IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

S3G TECHNOLOGY LLC, Plaintiff, v. OYO HOTELS INC. Defendant.	Case No. 6:21-cv-1093 **JURY TRIAL DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff S3G Technology LLC ("S3G") alleges as follows for its complaint against Defendant OYO Hotels Inc. ("Defendant" or "OYO"):

JURISDICTION AND VENUE

1. This is an action for patent infringement in violation of the Patent Act of the United States, 35 U.S.C. §§ 1 et seq.

2. This Court has original and exclusive subject matter jurisdiction over patent infringement claims for relief under 28 U.S.C. §§ 1331 and 1338(a).

3. The Court has specific and general personal jurisdiction over OYO pursuant to due process and/or the Texas Long Arm Statute, due at least to OYO's substantial business in this forum, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in Texas and in this District.

4. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1400(b) because, among other things, OYO is subject to personal jurisdiction in this judicial district, OYO has a regular and established place of business in Texas and in this judicial district, OYO has purposely transacted business involving the accused products in this judicial district, including sales to one or more customers in Texas, and committed infringing acts complained of herein in this judicial district.

PARTIES

5. S3G is a limited liability company organized under the laws of the State of California with its principal place of business in Foster City, California. S3G has been, and continues to, develop technology-based solutions that facilitate economic empowerment and development. For example, S3G is developing mobile solutions that enable the authenticated access to different types of spaces, including to buildings and portions thereof. The information that S3G's technology solutions may collect and maintain about its users further enable the delivery of educational and other services that may help these users to emerge from poverty and change their lives and those of their families. In connection with its mobile solutions, S3G has obtained patents covering its technology both in the United States and worldwide. For example, its patent portfolio includes additional granted patents and pending applications in Mexico, Brazil, Nicaragua, Costa Rica, India, Philippines and Indonesia. S3G is a Massachusetts Institute of Technology (MIT) Computer Science and Artificial Intelligence Lab (CSAIL) Startup, and is a member of MIT CSAIL Alliances' Startup Connect.

6. The Managing Member of S3G, who is also the named inventor of the asserted patents, is an award-winning MIT-trained researcher, technologist and inventor who has used and continues to use innovative technologies to address many of the world's critical problems,

including poverty, access to financial services and access to clean drinking water. The World Economic Forum has recognized him for his professional accomplishments, commitment to society and potential to contribute to shaping the future of the world.

7. S3G is informed and believes, and on that basis alleges, that OYO is a corporation existing under the laws of the State of Delaware, with a principal place of business located at 2633 McKinney Ave, Suite 130-524, Dallas, TX 75204. On information and belief, OYO sells and offers to sell products and provides services throughout Texas, including in this judicial district, and introduces products and services that perform infringing methods or processes knowing that they would be used, offered for sale or sold in Texas and this judicial district. S3G is further informed and believes, and on that basis alleges, that OYO derives a significant portion of its revenue from the use, promotion and distribution of its products and services, including through the use of Defendant's OYO mobile applications for devices running the Android operating system[1] and the OYO mobile applications for iOS[2] (collectively, "Defendant app"), and its systems, methods, computing devices, including servers, software, and non-transitory computer readable storage medium that execute, run, store, support or facilitate the use of the Defendant app (collectively, "Accused Instrumentalities" or "Accused System").

8. S3G is informed and believes, and on that basis alleges, that, at all times relevant hereto, Defendant has conducted and continues to conduct business, including the manufacture, use, distribution, promotion, and/or the offer for sale and sale of its products and services, including the Defendant app in this Judicial District. On information and belief, Defendant does business itself, or through its subsidiaries, affiliates, and franchisees, in the State of Texas and

[1] https://play.google.com/store/apps/details?id=com.oyo.consumer&hl=en_US&gl=US
[2] https://apps.apple.com/in/app/oyo-search-book-hotel-rooms/id988141624

the Western District of Texas, including but not limited to OYO Hotel Waco located at 500 N Interstate 35 Frontage Rd, Waco, TX 76704.[3]

9. OYO has adopted and ratified the franchised[4] hotels within this District as its places of business. Upon information and belief, OYO owns the exclusive rights to the OYO brand, sells franchises and franchising rights in the Western District of Texas, and does not permit the use of its OYO brand or its technology, including the Accused Instrumentalities, in the Western District of Texas except for licensed franchisees, such as the OYO hotels found within this District. On information and belief, OYO's business model is to enter into franchise agreements with a hotel, and then (1) mandate minimum standards for the hotel to maintain; (2) mandate the use of Oyo's property management system; (3) exercise full control over revenue management for the hotel; and (4) mandate the use the "Oyo" name as part of the hotel.[5]

10. Upon information and belief, OYO provides and supports the Accused Instrumentalities that infringe the patents-in-suit at OYO hotels in the Western District of Texas. Upon information and belief, OYO engages in marketing activities that promote OYO's branded hotels to the consuming public and consuming public located in Texas and in this District. Upon information and belief, Defendant's franchisees are named "OYO", for example, "OYO Hotel," with no reservations such as "authorized franchisee." In fact, to the contrary, in its own

---

[3] https://www.oyorooms.com/us/57860/?checkin=14%2F10%2F2021&checkout=15%2F10%2F2021&rooms=1&guests=1&rooms_config=1-1_0&selected_rcid=272835

[4] Oyo's business model exerts significant control over hotels. Oyo's own website states that Oyo's control over hotels is "not ***just*** franchising," confirming the strict control it has. Oyo further states that the hotels are "convert[ed] … to an OYO® hotel." (*See, e.g.*, https://www.oyorooms.com/officialoyoblog/2020/05/02/oyo-brings-innovation-to-the-us.) Moreover, the hotels have little to no operational control, the "Oyo-***mandated*** property management system … gives [hotel] properties ***no*** ability to set room rates…." and "***all*** revenue management powers" are given to Oyo. (*See, e.g.*, https://skift.com/2019/10/24/budget-chain-oyo-can-be-a-nightmare-for-u-s-hotel-operators-despite-its-hype/; *see also* https://www.wsj.com/articles/oyo-hotel-chain-suffered-ailments-beyond-pandemics-travel-slowdown-11609525294 ("Oyo's big idea was to sign up mom-and-pop hotels, ***spruce them up to minimum standards*** under a ***single brand*** and ***take control of booking and prices***, using proprietary software to boost occupancy and revenue.").)

[5] https://patron.oyorooms.com/us/?utm_campaign=dweb&utm_medium=dweb&utm_source=dweb.

documentation, Oyo represents that the hotel has been "convert[ed] … to an Oyo® hotel."[6] The franchisees are held out to the consuming public as places of OYO where OYO, through its franchised hotels provides hospitality services to the consuming public.

11. Upon information and belief, OYO's employees work with the OYO franchisees in this District on issues related to sales, advertising, marketing, promotions and training.[7]

12. Upon information and belief, the OYO franchised hotels located within the Western District of Texas have executed agreements with OYO. Upon information and belief, these agreements set forth standards and requirements enumerated by OYO that franchised hotels are required to comply with. OYO states that it "is primarily responsible for providing a comfortable room stay and for ensuring the acceptability of the services as promised by OYO to its customers," "Oyo has right to direct the Hotel owners to provide the room stay services to Oyo's customers," "OYO markets the room stays, providing its Customers with the room booking voucher that entitles them to avail Hotel stay service in our OYO branded rooms provided by our Channel partners as per terms agreed with OYO," OYO provides customer support to assist consumers in finding suitable accommodations, OYO ensures that customers are provided with an alternate accommodation of comparable standards or where the alternate accommodation could not be provided, OYO shall arrange for the refund of any pre booking amount collected from the customer, "OYO also promises its Users of a comfortable room stay experiences at all its OYO branded rooms with following amenities: a. AC rooms with Television, b. Wi-Fi, c. Spotless linen, d. Hygienic and sanitised washrooms, e. Housekeeping Facilities on daily basis for your comfort, f. 24*7 manned front desk to help you with all your

[6] https://www.oyorooms.com/officialoyoblog/2020/05/02/oyo-brings-innovation-to-the-us
[7] *See e.g.,* https://www.wsj.com/articles/oyo-hotel-chain-suffered-ailments-beyond-pandemics-travel-slowdown-11609525294 .

queries." Finally, "OYO stays involved with the Users right from the time when booking is made through OYO platform and throughout the hotel stays, ensuring that the User gets a comfortable room stay experience."[8]

13. OYO, through its website www.oyorooms.com, represents that its branded hotels within this District are places of OYO with respect to providing hospitality services. For example, a user to www.oyorooms.com can search hotels within this District. OYO's website asks for the user to input a city, hotel or neighborhood so that OYO can show the user the hotels available in the user's local area, which includes this District.[9] Users to OYO's website also can request information from a local OYO hotel about specific hotels located in their area, which includes this District. Specifically, by clicking on "View Details" after selecting a particular hotel, a user is provided with additional information about the hotel in their local area.[10]

14. S3G is informed and believes, and on that basis alleges, that, at all times relevant hereto, Defendant has conducted and continues to conduct business, including the use, distribution, promotion, and/or the offer for sale and sale of its products and services using the Accused Instrumentalities, including the Defendant app, in this Judicial District. On information and belief, Defendant does business itself, or through its subsidiaries, affiliates, and franchisees, in the State of Texas and the Western District of Texas.

PATENTS

15. United States Patent No. 9,940,124 (the "'124 patent") entitled "Modification of

[8] https://www.oyorooms.com/terms/?oyocorporate

[9] https://www.oyorooms.com/search?location=Waco%20TX%2C%20Texas%2C%20USA&city=Waco%20TX&searchType=city&checkin=14%2F10%2F2021&checkout=15%2F10%2F2021&rooms=1&guests=1&cityId=1845&filters%5Bcity_id%5D=1845

[10] https://www.oyorooms.com/us/57860/?checkin=14%2F10%2F2021&checkout=15%2F10%2F2021&rooms=1&guests=1&rooms_config=1-1_0&selected_rcid=272835

Terminal and Service Provider Machines Using an Update Server Machine" was duly and legally issued on April 10, 2018. A true and correct copy of the '124 patent is attached hereto as Exhibit "A" and incorporated herein by this reference. By assignment, S3G is now the assignee of the entire right, title and interest in and to the '124 patent, including all rights to enforce the '124 patent and to recover for infringement. The '124 patent is valid and in force.

