

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

ENOVSYYS LLC,

Plaintiff,

vs.

VERIZON COMMUNICATIONS, INC.,
VERIZON BUSINESS NETWORK
SERVICES, INC., VERIZON ENTERPRISE
SOLUTIONS, LLC, CELLCO
PARTNERSHIP D/B/A VERIZON
WIRELESS, INC., VERIZON DATA
SERVICES LLC, VERIZON BUSINESS
GLOBAL, LLC, AND VERIZON
SERVICES CORP.

Defendants.

CIVIL ACTION NO.: TBD

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff ENOVSYYS LLC (“Enovsys”), by and through their attorneys, files this Complaint for Patent Infringement and Demand for Jury Trial against Verizon Communications, Inc., Verizon Business Network Services, Inc., Verizon Enterprise Solutions, LLC, Cellco Partnership d/b/a Verizon Wireless, Inc., Verizon Data Services LLC, Verizon Business Global, LLC, and Verizon Services Corp. (collectively “Defendants” or “Verizon”) and alleges as follows:

THE PARTIES

1. Plaintiff Enovsys is a California limited liability company having a place of business at 269 South Beverly Drive, Suite 951, Beverly Hills, CA 90212.

2. Defendant Verizon Communications, Inc. is a Delaware corporation with its principal place of business at 1095 Avenue of the Americas, New York, NY 10036. Verizon Communications, Inc. has designated The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801 as its agent for service of process.

3. Defendant Verizon Business Network Services, Inc. is a Delaware corporation with its principal place of business at 22001 Loudoun County Parkway, Ashburn, Virginia 20147. Verizon Business Network Services, Inc. has designated CT Corporation System, 1999 Bryan St., Suite 900, Dallas, Texas 75201 as its agent for service of process.

4. Defendant Verizon Enterprise Solutions LLC is a Delaware limited liability company with its principal place of business at One Verizon Way, Basking Ridge, New Jersey 07920. Verizon Enterprise Solutions LLC has designated The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801 as its agent for service of process.

5. Defendant Cellco Partnership d/b/a Verizon Wireless, Inc. is a General Partnership with its principal place of business at One Verizon Way, Basking Ridge, New Jersey 07920. Cellco Partnership d/b/a Verizon Wireless, Inc. has designated The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801 as its agent for service of process.

6. Defendant Verizon Data Services LLC is a Delaware limited liability company with its principal place of business at 7701 East Telecom Parkway, B3E, Temple Terrace, Florida 33637. Verizon Data Services LLC has designated CT Corporation System, 1999 Bryan St., Suite 900, Dallas, Texas 75201 as its agent for service of process.

7. Defendant Verizon Business Global, LLC is a Delaware corporation with its principal place of business at One Verizon Way, Basking Ridge, New Jersey. Verizon Business Global, LLC may be served with process via its registered agent Corporation Trust Company, Corporation Trust Company Center, 1209 Orange Street, Wilmington, Delaware 19801.

8. Defendant Verizon Services Corp. is a Delaware corporation with its principal place of business at 1717 Arch Street, 21st Floor, Philadelphia, PA 19103. Verizon Services Corp. may be served with process via its registered agent CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201.

9. On information and belief, Verizon Business Network Services, Inc., Verizon Enterprise Solutions LLC, Cellco Partnership d/b/a Verizon Wireless, Inc., Verizon Data Services LLC, Verizon Business Global, LLC, and Verizon Services Corp. are direct or indirect subsidiaries of Verizon Communications Inc. On information and belief, Verizon Communications Inc. directs or controls the actions of these entities including by inducing and contributing to the actions complained of herein.

JURISDICTION AND VENUE

10. This action arises under the Patent Laws of the United States, 35 U.S.C. §§ 1 *et seq.*

11. This Court has federal question jurisdiction under 28 U.S.C. §§ 1331 and 1338.

12. This Court has personal jurisdiction over Defendants. Defendants conduct business and have committed acts of patent infringement and have induced acts of patent infringement by others in this district and have contributed to patent infringement by others in this district, the State of Texas, and elsewhere in the United States.

13. Venue is proper in this Court under 28 U.S.C. §§ 1391(b), (c) and 1400(b) in that this is the judicial district in which defendants have committed acts of infringement and have regular and established places of business.

BACKGROUND FACTS

ENOVSYS AND ITS INTELLECTUAL PROPERTY

14. Enovsys has engaged in consultancy and development in wireless technology and owns intellectual property related to such technology.

15. Enovsys is the assignee, and the sole and exclusive owner of all right, title and interest, in United States Patent Serial No. 7,925,273 (hereinafter “the ‘273 patent”), entitled “Method and apparatus for updating the location of a mobile device within a wireless communication network.”

16. The ‘273 patent was duly and legally issued by the United States Patent and Trademark Office (PTO) on April 12, 2011. The named inventors of the ‘273 patent are Mundi Fomukong and Denzil Willoughby Chesney. A true and correct copy of the ‘273 patent is attached as Exhibit A.

17. Enovsys is the assignee, and the sole and exclusive owner of all right, title and interest, in United States Patent Serial No. 8,706,078 (hereinafter “the ‘078 patent”), entitled “Location reporting satellite paging system with privacy feature.”

18. The ‘078 patent was duly and legally issued by the PTO on April 22, 2014. The named inventors of the ‘078 patent are Mundi Fomukong and Denzil Willoughby Chesney. A true and correct copy of the ‘078 patent is attached as Exhibit B.

19. Enovsys is the assignee, and the sole and exclusive owner of all right, title and interest, in United States Patent Serial No. 5,918,159 (hereinafter “the ‘159 patent”), entitled “Location reporting satellite paging system with optional blocking of location reporting.”

20. The ‘159 patent was duly and legally issued by the PTO on June 29, 1999. The named inventors of the ‘159 patent are Mundi Fomukong and Denzil Willoughby Chesney. A true and correct copy of the ‘159 patent is attached as Exhibit C.

21. Enovsys is the assignee, and the sole and exclusive owner of all right, title and interest, in United States Patent Serial No. 8,195,188 (hereinafter “the ‘188 patent”), entitled “Location reporting satellite paging system with optional blocking of location reporting.”

22. The ‘188 patent was duly and legally issued by the PTO on June 5, 2012. The named inventors of the ‘188 patent are Mundi Fomukong and Denzil Willoughby Chesney. A true and correct copy of the ‘188 patent is attached as Exhibit D.

23. The ‘078 patent relates to, *inter alia*, the use of portable devices and services that are commonly referred to as location based services (“LBS”) - services used to locate a portable device (e.g., for tracking or navigation purposes) or to provide the device holder with information relating to the holder’s current location (e.g., the names and locations of nearby stores, gas stations, restaurants, etc.). More specifically, the ‘078 patent relates to permitting a requester to obtain the location of a device (and a user of the device), or share that location with another requester, while denying a requester the ability to access the location - e.g., the inventions provide a novel and efficient means for selective disclosure of location to identified requesters submitting authorization codes required to access location information.

24. The ‘273 patent relates to, *inter alia*, methods of using time information to determine whether to establish or update device location information in a communication system.

25. The ‘188 patent relates to, *inter alia*, requiring a privacy profile command associated with a call receiver that can determine its position and selectively access/deny that position to non-emergency sources.

26. The ‘159 patent relates to, *inter alia*, a satellite paging communication system and a call receiver that can resolve a global position from satellites or ground based stations; the system able to deny the position of the call receiver to certain entities requesting that

information while blocking it to others via way of a location disclosure feature security setting provided by the user.

27. The '273 patent, the '159 patent, the '188 patent and the '078 patent are referred to collectively as the "Asserted Patents" or "Patents-In-Suit."

28. The Asserted Patents are valid and enforceable.

29. Enovsys has licensed the '159 patent, which is the parent application to the Asserted Patents, to Sprint Nextel Corporation and its subsidiaries.

30. Sprint Nextel Corporation and its subsidiaries were required to, and did, mark their LBS product offerings, giving notice of the '159 patent and its continuations, divisionals, and continuations-in-part, such as the Asserted Patents.

