically. For example, if a questionnaire provided by an external server is filled out, the rule set can be changed so that the user no longer needs to access the

questionnaire to gain access to the Internet. *See* '459 pat. at 14-18. As another example of the redirection server automatically modifying the rule set if a user has obtained access to the Internet through paid access for a limited time, the user's Internet access could be disabled once that time has been exceeded. *See* '459 pat. at 7:65-8:2.

- 22. The unconventional features of the embodiments described by the '459 patent provided improvements to and solved problems associated with redirection methods and systems that existed at the time of the invention, as described in the '459 patent's disclosure. *See id.* at 1:48-3:3.
- 23. In the prior art, redirection was conventionally performed by html code on a web page that a user would need to manually access after the user has already gained access to the Internet. The '459 patent, however, describes embodiments that allow redirection to occur at the Internet gateway or before the user can access to remote web servers. *See id.* at 2:6-11.
- 24. Another way in which redirection could be implemented in the prior art was packet filtering at the Internet Protocol (IP) layer, for example, through a firewall device or firewall at the Internet router. Information about an IP packet being sent through a network could be used to allow filtering of the packet to different network locations. However, while packet filtering, e.g., at a firewall, could be controlled locally by a network administrator, it was a static technology, in which the rule set could only be changed by manually reprogramming the packet filtering device. '459 pat. at 2:29-36.
- 25. The '459 patent also describes prior methods in which packet filter devices were used with proxy systems to control access to the Internet. In such a method, a packet filter or firewall can prevent web access requests with the exception of traffic coming from a proxy server. The way that proxy servers worked was that a terminal had to be allowed access to a proxy server through which to send web requests. The proxy server was programmed with a list of blocked or allowed

addresses, and requests to addresses were blocked or allowed according to that list. As the '459 patent describes, such systems were limited in that they could only block or allow specific terminals or sets of terminals' access to remote sites, and the rules for access were static and needed to be reprogrammed, i.e., by some external server, in order to change which locations specific terminals could access. *See* '459 pat. at 2:65-3:3.

- 26. The '459 patent issued from U.S. Patent App. No. 14/691,246. The file history of the application from which the patent issued is available from the United States Patent and Trademark Office, including electronically through the Office's Public Patent Application Information Retrieval (PAIR) website, and is in incorporated by reference herein.
- 27. The '459 patent, therefore, provides an advantageous technological solution to the problem of mediating user access to the Internet through a redirection server which can automatically modify rule sets for redirection dynamically while connected to a user through a network connection. Among the benefits of the '459 patent's novel redirection system solution is that (1) redirection is automatic, i.e., a user does not need to request a particular external address; it can be reconfigured for specific users or categories of users; (2) the system can be easily installed and configured by the ISP and it is resilient to potential failures; and (3) the system can 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

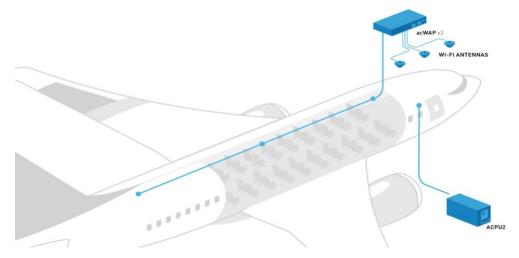
Infringement of the Linksmart Patent

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

- 29. United is unlawfully using Linksmart's patented technology. United relies on technology covered by the Asserted Patent to enable its core service, for example by providing Internet access to passengers traveling on board aircraft.
- 30. United has 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.
- 31. United has 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 the system that it has installed in its aircraft that uses Gogo technology for United's passengers to access ISP services for aviation operations (the "Accused System"). Further discovery may reveal additional infringing products, devices, systems and/or methods.
- 32. By way of example only, the Accused 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 System obtained through discovery. Claim 91 claims a system, such as the Accused System, comprising:
 - a. *a redirection server programmed with a user's rule set* correlated to a temporarily assigned network address. By way of example, among United's systems enable United's aircraft passengers on its flights to access the Internet are systems that employ Gogo technology. Though United's infringement is not limited to those systems that employ Gogo technology, by way

¹ See, e.g., "United Wi-Fi," https://www.united.com/CMS/en-US/products/travelproducts/Pages/United-WiFi.aspx.

of an exemplary illustration of United's infringement, Gogo's corporate website describes hardware components onboard aircraft that are connected to Gogo's communication network. As shown below, Gogo shows that aircraft are equipped with "ACPU-2," described as a "[n]ext-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

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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.

- wherein the redirection server is configured to automatically c. 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" 12, available for download at https://www.gogoair.com/learning-center/gogo-portalbrochure/?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.

- 33. United indirectly infringes the '459 patent, under 35 U.S.C. § 271(b), by actively inducing direct infringement by others, for example, United passengers who use the Accused System provided by United for Internet Access following United's instructions on how to access the Wi-Fi network. By at least the filing date and/or service date of this Complaint, United had knowledge of the '459 patent and that its actions resulted in direct infringement of the '459 patent. United 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, United 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 United's knowledge of the Asserted Patent and its infringing activities, United continues to make, use, market, offer for sale, and/or sell in the United States systems that infringe the Asserted Patent. United has continued to infringe in wanton disregard of Linksmart's patent rights.
- 36. United'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 United'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 United'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 United 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 United's acts of infringement. Linksmart will continue to be irreparably harmed unless and until United's acts of infringement are enjoined by this Court. Linksmart has no adequate remedy at law to redress United's continuing acts of infringement. The hardships that would be imposed upon United 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. United'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 United directly and/or indirectly infringes the '459 patent;
- b. An Order enjoining, permanently, United and its respective officers, directors, agents, partners, servants, employees, attorneys, licensees, successors, and assigns, and those in active concert or participation with

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any of them,	from	engaging	in	infringing	activities	with	respect to) the
'459 patent;								

- c. A judgment that United's infringement has been willful and that United'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 United to pay Linksmart damages in an amount adequate to compensate Linksmart for United'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 United 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 United to pay pre-judgment and postjudgment 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.

COMPLAINT