John M. Desmarais (SBN 320875)
Emily H. Chen (SBN 302966)
DESMARAIS LLP
101 California Street, Suite 3070
San Francisco, California 94111
Telephone: (415) 573-1900
Facsimile: (415) 573-1901
jdesmarais@desmaraisllp.com
echen@desmaraisllp.com

Ameet A. Modi (*pro hac vice* forthcoming)
Cosmin Maier (*pro hac vice* forthcoming)
Brian Matty (*pro hac vice* forthcoming)
Franco Silletta (*pro hac vice* forthcoming)
Joze Welsh (*pro hac vice* forthcoming)
DESMARAIS LLP
230 Park Avenue, Suite 2600
New York, New York 10169
Telephone: (212)351-3400
Facsimile: (212) 351-3401
amodi@desmaraisllp.com
cmaier@desmaraisllp.com
bmatty@desmaraisllp.com
fsilletta@desmaraisllp.com
jwelsh@desmaraisllp.com

Counsel for Apple Inc.

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA

APPLE INC.,

Plaintiff,

v.

IXI MOBILE (R&D) LTD. and IXI IP, LLC,

Defendants.

Case No. 4:20-cv-4050

COMPLAINT FOR DECLARATORY JUDGMENT OF NONINFRINGEMENT AND INVALIDITY

DEMAND FOR JURY TRIAL

Plaintiff Apple Inc. ("Apple") seeks a declaratory judgment against Defendants IXI Mobile (R&D) LTD. and IXI IP, LLC, (collectively, "IXI") that (1) Apple does not infringe U.S. Patent No. 7,295,532 (the "'532 Patent") and (2) the '532 Patent is invalid.

NATURE OF THE ACTION

1. This is an action for a declaratory judgment arising under the patent laws of the United States, Title 35 of the United States Code. Apple seeks a declaratory judgment that Apple does not infringe the '532 Patent and that the '532 Patent is invalid.

PARTIES

2. Apple is a California corporation with its principal place of business at One Apple Park Way, Cupertino, California 95014. Apple designs, manufactures, and markets mobile communication and media devices and personal computers, and sells a variety of related software, services, accessories, networking solutions, and third-party digital content and applications.

3. On information and belief, Defendant IXI Mobile (R&D) Ltd. ("IXI Mobile (R&D)"), formerly known as IXI Mobile (Israel) Ltd., is a company incorporated and registered under the laws of Israel with a registered address of 11 Moshe Levi Street Lezion 75658, Israel. On information and belief, IXI Mobile (R&D) is a subsidiary of non-party IXI Mobile, Inc. On information and belief, at the time the '532 Patent was originally prosecuted, and until at least 2008, IXI Mobile, Inc. and its subsidiary IXI Mobile (R&D) were based in Belmont, California. IXI Mobile (R&D) has alleged that it previously owned the '532 Patent, and that it now has an exclusive license to the '532 Patent.

4. On information and belief, Defendant IXI IP LLC ("IXI IP") is a New York limited liability company with its principal place of business at 405 Lexington Avenue, New York, New York 10174 and with a registered address for service of 1218 Central Avenue, Suite 100, Albany, New York 12205. IXI IP has alleged that it is the owner of the '532 Patent and that it has exclusively licensed the '532 Patent to IXI Mobile (R&D). On information and belief, IXI IP is a patent licensing entity formed in April 2014 that produces no products, and instead exists solely to assert IXI's patents.

IXI, FOUNDED IN CALIFORNIA, DEVELOPS, PROSECUTES, ENFORCES, AND LICENSES ITS PATENTS IN CALIFORNIA

A. IXI Was Founded in California and Used California Counsel to Prosecute and Obtain the '532 Patent

5. On information and belief, IXI Mobile, Inc. was founded in 2000 and was headquartered in Redwood City or in Belmont, California, both of which are within this District. On information and belief, Defendant IXI Mobile (R&D), the alleged former owner and current exclusive licensee of the '532 Patent, was a subsidiary of IXI Mobile, Inc., and was also located in Redwood City or in Belmont, California, within this District, until at least 2008. A true and correct copy of IXI Mobile, Inc.'s SEC Form 8-K Report dated August 13, 2008, listing the location of IXI Mobile, Inc.'s headquarters in Belmont, California, is attached hereto. *See* Ex. A (IXI Mobile, Inc., Current Report (Form 8-K) (Aug. 12, 2008)). IXI has alleged that during the time in which IXI Mobile, Inc. was headquartered in California, IXI Mobile, Inc. and its subsidiary IXI Mobile (R&D) designed, developed, and commercialized products, including the IXI Ogo family of mobile devices that IXI has contended practiced the '532 Patent.

6. On information and belief, IXI retained patent prosecution counsel in California to prosecute and secure the '532 Patent. The '532 Patent was prosecuted by the California law firm Vierra Magen Marcus Harmon & DeNiro LLP, located in San Francisco, California.