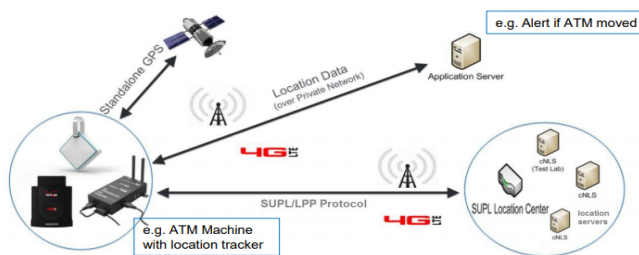
VERIZON AND ITS LOCATION BASED SERVICE OFFERINGS

31. On information and belief, Verizon is a leading provider of telecommunications services in the United States and the world, with its wireless networks and services covering most major metropolitan areas of the U.S.A. serving millions of wireless customers.

Verizon uses and offers services that use the Verizon Mobile Network connected to location-based services (the "Verizon network" or "Verizon's network"). Verizon's network locates and fulfils a request for the location of a mobile device from an application/device. See example Verizon publication of Verizon's 4G location network used by customers to securely locate mobile devices within the Verizon network, <https://opendevlopment.verizonwireless.com/content/dam/opendevlopment/pdf/LBSaGPS4GSUPLFeatureOverview.pdf>.

How does Verizon 4G location work?

When a device wants to locate its position, assistance is provided by Verizon Network to device during location search for faster time to fix and improve accuracy than un-assisted mode. Depending on the mode chosen by application/device, the final location fixes may be obtained from Verizon LBS servers in the network and provided to device or device itself can calculate fixes using assistance data from the network.



4G Location capabilities – To augment existing standalone GPS solution, 3gpp Release 9 LTE standards adds commercial MS-assisted and MS-based aGPS, Observed Time Difference of Arrival (OTDOA), and Enhanced Cell ID solutions (using 4G SUPL). OEMs can also use these and Hybrid (combination of methodology) to allow for better location for indoor and/or outdoor environments than standalone or legacy techniques (e.g. 3G-based, Cell ID, etc.).



Confidential and proprietary materials for authorized Verizon personnel and outside agencies only. Use, disclosure or distribution of this material is not permitted to any unauthorized persons or third parties except by written agreement.

3

A true and correct copy of the example Verizon publication on Verizon's 4G location based services is attached as Exhibit E.

32. Verizon offers to sell and sells LBS applications for use on its telecommunications networks that include privacy features that allow location information of a mobile device to be selectively denied. As an example, in a letter to the US House of Representatives on April 19, 2011, on page 1, Verizon's Senior Vice President for Legal Affairs, represented that, through Verizon's network, its customers can access "a wide array of our own and third-party location based applications and services." A true and correct copy of the April 19, 2011 letter to the US House of Representatives is attached as Exhibit F. Verizon then confirms on page 2 of Exhibit F that the privacy features it enforces within its network are to "limit the ability of Verizon Wireless and third-party applications and services to access, collect and use location information without the customer taking affirmative steps to enable such application and services. (This specific consent mechanism is further illustrated in the screen shot reproduced on page 5 of Exhibit F.)" To this date, Verizon continues to support and sell these features to its customers.

33. LBS applications offered by Verizon have included, but are not limited to, 4G Location services using assisted GPS or augmented GPS (aGPS, AGPS, or A-GPS) and the Family Locator application, now Smart Family.

34. The devices offered by Verizon that can implement LBS include, but are not limited to, smartphones and other devices associated with the Verizon network (“Accused Instrumentalities” or “Accused Products”).

35. Verizon has represented to the US House of Representatives (see Exhibit F) that protecting the privacy of its subscribers is of utmost importance and it has provided “effective tools allowing them to control how their information is used” within Verizon’s network. Consequently, in non-emergency situations, every location request for any of Verizon’s subscribers is checked against that subscriber’s privacy settings.

36. Emergency location determination methods disclose the location of a subscriber’s device to certain requesters in emergency situations even if the subscriber has not explicitly consented to disclosure.

37. In general, Verizon obtains a subscriber’s explicit consent by requiring him or her to opt in to each LBS application prior to sending any location data to the requesting application. Customers are able to revisit the location settings in the Verizon devices to review and change their selections.

38. Verizon has committed and continues to commit acts of infringement under 35 U.S.C. § 271. Verizon has made, used, sold, offered to sell, provided, caused to be used, instructed to use, directed to use, required to use, and/or import into the United States systems and/or devices that infringe the Asserted Patents literally or under the doctrine of equivalents, or both, or indirectly infringe the Asserted Patents.

39. Verizon has known about Enovsys' '159 patent family and its relation to Verizon's LBS technology since at least October 3, 2001, by way of a letter that was sent by the inventor of the '159 patent and later, discussions held with the inventor and key Verizon staff involved in developing Verizon's LBS offerings. A true and correct copy of the letter of October 3, 2001 to Verizon is attached as Exhibit G. An Enovsys letter of February 22, 2010 again notified Verizon of the existence of the '159 patent and other patented technology. A true and correct copy of the letter of February 22, 2010 to Verizon is attached as Exhibit H.

40. In the interest of providing detailed averments of infringement, Plaintiff has identified below at least one claim per patent to demonstrate infringement. The selection of claims, however, should not be considered limiting, and additional claims of the Patents-in-Suit that are infringed by Verizon will be disclosed in compliance with the Court's rules related to infringement contentions.

FIRST CAUSE OF ACTION:

INFRINGEMENT OF U.S. PATENT SERIAL NO. 7,925,273

41. Plaintiff repeats, re-alleges, and incorporates by reference as though fully set forth herein, the allegations contained in all preceding paragraphs of this Complaint.

42. The '273 patent is directed to patentable subject matter.

43. Plaintiff owns all rights, title, and interest in the '273 patent, and holds all substantial rights pertinent to this suit, including the right to sue and recover for all past infringement.

44. Verizon has directly infringed and/or indirectly infringed by inducement and/or contributory infringement, literally and/or under the doctrine of equivalents, the '273 patent under 35 U.S.C. § 271.

45. On information and belief, Verizon has directly infringed literally and/or under the doctrine of equivalents, at least claim 1 of the '273 patent by making, using selling, offering to sell and/or importing products implementing location based services.

46. On information and belief, Verizon has indirectly infringed at least claim 1 of the '273 patent by inducing others to infringe and/or contributing to the infringement of others, including third party users of such products in this judicial district and elsewhere in the United States. Specifically, on information and belief, it is alleged that Verizon has actively induced the infringement of at least claim 1 of the '273 patent at least by actively inducing the infringing use of such products by third party users in the United States. On information and belief, Plaintiff alleges that Verizon knew or should have known that its conduct would induce others to use the location-based services in a manner that infringes the '273 patent. On information and belief, Plaintiff alleges that third parties have infringed the '273 patent in violation of 35 U.S.C. § 271 by using the infringing products. On information and belief, Plaintiff alleges that Verizon through at least its website at <https://www.verizonwireless.com>, its online user manuals, marketing materials, and help materials actively induced its customers to infringe the '273 patent.

47. On information and belief, Plaintiff alleges that Verizon has contributorily infringed at least claim 1 of the '273 patent by importing, selling, and/or offering to sell within the United States infringing products that constitute a material part of the claimed invention and are not staple articles of commerce suitable for substantial non-infringing use. On information and belief, Plaintiff alleges that third parties have infringed the '273 patent in violation of 35 U.S.C. § 271(a) by using the infringing system and services.

48. Verizon directly infringes the ‘273 patent because it has made, used, sold, offered to sell, and/or imported the Accused Products into the United States.

49. Verizon has been and is directly and/or indirectly infringing the ‘273 patent literally and/or under the doctrine of equivalents by making, using, offering to sell, and/or selling LBS and devices that can implement LBS for use on Verizon’s networks.

50. As a non-limiting example, set forth below is a claim chart with a description of Defendants' infringement of claim 1 of the '273 patent by the Accused Instrumentalities.