16. United States Patent No. 10,387,140 (the "'140 patent") entitled "Modification of Terminal and Service Provider Machines Using an Update Server Machine" was duly and legally issued on August 20, 2019. A true and correct copy of the '140 patent is attached hereto as Exhibit "B" and incorporated herein by this reference. By assignment, S3G is now the assignee of the entire right, title and interest in and to the '140 patent, including all rights to enforce the '140 patent and to recover for infringement. The '140 patent is valid and in force.

17. United States Patent No. 10,831,468 (the "'468 patent") entitled "Modification of Terminal and Service Provider Machines Using an Update Server Machine" was duly and legally issued on November 10, 2020. A true and correct copy of the '468 patent is attached hereto as Exhibit "C" and incorporated herein by this reference. S3G is the owner of the entire right, title and interest in and to the '468 patent, including all rights to enforce the '468 patent and to recover for infringement. The '468 patent is valid and in force.

18. United States Patent No. 8,572,571 (the "'571 patent") entitled "Modification of Terminal and Service Provider Machines Using an Update Server Machine" was duly and legally issued on April 16, 2019. A true and correct copy of the '571 patent is attached hereto as Exhibit "D" and incorporated herein by this reference. S3G is the owner of the entire right, title and interest in and to the '571 patent, including all rights to enforce the '571 patent and to recover for infringement. The '571 patent is valid and in force.

19. United States Patent No. 9,304,758 (the "'758 patent") entitled "Modification of Terminal and Service Provider Machines Using an Update Server Machine" was duly and legally issued on April 16, 2019. A true and correct copy of the '758 patent is attached hereto as Exhibit "E" and incorporated herein by this reference. S3G is the owner of the entire right, title and interest in and to the '758 patent, including all rights to enforce the '758 patent and to recover for infringement. The '758 patent is valid and in force.

20. United States Patent No. 10,261,774 (the "'774 patent") entitled "Modification of Terminal and Service Provider Machines Using an Update Server Machine" was duly and legally issued on April 16, 2019. A true and correct copy of the '774 patent is attached hereto as Exhibit "F" and incorporated herein by this reference. By assignment, S3G is now the assignee of the entire right, title and interest in and to the '774 patent, including all rights to enforce the '140 patent and to recover for infringement. The '774 patent is valid and in force.

21. United States Patent No. 9,081,897 (the "'897 patent") entitled "Modification of Terminal and Service Provider Machines Using an Update Server Machine" was duly and legally issued on April 16, 2019. A true and correct copy of the '897 patent is attached hereto as Exhibit "G" and incorporated herein by this reference. By assignment, S3G is now the assignee of the entire right, title and interest in and to the '897 patent, including all rights to enforce the '140 patent and to recover for infringement. The '897 patent is valid and in force.

The Technical Problems Addressed by the Patents-in-Suit

22. The '124, '140, '468, '571, '758, '774, and '897 patents (collectively, the "Asserted Patents") disclose that at the time of the invention, often times, after a computerized system has been initially constructed, modifications may be required, either to improve the functionality of the system or to customize the system to meet new requirements. Typically, a

software application includes computer-executable instructions that are not able to be edited or modified directly by a developer. Instead, the developer may make the required changes by either creating or editing original source code. Once edited or modified, the updated source code must then be recompiled or translated into an updated set of computer-executable instructions. These updated set of computer-executable instructions often includes a relatively large amount of information, which must then be distributed to the hardware devices in the system as an updated software application. '140 Patent, Col. 2:17-33.[11]

23. At the time of the invention, in many situations it may be difficult to distribute a newly compiled version of the updated software application to all of the devices in the system. This is particularly true if the system is distributed over a large geographic area making it difficult to locate each system device and transport it to a central location where the newly updated computer-executable instructions can be uploaded. This lack of physical access to the devices often means that the new software application cannot be uploaded using a traditional wired connection (*e.g.*, an interface cable). Col. 2:34-43.

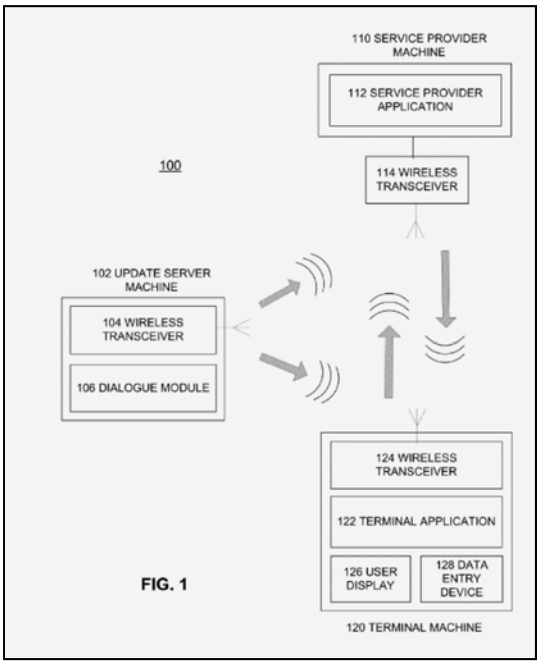
24. The Asserted Patents further explain that using a wireless communications network to upload the updated computer-executable instructions also has several significant drawbacks. First, the size of the updated computer-executable instructions may exceed the transmission capabilities of the communications network, *i.e.*, the size of the file is too large to be uploaded. Second, even if the updated computer-executable instructions can be uploaded and transmitted over the wireless network, it may take an excessive amount of time. Third, these problems are exacerbated if (1) the computer system includes a large number of devices that

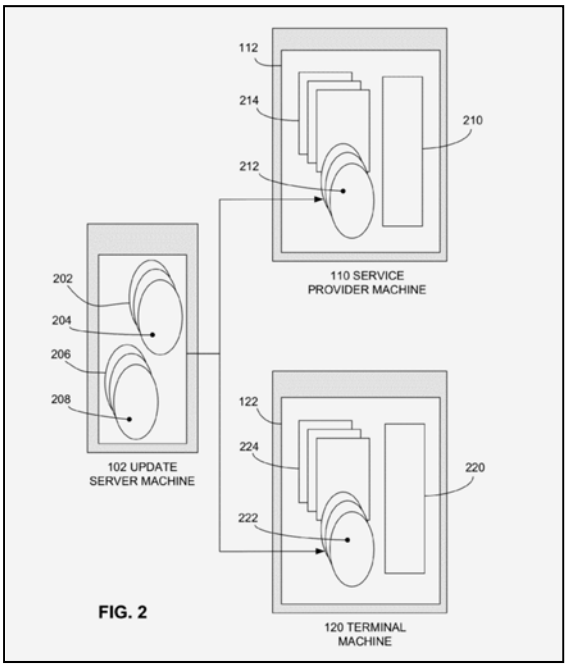
[11] Unless otherwise indicated, all citations are to the '140 patent.

must be updated with the modified computer-executable instructions and (2) the devices contain different versions of the application or multiple applications need updates. Col. 2:44-3:2.

The Claimed Solution to the Technical Problems

25. The Asserted Patents are directed to a technological solution, *i.e.*, improving the way computers operate. In particular, the Asserted Patents claim a specific computerized system able to provide efficient modification of a specific type of software applications that are distributed across a network of remote devices. Col. 3:3-5. As an example, FIG. 1 (below) discloses, and the Asserted Patents claim, a unique and very specific type of computer system structure involving three entities: a service provider machine 110, a terminal machine 120 and an update server machine 102. Within this specific system, a terminal machine 120 and a service provider machine 110 communicate via applications running on the machines (as depicted by the vertical arrows in the figure).





26. As shown above in FIG. 2, the applications running on these machines have a very specific structure: namely, the terminal application 122 comprises first computer-executable instructions 224, which has been construed to mean "computer instructions that can be directly executed on a processor,"[12] and first code 222. Col. 8:27-32. The Asserted Patents expressly define that "code" is not just any generic software code; instead, the Asserted Patents teach a very specific structure for "code," clearly stating that "[t]he code represents at least some information that ***must be translated*** by the software application before it can be implemented on the machine processor." Col. 4:57-64 (emphasis added).[13] The terminal application conducts the terminal machine's portion of the dialogue with the service provider machine.

27. In like fashion, as shown in FIG. 2, the service provider machine runs an application having a very specific structure: namely, the provider application 112 comprises second computer-executable instructions 214, which can be directly executed on a processor, and second code 212, which must be translated before it can be executed on a processor. The provider application conducts the service provider's portion of the dialogue with the terminal machine.

28. FIGS. 1 and 2 also show that the computer system structure in the Asserted Patents is unique in having a third entity, an update server machine. The update server machine is able to communicate with both the terminal machine and the service provider machine (as depicted by the diagonal arrows in the FIG. 1). The update server machine also has a unique and

[12] *See also S3G Tech. LLC v. Unikey Techs., Inc.*, Civil Action No. 6:16-cv-400-RWS-KNM, Dkt. 74 [Report and Recommendation of United States Magistrate Judge], attached hereto as Exhibit H; *see also* Dkt. 91 [Order Adopting Rep. & Rec. of Mag. Judge], attached hereto as Exhibit I.

[13] Consistent with the specification, the term "code" has been construed to mean "information that must be translated before it can be executed on a processor." *See* Exhibit H, Appendix A.

very specific data structure for communicating with the terminal and service provider machines: namely, the update server machine sends one or more dialogue modules, which has been construed to mean "code or instructions related to a dialogue sequence."[14]

29. As part of the dialogue between the terminal machine and the service provider machine, the terminal machine is modified by receiving a terminal dialogue module. As noted, the dialogue module is a specific structure that contains information that must be translated by the software application before it can be implemented on the machine processor. After receiving the dialogue module, specific actions can be taken. For example, the dialogue module may replace existing terminal code already saved on the terminal machine or the terminal code may supplement other code previously saved on the terminal machine. Col. 9:41-49. These steps produce first updated code, which adapts the terminal application to display a further prompt for the terminal machine's portion of a modified dialogue sequence with the service provider machine. Significantly, when terminal and service provider applications are modified using a dialogue module it does not result in replacing the prior applications with entirely new applications. This is important because this system with its specific structures results in a number of technological benefits: namely, computing resource, improved network utilization, and design efficiencies. Col. 7:31-33; 15:52-59; FIGS. 8A-B.

30. During litigation of the Asserted Patents, the Court also held that the "dialogue module" is a very specific type of structure:

> The recital [in the claims] of "sending a . . . dialogue module" demonstrates that the claim uses the term "module"' to refer to ***a particular type of structure rather than to any structure for performing a function***. Further, the specification is consistent with such an interpretation by disclosing that a "dialogue module" can contain code or other data and can be communicated….