7. The U.S. Patent and Trademark Office ("PTO") issued the '532 Patent, titled "System, Device and Computer Readable Medium for Providing Networking Services on a Mobile Device," on November 13, 2007. A true and correct copy of the '532 Patent is attached as Ex. B, which includes an *Ex Parte* Reexamination Certificate, issued on June 17, 2020, that issued new and amended claims for the '532 Patent, and an *Inter Partes* Review Certificate, issued February 27, 2018, that cancelled multiple claims of the '532 Patent.

B. IXI Sued California-Based Apple for Infringing Originally Issued Claims of the '532 Patent in a Case That Was Transferred to the Northern District of California

8. On October 2, 2014, IXI sued Apple in the U.S. District Court for the Southern District of New York, alleging that Apple devices that include "Personal Hotspot" functionality infringe

certain originally issued claims of the '532 Patent, as well as certain claims of U.S. Patent Nos. 7,039,033 (the "'033 Patent"), 7,426,398 (the "'398 Patent"), and 7,016,648 (the "'648 Patent"). *See IXI Mobile (R&D) Ltd. et al. v. Apple Inc.*, No. 1:14-cv-7954-RJS (S.D.N.Y. Oct. 2, 2014), Dkt. No. 1 (Complaint). In particular, IXI accused Apple's Personal Hotspot and related functionality (the "accused products") of infringing the '532 Patent. Ex. C (IXI's Second Amended Infringement Contentions (April 9, 2015)).

9. IXI similarly sued Samsung Electronics Co. Ltd. and Samsung Electronics America Inc. (collectively, "Samsung"), and BlackBerry Limited and BlackBerry Corporation (collectively, "BlackBerry"), in the Southern District of New York for purportedly infringing the same patents.[1] *See IXI Mobile (R&D) Ltd. et al. v. Samsung Elecs. Co., Ltd. et al.*, No. 1:14-cv-4533-RJS (S.D.N.Y. Jun. 17, 2014); *IXI Mobile (R&D) Ltd. et al. v. Blackberry Ltd. et al.*, No. 1:14-cv-4428-RJS (S.D.N.Y. Jun. 18, 2014). IXI's lawsuits against Apple, Samsung, and BlackBerry (collectively, the "2014 Litigations") were related, but not consolidated.

10. On December 8, 2014, representatives of IXI had an in-person meeting with Apple representatives at Apple's California offices.

11. On February 3, 2015, Apple, Samsung, and BlackBerry moved to transfer the 2014 Litigations from the Southern District of New York to the Northern District of California. On August 6, 2015, the Southern District of New York granted the motions and transferred the cases to the Northern District of California. *See IXI Mobile (R&D) Ltd. et al. v. Apple Inc.*, No. 1:14-cv-7954-RJS (S.D.N.Y. Aug. 6, 2015), Dkt. No. 71 (Opinion and Order). All of the cases were assigned to Judge Gilliam. *See IXI Mobile (R&D) Ltd. et al. v. Apple Inc.*, No. 4:15-cv-3755-HSG (N.D. Cal. Aug. 17, 2015); *IXI Mobile (R&D) Ltd. et al. v. Samsung Elecs. Co. et al.*, No. 4:15-cv-3752-HSG (N.D. Cal. Aug. 17, 2015); *IXI Mobile (R&D) Ltd. et al. v. Blackberry Ltd. et al.*, No. 4:15-cv-3754-HSG (N.D. Cal. Aug. 17, 2015).

[1] IXI did not assert the '398 Patent against Samsung.

12. In the 2014 Litigations, Apple, Samsung, and BlackBerry deposed a California-based co-inventor of the '532 and '033 Patents in Palo Alto, California, which is within this District, on July 1, 2015.

C. Cancellation of Originally Asserted Claims of the '532 Patent

13. On June 19, 2015, Samsung and Apple filed two petitions for *inter partes* review ("IPR") with the Patent Trial and Appeal Board ("PTAB") on all of the originally issued claims of the '532 Patent that were asserted in the 2014 Litigations. *Samsung Elecs. Co., Ltd. et al. v. IXI IP, LLC*, No. IPR2015-01442 (P.T.A.B. Jun. 19, 2015) (the "-01442 IPR"); *Samsung Elecs. Co., Ltd. et al. v. IXI IP, LLC*, No. IPR2015-01443 (P.T.A.B. Jun. 19, 2015) (the "-01443 IPR). Each petition challenged the same claims, but on different grounds based on different combinations of prior art references.

14. On December 30, 2015, the PTAB instituted review of all the challenged claims of the '532 Patent in the -01443 IPR petition except for claim 10. The PTAB declined to institute the -01442 IPR petition. On December 21, 2016, the PTAB found that all of the instituted claims in the -01443 IPR were obvious.

15. IXI did not appeal the PTAB's final written decision regarding the '532 Patent. The PTO issued an IPR certificate cancelling all challenged claims of the '532 Patent except for claim 10 on February 27, 2018. Ex. B. at 23-24.

D. *Ex Parte* Reexamination of the '532 Patent and IXI's Accusations Against Apple for Infringement of Claims Involved in the Reexamination

16. On April 3, 2018, Apple filed a request for *ex parte* reexamination of claims 2, 3, 6, 10, and 11 of the '532 Patent. The PTO ordered the reexamination and subsequently rejected all challenged claims. Ex. D (Re-Examination No. 90/014,119, Office Action (September 25, 2018)). In response, IXI cancelled or amended the rejected claims of the '532 Patent and proposed new claims. Ex. E (Re-Examination No. 90/014,119, Office Action Response (February 20, 2019)).