Claim 1 of ‘273 Patent	Where found in the Accused Instrumentalities
<p>A method for updating a communication system with location information of a mobile remote unit comprising steps of:</p>	<p>Verizon uses and offers services that use a communication system. The system includes the Verizon Mobile Network connected to location-based services (the “Verizon network”). The system updates the location of a mobile device or mobile remote unit to provide services to requesters, see example of 4G network below supporting Secure User Plane Location (SUPL) technology.</p> <p>https://opendevelopment.verizonwireless.com/content/dam/opendevelopment/pdf/LBSaGPS4GSUPLFeatureOverview.pdf.</p> <p style="text-align: center;">FIG. A</p>

	<p>How does Verizon 4G location work?</p> <p>When a device wants to locate its position, assistance is provided by Verizon Network to device during location search for faster time to fix and improve accuracy than un-assisted mode. Depending on the mode chosen by application/device, the final location fixes may be obtained from Verizon LBS servers in the network and provided to device or device itself can calculate fixes using assistance data from the network.</p> <p>4G Location capabilities – To augment existing standalone GPS solution, 3gpp Release 9 LTE standards adds commercial MS-assisted and MS-based aGPS, Observed Time Difference of Arrival (OTDOA), and Enhanced Cell ID solutions (using 4G SUPL). OEMs can also use these and Hybrid (combination of methodology) to allow for better location for indoor and/or outdoor environments than standalone or legacy techniques (e.g. 3G-based, Cell ID, etc.).</p> <p>verizon <small>Confidential and proprietary materials for authorized Verizon personnel and outside agencies only. Use, disclosure or distribution of this material is not permitted to any unauthorized persons or third parties except by written agreement.</small></p>
<p>(a) receiving a request to provide the location information of the mobile remote unit to an authorized resource and verifying when the mobile remote unit last provided its location information to said communication system;</p>	<p>According to Verizon’s representation to the US House of Representatives in 2011, Exhibit F, Verizon authorizes location request from “third-party application developers and service providers to utilize Verizon Wireless-provided technologies to obtain customer location information only if they adhere to the same disclosure and consent requirements.” Therefore, to continue to fulfill its promise, the Verizon network is equipped to receive and identify location request from an authorized resource or third party that uses its network to seek for the location of a mobile device.</p> <p>In terms of “provide the location information of the mobile remote unit to an authorized resource,” the Verizon network continues to support application programming interfaces (APIs) which an</p>

application/mobile device can use to submit an authorized location request so it could be provided that information. See, <https://thingspace.verizon.com/documentation/apis/device-location/api-reference/get-device-locations-synchronous.html>, which shows support for the Get Device Location API used for such a purpose with mandated authorization code parameters in the “Header” and “Body” that authorizes a location request.

Also, according to Verizon, its LBS/AGPS platform locates mobile devices within the Verizon network supports SUPL technology. This standardized technology supports “SUPL Security Functions (SSF)” to authenticate and authorize a location request. See

http://www.openmobilealliance.org/release/SUPL/V1_0-20070615-A/OMA-AD-SUPL-V1_0-20070615-A.pdf. A true and correct copy of SUPL publication is attached as Exhibit I.

To verify when the mobile remote unit last provided its location information, Verizon continues to support several mechanisms to meet this requirement. As an example: (i) the Get Device Location API discussed above that returns the location of a mobile device also returns the time when that location was reported, see response field position data object -- positionData.time “The time that the location was reported”; and (ii) the Periodic Device Location API associated with Verizon’s network (see <https://thingspace.verizon.com/documentation/apis/device-location/api-reference/periodic-device-location.html>) includes a maxLocAge parameter “indicating maximum tolerable age, in seconds, of position estimates used for cached position fixes if another position was computed due to another request.” According to Verizon on maxLocAge “Note: If the field is present and a location within maxLocAge is available the value is returned. If not then a current location is triggered.” Further, the Periodic Device Location API also supports numberOfFixes, fixInterval, and startTime to periodically capture the location of a mobile device at

fix intervals in time over a time period. To this end, Verizon's network does verify when a mobile remote unit last provided its location information to the system, via way of timers or timestamps and maxLocAge, in order to confirm the age of the mobile device's location in its possession before seeking a new location.

Also, according to Verizon, its LBS/AGPS platform that locates mobile devices within the network supports SUPL technology. This standardized technology includes a QOP "Quality of Position" attribute which includes a "max location age" parameter transmitted to the server to verify if the QOP is satisfied. See

"http://www.openmobilealliance.org/release/SUPL/V1_0-20070615-A/OMA-AD-SUPL-V1_0-20070615-A.pdf". The OMA SUPL document also confirms that the location of a mobile device captured is returned in the Standard Location Immediate Answer "slia" depicted below and includes a time stamp associated with the position object, indicating when the location of a mobile device was updated.

	<pre> <slia ver="3.2.0"> <pos> <msid>461011334411</msid> <pd> <time utc_off="+0200">20020623134453</time> <shape> <EllipticalArea> <coord> <X>30 16 28.308N</X> <Y>45 15 33.444E</Y> </coord> <semiMajor>150</semiMajor> <semiMinor>275</semiMinor> </EllipticalArea> <alt>46</alt> <alt_acc>2</alt_acc> </shape> </pd> </pos> </slia> </pre>
<p>(b) determining that the location information of said mobile remote unit has not been established within said communication system for a time after said verification of (a);</p>	<p>Verizon’s communication system stores a time information when the location of a mobile device was last updated, and receives and processes maximum age information in a location request to determine whether the age of the last known location of a mobile device in its possession is inadequate or sufficiently recent.</p> <p>If it is determined that the requested maximum age of the location of a mobile device is not satisfied or sufficient time interval has not passed since the last location update, i.e., the location of the mobile device has not been established within the system for a time, the system asks for a location update. According to Verizon on maxLocAge “Note: If the field is present and a location within maxLocAge is available the</p>

	<p>value is returned. If not then a current location is triggered.”</p>
<p>(c) requesting that the location information of said mobile remote unit be established after said verification of (a) within said communication system; and</p>	<p>After the system evaluates time information related to stored location information and determines that the location information can or should be requested or updated, new location information can be requested within the system.</p> <p>According to Verizon on maxLocAge “Note: If the field is present and a location within maxLocAge is available the value is returned. If not then a current location is triggered.”</p>
<p>(d) establishing the location information of the mobile remote unit;</p>	<p>Verizon’s communication system, establishes the location of the mobile remote unit associated with the system.</p>
<p>(e) updating said communication system with the location information of said mobile remote unit; wherein the determining of said step (b) further comprises:</p>	<p>Verizon’s communication system then updates the network with the new location information when outdated location information is detected. Mobile devices, applications and servers that submit a location request are also updated with this information.</p>
<p>(i) maintaining a time stamp of when the location information of</p>	<p>The maximum age attribute “maxLocAge “ provides time information that should be checked against a</p>

<p>said mobile remote unit was last updated within said communication system;</p>	<p>time when the location of the mobile remote was last updated in order to determine if maximum age of the location of a mobile device is not satisfied or sufficient, so as to request a new one. As noted, at least Verizon network continues to maintain a time when the location of a mobile device was reported/updated, see position data object -- positionData.time “The time that the location was reported.”</p> <p>Also, time interval information to request a subsequent location serves as a time to establish that sufficient time has passed before requesting a new location.</p>
<p>(ii) using said time stamp to verify that a predetermined time interval has passed since the location information of said mobile remote unit was last updated within said communication system and returning a result of the verification to said communication system.</p>	<p>The time information providing an indication of the time, when location information was reported or updated, or the age of the location information, is inherently used to determine whether to verify that a predetermined time interval has passed. The results of the determination or verification is stored and returned to trigger a new or updated request.</p>

	<p>According to Verizon on maxLocAge “Note: If the field is present and a location within maxLocAge is available the value is returned. If not then a current location is triggered.”</p>
<p>As a result of supporting the above technologies, Verizon and third-party location applications associated with the system, e.g., Smart Family (previously Family Locator), VZ Navigator or navigation applications, FieldForce or tracking applications can employ these technologies to locate family members and employees associated with a Verizon account, see:</p> <ul style="list-style-type: none"> a) https://www.verizon.com/support/how-to-use-verizon-smart-family/#vsf-companion-app b) https://trackingapps.org/verizon-family-locator-app/ c) https://www.verizonwireless.com/support/family-locator-faqs/ d) https://www.verizon.com/support/how-to-use-verizon-smart-family/ 	

51. Verizon has been on notice of the ‘159 patent family, including all continuation applications, and their relation to Verizon’s LBS technology since at least October 3, 2001. See Exhibit G. Verizon was also put on notice from the letter of February 22, 2010 sent by Enovsys. See Exhibit H.