[14] *Id.*

Exhibit H at 12 (emphasis added).

31. The Court also held that the claimed three entity system of the Asserted Patents also is a particular structure. Specifically, the Court stated that "the surrounding claim language [of terminal machine] provides details regarding how the terminal machine interacts with other components . . . in a way that . . . inform[s] the structural character of [it] or otherwise impart[s] structure." *Id*. at 23. The Court held that "[s]ubstantially the same analysis" applies to service provider and update server machines. *Id.* at 26, 29.

32. Among other features, the Asserted Patents thus claim an unconventional and inventive solution to the problem of transmitting large executable files required to replace applications running on remote devices, which previously required networks having massive bandwidth. Specifically, the Asserted Patent disclose the unconventional and inventive system and method of transmitting dialogue modules to terminal and service provider machines to modify and/or update software applications running on those machines. The software applications also are unconventional and inventive in utilizing both computer-executable instructions, which can be directly executed on a processor, and code, which must be translated before it can be executed on a processor, to solve this technological problem.

33. The use of "dialogue modules" containing "code" also results in various technical benefits. For example, as the Asserted Patents explain, transmitting an entire software application may represent a "large amount of information" that may not be feasible to transmit due to bandwidth limitations on data transfer over the network. Col. 2:44-49. And, even if an upload of the entire modified application is possible, it may take an unacceptable amount of time due to the slow transfer rate of a wireless network." Col. 2:58-61. By comparison, the Asserted Patents disclose that, "[i]n a preferred embodiment, the dialogue module is less than 1 Mb to

facilitate communication over a network with limited data transfer capacity." Col. 7:31-33. Therefore, the use of the "dialogue modules" reduces network bandwidth utilization, thereby allowing efficient modification of applications running on remote devices on a network. Another benefit of using "dialogue modules" is that it enables the use of design tools that facilitate their development and modification. Col. 15:52-59, FIGS. 8A & B. These tools thus enable and improve the efficiency of modifying applications.

34. During the prosecution of patents related to the Asserted Patents, the United States Patent Examiner allowed the claims because, among other things, this unique structure described and claimed in the Asserted Patents was not known and would not have been obvious:

> As Applicants pointed out in the Remarks, **the prior art of record do not disclose and/or fairly suggest at least claimed limitations recited** in such manners in independent claim 1 " ... an update server machine comprising a processor and operable for sending a terminal dialogue module to the terminal machine and a provider dialogue module to the service provider machine to allow the terminal machine and the service provider machine to conduct a dialogue sequence with each other []....wherein the **terminal application comprises a first set of computer-executable instructions and a first set of code, wherein the first set of computer-executable instructions are able to execute directly on a terminal processor of the terminal machine, and wherein the first set of code is not able to execute directly on the terminal processor**; ... wherein the first set of updated code adapts the terminal application to use a second sequence of prompts and a second sequence of data entries for the terminal machine's portion of a modified dialogue sequence with the service provider machine...
>
> These **claimed limitations are not present in the prior art of record and would not have been obvious**, thus all pending claims are allowed.

Exhibit J ['571 FH, Notice of Allowability, dated July 11, 2013, at Examiner's Statement of Reasons for Allowance] (emphasis added).

FIRST CLAIM FOR RELIEF

Infringement of the '124 patent

29. S3G refers to and incorporates herein by reference the preceding paragraphs.

30. Defendant, by the acts complained of herein, and by making, using, selling, offering for sale, and/or importing in the United States, including in the Western District of Texas, instrumentalities embodying the invention, has in the past, does now, and continues to infringe the ’124 patent directly, contributorily, and/or by inducement, literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271.

31. At least since the filing of this complaint, Defendant has had actual knowledge of the ’124 patent.

32. On information and belief, Defendant has directly infringed one or more claims of the ’124 patent by making, using, importing, supplying, selling, or offering for sale the Accused Instrumentalities. By doing so, Defendant has directly infringed at least claim 1 of the ’124 patent.

33. For example, Defendant provides a system that performs the method of conducting a dialogue sequence between a terminal machine and a service provider machine ("Accused System").

34. The Accused System performs a method comprising displaying a first prompt on a terminal display of a terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app) by running a terminal application (*e.g.,* Defendant app for Android), the terminal application comprising first computer-executable instructions and first code that conduct the terminal machine's portion of the dialogue. The terminal application displays a first prompt and accepts a first data entry at the terminal machine, wherein the first data entry is associated with the first prompt. For example, without limitation, using the Defendant app, a user is able to review, edit and delete saved searches, e.g., favorite hotel properties. The user is prompted with one or more saved searches to, for example, make a

booking. The user is also able to edit and delete saved searches. This information is necessarily communicated to the Defendant server because, for example, without limitation, it must be stored and available to the user in the future. One of ordinary skill would understand that the terminal application (*e.g.*, Defendant app for Android) comprises first computer executable instructions and first code. For example, without limitation, the Android Runtime (ART) comprises computer executable instructions, while the app's bytecode comprises code.

35. The method performed by the Accused System includes a method comprising accepting a first data entry at the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app), wherein the first data entry is associated with the first prompt.

36. The method performed by the Accused System includes a method comprising communicating information associated with the first data entry from the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app) to the service provider machine (*e.g.,* Defendant server), wherein the service provider machine (*e.g.,* Defendant server) uses a provider application (*e.g.,* Defendant server application) comprising second computer-executable instructions and second code that conduct the service provider machine's portion of the dialogue, and wherein the provider application is capable of sending an authorization code to the terminal machine. In the Accused System, information associated with the first data entry is communicated from the terminal machine to the service provider machine. For example, without limitation, using the Defendant app, a user is able to select (and make a booking), edit and delete saved searches. This information is necessarily communicated to the Defendant server because, for example, without limitation, it must be stored and available to the user in the future. The provider application (*e.g.,* Defendant server application, which, upon

information and belief, is a Python application) runs on the service provider machine (*e.g.,* Defendant server), and one of ordinary skill would understand that the Defendant server application comprises second computer-executable instructions and second code. For example, without limitation, the Python engine comprises computer-executable instructions, while the Python program comprises code. In the Accused System, the provider application is capable of sending an authorization code to the terminal machine, for example, without limitation, by authorizing logging into the Accused System.

37. The method performed by the Accused System includes a method storing at least a portion of the information associated with the first data entry in memory for analysis. For example, the service provider stores for analysis at least a portion of the information associated with the first data entry, e.g., a booking from a saved search, e.g., favorited hotel property, so that these orders may be analyzed and the appropriate rewards can be made available on the Accused System. If at least a portion of the information was not stored in memory, the rewards, *e.g.*, Oyo Money, etc., would not be available to the user.

38. The method performed by the Accused System includes a method comprising receiving, at the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app), a terminal dialogue module (*e.g.,* terminal machine portion of a saved search) that updates at least a portion of the first code to produce first updated code, wherein the first updated code adapts the terminal application (*e.g.,* Defendant app for Android) to display a second prompt for the terminal machine's portion of a modified dialogue sequence (*e.g.*, series of prompts and corresponding user data entries) with the service provider machine, wherein at least one of the first code, the second code, and the first updated code comprise intermediate code. For example, when a user inputs a saved search using the Accused System,

information is communicated to the user's Defendant app (terminal application on the terminal machine). The format of the information that is sent from the Defendant server to the user's Defendant app is, for example, JSON. At least a portion of the information is necessarily stored on the terminal machine because, for example, without limitation, the saved search appears on the user's Android device and allows the user to select it even at a later time. Therefore, the terminal dialogue module updates at least a portion of the first code to produce first updated code. The dialogue sequence (*e.g.*, series of prompts and corresponding user data entries) is evidenced in the one or more saved searches and the corresponding user data entry of selecting a desired saved search (*e.g.*, button). Additional prompts include reviewing, editing and deleting saved search information and, for example, making a booking. For example, without limitation, the second prompt is evidenced by the ability to access *new* saved searches. At least one of the first code, the second code, and the first updated code comprise intermediate code. As explained above, the terminal application is identified as, for example, without limitation, the Defendant app for Android, and the first code as, for example, without limitation, the app's bytecode. One of ordinary skill would understand this to comprise intermediate code.

39. On information and belief, at least since the filing of this Complaint, Defendant has knowingly and actively induced the infringement of one or more of the '124 patent claims by, *inter alia*, marketing, promoting, and offering for use the Accused Instrumentalities, knowingly and intending that the use of such instrumentalities by Defendant customers and by users infringes the '124 patent. For example, Defendant intends to induce such infringement by, among other things, promoting users to download and run the Defendant app knowing that the use of its applications on a user's portable device or smart phone in connection with supporting systems such as its server(s) infringes one or more claims of the '124 patent.

40. On information and belief, at least since the filing of this Complaint, Defendant has contributed to the infringement of the '124 patent by, *inter alia*, marketing and promoting products and services. Defendant has used and promoted within the United States the Accused Instrumentalities. The Accused Instrumentalities are not staple articles or commodities of commerce suitable for substantial non-infringing use and are known by Defendant to be especially made or especially adapted to the infringe the '124 patent. As a result, Defendant's Accused Instrumentalities have been used by its customers and by users to infringe the '124 patent. Defendant continues to engage in acts of contributory infringement of the '124 patent.

41. By reason of the acts of Defendant alleged herein, S3G has suffered damage in an amount to be proved at trial.

47. Defendant threatens to continue to engage in the acts complained of herein and, unless restrained and enjoined, will continue to do so, all to S3G's irreparable injury. It would be difficult to ascertain the amount of compensation that would afford S3G adequate relief for such future and continuing acts, and a multiplicity of judicial proceedings would be required. S3G does not have an adequate remedy at law to compensate it for the injuries threatened.

SECOND CLAIM FOR RELIEF

Infringement of the '140 patent

48. S3G refers to and incorporates herein by reference the preceding paragraphs.

49. Defendant, by the acts complained of herein, and by making, using, selling, offering for sale, and/or importing in the United States, including in the Western District of Texas, instrumentalities embodying the invention, has in the past, does now, and continues to infringe the '140 patent directly, contributorily, and/or by inducement, literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271.

50. At least since the filing of this complaint, Defendant has had actual knowledge of the ’140 patent.

51. On information and belief, Defendant has directly infringed one or more claims of the ’140 patent by making, using, importing, supplying, selling, or offering for sale the Accused Instrumentalities. By doing so, Defendant has directly infringed at least claim 1 of the ’140 patent.