17. On March 5, 2019, IXI sent an email to Apple regarding the then-pending claims in the ongoing *ex parte* reexamination of the '532 Patent. The email stated: "Attached to this email is a set

of the new claims that IXI recently submitted in conjunction with that reexamination proceeding. Please let this serve as notice of infringement to your clients in this matter for these new claims and as notice that IXI intends to seek leave to amend its infringement contentions [in the 2014 Litigations] to include the new claims of the '532 Patent." Ex. F (Email from IXI to Apple (Mar. 5, 2019)).

18. On March 7, 2019, IXI filed a motion in the 2014 Litigations to amend its preliminary infringement contentions to add, *inter alia*, unspecified pending claims of the ongoing *ex parte* reexamination of the '532 Patent. *See IXI Mobile (R&D) Ltd. v. Apple Inc.*, No. 4:15-cv-03755-HSG ("4:15-cv-03755-HSG"), Dkt. No. 157. Apple argued that IXI's motion should be barred because the Court did not have subject matter jurisdiction over claims that had yet to issue or, alternatively, that IXI's motion should be denied for failure to show "good cause." *See* 4:15-cv-03755-HSG, Dkt. No. 164. IXI responded that it was not yet trying to literally assert the pending claims of the ongoing reexamination, but was requesting leave to amend its contentions to add any patent claims that might issue. *See* 4:15-cv-03755-HSG, Dkt. No. 166. The Court denied IXI's motion on October 11, 2019. *See* 4:15-cv-03755-HSG, Dkt. No. 187. The Court determined that IXI had not met its burden to amend its infringement contentions because (1) IXI did not demonstrate sufficient diligence and (2) Apple would be unduly prejudiced by the amendment. *See id.* at 5-7. The Court stated that "[i]f Plaintiffs want to enforce their newly-minted claims, they can ***try*** to do so in a new case." *Id.* at 7 (emphasis added).

E. Dismissal of the 2014 Litigations and Apple's Declaratory Judgment Against the '033 Patent

19. Following the Court's denial of IXI's motion to amend its infringement contentions, and the PTO's continued rejection of the sole claim still asserted in the 2014 Litigations—claim 10 of the '532 Patent—the Court granted Apple and IXI's joint stipulation to dismiss the 2014 Litigations. 4:15-cv-03755-HSG, Dkt. No. 213.

20. On October 10, 2019, Apple filed a complaint for declaratory judgment that *res judicata* bars IXI from asserting claims that issued from an *ex parte* reexamination of the '033 Patent, or in the alternative, that Apple does not infringe the '033 Patent, and that the '033 Patent is invalid.

See Apple Inc., v. IXI Mobile (R&D) LTD. and IXI IP, LLC, No. 4:19-cv-06769-HSG ("4:19-cv-06769-HSG"), Dkt. No. 1 (Complaint).

21. On February 24, 2020, IXI answered Apple's declaratory judgment complaint and filed counterclaims alleging that Apple infringes reexamined claims of the '033 Patent. 4:19-cv-06769-HSG, Dkt. No. 62. In its answer, IXI admitted that venue is proper in this District and that this Court has personal jurisdiction over IXI Mobile (R&D) and IXI IP. *Id.*, ¶ 29. That case remains pending.

F. Issuance of the '532 Reexamination Claims and IXI's Continued Threat of Assertion Against Apple

22. On June 2, 2020, while the *ex parte* reexamination of the '532 Patent was still pending, Apple's counsel contacted IXI's counsel to inquire whether IXI intended to assert any claims of the '532 Patent against Apple once the reexamination certificate issued. *See* Ex. G (Email from Apple's counsel to IXI's counsel (Jun. 2, 2020)).

23. On June 4, 2020, IXI's counsel responded to Apple's counsel and indicated IXI would not disclose its litigation strategy regarding the '532 Patent claims against Apple. *See* Ex. G (Email from IXI's counsel to Apple's counsel (Jun. 4, 2020)).

24. On June 17, 2020, the *ex parte* reexamination of the '532 Patent concluded, resulting in one amended claim (claim 11) and 15 new claims (claims 32 through 46). Ex. B at 19-22.

25. Therefore, there is a real and justiciable controversy between IXI and Apple regarding the enforceability of the '532 Patent against Apple.

JURISDICTIONAL STATEMENT

26. This action arises under the Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq*., and under the patent laws of the United States, Title 35 of the United States Code.

27. This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331, 1338(a), and 2201(a).

28. As IXI has admitted, this Court has personal jurisdiction over IXI Mobile (R&D). *See* 4:19-cv-06769-HSG, Dkt. No. 62, ¶ 29. Moreover, on information and belief, IXI Mobile (R&D) was,

at the time the '532 Patent was prosecuted, based in this District and was a subsidiary of IXI Mobile, Inc., a California company.