52. On information and belief, the infringement of the ‘273 patent is willful.

53. Plaintiff has suffered damages as a result of Verizon’s infringement of the ‘273 patent in an amount to be proven at trial.

SECOND CAUSE OF ACTION:

INFRINGEMENT OF U.S. PATENT SERIAL NO. 8,706,078

54. Plaintiff repeats, re-alleges, and incorporates by reference as though fully set forth herein, the allegations contained in all preceding paragraphs of this Complaint.

55. The '078 patent is directed to patentable subject matter.

56. Plaintiff owns all rights, title, and interest in the '078 patent, and holds all substantial rights pertinent to this suit, including the right to sue and recover for all past infringement.

57. Verizon has directly infringed and/or indirectly infringed by inducement and/or contributory infringement, literally and/or under the doctrine of equivalents, the '078 patent under 35 U.S.C. § 271.

58. On information and belief, Verizon has directly infringed literally and/or under the doctrine of equivalents, at least claim 1 of the '078 patent by making, using selling, offering to sell and/or importing products implementing location based services.

59. On information and belief, Verizon has indirectly infringed at least claim 1 of the '078 patent by inducing others to infringe and/or contributing to the infringement of others, including third party users of such products in this judicial district and elsewhere in the United States. Specifically, on information and belief, it is alleged that Verizon has actively induced the infringement of at least claim 1 of the '078 patent at least by actively inducing the infringing use of such products by third party users in the United States. On information and belief, Plaintiff alleges that Verizon knew or should have known that its conduct would induce others to use the location-based services in a manner that infringes the '078 patent. On information and belief, Plaintiff alleges that third parties have infringed the '078 patent in violation of 35 U.S.C. § 271 by using the infringing products. On information and belief, Plaintiff alleges that Verizon through at least its website at <https://www.verizonwireless.com>,

its online user manuals, marketing materials, and help materials actively induced its customers to infringe the '078 patent.

60. On information and belief, Plaintiff alleges that Verizon has contributorily infringed at least claim 1 of the '078 patent by importing, selling, and/or offering to sell within the United States infringing products that constitute a material part of the claimed invention and are not staple articles of commerce suitable for substantial non-infringing use. On information and belief, Plaintiff alleges that third parties have infringed the '078 patent in violation of 35 U.S.C. § 271(a) by using the infringing system and services.

61. Verizon directly infringes the '078 patent because it has made, used, sold, offered to sell, and/or imported the Accused Products into the United States.

62. Verizon has been and is directly and/or indirectly infringing the '078 patent literally and/or under the doctrine of equivalents by making, using, offering to sell, and/or selling LBS and devices that can implement LBS for use on Verizon's networks.

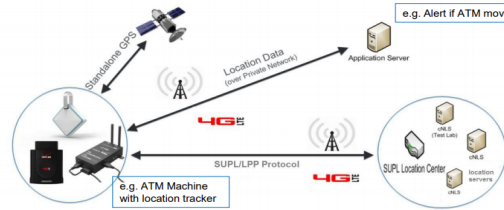
63. As a non-limiting example, set forth below is a claim chart with a description of Defendants' infringement of claim 1 of the '078 patent by the Accused Instrumentalities.

Claim 1 of '078 Patent	Where found in the Accused Instrumentalities
A method for limiting access to a current location information for a mobile remote unit comprising:	The Verizon network (Verizon Mobile Network connected to location-based services) offers a method where location applications/devices requesting access to the location of a mobile device associated with the network can be limited.

FIG. A

How does Verizon 4G location work?

When a device wants to locate its position, assistance is provided by Verizon Network to device during location search for faster time to fix and improve accuracy than un-assisted mode. Depending on the mode chosen by application/device, the final location fixes may be obtained from Verizon LBS servers in the network and provided to device or device itself can calculate fixes using assistance data from the network.



4G Location capabilities – To augment existing standalone GPS solution, 3gpp Release 9 LTE standards adds commercial MS-assisted and MS-based aGPS, Observed Time Difference of Arrival (OTDOA), and Enhanced Cell ID solutions (using 4G SUPL). OEMs can also use these and Hybrid (combination of methodology) to allow for better location for indoor and/or outdoor environments than standalone or legacy techniques (e.g. 3G-based, Cell ID, etc.).



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See

<https://opendevelopment.verizonwireless.com/content/dam/opendevelopment/pdf/LBSaGPS4GSUPLFeatureOverview.pdf>.

According to Verizon’s representation to the US House of Representatives in 2011, Exhibit F, the Verizon network **authorizes** location requests from “third-party application developers and service providers to utilize Verizon Wireless-provided technologies to obtain customer location information only if they adhere to the same disclosure and consent requirements.” In other

	<p>words, only those authorized can access the location of a Verizon customer.</p>
<p>receiving, from a source, a request to provide a current location for the mobile remote unit connected to and a part of a communication system;</p>	<p>To fulfill its promise to its customers, the Verizon network is always equipped to receive a request to provide a current location of a mobile remote unit from a source or third party.</p> <p>As an example, the Verizon's network, connected to the communication system, continues to support APIs which an application/mobile device can use to submit a request to provide the location of a mobile remote unit to the system. See https://thingspace.verizon.com/documentation/apis/device-location/api-reference/get-device-locations-synchronous.html, which shows support for the Get Device Location API.</p> <p>Also, Verizon's network LBS/AGPS platform, FIG. A, that locates a mobile device within the Verizon network is known to support SUPL technology. This standardized technology is configured with SUPL Security Functions (SSF) to receive and authenticate a request to provide the location of a mobile remote unit from a source or</p>

	<p>third party. See</p> <p>http://www.openmobilealliance.org/release/SUPL/V1_0-20070615-A/OMA-AD-SUPL-V1_0-20070615-A.pdf.</p>
<p>the communications system verifying, after receipt of the request, that an authorization code supplied by the source is the authorization code required from the source to receive the current location of the mobile remote unit;</p>	<p>As Verizon maintained to the US House of Representatives that only third-party application developers and service providers that are authorized to utilize Verizon Wireless-provided technologies to obtain customer location information can gain access, it verifies after receipt of each location request submitted to the Verizon network whether the authorization code submitted by the requesting source or third party is the actual authorization code required from the source to receive the location of the mobile remote unit. See</p> <p>https://thingspace.verizon.com/documentation/apis/device-location/api-reference/get-device-locations-synchronous.html, which shows support for the Get Device Location API used for such a purpose with mandated parameters/codes in the “Header” and “Body” that are used to verify whether the authorization codes in the location</p>

request is what is required. If such a verification is not successful, Verizon's network immediately returns an error. See

<https://thingspace.verizon.com/documentation/apis/device-location/api-reference/error-codes.html>.

Also, according to Verizon, its LBS/AGPS platform that locates mobile devices within the Verizon network supports SUPL technology. This standardized technology is configured to verify after receipt of a location request that the authorization codes submitted by the source or third party is the authorization code required from the source to receive the current location of the mobile remote, see "SUPL Security Functions (SSF)" used to verify that a location request is authorized. See

http://www.openmobilealliance.org/release/SUPL/V1_0-20070615-A/OMA-AD-SUPL-V1_0-20070615-A.pdf.

the communications system determining, after receipt of the request and the authorization code supplied by the source, whether a positioning disclosure feature for the mobile remote unit is either active or blocked by an operator of the mobile remote unit; and

According to Verizon's representation to the US House of Representatives in 2011, Exhibit F, even after Verizon "authorizes" third party application developers and service providers to request the location of a mobile device within the Verizon network, the "*Verizon Wireless customers also can control their location privacy settings on the Location Management website, which is accessible through their My Verizon online account website. Customers are able to view and edit their location settings for Verizon Wireless supported location-based services to which they subscribe.*"

The CAFC decision, 09-1167, <http://www.cafc.uscourts.gov/sites/default/files/opinions-orders/09-1167.pdf>, generally understood the allegations of infringement in view of the '078 parent patent as: "*The allegations of infringement are based on two inventions that use global positioning satellites ('GPS') and ground control stations to determine the physical location of mobile devices, like pagers and cellular telephones. Depending on the security settings chosen by the*

user, the invention selectively discloses the physical location of the mobile device to certain users or entities, while blocking disclosure to others. Entities that might request a mobile device's location include programs that provide driving directions, updates on local weather, and restaurant suggestions."