52. For example, Defendant provides a system that performs the method of conducting a dialogue sequence between a terminal machine and a service provider machine ("Accused System").

53. The Accused System performs a method that displays a first prompt on a terminal display of the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app) by running a terminal application (*e.g.,* Defendant app for Android), the terminal application comprising first computer-executable instructions and first code that conduct the terminal machine's portion of the dialogue sequence (*e.g.*, series of prompts and corresponding user data entries) between the terminal machine and the service provider machine. For example, without limitation, using the Defendant app, a user is able to review, edit, delete saved searches, e.g., favorite hotel properties. The user is prompted with one or more saved searches to, for example, make a booking. The user is also able to edit and delete one or more saved searches. This information is necessarily communicated to the Defendant’s server because, for example, without limitation, it must be stored and available to the user in the future. One of ordinary skill would understand that the terminal application (*e.g.*, Defendant app for Android) comprises first computer executable instructions and first code that conduct the terminal machine’s portion of the dialogue sequence between the terminal machine and the

service provider machine. For example, without limitation, the Android Runtime (ART) comprises computer executable instructions, while the Defendant app program comprises code.

54. The method performed by the Accused System includes receiving entry of first data at the first prompt. As explained above, in the Accused System, the user is able to edit and delete one or more saved searches. One of ordinary skill would understand this to be receiving entry of first data at the first prompt.

55. The method performed by the Accused System includes communicating information associated with the first data from the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app) to a provider application (*e.g.,* Defendant server application) at the service provider machine (*e.g.,* Defendant server), the provider application (*e.g.,* Defendant server application) comprising second computer-executable instructions and second code that conduct the service provider machine's portion of the dialogue sequence (*e.g.*, series of prompts and corresponding user data entries), and wherein the provider application (*e.g.,* Defendant server application) is capable of sending an authorization code to the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app). In the Accused System, information associated with the first data is communicated from the terminal machine to the provider application at the service provider machine. For example, without limitation, using the Defendant app, a user is able to review (e.g., in order to book), edit and delete saved searches. This information is necessarily communicated to the Defendant server because, for example, without limitation, it must be stored and available to the user in the future. The provider application (*e.g.,* Defendant server application, which, upon information and belief, is Python) runs on the service provider machine (*e.g.,* Defendant server), and one of ordinary skill would understand that the Defendant server

application comprises second computer-executable instructions and second code. For example, without limitation, the Python engine comprises computer-executable instructions, while the Python program comprises code. In the Accused System, the provider application is capable of sending an authorization code to the terminal machine, for example, without limitation, by authorizing logging into the Accused System.

56. The method performed by the Accused System includes storing at least a portion of the information associated with the first data in memory for analysis. For example, without limitation, the service provider stores for analysis at least a portion of the information associated with the first data, e.g., a booking, so that these bookings may be analyzed and the appropriate rewards, e.g., Oyo Money, can be made available on the Accused System. If at least a portion of the information was not stored in memory, the rewards would not be available to the user.

57. The method performed by the Accused System includes receiving, at the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app), third code that modifies at least a portion of the first code to produce first updated code, wherein the first updated code adapts the terminal application (*e.g.,* Defendant app for Android) to conduct a modified dialogue sequence (*e.g.*, series of prompts and corresponding user data entries) with the service provider machine. For example, without limitation, when a user inputs a saved search using the Accused System, information is communicated to the user's Defendant app (terminal application on the terminal machine). The format of the information that is sent from the Defendant server to the user's Defendant app is, for example, JSON. At least a portion of the information is necessarily stored on the terminal machine because, for example, without limitation, the saved search appears on the user's Android device and allows the user to select it even at a later time. Therefore, the third code modifies at least a portion of

the first code to produce first updated code. The modified dialogue sequence (*e.g.*, series of prompts and corresponding user data entries) is evidenced in the one or more saved searches, and the corresponding user data entry of selecting a saved search (*e.g.*, button). For example, without limitation, the modified dialogue sequence is evidenced by the ability to access *new* saved searches.

58. The Accused System performs a method wherein receiving the third code is performed in response to the terminal machine satisfying a trigger condition. For example, as explained above, the third code is received in response to the terminal machine satisfying a trigger condition, e.g., user action, such as connecting to the network and/or accessing the Defendant app.

59. The Accused System performs a method receiving the third code from an update server machine that is separate and distinct from the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app) and the service provider machine (*e.g.,* Defendant server). For example, as explained above, the third code is received from an update server machine (*e.g.,* an Android, iOS or other smart phone or other computing device accessing the Accused System).

60. The Accused System performs a method wherein the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app) and the service provider machine (*e.g.,* Defendant server) include different types of processors, whereby the first computer-executable instructions are not able to be executed on the service provider machine and the second computer-executable instructions are not able to be executed on the terminal machine. For example, without limitation, many popular mobile handsets are based on the Snapdragon processor. (*See e.g.*, https://www.qualcomm.com/products/snapdragon;

https://www.qualcomm.com/products/snapdragon/devices/all). One of ordinary skill understands that processors used for mobile handsets are different from processors used for servers. And, because of architecture and other differences, the first computer-executable instructions are not able to be executed on the provider processor, and the second computer-executable instructions are not able to be executed on the terminal processor. For example, ARM-based processors are oftentimes used for mobile devices, e.g., smart phones. (See e.g., http://www.arm.com/markets/mobile/, "The market defining ARM® Cortex®-A 32-bit and 64-bit processors are at the heart of the mobile application processors."). Alternative, x86 processors are oftentimes used for desktop and server machines. The architectures are different, for example, because an ARM processor is a Reduced Instruction Set Computer (RISC) processor, while an x86 processor is a Complex Instruction Set Computer (CISC) processor. RISC architectures have a smaller number of more general purpose instructions. (See e.g., http://stackoverflow.com/questions/14794460/how-does-the-arm-architecture-differ-from-x86.).

61. The Accused System performs a method wherein the first and second computer-executable instructions are fully compiled. Since the first computer-executable instructions are able to execute directly on a terminal processor of the terminal machine and the second computer-executable instructions are able to execute directly on a provider processor of the service provider machine, one of ordinary skill would understand that they are fully compiled.

62. The Accused System performs a method wherein the terminal machine is distinct from the service provider machine. As identified and explained above, the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app) is distinct from the service provider machine (*e.g.,* Defendant server).

63. On information and belief, at least since the filing of this Complaint, Defendant has knowingly and actively induced the infringement of one or more of the '140 patent claims by, *inter alia*, marketing, promoting, and offering for use the Accused Instrumentalities, knowingly and intending that the use of such instrumentalities by Defendant customers and by users infringes the '140 patent. For example, Defendant intends to induce such infringement by, among other things, promoting users to download and run the Defendant app knowing that the use of its applications on a user's portable device or smart phone in connection with supporting systems such as its server(s) infringes one or more claims of the '140 patent.

64. On information and belief, at least since the filing of this Complaint, Defendant has contributed to the infringement of the '140 patent by, *inter alia*, marketing and promoting products and services. Defendant has used and promoted within the United States the Accused Instrumentalities. The Accused Instrumentalities are not staple articles or commodities of commerce suitable for substantial non-infringing use and are known by Defendant to be especially made or especially adapted to the infringe the '140 patent. As a result, Defendant's Accused Instrumentalities have been used by its customers and by users to infringe the '140 patent. Defendant continues to engage in acts of contributory infringement of the '140 patent.

65. By reason of the acts of Defendant alleged herein, S3G has suffered damage in an amount to be proved at trial.

66. Defendant threatens to continue to engage in the acts complained of herein and, unless restrained and enjoined, will continue to do so, all to S3G's irreparable injury. It would be difficult to ascertain the amount of compensation that would afford S3G adequate relief for such future and continuing acts, and a multiplicity of judicial proceedings would be required. S3G does not have an adequate remedy at law to compensate it for the injuries threatened.

THIRD CLAIM FOR RELIEF

Infringement of the ’468 patent

67. S3G refers to and incorporates herein by reference the preceding paragraphs.

68. Defendant, by the acts complained of herein, and by making, using, selling, offering for sale, and/or importing in the United States, including in the Western District of Texas, instrumentalities embodying the invention, has in the past, does now, and continues to infringe the ’468 patent directly, contributorily, and/or by inducement, literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271.

69. At least since the filing of this complaint, Defendant has had actual knowledge of the ’468 patent.

70. On information and belief, Defendant has directly infringed one or more claims of the ’468 patent by making, using, importing, supplying, selling, or offering for sale the Accused Instrumentalities. By doing so, Defendant has directly infringed at least claim 1 of the ’468 patent.

71. For example, the Accused System performs a method of conducting a dialogue sequence between a terminal machine and a service provider machine.

72. The Accused System performs a method comprising displaying a first prompt on a terminal display of the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app) by running a terminal application (*e.g.,* Defendant app for Android), the terminal application comprising first computer-executable instructions and first code that conduct the terminal machine's portion of the dialogue sequence (*e.g.*, series of prompts and corresponding user data entries) between the terminal machine and the service provider machine, wherein the first code comprises information to be translated. For example,

without limitation, using the Defendant app, a user is able to review saved searches, e.g., favorited hotel properties. The user is prompted with one or more saved searches to, for example, make a booking. The user is also able to edit and delete one or more saved searches. This information is necessarily communicated to the Defendant's server because, for example, without limitation, it must be stored and available to the user in the future. One of ordinary skill would understand that the terminal application (*e.g.*, Defendant app for Android) comprises first computer executable instructions and first code that conduct the terminal machine's portion of the dialogue sequence between the terminal machine and the service provider machine. For example, without limitation, the Android Runtime (ART) comprises computer executable instructions, while the Defendant app program comprises code. One of ordinary skill further understands that this code comprises information to be translated.

73. The method performed by the Accused System includes receiving entry of first data at the first prompt. As explained above, in the Accused System, the user is able to review (e.g., to make a booking), edit and delete one or more saved searches. One of ordinary skill would understand this to be receiving entry of first data at the first prompt.