29. As IXI has admitted, this Court also has personal jurisdiction over IXI IP. *See* 4:19-cv-06769-HSG, Dkt. No. 62, ¶ 29. Moreover, on information and belief, IXI IP has purposefully directed development, prosecution, licensing, and enforcement activities into California for its patents, including the '532 Patent, which it allegedly exclusively licenses to IXI Mobile (R&D).

30. IXI has also taken steps, in this District, to assert the '532 Patent against Apple. *See* 4:15-cv-03755-HSG, Dkt. No. 157 (IXI's motion to amend infringement contentions to assert then-pending reexamined claims of the '532 Patent against Apple).

31. IXI has also previously litigated and is currently litigating offensive claims for infringement of its patents in this District, further supporting personal jurisdiction over IXI. *See, e.g.*, *IXI Mobile (R&D) Ltd. et al. v. Blackberry Ltd. et al.*, No. 3:15-cv-03754 (voluntarily dismissed without prejudice in February 2019); *IXI Mobile (R&D) Ltd. et al. v. Samsung Elecs. Co., Ltd. et al.*, No. 4:15-cv-03752 (stipulated dismissal in January 2020); *IXI Mobile (R&D) Ltd. et al. v. Apple Inc.*, No. 4:15-cv-03755 (stipulated dismissal in January 2020); and *Apple Inc., v. IXI Mobile (R&D) LTD. and IXI IP, LLC*, No. 4:19-cv-06769-HSG (currently pending).

32. Venue is proper in this District under 28 U.S.C. §§ 1391(b)-(c) because a substantial part of the events giving rise to Apple's claim occurred in this District, and because IXI is subject to personal jurisdiction here. *See Apple Inc., v. IXI Mobile (R&D) LTD. and IXI IP, LLC*, No. 4:19-cv-06769-HSG, Dkt. No. 62, ¶ 29.

33. An immediate, real, and justiciable controversy exists between IXI and Apple as to whether Apple is infringing or has infringed the '532 Patent, and whether the '532 Patent is invalid. Because this action presents an actual controversy with respect to the noninfringement, and the invalidity of the '532 Patent, the Court may grant the declaratory relief sought pursuant to 28 U.S.C. § 2201 *et seq.*

INTRADISTRICT ASSIGNMENT

34. For purposes of intradistrict assignment under Civil Local Rules 3-2(c) and 3-5(b), this Intellectual Property Action will be assigned on a district-wide basis.

CLAIMS FOR RELIEF

FIRST CLAIM FOR RELIEF

(Declaratory Judgment of Noninfringement of U.S. Patent No. 7,295,532)

35. Apple repeats and realleges each and every allegation contained in paragraphs 1 through 34 of this Complaint as if fully set forth herein.

36. IXI has alleged and continues to allege that Apple infringes the '532 Patent. The Court should enter judgment declaring that Apple does not infringe the '532 Patent.

37. Exemplary claim 32 of the '532 Patent recites:

Limitation	Claim Language (emphasis added)
[P]	A hand-held cellular telephone for enabling communication between one or more devices connected to one or more cellular networks and one or more programmable devices connected to a wireless local area network, the hand-held cellular telephone comprising:
[a]	a touchscreen;
[b]	a graphical user interface;
[c]	a first transceiver having a cellular network address, the first transceiver to communicate with the one or more programmable devices connected to said one or more cellular networks by sending and receiving cellular signals;
[d]	a second transceiver to communicate with the one or more programmable devices connected to the wireless local area network by sending and receiving short-range radio signals;
[e.1]	a storage device to store:
[e.2]	a router software component to transfer a plurality of data packets between the one or more devices connected to the one or more cellular networks and the one or more programmable devices connected to the wireless local area network by the cellular signals and the short-range radio signals, wherein said plurality of data packets includes an internet Protocol ("IP") packet; and
[e.3]	***an interface software component to add a first network service software component to provide one or more network services to the***

	wireless local area network, the first network service software component loaded into the storage device from the one or more devices connected to the one or more cellular networks; and
[f]	one or more processors connected to the storage device to process the cellular signals and the short-range radio signals,
[g]	wherein the one or more cellular networks include a plurality of public IP addresses and the wireless local area network includes a plurality of private IP addresses,
[h]	***wherein the router software component is a router software component to translate a first IP address in the plurality of public IP addresses to a second IP address in the plurality of private IP addresses***,
[i]	wherein the one or more programmable devices connected to the wireless local area network comprises a wearable device having at least one processor, and
[j]	wherein the hand-held cellular telephone is a hand-held cellular telephone to enable programming of the wearable device over the wireless local area network by at least one manager server connected to the hand-held cellular telephone,
[k]	wherein the hand-held cellular telephone comprises a messaging software component to enable one of the one or more programmable devices connected to the wireless local area network to send messages, and
[l]	wherein the ***messaging software component comprises a short message system (SMS) software component***,
[m]	and wherein the router software component, the interface software component, and the messaging software component are stored in the storage device during manufacture of the hand-held cellular telephone.

38. Apple has not infringed and does not infringe any valid and/or enforceable claim of the '532 Patent, directly or indirectly, literally or under the doctrine of equivalents, through the manufacture, use, sale, and/or offer for sale of Apple's accused products. By way of example, Apple's accused products do not satisfy at least limitations 32[e.3], 32[h], and 32[l] of exemplary claim 32.