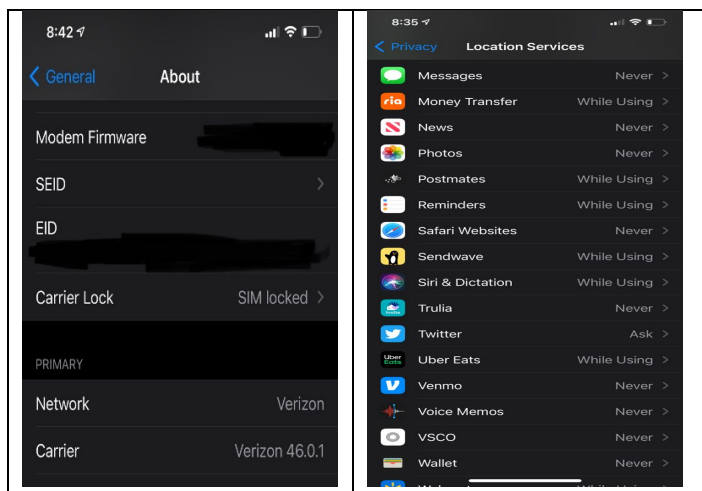
The user security settings is the positioning disclosure feature which the Verizon network continues to support till this date by providing a tool to its subscribers to activate/deactivate a consent security setting that should be checked before providing the location of the subscriber's mobile device to a requester/caller within the network. See Updating Consent API on: <https://thingspace.verizon.com/documentation/apis/device-location/api-reference/updating-consent.html>.

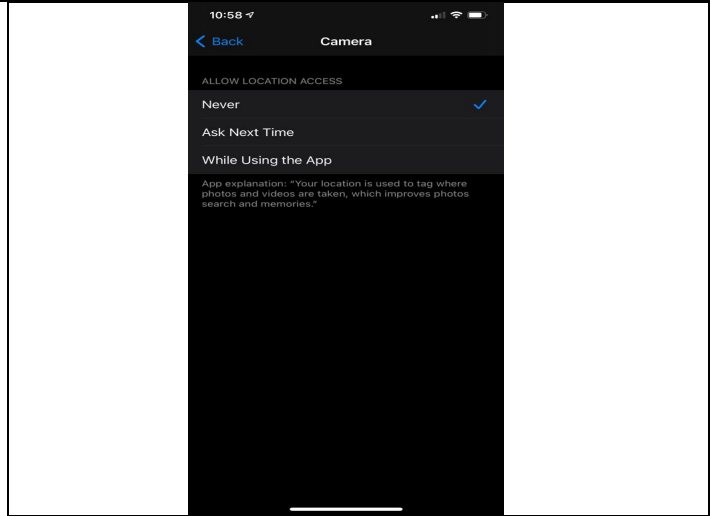
- **Consent:** An integer representing the customer consent of the device. Default value is 2 (only coarse location allowed):
 - 0 - all location requests are allowed (including precise & coarse location)
 - 1 - only precise location allowed
 - 2 - only coarse location allowed
 - 3 - all location requests are denied (including precise & coarse location)

Even on mobile handsets that Verizon offers to its subscribers using the Verizon network, Verizon represented to the US House of Representatives in 2011, Exhibit F, that “*Verizon Wireless requires device manufacturers and operating system providers to ship devices with the general location settings in the main menu turned off with respect to Verizon Wireless location-based services, and encourages these devices to be shipped in the off position with respect to third-party location based services that Verizon Wireless does not control. For example, we require that Verizon Wireless location based services are always turned off when the device is sold to the customer. This requires customers to affirmatively turn their location settings on by checking a box before any Verizon*

Wireless applications and services (or third-party applications and services) can use Verizon Wireless offered location-based services on devices. Customers can always revisit the location settings screen to review and change their selections.”

Verizon also provided examples to the US House of Representatives in 2011, and to this date, continues to support this feature on its mobile handset. See example below of a recent Verizon mobile handset:





Also, according to Verizon, its LBS/AGPS platform that locates mobile devices within the Verizon network supports SUPL technology which implements a “SUPL Privacy Function (SPF)” that adheres to the SUPL Enabled Terminal (SET) user privacy setting regardless of Network Initiated or SET services. See

http://www.openmobilealliance.org/release/SUPL/V1_0-20070615-A/OMA-AD-SUPL-V1_0-20070615-A.pdf. This standardized technology is configured with subscriber related privacy setting features that **shall** be applied prior to disclosing the location of a subscriber’s mobile device *“based on the received ms-id the H-SLP shall apply subscriber privacy against the client-id.”*

<p>the communications system denying access to the current location of the mobile remote unit to the source when the source has supplied the authorization code required to receive the current location and after determining the positioning disclosure feature is blocked.</p>	<p>The Verizon network then uses this subscriber settings (positioning disclosure feature) to deny access to the current location of a mobile remote unit even when the source supplies a valid authorization code required to receive the current location. As an example, Verizon’s network within its communication system will return a “consent check failed” error code to a source that has supplied a valid authorization code after it is determined that the positioning disclosure feature is blocked. See https://thingspace.verizon.com/documentation/apis/device-location/api-reference/error-codes.html.</p> <table border="1" data-bbox="732 1255 1414 1352"> <tr> <td data-bbox="732 1255 902 1352">400</td> <td data-bbox="902 1255 1073 1352">INVALID_PARAMETER</td> <td data-bbox="1073 1255 1243 1352">Consent check failed</td> <td data-bbox="1243 1255 1414 1352">The requested device is excluded from location services. You can send a POST /consents request to allow the device to be located</td> </tr> </table>	400	INVALID_PARAMETER	Consent check failed	The requested device is excluded from location services. You can send a POST /consents request to allow the device to be located
400	INVALID_PARAMETER	Consent check failed	The requested device is excluded from location services. You can send a POST /consents request to allow the device to be located		
<p>As a result, Verizon and third-party location applications associated with the system, e.g., Smart Family (previously Family Locator), VZ Navigator or navigation applications, FieldForce or tracking applications, can be authorized with relevant codes to submit an authorized request within Verizon’s network and then be denied access to the location of a Verizon subscriber’s mobile device after it is determined that the subscriber’s positioning disclosure feature is blocked.</p>					

64. Verizon has been on notice of the '159 patent family, including all continuation applications, and their relation to Verizon's LBS technology since at least October 3, 2001, and also, in the letter of February 22, 2010, sent by Enovsys.

65. On information and belief, the infringement of the '078 patent is willful.

66. Plaintiff has suffered damages as a result of Verizon's infringement of the '078 patent in an amount to be proven at trial.

THIRD CAUSE OF ACTION:

INFRINGEMENT OF U.S. PATENT SERIAL NO. 5,918,159

67. Plaintiff repeats, re-alleges, and incorporates by reference as though fully set forth herein, the allegations contained in all preceding paragraphs of this Complaint.

68. The '159 patent is directed to patentable subject matter.

69. Plaintiff owns all rights, title, and interest in the '159 patent, and holds all substantial rights pertinent to this suit, including the right to sue and recover for all past infringement.

70. Verizon has directly infringed and/or indirectly infringed by inducement and/or contributory infringement, literally and/or under the doctrine of equivalents, the '159 patent under 35 U.S.C. § 271.

71. On information and belief, Verizon has directly infringed literally and/or under the doctrine of equivalents, at least claim 1 of the '159 patent by making, using selling, offering to sell and/or importing products implementing location-based services.

72. On information and belief, Verizon has indirectly infringed at least claim 1 of the '159 patent by inducing others to infringe and/or contributing to the infringement of others,

including third party users of such products in this judicial district and elsewhere in the United States. Specifically, on information and belief, it is alleged that Verizon has actively induced the infringement of at least claim 1 of the '159 patent at least by actively inducing the infringing use of such products by third party users in the United States. On information and belief, Plaintiff alleges that Verizon knew or should have known that its conduct would induce others to use the location-based services in a manner that infringes the '159 patent. On information and belief, Plaintiff alleges that third parties have infringed the '159 patent in violation of 35 U.S.C. § 271 by using the infringing products. On information and belief, Plaintiff alleges that Verizon through at least its website at <https://www.verizonwireless.com>, its online user manuals, marketing materials, and help materials actively induced its customers to infringe the '159 patent.