74. The method performed by the Accused System includes communicating information associated with the first data from the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app) to a provider application (*e.g.,* Defendant server application) at the service provider machine (*e.g.,* Defendant server), the provider application (*e.g.,* Defendant server application) comprising second computer-executable instructions and second code that conduct the service provider machine's portion of the dialogue sequence (*e.g.*, series of prompts and corresponding user data entries), wherein (i) the second code comprises information to be translated, and (ii) the terminal application is capable of

receiving an authorization signal from the service provider machine. In the Accused System, information associated with the first data is communicated from the terminal machine to the provider application at the service provider machine. For example, without limitation, using the Defendant app, a user is able to edit and delete saved searches. This information is necessarily communicated to the Defendant server because, for example, without limitation, it must be stored and available to the user in the future. The provider application (*e.g.,* Defendant server application, which, upon information and belief, is a Python application) runs on the service provider machine (*e.g.,* Defendant server), and one of ordinary skill would understand that the Defendant server application comprises second computer-executable instructions and second code. For example, without limitation, the Python engine comprises computer-executable instructions, while the Python program comprises code. One of ordinary skill understands that the second code comprises information to be translated. In the accused system, the terminal application is capable of receiving an authorization signal from the service provider machine, for example, without limitation, by authorizing logging into the Accused System.

75. The method performed by the Accused System includes receiving, at the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app), third code that replaces or supplements at least a portion but not all of the first code to produce first updated code, wherein the first updated code adapts the terminal application (*e.g.,* Defendant app for Android) to conduct a modified dialogue sequence (*e.g.*, series of prompts and corresponding user data entries) with the service provider machine. For example, without limitation, when a user inputs a saved search using the Accused System, information is communicated to the user's Defendant app (terminal application on the terminal machine). The format of the information that is sent from the Defendant server to the user's Defendant app is,

for example, JSON. At least a portion of the information is necessarily stored on the terminal machine because, for example, without limitation, the saved search appears on the user's Android device and allows the user to select it even at a later time. One of ordinary skill would understand this to supplement at least a portion but not all of the first code. Therefore, the third code replaces or supplements at least a portion but not all of the first code to produce first updated code. The modified dialogue sequence (*e.g.*, series of prompts and corresponding user data entries) is evidenced in the one or more saved searches, and the corresponding user data entry of selecting a desired saved search (*e.g.*, button). For example, without limitation, the modified dialogue sequence is evidenced by the ability to access *new* saved searches.

76. The third code comprises information to be translated. For example, as explained above, upon information and belief, in the Accused System, the third code is in JSON format. One of ordinary skill would understand that information in JSON format comprises information to be translated.

77. The method performed by the Accused System includes receiving the third code is performed after the terminal machine satisfies a trigger condition. For example, as explained above, the third code is received after the terminal machine satisfies a trigger condition, e.g., user action, such as connecting to the network and/or accessing the Defendant app.

78. The Accused System includes a method comprising the third code is received from an update server machine that is separate and distinct from the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app) and the service provider machine (*e.g.,* Defendant server). For example, as explained above, the third code is received from an update server machine (*e.g.,* an Android, iOS or other smart phone or other computing device accessing the Accused System).

79. The method performed by the Accused System includes that the terminal machine (*e.g.*, an Android smart phone or other Android computing device running the Defendant app) and the service provider machine (*e.g.*, Defendant server) include different types of processors, whereby the first computer-executable instructions are not able to be executed on the service provider machine and the second computer-executable instructions are not able to be executed on the terminal machine. For example, without limitation, many popular mobile handsets are based on the Snapdragon processor. (*See e.g.*, https://www.qualcomm.com/products/snapdragon; https://www.qualcomm.com/products/snapdragon/devices/all). One of ordinary skill understands that processors used for mobile handsets are different from processors used for servers. And, because of architecture and other differences, the first computer-executable instructions are not able to be executed on the provider processor, and the second computer-executable instructions are not able to be executed on the terminal processor. For example, ARM-based processors are oftentimes used for mobile devices, e.g., smart phones. (See e.g., http://www.arm.com/markets/mobile/, "The market defining ARM® Cortex®-A 32-bit and 64-bit processors are at the heart of the mobile application processors."). Alternative, x86 processors are oftentimes used for desktop and server machines. The architectures are different, for example, because an ARM processor is a Reduced Instruction Set Computer (RISC) processor, while an x86 processor is a Complex Instruction Set Computer (CISC) processor. RISC architectures have a smaller number of more general purpose instructions. (See e.g., http://stackoverflow.com/questions/14794460/how-does-the-arm-architecture-differ-from-x86.).

80. The method performed by the Accused System includes that the first and second computer-executable instructions are fully compiled. Since the first computer-executable instructions are able to execute directly on a terminal processor of the terminal machine and the

second computer-executable instructions are able to execute directly on a provider processor of the service provider machine, one of ordinary skill would understand that they are fully compiled.

81. The method performed by the Accused System includes that the terminal machine is distinct from the service provider machine. As identified and explained above, the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app) is distinct from the service provider machine (*e.g.,* Defendant server).

82. On information and belief, at least since the filing of this Complaint, Defendant has knowingly and actively induced the infringement of one or more of the ’468 patent claims by, *inter alia*, marketing, promoting, and offering for use the Accused Instrumentalities, knowingly and intending that the use of such instrumentalities by Defendant customers and by users infringes the ’468 patent. For example, Defendant intends to induce such infringement by, among other things, promoting users to download and run the Defendant app knowing that the use of its applications on a user’s portable device or smart phone in connection with supporting systems such as its server(s) infringes one or more claims of the ’468 patent.

83. On information and belief, at least since the filing of this Complaint, Defendant has contributed to the infringement of the ’468 patent by, *inter alia*, marketing and promoting products and services. Defendant has used and promoted within the United States the Accused Instrumentalities. The Accused Instrumentalities are not staple articles or commodities of commerce suitable for substantial non-infringing use and are known by Defendant to be especially made or especially adapted to the infringe the ’468 patent. As a result, Defendant’s Accused Instrumentalities have been used by its customers and by users to infringe the ’468 patent. Defendant continues to engage in acts of contributory infringement of the ’468 patent.

84. By reason of the acts of Defendant alleged herein, S3G has suffered damage in an amount to be proved at trial.

85. Defendant threatens to continue to engage in the acts complained of herein and, unless restrained and enjoined, will continue to do so, all to S3G's irreparable injury. It would be difficult to ascertain the amount of compensation that would afford S3G adequate relief for such future and continuing acts, and a multiplicity of judicial proceedings would be required. S3G does not have an adequate remedy at law to compensate it for the injuries threatened.

FOURTH CLAIM FOR RELIEF

Infringement of the '571 Patent

86. S3G refers to and incorporates herein by reference the preceding paragraphs.

87. Defendant, by the acts complained of herein, and by making, using, selling, offering for sale, and/or importing in the United States, including in the Western District of Texas, instrumentalities embodying the invention, has in the past, does now, and continues to infringe the '571 patent directly, contributorily, and/or by inducement, literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271.

88. At least since the filing of this complaint, Defendant has had actual knowledge of the '571 patent.

89. On information and belief, Defendant has directly infringed one or more claims of the '571 patent by making, using, importing, supplying, selling, or offering for sale the Accused Instrumentalities. By doing so, Defendant has directly infringed at least claim 2 of the '571 patent.

90. For example, Defendant provides a system for modifying a terminal machine and a service provider machine ("Accused System").

91. The Accused System includes an update server machine (*e.g.*, a smart phone or other computing device accessing the Defendant system) comprising a processor and operable for sending a terminal dialogue module (*e.g.*, terminal machine portion of a saved search) to the terminal machine (*e.g.*, an Android smart phone or other Android computing device running the Defendant app) and a provider dialogue module (*e.g.*, service provider machine portion of a saved search, e.g., for a favorited hotel property) to the service provider machine (*e.g.*, Defendant server) to allow the terminal machine (*e.g.*, an Android smart phone or other Android computing device running the Defendant app) and the service provider machine (*e.g.*, Defendant server) to conduct a dialogue sequence (*e.g.*, series of prompts and corresponding user data entries) with each other. The Accused System includes an update server machine (*e.g.*, a smart phone or other computing device accessing the Defendant system) comprising a processor. Alternatively, the Accused System includes an update server machine (*e.g.*, Defendant server) comprising a processor. One of ordinary skill would understand that smart phones or other computing devices necessarily comprise a processor, *e.g.*, to run the operating system, applications, etc. The Accused System includes an update server machine (*e.g.*, a smart phone or other computing device accessing the Defendant system) that is operable for sending a terminal dialogue module (*e.g.*, terminal machine portion of a saved search) to the terminal machine (*e.g.*, an Android smart phone or other Android computing device running the Defendant app). Alternatively, the Accused System includes an update server machine (*e.g.*, Defendant server) that is operable for sending a terminal dialogue module (*e.g.*, terminal machine portion of a saved search) to the terminal machine (*e.g.*, an Android smart phone or other Android computing device running the Defendant app (terminal application)). The Accused System can be accessed from any device, including PCs, Android and iOS tablets, and Android and iOS phones.

Therefore, these and other devices that can access the Accused System constitute update server machine, which is a computing device capable of sending one or more dialogue modules. For example, without limitation, a dialogue module is sent from a user's device accessing the Accused System to the Defendant server. The Defendant server then sends information to the Defendant app. On information and belief, the format of the information that is sent from the Defendant server to the Defendant app is, for example, JSON. The Accused System includes an update server machine (*e.g.,* a smart phone or other computing device accessing the Defendant system) that is operable for sending a provider dialogue module (*e.g.,* service provider machine portion of a saved search) to the service provider machine (*e.g.,* Defendant server). This is done using, for example, HTTP. For example, without limitation, after receiving the respective dialogue module, users can view saved searches. For example, without limitation, after receiving a respective dialogue module, a user will be prompted to edit, delete or share one or more saved searches. In response to these prompts, the user selects the appropriate data entry (*e.g.*, button). Thereafter, the user is provided additional prompts. Alternatively, the Accused System includes an update server machine (*e.g.*, Defendant server) that is operable for sending a provider dialogue module (*e.g.*, service provider machine portion of a saved search) to the service provider machine (*e.g.*, Defendant server).