39. First, Apple's accused products do not include an "interface software component" as claimed in limitation 32[e.3] of exemplary claim 32 at least because Apple's accused products do not add network service software components loaded into storage from devices connected to a cellular network to provide a network service to a wireless local area network. To the extent that this claim language is not found indefinite due to failure to provide sufficient corresponding structure under pre-

AIA 35 U.S.C. § 112(2), Apple's accused products do not satisfy any structure that is arguably disclosed in the specification of the '532 Patent in connection with this claim language. For example, Apple's products do not satisfy the disclosures at 10:2-4, 10:12-15, 10:18-23, 10:45-11:10, or anywhere else in the specification of the '532 Patent. For example, Apple's iPhones do not add network services to local networks via Personal Hotspot functionality by loading network service software components from a cellular network.

40. Second, Apple's accused products do not include a "router software component" claimed in limitation 32[h] of exemplary claim 32 at least because Apple's accused devices do not translate a first IP address in a plurality of public IP addresses to a second IP address in a plurality of private IP addresses, as claimed in limitation 32[h]. For example, Apple's iPhones do not translate between a first public IP address provided to the iPhone from a cellular network and a second private IP address for a device connected to an iPhone via the Personal Hotspot functionality.

41. Third, Apple's accused products do not include a "messaging software component" as claimed in limitation 32[l] of exemplary claim 32 at least because Apple's accused products do not enable one or more programmable devices connected to a wireless local area network to send SMS messages, as claimed in limitation 32[l]. For example, Apple's iPhones do not enable another device to send SMS messages via the Personal Hotspot functionality.

42. Thus, Apple's accused products do not satisfy at least limitations 32[e.3], 32[h], and 32[l] of exemplary claim 32. Apple does not infringe the remaining claims of the '532 Patent for at least similar reasons.

43. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.

44. A judicial declaration is necessary and appropriate so that Apple may ascertain its rights regarding the '532 Patent.

45. Apple is entitled to a judicial declaration that it has not infringed and does not infringe the '532 Patent.

SECOND CLAIM FOR RELIEF

(Declaratory Judgment of Invalidity of U.S. Patent No. 7,295,532)

46. Apple repeats and realleges each and every allegation contained in paragraphs 1 through 45 of this Complaint as if fully set forth herein.

47. The '532 Patent is invalid under 35 U.S.C. §§ 102 and/or 103 because its claims are anticipated and/or rendered obvious by prior art. By way of example, exemplary claim 32 is invalid under 35 U.S.C. §§ 102 and/or 103 because it is anticipated and/or obvious in view of prior art.

48. As an example, claim 32 is invalid as obvious in view of International Publication No. WO 2001/076154 A2 ("Marchand"), printed publication "Router Plugins: A Software Architecture for Next Generation Routers," Computer Communication Review (1998), vol. 28, No. 4, p. 229-240 ("Router Plugins"), U.S. Patent No. 6,622,017 ("Hoffman"), U.S. Patent No. 5,537,608 ("Beatty"), and International Publication No. WO 2001/048977 A2 ("Baranowski"). Claim 32 is identical to original claim 1 of the '532 Patent (which the PTAB found unpatentable over Marchand, Router Plugins, and Hoffman), with the exception that claim 32 further includes (i) a cellular telephone with a touchscreen and graphical user interface; (ii) a wearable device; (iii) software to enable programming of the wearable device; (iv) SMS software to enable tethered devices to send messages; and (v) software installed on the cellular telephone during manufacture.

49. Marchand discloses "an ad-hoc network . . . established for a plurality of devices, and a gateway that provides access through the ad-hoc network to external wireless IP networks." Marchand at 4:15-19. Marchand also discusses mobile phones having multiple IP addresses and receiving IP packets from a network through a "public IP address" and forwarding those packets to a "private IP address" of a destination device. Marchand at 4:23-30; 7:12-17; 10:30-31. Router Plugins discloses a software architecture that "allows code modules, called plugins, to be dynamically added and configured" on a router. Router Plugins, Abstract. Hoffman teaches a "microprocessor 51" that "controls all operations of the handset[.]" Hoffman at 12:47-50. Hoffman also discloses downloading software plugins, from the Internet, using cellular over-the-air programming, and loading the plugins into memory storage. Hoffman at 3:15-17, 9:42-48, 10:61-65, 13:5-8. Beatty discloses a hand-held

cellular telephone that includes a graphical user interface and a touchscreen. Beatty at 4:21-33. Baranowski discloses a communication system in which a gateway device communicates messages between an external network and other devices on a subnet. Baranowski at 4:24-5:2. The gateway device may be a hand-held cellular telephone, and the subnet devices include wearable devices. Baranowski at 21:8-10, 26:29-27:4.

