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

FLEET CONNECT SOLUTIONS LLC, Plaintiff, v. RIVIAN AUTOMOTIVE, INC., Defendant.	Civil Action No.: 6:23-cv-00623-ADA **JURY TRIAL DEMANDED**

SECOND AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Fleet Connect Solutions LLC ("Fleet Connect") files this Second Amended Complaint ("SAC") against Rivian Automotive, Inc. ("Rivian" or "Defendant") alleging, based on its own knowledge as to itself and its own actions, and based on information and belief as to all other matters, as follows:

NATURE OF THE ACTION

1. This is a patent infringement action to stop Defendant's infringement of the following United States Patents (collectively, the "Asserted Patents"), copies of which are attached hereto as **Exhibit A**, **Exhibit B**, **Exhibit C**, **Exhibit D**, **Exhibit E**, **Exhibit F**, and **Exhibit G** respectively:

	U.S. Patent No.	Title
A.	7,206,837	Intelligent trip status notification
B.	7,058,040	Channel Interference Reduction
C.	8,494,581	System and methods for management of mobile field assets via wireless handheld devices
D.	7,260,153	Multi Input Multi Output Wireless Communication Method and Apparatus Providing Extended Range and Extended Rate Across Imperfectly Estimated Channels
E.	7,656,845	Channel Interference Reduction
F.	7,742,388	Packet Generation Systems and Methods
G.	6,941,223	Method and system for dynamic destination routing

2. Plaintiff seeks injunctive relief and monetary damages.

PARTIES

3. Plaintiff is a limited liability company formed under the laws of Texas with its registered office address located in Austin, Texas.

4. On information and belief, Defendant is a corporation organized under the laws of the State of Delaware with its principal place of business located at 14600 Myford Road, Irvine, California 92606.

5. Defendant may be served through its registered agent for service in Delaware, The Corporation Trust Company, located at Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801.

JURISDICTION AND VENUE

6. Fleet Connect repeats and re-alleges the allegations in Paragraphs above as though fully set forth in their entirety.

7. This is an action for infringement of a United States patent arising under 35 U.S.C. §§ 271, 281, and 284–85, among others. This Court has subject matter jurisdiction of the action under 28 U.S.C. § 1331 and § 1338(a).

8. Venue is proper against Defendant in this District pursuant to 28 U.S.C. § 1400(b) because it maintains an established and regular place of business in this District and has committed acts of patent infringement in this District. *See In re: Cray Inc.*, 871 F.3d 1355, 1362- 1363 (Fed. Cir. 2017). Defendant has an office at 622 Morrow St, Austin, Texas 78752 where it sells, offers for sale, uses, services, and delivers the Accused Products.

9. Defendant is subject to this Court's specific and general personal jurisdiction under due process and/or the Texas Long Arm Statute due at least to Defendant's substantial business in this judicial district, including: (i) at least a portion of the infringements alleged herein; and (ii)

regularly doing or soliciting business, engaging in other persistent courses of conduct, or deriving substantial revenue from goods and services provided to individuals in Texas and in this district.

10. Specifically, Defendant intends to do and do business in, have committed acts of infringement in, and continue to commit acts of infringement in this District directly, and offers their services, including those accused of infringement here, to customers and potential customers located in Texas, including in the Western District of Texas.

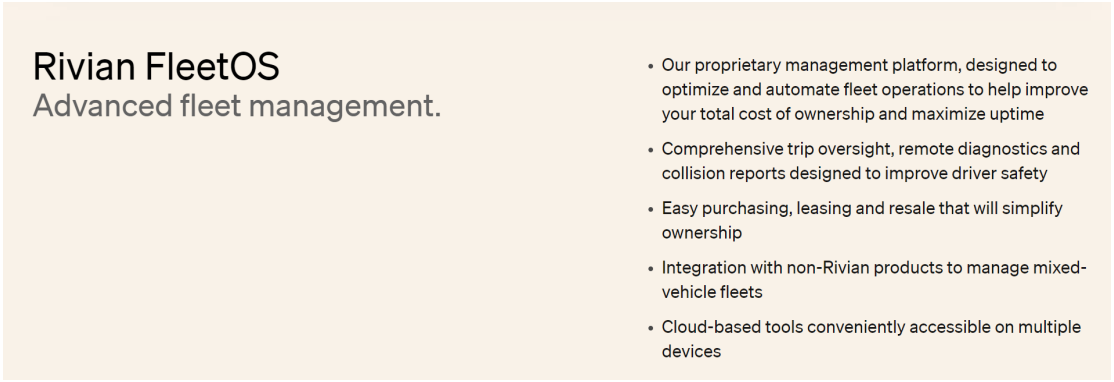
11. Defendant commits acts of infringement from this District, including, but not limited to, use of the Accused Products and inducement of third parties to use the Accused Products.