92. The Accused System includes a terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app) that is configured to run a terminal application (*e.g.,* Defendant app for Android) that conducts the terminal machine's portion of the dialogue sequence (*e.g.*, series of prompts and corresponding user data entries) with the service provider machine (*e.g.,* Defendant server). The terminal application conducts the terminal machine's portion of the dialogue sequence with the service provider machine

because, for example, without limitation, using the Defendant app, a user is able to review, edit and delete a saved search. This information is necessarily communicated to the Defendant server because, for example, without limitation, it must be stored and available to the user, including in the future or to retrieve the latest list of items matching the saved search criteria. The terminal application is operable for displaying a prompt in a first sequence of prompts and accepting a user data entry in an associated first sequence of user data entries as explained herein, including above. The Accused System includes a terminal application (*e.g.*, Defendant app for Android), and one of ordinary skill would understand that the Defendant app for Android comprises a first set of computer executable instructions and a first set of code, wherein the first set of computer-executable instructions are able to execute directly on a terminal processor of the terminal machine, and wherein the first set of code is not able to execute directly on the terminal processor. For example, without limitation, the Android Runtime (ART) comprises computer executable instructions that are able to execute directly on a terminal processor, while the app's bytecode is not able to execute directly on the terminal processor.

93. The Accused System includes a service provider machine (*e.g.,* Defendant server) that is configured to run a provider application (*e.g.,* Defendant server application) that conducts the service provider machine's portion of the dialogue sequence (*e.g.*, series of prompts and corresponding user data entries) with the terminal machine. As explained herein, user data entries (corresponding to the prompts) are communicated from the terminal application on the terminal machine to the provider application on the service provider machine. The Accused System includes a provider application (*e.g.,* Defendant server application, which, upon information and belief, is, for example, a Python application), and one of ordinary skill would understand that the Defendant server application comprises a second set of computer-executable

instructions and a second set of code, wherein the second set of computer-executable instructions are able to execute directly on a provider processor of the service provider machine, and wherein the second set of code is not able to execute directly on the provider processor. For example, without limitation, the Python engine that manages the execution of the Python program comprises computer-executable instructions which are able to execute directly on a provider processor, while the Python program is not able to execute directly on the provider processor.

94. In the Accused System, the terminal dialogue module (*e.g.,* terminal machine portion of a saved search) modifies the first set of code to produce a first set of updated code wherein the first set of updated code adapts the terminal application to use a second sequence of prompts and a second sequence of data entries for the terminal machine's portion of a modified dialogue sequence (*e.g.*, series of prompts and corresponding user data entries) with the service provider machine. As explained above, when a user inputs a saved search using the Accused System, information is communicated to the Defendant app (terminal application on the terminal machine). As also explained above, without limitation, the dialogue sequence (*e.g.*, series of prompts and corresponding user data entries) is evidenced in the one or more prompts associated with a saved search. In response, the user selects the appropriate data entry (*e.g.*, button), e.g., edit, delete, etc. Additional prompts and associated data entries include, for example, without limitation, selecting one or more search results and their associated information, e.g., to make a booking. At least a portion of the information is necessarily stored on the terminal machine because, for example, without limitation, the saved search is necessarily available, even later, on the user's device and allows the user to select a saved search, even at a later time. Therefore, the terminal dialogue module modifies the first set of code to produce a first set of updated code. The first set of updated code adapts the terminal application to use a second sequence of prompts

and a second sequence of data entries for the terminal machine's portion of a modified dialogue sequence with the service provider machine. For example, without limitation, as already explained herein, a second sequence of prompts and a second sequence of data entries is demonstrated when new saved searches are added or updated, and they appear on the user's device. This necessarily represents a modified dialogue sequence with the service provider machine. In the Accused System, the provider dialogue module (*e.g.,* service provider machine portion of a saved search) modifies the second set of code to produce a second set of updated code wherein the second set of updated code adapts the provider application to use a second sequence of prompts and a second sequence of data entries for the service provider machine's portion of the modified dialogue sequence with the terminal machine. As discussed herein, when a user inputs a saved search using their device (*e.g.*, PC or mobile device), information is communicated to the Defendant server application (provider application on the service provider machine). As also explained herein, the dialogue sequence (*e.g.*, series of prompts and corresponding user data entries) is evidenced by the one or more prompts and the corresponding user data entry (*e.g.*, button). Additional prompts and data entries include, for example, without limitation, editing and deleting a saved search. At least a portion of the information is necessarily stored on the provider machine because, for example, without limitation, the saved search is available on the Defendant server as well as on different devices, including at a later time. Therefore, the provider dialogue module modifies the second set of code to produce a second set of updated code. The second set of updated code adapts the provider application to use the second sequence of prompts and the second sequence of data entries for the service provider machine's portion of the modified dialogue sequence with the terminal machine. For example, without limitation, as already explained herein, a second sequence of prompts and a

second sequence of data entries is demonstrated when new saved searches are added or updated, and they appear on a user's device. In the Accused System, the terminal dialogue module (*e.g.*, terminal machine portion of a saved search) does not modify the first set of computer-executable instructions, as is readily understood by one of ordinary skill. For example, without limitation, as already explained herein, ART comprises the first set of computer-executable instructions and is not modified by the terminal dialogue module. In the Accused System, the provider dialogue module (*e.g.,* service provider machine portion of a saved search) does not modify the second set of computer-executable instructions, as is readily understood by one of ordinary skill. For example, without limitation, as already explained herein, the Python engine comprises the second set of computer-executable instructions and is not modified by the provider dialogue module.

95. On information and belief, at least since the filing of this Complaint, Defendant has knowingly and actively induced the infringement of one or more of the '571 patent claims by, *inter alia*, marketing, promoting, and offering for use the Accused Instrumentalities, knowingly and intending that the use of such instrumentalities by Defendant customers and by users infringes the '571 patent. For example, Defendant intends to induce such infringement by, among other things, promoting users to download and run the Defendant app knowing that the use of its applications on a user's portable device or smart phone in connection with supporting systems such as its server(s) infringes one or more claims of the '571 patent.

96. On information and belief, at least since the filing of this Complaint, Defendant has contributed to the infringement of the '571 patent by, *inter alia*, marketing and promoting products and services. Defendant has used and promoted within the United States the Accused Instrumentalities. The Accused Instrumentalities are not staple articles or commodities of

commerce suitable for substantial non-infringing use and are known by Defendant to be especially made or especially adapted to the infringe the '571 patent. As a result, Defendant's Accused Instrumentalities have been used by its customers and by users to infringe the '571 patent. Defendant continues to engage in acts of contributory infringement of the '571 patent.

97. By reason of the acts of Defendant alleged herein, S3G has suffered damage in an amount to be proved at trial.

98. Defendant threatens to continue to engage in the acts complained of herein and, unless restrained and enjoined, will continue to do so, all to S3G's irreparable injury. It would be difficult to ascertain the amount of compensation that would afford S3G adequate relief for such future and continuing acts, and a multiplicity of judicial proceedings would be required. S3G does not have an adequate remedy at law to compensate it for the injuries threatened.

FIFTH CLAIM FOR RELIEF

Infringement of the '758 Patent

99. S3G refers to and incorporates herein by reference the preceding paragraphs.

100. Defendant, by the acts complained of herein, and by making, using, selling, offering for sale, and/or importing in the United States, including in the Western District of Texas, instrumentalities embodying the invention, has in the past, does now, and continues to infringe the '758 patent directly, contributorily, and/or by inducement, literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271.

101. At least since the filing of this complaint, Defendant has had actual knowledge of the '758 patent.

102. On information and belief, Defendant has directly infringed one or more claims of the '758 patent by making, using, importing, supplying, selling, or offering for sale the Accused

Instrumentalities. By doing so, Defendant has directly infringed at least claim 1 of the '758 patent.

103. For example, Defendant provides a system that performs a method of conducting a dialogue between a terminal machine and a service provider machine ("Accused System").

104. The Accused System performs a method comprising displaying a first prompt on a terminal display of a terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app) by running a terminal application (*e.g.,* Defendant app for Android), the terminal application comprising first computer-executable instructions and first code that conduct the terminal machine's portion of the dialogue. The terminal application displays a first prompt and accepts a first data entry at the terminal machine, wherein the first data entry is associated with the first prompt. For example, without limitation, using the Defendant app, a user is able to access saved searches, e.g., for favorited hotel properties, and the user is prompted to review saved search results. Additionally, a user is prompted to edit and delete saved searches. This information is necessarily communicated to the Defendant server because, for example, without limitation, it must be stored and available to the user in the future. One of ordinary skill would understand that the terminal application (*e.g.*, Defendant app for Android) comprises first computer executable instructions and first code. For example, without limitation, the Android Runtime (ART) comprises computer executable instructions, while the app's bytecode comprises code.

105. The Accused System performs a method comprising accepting a first data entry at the terminal machine (e.g., an Android smart phone or other Android computing device running the Defendant app), wherein the first data entry is associated with the first prompt.

106. The method performed by the Accused System includes communicating information from the terminal machine (e.g., an Android smart phone or other Android computing device running the Defendant app) to the service provider machine (e.g., Defendant server), the information associated with the first data entry, the service provider machine (e.g., Defendant server) using a provider application (e.g., Defendant server application), the provider application comprising second computer-executable instructions and second code that conduct the service provider machine's portion of the dialogue. In the Accused System, information from the terminal machine is communicated to the service provider machine, the information associated with the first data entry. For example, without limitation, using the Defendant app, a user is able to select, delete or edit a Saved Search. This information is necessarily communicated to the Defendant server because, for example, without limitation, it must be stored and available to the user in the future. The provider application (e.g., Defendant server application, which, upon information and belief, is, for example, a Python application) runs on the service provider machine (e.g., Defendant server), and one of ordinary skill would understand that the Defendant server application comprises second computer-executable instructions and second code. For example, without limitation, the Python engine that manages the execution of the Python program comprises computer-executable instructions, while the Python program comprises code.

107. The method performed by the Accused System includes receiving, at the terminal machine (e.g., an Android smart phone or other Android computing device running the Defendant app), a terminal dialogue module (e.g., terminal machine portion of a saved search) that replaces at least a portion of the first code to produce first updated code, wherein the first updated code adapts the terminal application (e.g., Defendant app for Android) to display a

second prompt for the terminal machine's portion of a modified dialogue sequence (e.g., series of prompts and corresponding user data entries) with the service provider machine, wherein at least one of the first code, second code, and first updated code comprise Java Byte code. For example, when a user inputs a saved search using the Accused System, information is communicated to the Defendant app (terminal application on the terminal machine). The format of the information that is sent from the Defendant server to the Defendant app is, based on information and belief, for example, JSON. At least a portion of the information is necessarily stored on the terminal machine because, for example, without limitation, the saved search appears on the user's Android device and allows the user to select it even at a later time. Therefore, the terminal dialogue module replaces at least a portion of the first code to produce first updated code. The dialogue sequence (e.g., series of prompts and corresponding user data entries) is evidenced in the one or more prompts associated with a saved search and the corresponding user data entry of selecting, editing and deleting a saved search (e.g., button). Additional prompts and associated data entries include, for example, without limitation, selecting search results and other associated prompts. At least one of the first code, second code, and first updated code comprise Java Byte code. As explained above, the terminal application is identified as, for example, without limitation, the Defendant app for Android, and the first code is, for example, without limitation, the app's bytecode. One of ordinary skill would understand this to comprise Java Byte code.