50. The preamble of claim 32 recites "[a] hand-held cellular telephone for enabling communication between one or more devices connected to one or more cellular networks and one or more programmable devices connected to a wireless local area network, the hand-held cellular telephone comprising." This limitation is substantially similar to the preamble of claim 1 (which was previously found by the PTAB to be taught by Marchand as supplemented by Router Plugins and Hoffman), with the exception that it recites that the hand held device is a "cellular telephone," and the one or more devices connected a wireless local area network are "programmable." Marchand discloses, or at a minimum renders obvious, this limitation. For example, Marchand's system includes a hand-held cellular telephone that operates as a gateway "between an external wireless Internet Protocol (IP) network and devices in the ad-hoc network." Marchand at 4:21-23, 13:12-14. The external wireless IP network may be a "cellular network." *Id.* at 7:19-23. The devices in the wireless local area network (the ad-hoc network/piconet) include devices such as a printer and laptop, and are programmable in that, for example, "repairmen can call the piconet and . . . remotely download new software versions into the digital control systems of [the devices]." *Id.* at 13:15-19.

51. Limitations 32[a] and 32[b] recite that the cellular telephone comprises "a touchscreen" and "a graphical user interface." Marchand and Beatty render obvious this limitation. For example, Marchand discloses a cellular telephone, "mobile phone 33." Marchand at 7:12-14. Beatty discloses a hand-held cellular telephone that includes a graphical user interface and a touchscreen. Beatty at Fig. 2, 4:21-33. Implementing a touchscreen and graphical user interface, as disclosed in Beatty, on a hand-held cellular telephone, such as Marchand's mobile phone, was well-known prior to the '532 Patent.

52. Limitation 32[c] of claim 32 recites "a first transceiver having a cellular network address, the first transceiver to communicate with the one or more programmable devices connected to said one or more cellular networks by sending and receiving cellular signals." This limitation is identical to the first limitation of claim 1, which was previously found by the PTAB to be taught by Marchand as supplemented by Router Plugins and Hoffman. Marchand discloses, or at a minimum renders obvious, this limitation. For example, Marchand discloses that a mobile phone includes a "cellular radio modem" to connect to the wireless IP network, which may be a cellular network made up of one or more programmable devices. Marchand at 7:19-23.

53. Limitation 32[d] of claim 32 recites "a second transceiver to communicate with the one or more programmable devices connected to the wireless local area network by sending and receiving short-range radio signals." This limitation is identical to the second limitation of claim 1 (which was previously found by the PTAB to be taught by Marchand as supplemented by Router Plugins and Hoffman), with the exception that the one or more devices connected to the wireless local area network are "programmable." Marchand discloses, or at a minimum renders obvious, this limitation. For example, Marchand discloses the mobile phone sends and receives short-range radio signals with various programmable devices (*e.g.*, a laptop and printer) in a Bluetooth network. Marchand at 7:9-11; 7:18-21.

54. Limitation 32[e.1] and 32[e.2] together recite "a storage device configured to store" "a router software component to transfer a plurality of data packets between the one or more devices connected to the one or more cellular networks and the one or more programmable devices connected to the wireless local area network by the cellular signals and the short-range radio signals, wherein said plurality of data packets includes an internet Protocol ('IP') packet." This limitation is nearly identical to limitations of claim 1, which were previously found by the PTAB to be taught by Marchand as supplemented by Router Plugins and Hoffman. Marchand discloses, or at a minimum renders obvious, these limitations. For example, Marchand's "mobile phone receives IP packets from the GPRS network through its public IP address, and forwards the received packets to the private IP

address of the destination in the Piconet." Marchand at 7:14-16. The mobile phone "also translates in the other direction for data going out of the Piconet to the GPRS network." Marchand at 7:16-17. That translation of a "public IP address" of the mobile phone in an IP packet received from the GPRS network "to the private IP address of the appropriate device" is performed by a router software component stored in a storage device of the mobile phone.

55. Limitation 32[e.3] of claim 32 recites "an interface software component to add a first network service software component to provide one or more network services to the wireless local area network, the first network service software component loaded into the storage device from the one or more devices connected to the one or more cellular networks." This limitation is identical to part of the fifth limitation of claim 1, which was previously found by the PTAB to be taught by Marchand as supplemented by Router Plugins and Hoffman. Marchand discloses, or at a minimum renders obvious in view of Router Plugins, this limitation. For example, Marchand's devices in a Bluetooth network can "discover, join, and download services" from a JINI Lookup Service. Marchand at 6:19-22; 7:23-25; 8:11-28. The JINI Lookup Service is provided "for making services available to the plurality of devices in the Piconet" and "contains a list of available services provided by other devices." Marchand at 3:11-12; 5:13-14. The JINI Lookup Service corresponds to the "network service software component" because it provides services from one device to another in a Bluetooth network and is implemented using software. Furthermore, Router Plugins discloses a software architecture that "allows code modules, called plugins, to be dynamically added" to a router. Router Plugins, Abstract. A software component called the "Plugin Control Unit (PCU)" enables plugins to be dynamically loaded and unloaded into the networking subsystem of the router. Router Plugins at p. 234. The router plugins "are responsible for performing certain specific function on specified network flows." Router Plugins at p. 234, col. 1. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the mobile gateway of Marchand to enable dynamically adding plugins as described in Router Plugins.