73. On information and belief, Plaintiff alleges that Verizon has contributorily infringed at least claim 1 of the '159 patent by importing, selling, and/or offering to sell within the United States infringing products that constitute a material part of the claimed invention and are not staple articles of commerce suitable for substantial non-infringing use. On information and belief, Plaintiff alleges that third parties have infringed the '159 patent in violation of 35 U.S.C. § 271(a) by using the infringing system and services.

74. Verizon directly infringes the '159 patent because it has made, used, sold, offered to sell, and/or imported the Accused Products into the United States.

75. Verizon has been and is directly and/or indirectly infringing the '159 patent literally and/or under the doctrine of equivalents by making, using, offering to sell, and/or selling LBS and devices that can implement LBS for use on Verizon's networks.

76. As a non-limiting example, set forth below is a claim chart with a description of Defendants' infringement of claim 1 of the '159 patent by the Accused Instrumentalities.

Claim 1 of '159 Patent	Where found in the Accused Instrumentalities
<p>A satellite paging communication system with means to locate the global position of a of a call receiver unit comprising:</p>	<p>According to the CAFC, 09-1167, http://www.cafc.uscourts.gov/sites/default/files/opinions-orders/09-1167.pdf, “The '159 patent covers a system for determining the physical location, or global position, of a call receiver, such as a cellular telephone or pager, using a network of space satellites and ground stations.”</p> <p>Verizon supports use of a communication system, including the Verizon network (Verizon Mobile Network connected to location-based services) that allows for the global position of a call receiver (cellular phone or pager) to be determined, using a network of space satellites and ground station, see Exhibit E – page 3, below.</p> <p style="text-align: center;">FIG. A</p>

	<p>How does Verizon 4G location work?</p> <p>When a device wants to locate its position, assistance is provided by Verizon Network to device during location search for faster time to fix and improve accuracy than un-assisted mode. Depending on the mode chosen by application/device, the final location fixes may be obtained from Verizon LBS servers in the network and provided to device or device itself can calculate fixes using assistance data from the network.</p> <p>4G Location capabilities – To augment existing standalone GPS solution, 3gpp Release 9 LTE standards adds commercial MS-assisted and MS-based aGPS, Observed Time Difference of Arrival (OTDOA), and Enhanced Cell ID solutions (using 4G SUPL). OEMs can also use these and Hybrid (combination of methodology) to allow for better location for indoor and/or outdoor environments than standalone or legacy techniques (e.g. 3G-based, Cell ID, etc.).</p> <p><small>verizon Confidential and proprietary materials for authorized Verizon personnel and outside agencies only. Use, disclosure or distribution of this material is not permitted to any unauthorized persons or third parties except by written agreement.</small></p> <p>See</p> <p>https://opendevlopment.verizonwireless.com/content/dam/opendevlopment/pdf/LBSaGPS4GSUPLFeatureOverview.pdf</p> <p>f.</p>
<p>space satellites and terrestrial stations, some of which are adapted for the purpose of transmitting paging information and some of which, are adapted for the purpose of transmitting positioning information;</p>	<p>At least the communication system, FIG A, uses signals from satellites and terrestrial stations. Satellite positioning signals are used to calculate a global position associated with a Verizon mobile device and ground stations/towers are used to transmit paging information prior to locating or sending a message to any mobile device within the system.</p>
<p>ground control stations for processing the said information and</p>	<p>As depicted in FIG A, Verizon’s communication system also uses ground servers/towers to process</p>

<p>controlling the actions of the paging network;</p>	<p>information within the paging network that is transmitted to call receivers, such as a pager or cellular telephone.</p>																												
<p>the call receiver or pager having means to resolve a global position from satellites or earth based communication means;</p>	<p>Verizon confirmed in Exhibit E (page 5), that the positioning methods it uses to locate mobile phones include standalone GPS and or mobile station AGPS.</p> <p>Positioning methods</p> <table border="1"> <thead> <tr> <th>Positioning Methods</th> <th>Time to Fix (seconds) (67th- 95th percentile)</th> <th>Accuracy Error(meters) (67th-95th percentile)</th> <th>Dependency</th> </tr> </thead> <tbody> <tr> <td>Standalone GPS</td> <td>-Up to 500 seconds during cold start --1 second when tracking</td> <td>25-110</td> <td>A GPS receiver and clear line of sight required</td> </tr> <tr> <td>MS Based AGPS</td> <td>7.4-19.8</td> <td>42-103</td> <td>A GPS receiver and Network required</td> </tr> <tr> <td>MS Assisted GPS</td> <td>9.2-28.1</td> <td>65-165</td> <td>A GPS receiver and Network required</td> </tr> <tr> <td>OTDOA Only/ OTDOA + PRS Muting</td> <td>1.4-1.5</td> <td>250-350/ 235-270</td> <td>Purely Network-based</td> </tr> <tr> <td>ECID</td> <td>0.01-0.02</td> <td>500-950</td> <td>Purely Network-based</td> </tr> <tr> <td>CID*</td> <td>0.01-0.02</td> <td>Ave 1000m</td> <td>Purely Network-based (aka Coarse Location)</td> </tr> </tbody> </table> <p>Coarse location (Cell ID - ave range of 1000meters) for M2M/IoT devices is available through ThingSpace API. For more, visit https://thingspace.verizon.com/develop/apis/location</p> <p>verizon <small>Confidential and proprietary materials. Use authorized Verizon personnel and outside agencies only. Use, distribution or reproduction of this material is not permitted to any unauthorized persons or their parties without the written agreement.</small></p> <p>Accordingly, a Verizon call receiver, cellular phone or pager, includes means to resolve a global position from satellites (GPS) or earth-based communication means (A-GPS or other ground-based techniques).</p>	Positioning Methods	Time to Fix (seconds) (67 th - 95 th percentile)	Accuracy Error(meters) (67 th -95 th percentile)	Dependency	Standalone GPS	-Up to 500 seconds during cold start --1 second when tracking	25-110	A GPS receiver and clear line of sight required	MS Based AGPS	7.4-19.8	42-103	A GPS receiver and Network required	MS Assisted GPS	9.2-28.1	65-165	A GPS receiver and Network required	OTDOA Only/ OTDOA + PRS Muting	1.4-1.5	250-350/ 235-270	Purely Network-based	ECID	0.01-0.02	500-950	Purely Network-based	CID*	0.01-0.02	Ave 1000m	Purely Network-based (aka Coarse Location)
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<p>the system divulging to certain or all callers the global location of a callee in possession of the said call receiver white blocking such</p>	<p>According to Verizon to the US house of Representatives in 2011, Exhibit F, even after Verizon “authorizes” third party application developers and service providers to request the</p>																												

<p>information from being divulged to certain or all other callers.</p>	<p>location of a mobile device within the Verizon network, the “<i>Verizon Wireless customers also can control their location privacy settings on the Location Management website, which is accessible through their My Verizon online account website. Customers are able to view and edit their location settings for Verizon Wireless supported location-based services to which they subscribe.</i>”</p> <p>To provide global location to certain or all callers while blocking to certain or all other callers, Verizon at least Supports:</p> <p>(i) Get Device Location which requires advanced authorization codes to be verified https://thingspace.verizon.com/documentation/apis/device-location/api-reference/get-device-locations-synchronous.html;</p> <p>(ii) (ii) SUPL (Secure User Plane Location) technology and “SUPL Security Functions (SSF) that requires authorization codes to access server location information. See </p>
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20070615-A.pdf;

(iii) Consent check tools which a subscriber activate/deactivate a consent security setting at any time so even a previously authorized caller is temporarily denied access to the location of their mobile device. See

<https://thingspace.verizon.com/documentation/apis/device-location/api-reference/updating-consent.html>;