108. On information and belief, at least since the filing of this Complaint, Defendant has knowingly and actively induced the infringement of one or more of the '758 patent claims by, *inter alia*, marketing, promoting, and offering for use the Accused Instrumentalities, knowingly and intending that the use of such instrumentalities by Defendant customers and by users infringes the '758 patent. For example, Defendant intends to induce such infringement by,

among other things, promoting users to download and run the Defendant app knowing that the use of its applications on a user's portable device or smart phone in connection with supporting systems such as its server(s) infringes one or more claims of the '758 patent.

109. On information and belief, at least since the filing of this Complaint, Defendant has contributed to the infringement of the '758 patent by, *inter alia*, marketing and promoting products and services. Defendant has used and promoted within the United States the Accused Instrumentalities. The Accused Instrumentalities are not staple articles or commodities of commerce suitable for substantial non-infringing use and are known by Defendant to be especially made or especially adapted to the infringe the '758 patent. As a result, Defendant's Accused Instrumentalities have been used by its customers and by users to infringe the '758 patent. Defendant continues to engage in acts of contributory infringement of the '758 patent.

110. By reason of the acts of Defendant alleged herein, S3G has suffered damage in an amount to be proved at trial.

111. Defendant threatens to continue to engage in the acts complained of herein and, unless restrained and enjoined, will continue to do so, all to S3G's irreparable injury. It would be difficult to ascertain the amount of compensation that would afford S3G adequate relief for such future and continuing acts, and a multiplicity of judicial proceedings would be required. S3G does not have an adequate remedy at law to compensate it for the injuries threatened.

SIXTH CLAIM FOR RELIEF

Infringement of the '774 Patent

112. S3G refers to and incorporates herein by reference the preceding paragraphs.

113. Defendant, by the acts complained of herein, and by making, using, selling, offering for sale, and/or importing in the United States, including in the Western District of

Texas, instrumentalities embodying the invention, has in the past, does now, and continues to infringe the ’774 patent directly, contributorily, and/or by inducement, literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271.

114. At least since the filing of this complaint, Defendant has had actual knowledge of the ’774 patent.

115. On information and belief, Defendant has directly infringed one or more claims of the ’758 patent by making, using, importing, supplying, selling, or offering for sale the Accused Instrumentalities. By doing so, Defendant has directly infringed at least claim 1 of the ’774 patent.

116. For example, Defendant provides a system that performs a method of conducting a dialogue sequence between a terminal machine and a service provider machine ("Accused System").

117. The Accused System performs a method comprising displaying a first prompt on a terminal display of the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app) by running a terminal application (*e.g.,* Defendant app for Android), the terminal application comprising first computer-executable instructions and first code that conduct the terminal machine's portion of the dialogue sequence. The terminal application displays a first prompt and accepts a first data entry at the terminal machine, wherein the first data entry is associated with the first prompt. For example, without limitation, using the Defendant app, a user is able to review, edit and delete saved searches, e.g., favorited hotel properties. The user is prompted to with one or more saved searches to, for example, make a booking. The user is also able to edit saved searches. This information is necessarily communicated to the Defendant server because, for example, without limitation, it must be

stored and available to the user in the future. One of ordinary skill would understand that the terminal application (*e.g.*, Defendant app for Android) comprises first computer executable instructions and first code. For example, without limitation, the Android Runtime (ART) comprises computer executable instructions, while the app's bytecode comprises code.

118. The method performed by the Accused System includes accepting a first data entry at the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app), wherein the first data entry is associated with the first prompt.

119. The method performed by the Accused System includes communicating information associated with the first data entry from the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app) to the service provider machine (*e.g.,* Defendant server), wherein the service provider machine (*e.g.,* Defendant server) uses a provider application (*e.g.,* Defendant server application) comprising second computer-executable instructions and second code that conduct the service provider machine's portion of the dialogue sequence, and wherein the provider application is capable of sending information for authorization to the terminal machine. In the Accused System, information associated with the first data entry is communicated from the terminal machine to the service provider machine. For example, without limitation, using the Defendant app, a user is able to delete saved searches. This information is necessarily communicated to the Defendant server because, for example, without limitation, it must be stored and available to the user in the future. The provider application (*e.g.,* Defendant server application, which, upon information and belief, is a Python application) runs on the service provider machine (*e.g.,* Defendant server), and one of ordinary skill would understand that the Defendant server application comprises second computer-executable instructions and second code. For example, without limitation, the Python

engine comprises computer-executable instructions, while the Python program comprises code. In the Accused System, the provider application is capable of sending information for authorization to the terminal machine, for example, without limitation, by authorizing logging into the Defendant system.

120. The method performed by the Accused System includes receiving, at the terminal machine (*e.g.,* an Android smart phone or other Android computing device running the Defendant app), third code (*e.g.,* terminal machine portion of a saved search) that modifies at least a portion of the first code to produce first updated code, wherein the first updated code adapts the terminal application (*e.g.,* Defendant app for Android) to display a second prompt for the terminal machine's portion of a modified dialogue sequence (*e.g.*, series of prompts and corresponding user data entries) with the service provider machine. For example, when a user inputs a saved search using the Accused System, information is communicated to the user's Defendant app (terminal application on the terminal machine). The format of the information that is sent from the Defendant server to the user's Defendant app is, for example, JSON. At least a portion of the information is necessarily stored on the terminal machine because, for example, without limitation, the saved search appears on the user's Android device and allows the user to select it even at a later time. Therefore, the terminal dialogue module modifies at least a portion of the first code to produce first updated code. The dialogue sequence (*e.g.*, series of prompts and corresponding user data entries) is evidenced in the one or more saved searches and the corresponding user data entry of selecting a desired saved search (*e.g.*, button). Additional prompts include reviewing detailed saved search information; editing and deleting saved searches; and, making a booking from a saved search. For example, without limitation, the second prompt is evidenced by the ability to access *new* saved searches.

121. On information and belief, at least since the filing of this Complaint, Defendant has knowingly and actively induced the infringement of one or more of the '774 patent claims by, *inter alia*, marketing, promoting, and offering for use the Accused Instrumentalities, knowingly and intending that the use of such instrumentalities by Defendant customers and by users infringes the '774 patent. For example, Defendant intends to induce such infringement by, among other things, promoting users to download and run the Defendant app knowing that the use of its applications on a user's portable device or smart phone in connection with supporting systems such as its server(s) infringes one or more claims of the '774 patent.

122. On information and belief, at least since the filing of this Complaint, Defendant has contributed to the infringement of the '774 patent by, *inter alia*, marketing and promoting products and services. Defendant has used and promoted within the United States the Accused Instrumentalities. The Accused Instrumentalities are not staple articles or commodities of commerce suitable for substantial non-infringing use and are known by Defendant to be especially made or especially adapted to the infringe the '774 patent. As a result, Defendant's Accused Instrumentalities have been used by its customers and by users to infringe the '774 patent. Defendant continues to engage in acts of contributory infringement of the '774 patent.

123. By reason of the acts of Defendant alleged herein, S3G has suffered damage in an amount to be proved at trial.

124. Defendant threatens to continue to engage in the acts complained of herein and, unless restrained and enjoined, will continue to do so, all to S3G's irreparable injury. It would be difficult to ascertain the amount of compensation that would afford S3G adequate relief for such future and continuing acts, and a multiplicity of judicial proceedings would be required. S3G does not have an adequate remedy at law to compensate it for the injuries threatened.

SEVENTH CLAIM FOR RELIEF

Infringement of the ’897 Patent

125. S3G refers to and incorporates herein by reference the preceding paragraphs.

126. Defendant, by the acts complained of herein, and by making, using, selling, offering for sale, and/or importing in the United States, including in the Western District of Texas, instrumentalities embodying the invention, has in the past, does now, and continues to infringe the ’897 patent directly, contributorily, and/or by inducement, literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271.

127. At least since the filing of this complaint, Defendant has had actual knowledge of the ’897 patent.

128. On information and belief, Defendant has directly infringed one or more claims of the ’897 patent by making, using, importing, supplying, selling, or offering for sale the Accused Instrumentalities. By doing so, Defendant has directly infringed at least claim 1 of the ’897 patent.

129. For example, Defendant provides a system for modifying one or more terminal machines and one or more service provider machines ("Accused System").

130. The Accused System includes one or more update server machines (e.g., a smart phone or other computing device accessing the Defendant system, e.g., accessing the Defendant website) comprising a processor and operable for sending a terminal dialogue module (e.g., terminal machine portion of a saved search, e.g., favorite hotel property) to a respective terminal machine (e.g., an Android smart phone or other Android computing device running the Defendant app) and a provider dialogue module (e.g., service provider machine portion of a saved search) to a respective service provider machine (e.g., Defendant server) to allow the

terminal machine and the service provider machine to conduct a dialogue sequence (e.g., series of prompts and corresponding user data entries) with each other. The Accused System includes an update server machine (e.g., a smart phone or other computing device accessing the Defendant system) comprising a processor. Alternatively, the Accused System includes an update server machine (e.g., Defendant server) comprising a processor. One of ordinary skill would understand that smart phones or other computing devices necessarily comprise a processor, e.g., to run the operating system, applications, etc. The Accused System includes an update server machine (e.g., a smart phone or other computing device accessing the Defendant system) that is operable for sending a terminal dialogue module (e.g., terminal machine portion of a saved search) to the terminal machine (e.g., an Android smart phone or other Android computing device running the Defendant app). Alternatively, the Accused System includes an update server machine (e.g., Defendant server) that is operable for sending a terminal dialogue module (e.g., terminal machine portion of a saved search) to the terminal machine (e.g., an Android smart phone or other Android computing device running the Defendant app (terminal application)). The Accused System can be accessed from any device, including PC, Android and iOS tablets, and Android and iOS phones. Therefore, these and other devices that can access the Accused System constitute update server machine, which is a computing device capable of sending one or more dialogue modules. For example, without limitation, a dialogue module is sent from a user's device accessing the Accused System to the Defendant server. The Defendant server then sends information to a user's Defendant app. On information and belief, the format of the information that is sent from the Defendant server to the Defendant app is, for example, JSON. The Accused System includes an update server machine (e.g., a smart phone or other computing device accessing the Defendant system) that is operable for sending a provider

dialogue module (e.g., service provider machine portion of a saved search) to the service provider machine (e.g., Defendant server). This is done using, for example, HTTP. For example, without limitation, after receiving the respective dialogue module users can view saved searches. For example, without limitation, after receiving a respective dialogue module, a user will be prompted with one or more saved searches to, for example, edit, delete or book a saved search. In response to these prompts, the user selects the appropriate data entry (e.g., button). Thereafter, the user is provided additional prompts. Alternatively, the Accused System includes an update server machine (e.g., Defendant server) that is operable for sending a provider dialogue module (e.g., service provider machine portion of a saved search) to the service provider machine (e.g., Defendant server).