THE ASSERTED PATENTS AND ACCUSED PRODUCTS

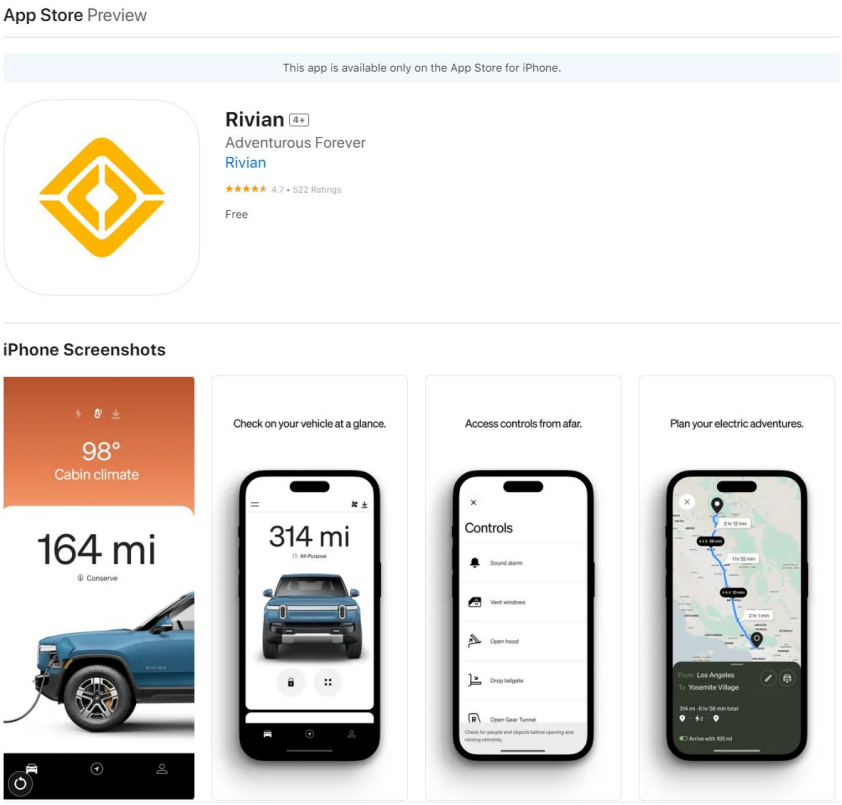
12. Fleet Connect repeats and re-alleges the allegations in Paragraphs above as though fully set forth in their entirety.

13. Defendant uses, causes to be used, provides, supplies, or distributes one or more computing devices, including, but not limited to, the R1T, R1S, RCV, and EDV (and any and all predecessor and successor models, names, or releases)[1] with Fleet OS, the Rivian Vehicle Care System, Driver+, Rivian Cloud, Rivian navigation systems, and/or Rivian's mobile apps, and back end servers, computers, and databases servicing those functionalities (collectively, the "Accused Products").

[1] Rivian unveiled the R1T under the working name A1T in May 2018. The A1T was renamed the R1T in November 2018. *See* https://electrek.co/2018/05/24/rivian-all-electric-pickup-truck-price-450-miles-range-old-mitsubishi-plant/. The R1S, RCV, and EDV are all based on the same platform. *See* https://en.wikipedia.org/wiki/Rivian_EDV#History (the EDV uses the RCV (Rivian Commercial Vehicle) platform, which is derived from the R1 platform that underpins the manufacturer's R1T pickup truck and R1S sport-utility vehicles[.]").



Source: https://rivian.com/fleet



Source: https://apps.apple.com/us/app/rivian/id1570215232

What features are included in Rivian Driver+?

Driver+ features are standard on every Rivian vehicle. Some may be introduced through over-the-air software updates following start of production, including Lane Change Assist and Trailer Assist. Driver+ is designed to support drivers and does not replace their attention, judgment, and need to control the vehicle.

Driving Assist: Help with the manual driving tasks when you want it.

- Highway Assist: Automatic steering, braking and acceleration on select highways while engaged.
- Adaptive Cruise Control: Set your speed and automatically accelerate or brake, adjusting speed to keep an appropriate distance from vehicles in front of you.
- Lane Change Assist: Assisted lane changes on the highway.

Active Safety Assist: Collision warning, alerts and preventative action.

Lane Safety

- Lane Keep Assist: Helps steer you back into your lane if you unintentionally drift close to or over a lane marker without a turn signal.
- Lane Departure Warning: Warns you if you drift too close or cross lane markers without a turn signal on.
- Blind Spot Warning: Detects vehicles in your blind spots and warns you if you indicate with your turn signal that you are going to move into the occupied lane.

Light Safety

- Automatic High Beams: Automatically switches the headlights from high to low beams when a vehicle is detected ahead.

Parking and reverse

- Rear Cross-Traffic Warning: Alerts you to traffic and people approaching from the side when backing up.
- Park Assist: A 360° detection system designed to help sense and alert you to objects.
- Trailer Assist: Helps with reverse maneuvers while you have a trailer attached.