56. Limitation 32[f] of claim 32 recites "one or more processors connected to the storage device to process the cellular signals and the short-range radio signals." This limitation is identical to part of the fifth limitation of claim 1, which was previously found by the PTAB to be taught by Marchand as supplemented by Router Plugins and Hoffman. Marchand discloses, or at a minimum renders obvious in view of Hoffman, this limitation. For example, Marchand's "mobile phone receives IP packets from the GPRS network through its public IP address, and forwards the received packets to the private IP address of the destination in the Piconet." Marchand at 7:14-16. The mobile phone "also translates in the other direction for data going out of the Piconet to the GPRS network." Marchand at 7:16-17. A person of ordinary skill in the art would have appreciated that the mobile device of Marchand would include a processor to process the signals sent between the cellular network and piconet. Additionally, Hoffman explicitly teaches a "microprocessor 51" that "controls all operations of the handset." Hoffman at 12:47-50. To the extent a processor is not inherent in the mobile device of Marchand, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the mobile device of Marchand to include a processor to control its operations.

57. Limitation 32[g] of claim 32 recites "wherein the one or more cellular networks include a plurality of public IP addresses and the wireless local area network includes a plurality of private IP addresses." This limitation is nearly identical to part of the sixth limitation of claim 1, which was previously found by the PTAB to be taught by Marchand as supplemented by Router Plugins and Hoffman. Marchand discloses, or at a minimum renders obvious, this limitation. Marchand discloses both public IP addresses of the cellular network and private IP addresses of the Piconet/wireless local area network. Marchand at 7:14-16.

58. Limitation 32[h] of claim 32 recites "wherein the router software component is a router software component to translate a first IP address in the plurality of public IP addresses to a second IP address in the plurality of private IP addresses." This limitation is nearly identical to part of the sixth limitation of claim 1, which was previously found by the PTAB to be taught by Marchand as

supplemented by Router Plugins and Hoffman. Marchand discloses, or at a minimum renders obvious, this limitation. For example, Marchand's "mobile phone receives IP packets from the GPRS network through its public IP address, and forwards the received packets to the private IP address of the destination in the Piconet." Marchand at 7:14-16. The mobile phone "also translates in the other direction for data going out of the Piconet to the GPRS network." Marchand at 7:16-17. That translation of a "public IP address" of the mobile phone in an IP packet received from the GPRS network "to the private IP address of the appropriate device" is performed by a router software component of the mobile phone.

59. Limitation 32[i] of claim 32 recites "wherein the one or more programmable devices connected to the wireless local area network comprises a wearable device having at least one processor." Marchand discloses, or at a minimum renders obvious in view of Baranowski, this limitation. Marchand discloses that a "plurality of devices" can be connected to the piconet, and that "many consumer products will be modified to provide multimedia and telephony capabilities." Marchand at 13:11-14; 7:2-4. Baranowski discloses a communication system including a subnet (a wireless local area network) comprising a gateway device and other devices connected to the subnet. Baranowski at 7:23-29. The gateway device may be a hand-held cellular telephone and the subnet devices can include a watch phone (a wearable device having at least one processor). Baranowski at 21:8-10; 26:29-27:4. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the watch phone of Baranowski as one of the "consumer products" of Marchand.

60. Limitation 32[j] of claim 32 recites "wherein the hand-held cellular telephone is a hand-held cellular telephone to enable programming of the wearable device over the wireless local area network by at least one manager server connected to the hand-held cellular telephone." Marchand discloses, or at a minimum renders obvious in view of Baranowski, this limitation. Baranowski discloses that the gateway device is capable of locating a software upgrade for a subnet device from a server in an external network. Baranowski at 18:20-31. The gateway device enables the upgrade to be installed on the subnet device over the subnet. *Id.* It would have been obvious to one of ordinary

skill in the art at the time of the invention to use the programmable watch phone of Baranowski as one of the "consumer products" of Marchand, and to modify Marchand's system to allow the mobile device to enable upgrades for the consumer products.

61. Limitation 32[k] of claim 32 recites "wherein the hand-held cellular telephone comprises a messaging software component to enable one of the one or more programmable devices connected to the wireless local area network to send messages." Marchand discloses, or at a minimum renders obvious in view of Baranowski, this limitation. Baranowski discloses that the gateway device includes "application software" to "route a particular message" between devices on the subnet and the external network. Baranowski at 9:1-17. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the programmable watch phone of Baranowski as one of the "consumer products" of Marchand, and to modify Marchand's mobile device to include the messaging "application software" of Baranowski.

62. Limitation 32[l] of claim 32 recites "wherein the messaging software component comprises a short message system (SMS) software component." Marchand discloses, or at a minimum renders obvious in view of Baranowski, this limitation. Baranowski discloses that the gateway device includes "application software" to route messages of various forms between the external network and subnet devices. Baranowski at 9:1-17. Baranowski discloses that the messages may be in "text" format, which a person of ordinary skill in the art would understand as including a short message system (SMS) format.