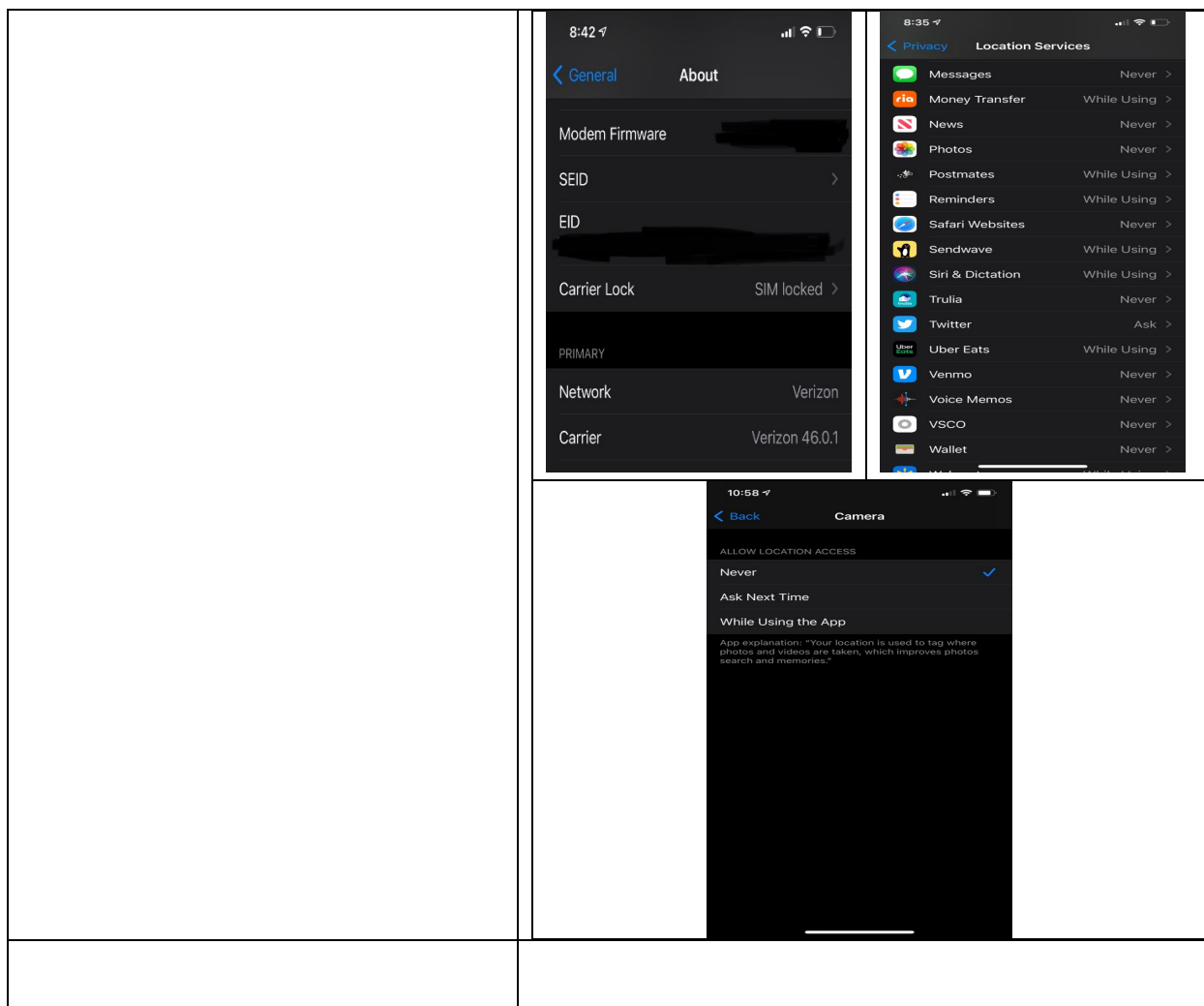
(iv) a SUPL (Secure User Plane Location) technology which implements a “SUPL Privacy Function (SPF)” that adheres to the SUPL Enabled Terminal (SET) user privacy setting regardless of Network Initiated or SET services. See

[http://www.openmobilealliance.org/release/SUPL/V1_0-20070615-A/OMA-AD-SUPL-V1_0-](http://www.openmobilealliance.org/release/SUPL/V1_0-20070615-A/OMA-AD-SUPL-V1_0-20070615-A.pdf)

20070615-A.pdf;

(v) As represented to the House of Representatives, Exhibit F, Verizon mandates all its handset manufacturers to ship customer mobile

devices with privacy settings that subscribers can use to selectively allow/deny access to location information “*Verizon Wireless requires device manufacturers and operating system providers to ship devices with the general location settings in the main menu turned off with respect to Verizon Wireless location-based services, and encourages these devices to be shipped in the off position with respect to third-party location based services that Verizon Wireless does not control. For example, we require that Verizon Wireless location based services are always turned off when the device is sold to the customer. This requires customers to affirmatively turn their location settings on by checking a box before any Verizon Wireless applications and services (or third-party applications and services) can use Verizon Wireless offered location-based services on devices. Customers can always revisit the location settings screen to review and change their selections.*” See most recent example below of such a Verizon handset or mobile device:



77. Verizon has been on notice of the ‘159 patent family, including all continuation applications, and their relation to Verizon’s LBS technology since at least October 3, 2001, and also, in the letter of February 22, 2010, sent by Enovsys.

78. On information and belief, the infringement of the ‘159 patent is willful.

79. Plaintiff has suffered damages as a result of Verizon’s infringement of the ‘159 patent in an amount to be proven at trial.

FOURTH CAUSE OF ACTION:

INFRINGEMENT OF U.S. PATENT SERIAL NO. 8,915,188

80. Plaintiff repeats, re-alleges, and incorporates by reference as though fully set forth herein, the allegations contained in all preceding paragraphs of this Complaint.

81. The '188 patent is directed to patentable subject matter.

82. Plaintiff owns all rights, title, and interest in the '188 patent, and holds all substantial rights pertinent to this suit, including the right to sue and recover for all past infringement.

83. Verizon has directly infringed and/or indirectly infringed by inducement and/or contributory infringement, literally and/or under the doctrine of equivalents, the '188 patent under 35 U.S.C. § 271.

84. On information and belief, Verizon has directly infringed literally and/or under the doctrine of equivalents, at least claim 11 of the '188 patent by making, using selling, offering to sell and/or importing products implementing location based services.

85. On information and belief, Verizon has indirectly infringed at least claim 11 of the '188 patent by inducing others to infringe and/or contributing to the infringement of others, including third party users of such products in this judicial district and elsewhere in the United States. Specifically, on information and belief, it is alleged that Verizon has actively induced the infringement of at least claim 11 of the '188 patent at least by actively inducing the infringing use of such products by third party users in the United States. On information and belief, Plaintiff alleges that Verizon knew or should have known that its conduct would induce others to use the location-based services in a manner that infringes the '188 patent. On information and belief, Plaintiff alleges that third parties have infringed the '188 patent in violation of 35 U.S.C. § 271 by using the infringing products. On information and belief, Plaintiff alleges that Verizon through at least its website at <https://www.verizonwireless.com>,

its online user manuals, marketing materials, and help materials actively induced its customers to infringe the ‘188 patent.

86. On information and belief, Plaintiff alleges that Verizon has contributorily infringed at least claim 11 of the ‘188 patent by importing, selling, and/or offering to sell within the United States infringing products that constitute a material part of the claimed invention and are not staple articles of commerce suitable for substantial non-infringing use. On information and belief, Plaintiff alleges that third parties have infringed the ‘188 patent in violation of 35 U.S.C. § 271(a) by using the infringing system and services.

87. Verizon directly infringes the ‘188 patent because it has made, used, sold, offered to sell, and/or imported the Accused Products into the United States.

88. Verizon has been and is directly and/or indirectly infringing the ‘188 patent literally and/or under the doctrine of equivalents by making, using, offering to sell, and/or selling LBS and devices that can implement LBS for use on Verizon’s networks.

89. As a non-limiting example, set forth below is a claim chart with a description of Defendants' infringement of claim 11 of the ‘188 patent by the Accused Instrumentalities.

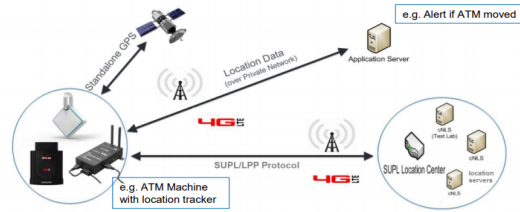
Claim 11 of ‘188 Patent	Where found in the Accused Instrumentalities
A call receiver capable of communicating with a pool of authorized communication resources, comprising:	A call receiver (cellular phone or pager) within Verizon’s network is in communication with authorized resources (location applications, SUPL servers, Gateway, etc.) to determine the global

position of the call receiver, see Exhibit E – page 3, below.