131. The Accused System includes a terminal machine (e.g., an Android smart phone or other Android computing device running the Defendant app) that is configured to run a terminal application (e.g., Defendant app for Android) that conducts the terminal machine's portion of the dialogue sequence (e.g., series of prompts and corresponding user data entries) with the service provider machine (e.g., Defendant server), wherein the terminal application comprises a first set of computer executable instructions and a first set of code, wherein the first set of computer-executable instructions are able to execute directly on a terminal processor of the terminal machine, and wherein the first set of code is not able to execute directly on the terminal processor. The terminal application conducts the terminal machine's portion of the dialogue sequence with the service provider machine because, for example, without limitation, using the Defendant app, a user is able to access, edit, delete and book a saved search. The user is prompted to edit or delete the saved search. This information is necessarily communicated to the Defendant server because, for example, without limitation, it must be stored and available to the

user in the future. The terminal application is operable for displaying a prompt in a first sequence of prompts and accepting a user data entry in an associated first sequence of user data entries as explained herein, including above. The Accused System includes a terminal application (e.g., Defendant app for Android), and one of ordinary skill would understand that the Defendant app for Android comprises a first set of computer executable instructions and a first set of code, wherein the first set of computer-executable instructions are able to execute directly on a terminal processor of the terminal machine, and wherein the first set of code is not able to execute directly on the terminal processor. For example, without limitation, the Android Runtime (ART) comprises computer executable instructions that are able to execute directly on a terminal processor, while the app's bytecode is not able to execute directly on the terminal processor.

132. The Accused System includes a service provider machine (e.g., Defendant server) that is configured to run a provider application (e.g., Defendant server application) that conducts the service provider machine's portion of the dialogue sequence (e.g., series of prompts and corresponding user data entries) with the terminal machine, wherein the provider application comprises a second set of computer-executable instructions and a second set of code, wherein the second set of computer-executable instructions are able to execute directly on a provider processor of the service provider machine, and wherein the second set of code is not able to execute directly on the provider processor. The Accused System includes a provider application (e.g., Defendant server application, which, upon information and belief, is a Python application), and one of ordinary skill would understand that the Defendant server application comprises a second set of computer-executable instructions and a second set of code, wherein the second set of computer-executable instructions are able to execute directly on a provider processor of the

service provider machine, and wherein the second set of code is not able to execute directly on the provider processor. For example, without limitation, the Python engine comprises computer-executable instructions which are able to execute directly on a provider processor, while the Python program is not able to execute directly on the provider processor.

133. In the Accused System, the terminal dialogue module (e.g., terminal machine portion of a saved search) modifies the first set of code to produce a first set of updated code, wherein the provider dialogue module (e.g., service provider machine portion of a saved search) modifies the second set of code to produce a second set of updated code, wherein the terminal dialogue module does not modify the first set of computer-executable instructions and wherein the provider dialogue module does not modify the second set of computer-executable instructions, wherein the first set of updated code adapts the terminal application to use a modified dialogue sequence (e.g., series of prompts and corresponding user data entries) with the service provider machine, and wherein the second set of updated code adapts the provider application to use the modified dialogue sequence with the terminal machine. As explained above, when a user inputs a saved search using the Accused System, information is communicated to the user's Defendant app (terminal application on the terminal machine). As also explained above, without limitation, the dialogue sequence (e.g., series of prompts and corresponding user data entries) is evidenced in the one or more saved searches. In response, the user selects the appropriate data entry (e.g., button). Additional prompts include deleting, editing and booking a saved search. At least a portion of the information is necessarily stored on the terminal machine because, for example, without limitation, the saved search appears on the user's Android device and allows the user to select it even at a later time. Therefore, the provider dialogue module modifies the second set of code to produce a second set of updated

code. The first set of updated code adapts the terminal application to use a second sequence of prompts and a second sequence of data entries for the terminal machine's portion of a modified dialogue sequence with the service provider machine. For example, without limitation, as already explained herein, a second sequence of prompts and a second sequence of data entries is demonstrated when new saved searches are added, and they appear on the user's Android device. This necessarily represents a modified dialogue sequence with the service provider machine. In the Accused System, the provider dialogue module (e.g., service provider machine portion of a saved search) modifies the second set of code to produce a second set of updated code wherein the second set of updated code adapts the provider application to use a second sequence of prompts and a second sequence of data entries for the service provider machine's portion of the modified dialogue sequence with the terminal machine. As discussed herein, when a user inputs a saved search using their device (e.g., PC or mobile device), information is communicated to the Defendant server application (provider application on the service provider machine). As also explained herein, the dialogue sequence (e.g., series of prompts and corresponding user data entries) is evidenced in the one or more saved searches and the corresponding user data entry of selecting the appropriate saved search (e.g., button). Additional prompts include deleting, editing and booking saved searches. At least a portion of the information is necessarily stored on the provider machine because, for example, without limitation, the saved search information is available on the Defendant server as well as on different devices, including at a later time. Therefore, the provider dialogue module modifies the second set of code to produce a second set of updated code. The second set of updated code adapts the provider application to use the second sequence of prompts and the second sequence of data entries for the service provider machine's portion of the modified dialogue sequence with the terminal machine. For example,

without limitation, as already explained herein, a second sequence of prompts and a second sequence of data entries is demonstrated when new saved searches are added, and they appear on the user's Android device. In the Accused System, the terminal dialogue module (e.g., terminal machine portion of a saved search) does not modify the first set of computer-executable instructions, as is readily understood by one of ordinary skill. For example, without limitation, as already explained herein, ART comprises the first set of computer-executable instructions and is not modified by the terminal dialogue module. In the Accused System, the provider dialogue module (e.g., service provider machine portion of a saved search) does not modify the second set of computer-executable instructions, as is readily understood by one of ordinary skill. For example, without limitation, as already explained herein, the Python engine comprises the second set of computer-executable instructions and is not modified by the provider dialogue module.

134. On information and belief, at least since the filing of this Complaint, Defendant has knowingly and actively induced the infringement of one or more of the '897 patent claims by, inter alia, marketing, promoting, and offering for use the Accused Instrumentalities, knowingly and intending that the use of such instrumentalities by Defendant customers and by users infringes the '897 patent. For example, Defendant intends to induce such infringement by, among other things, promoting users to download and run the Defendant app knowing that the use of its applications on a user's portable device or smart phone in connection with supporting systems such as its server(s) infringes one or more claims of the '897 patent.

135. On information and belief, at least since the filing of this Complaint, Defendant has contributed to the infringement of the '897 patent by, inter alia, marketing and promoting products and services. Defendant has used and promoted within the United States the Accused

Instrumentalities. The Accused Instrumentalities are not staple articles or commodities of commerce suitable for substantial non-infringing use and are known by Defendant to be especially made or especially adapted to the infringe the '897 patent. As a result, Defendant's Accused Instrumentalities have been used by its customers and by users to infringe the '897 patent. Defendant continues to engage in acts of contributory infringement of the '897 patent.

136. By reason of the acts of Defendant alleged herein, S3G has suffered damage in an amount to be proved at trial.

137. Defendant threatens to continue to engage in the acts complained of herein and, unless restrained and enjoined, will continue to do so, all to S3G's irreparable injury. It would be difficult to ascertain the amount of compensation that would afford S3G adequate relief for such future and continuing acts, and a multiplicity of judicial proceedings would be required. S3G does not have an adequate remedy at law to compensate it for the injuries threatened.

JURY DEMAND

S3G demands a jury trial on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, S3G prays for relief as follows:

A. For an order finding that '124, '140, '468, '571, '758, '774, and '897 patents are valid and enforceable;

B. For an order finding that Defendant has infringed '124, '140, '468, '571, '758, '774, and '897 patents directly, contributorily and/or by inducement, in violation of 35 U.S.C. § 271;

C. For an order finding that Defendant's infringement is willful;

D. For an order temporarily, preliminarily and permanently enjoining Defendant, its officers, directors, agents, servants, affiliates, employees, subsidiaries, divisions, branches, parents, attorneys, representatives, privies, and all others acting in concert or participation with any of them, from infringing '124, '140, '468, '571, '758, '774, and '897 patents directly, contributorily and/or by inducement, in violation of 35 U.S.C. § 271;

E. For an order directing Defendant to file with the Court, and serve upon S3G's counsel, within thirty (30) days after entry of the order of injunction, a report setting forth the manner and form in which it has complied with the injunction;

F. For an order awarding S3G general and/or specific damages adequate to compensate S3G for the infringement by Defendant, including a reasonable royalty and/or lost profits, in amounts to be fixed by the Court in accordance with proof, including enhanced and/or exemplary damages, as appropriate, as well as all of the profits or gains of any kind made by Defendant from its acts of patent infringement;

G. For an order awarding S3G pre-judgment interest and post-judgment interest at the maximum rate allowed by law;

H. For an order requiring an accounting of the damages to which S3G is found to be entitled;

I. For an order declaring this to be an exceptional case pursuant to 35 U.S.C. § 285 and awarding S3G its attorneys' fees;

J. For an order awarding S3G its costs of court; and

K. For an order awarding S3G such other and further relief as the Court deems just and proper.

DATED: October 19, 2021

Respectfully Submitted,

By: */s/ Charles Ainsworth*

Charles Ainsworth
State Bar No. 00783521
PARKER, BUNT & AINSWORTH, P.C.
100 E. Ferguson, Suite 1114
Tyler, TX 75702
903/531-3535
903/533-9687
E-mail: charley@pbatyler.com