63. Limitation 32[m] of claim 32 recites "wherein the router software component, the interface software component, and the messaging software component are stored in the storage device during manufacture of the hand-held cellular telephone." Marchand discloses, or at a minimum renders obvious in view of Baranowski, this limitation. Baranowski discloses that the gateway architecture "benefits the manufacturers as well" by "allowing the cellular/PCS phone to act as a gateway device for all peripheral devices that can talk to it by adding a simple, lower power, wireless interface to the gateway device[.]" Baranowski at 24:22-29. It would have been obvious to one of

ordinary skill in the art at the time of the invention to install the router software component and interface software component of Marchand, and the messaging software component of Baranowski, during manufacture of the mobile device disclosed in Marchand.

64. In addition, the claims of the '532 Patent are invalid under 35 U.S.C. §§ 102 and/or 103 in view of the prior art cited in Apple's Invalidity Contentions served in *IXI Mobile (R&D) Ltd. et al. v. Apple Inc.*, No. 4:15-cv-03755 and the 2014 Litigations.

65. In addition, the claims of the '532 Patent are invalid under 35 U.S.C. §§ 102 and/or 103 in view of the prior art cited in Samsung's Invalidity Contentions served in *IXI Mobile (R&D) Ltd. et al. v. Samsung Electronics Co., Ltd. et al.*, No. 4:15-cv-03752 and the 2014 Litigations.

66. In addition, the claims of the '532 Patent are invalid under 35 U.S.C. § 112 because the claims do not particularly point out and distinctly claim the subject matter which the patentee regards as the invention. The claims of the '532 Patent include multiple claim terms that are means-plus-function limitations under pre-AIA 35 U.S.C. 112(6), but the specification fails to disclose structure corresponding to each of the claimed functions. Rather, at most, the specification discloses only generic computer hardware, such as PC, PDA, or cell phone hardware. These limitations are therefore invalid under pre-AIA 35 U.S.C. 112(2) as indefinite for failure to disclose adequate corresponding structure.

67. As an example, claim 32 of the '532 patent includes the limitations "router software component to transfer a plurality of data packets between the one or more devices connected to the one or more cellular networks and the one or more programmable devices connected to the wireless local area network by the cellular signals and the short-range radio signals," "interface software component to add a first network service software component to provide one or more network services to the wireless local area network," and "router software component to translate a first IP address in the plurality of public IP addresses to a second IP address in the plurality of private IP addresses." Each of these limitations is a means-plus-function limitation under pre-AIA 35 U.S.C. § 112(6), but the specification fails to disclose structure corresponding to the functions for each limitation.

68. The PTO found during re-examination of the '532 Patent that multiple claim limitations, including "router software component configured to transfer a plurality of data packets," "interface software component configured to add a first network service software component," and "router software component is configured to translate a first IP address in the plurality of public IP addresses to a second IP address in the plurality of IP addresses" were indefinite under pre-AIA 35 U.S.C. § 112(2). *See* Ex. H (Re-Examination No. 90/014,119, Office Action (November 7, 2019)); *see also* Ex. I (Re-Examination No. 90/014,119, Advisory Action (February 24, 2020)). IXI's claims later issued as a result of procedural rules barring consideration of indefiniteness during the re-examination, but IXI did not amend the claims to address their indefiniteness under pre-AIA 35 U.S.C. § 112(2). For the same reasons explained by the PTO during the re-examination, claim 32 is indefinite under pre-AIA 35 U.S.C. § 112(2).

69. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.

70. A judicial declaration is necessary and appropriate so that Apple may ascertain its rights regarding the '532 Patent.

71. Apple is entitled to a judicial declaration that the '532 Patent is invalid.

PRAYER FOR RELIEF

Apple respectfully requests the following relief:

A. That the Court enter a judgment declaring that Apple has not infringed and does not infringe any valid and enforceable claim of the '532 Patent;

B. That the Court enter a judgment declaring that the '532 Patent is invalid;

C. That the Court declare that this case is exceptional under 35 U.S.C. § 285 and award Apple its attorneys' fees, costs, and expenses incurred in this action;

D. That the Court award Apple any and all other relief to which Apple may show itself to be entitled; and

E. That the Court award Apple any other relief as the Court may deem just, equitable, and proper.

JURY DEMAND

Apple hereby demands a jury trial on all issues and claims so triable.

Dated: June 17, 2020

/s/ John M. Desmarais

John M. Desmarais (SBN 320875)
Emily H. Chen (SBN 302966)
DESMARAIS LLP
101 California Street, Suite 3070
San Francisco, California 94111
Telephone: (415) 573-1900
Facsimile: (415) 573-1901
jdesmarais@desmaraisllp.com
echen@desmaraisllp.com

Ameet A. Modi (*pro hac vice* forthcoming)
Cosmin Maier (*pro hac vice* forthcoming)
Brian Matty (*pro hac vice* forthcoming)
Franco Silletta (*pro hac vice* forthcoming)
Joze Welsh (*pro hac vice* forthcoming)
DESMARAIS LLP
230 Park Avenue, Suite 2600
New York, New York 10169
Telephone: (212)351-3400
Facsimile: (212) 351-3401
amodi@desmaraisllp.com
cmaier@desmaraisllp.com
bmatty@desmaraisllp.com
fsilletta@desmaraisllp.com
jwelsh@desmaraisllp.com

Attorneys for Apple Inc.