FIG. A

How does Verizon 4G location work?

When a device wants to locate its position, assistance is provided by Verizon Network to device during location search for faster time to fix and improve accuracy than un-assisted mode. Depending on the mode chosen by application/device, the final location fixes may be obtained from Verizon LBS servers in the network and provided to device or device itself can calculate fixes using assistance data from the network.



4G Location capabilities – To augment existing standalone GPS solution, 3gpp Release 9 LTE standards adds commercial MS-assisted and MS-based aGPS, Observed Time Difference of Arrival (OTDOA), and Enhanced Cell ID solutions (using 4G SUPL). OEMs can also use these and Hybrid (combination of methodology) to allow for better location for indoor and/or outdoor environments than standalone or legacy techniques (e.g. 3G-based, Cell ID, etc.).



Confidential and proprietary materials for authorized Verizon personnel and outside agencies only. Use, disclosure or distribution of this material is not permitted to any unauthorized persons or third parties except by written agreement.

See

<https://opendevelopment.verizonwireless.com/content/dam/opendevelopment/pdf/LBSaGPS4GSUPLFeatureOverview.pdf>.

a control unit acquiring and providing information regarding a position of the the call receiver to the pool of authorized communication resources, the call receiver including an input and a privacy profile command to selectively deny or selectively accept to provide access to the

A Verizon call receiver (pager or cellular phone) includes at least a CPU that acquires information about the position of the call receiver and provides it to authorized Verizon network resources connected to the call receiver.

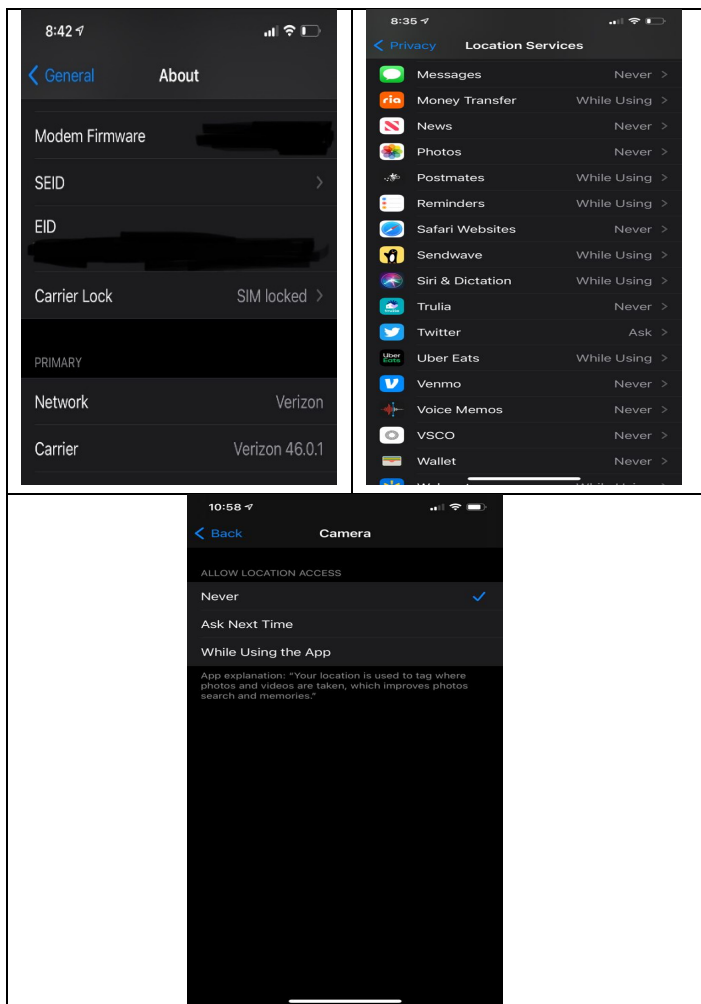
Verizon represented to the US House of Representatives on 04/9/2011, Exhibit F, that the Verizon network authorizes “third-party application

<p>position of the call receiver to less than all authorized communication resources.</p>	<p>developers and service providers that utilize Verizon Wireless-provided technologies to obtain customer location information only if they adhere to the same disclosure and consent requirements.” Accordingly, every third-party application and service that is connected Verizon’s network either via the call receiver itself or directly to the gateway to receive the location of the call receiver has to be authorized, signed, and/or certified in advanced to access that information within the system.</p> <p>As to the call receiver including an input and a privacy profile command to selectively deny or selectively accept to provide access to the position of the call receiver to less than all authorized communication resources, Verizon represented to the US House of Representatives in 2011, Exhibit F, that it supports use of privacy settings/commands to selectively accept/deny access of the location of a mobile device on all its mobile handsets that are location enabled “<i>Verizon Wireless requires device manufacturers and operating system providers to ship devices with the</i></p>
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general location settings in the main menu turned off with respect to Verizon Wireless location-based services, and encourages these devices to be shipped in the off position with respect to third-party location based services that Verizon Wireless does not control. For example, we require that Verizon Wireless location based services are always turned off when the device is sold to the customer. This requires customers to affirmatively turn their location settings on by checking a box before any Verizon Wireless applications and services (or third-party applications and services) can use Verizon Wireless offered location-based services on devices. Customers can always revisit the location settings screen to review and change their selections.”

Verizon provided explicit working examples to the House of Representative in 2011 and till this date, continues to support this feature on its handset. See example below of a recent Verizon mobile call receiver including an input and a privacy profile command/setting to selectively deny or selectively

accept to provide access to the position of the call receiver to authorized location applications such as Messages, Camera, etc.



Verizon also supports use of a consent setting or privacy profile command via an API which can be invoked from a Verizon call receiver to selectively deny or selectively accept to provide access to the position of the call receiver at any time “on the

	<p><i>Location Management website, which is accessible through their My Verizon online account website”</i></p> <p>See Updating Consent API on:</p> <p>https://thingspace.verizon.com/documentation/apis/device-location/api-reference/updating-consent.html.</p> <ul style="list-style-type: none">• Consent: An integer representing the customer consent of the device. Default value is 2 (only coarse location allowed):<ul style="list-style-type: none">◦ 0 - all location requests are allowed (including precise & coarse location)◦ 1 - only precise location allowed◦ 2 - only coarse location allowed◦ 3 - all location requests are denied (including precise & coarse location) <p>From the above disclosure, Verizon continues to configure and offer for sale, a call receiver including an input and a privacy profile command to selectively deny or selectively accept to provide access to the position of the call receiver.</p>

90. Verizon has been on notice of the ‘159 patent family, including all continuation applications, and their relation to Verizon’s LBS technology since at least October 3, 2001, and also, in the letter of February 22, 2010, sent by Enovsys.

91. On information and belief, the infringement of the ‘188 patent is willful.

92. Plaintiff has suffered damages as a result of Verizon's infringement of the '188 patent in an amount to be proven at trial.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff Enovsys prays for relief as follows:

A judgment declaring that Defendants have directly and/or indirectly infringed one or more claims of the Asserted Patents in violation of 35 U.S.C. § 271.

1. A judgment, pursuant to 35 U.S.C. § 284, awarding Enovsys damages adequate to compensate Enovsys for Defendants' infringement of the Asserted Patents, in an amount to be determined at trial;

2. An order, pursuant to 35 U.S.C. § 284, finding that Defendants' infringement has been willful and deliberate and awarding to Enovsys up to treble damages;

3. A judgment, pursuant to 35 U.S.C. § 284, awarding Enovsys interest on the damages and its costs incurred in this action;

4. An award of pre-judgment and post-judgment interest and costs to Enovsys pursuant to 35 U.S.C. § 284;

5. An order, pursuant to 35 U.S.C. § 285, finding that this is an exceptional case and awarding to Enovsys its reasonable attorneys' fees incurred in this action; and

6. For other such relief as the court deems just and proper.

JURY DEMAND

Plaintiff demands a trial by jury on all issues triable as such.

Respectfully Submitted,

Dated: August 20, 2021

ZHEN LAW FIRM

By: /s/ Chris J. Zhen

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