Collision Mitigation

- Forward Collision Warning: Warns you of potential collisions with people and cars ahead.
- Automatic Emergency Braking: Applies the brakes to help mitigate or prevent a collision.
- Dynamic Brake Support: Supports your braking to help mitigate or prevent a collision.

Learn more about Driver+ in the R1T and the R1S.

Source: https://rivian.com/support/article/what-features-are-included-in-rivian-driver

> Rivian Remote Care enables us to perform comprehensive diagnostics from afar through our connected vehicle platform. Most issues can be identified proactively thanks to our suite of onboard sensors and associated predictive algorithms. We can often notify you before you even sense a problem.

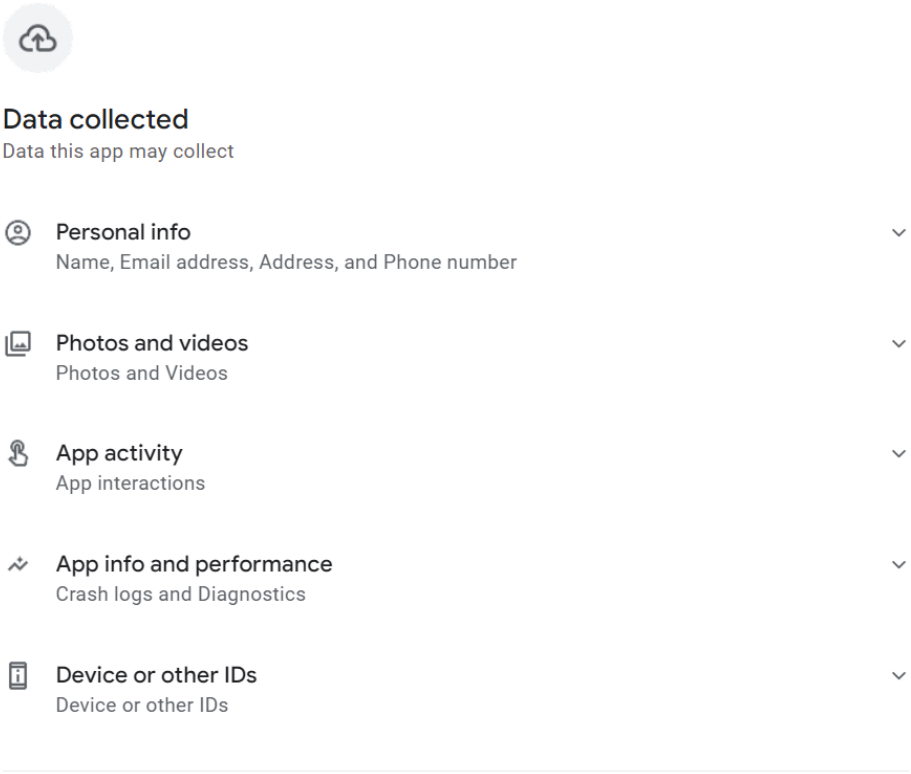
Source: https://stories.rivian.com/rivian-service

What is FleetOS?

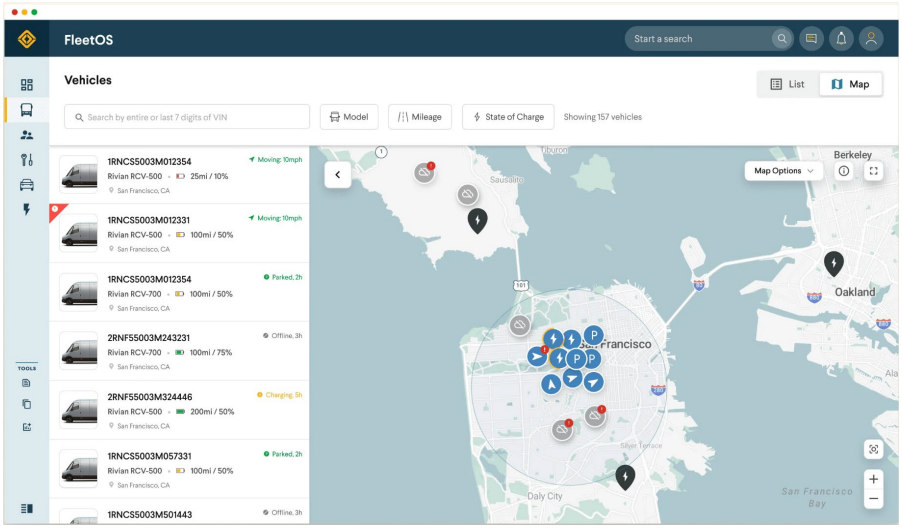
Rivian FleetOS is our clean sheet, fully integrated fleet management platform. It features everything you need to manage your vehicles with easy-to-use tools and powerful dashboards that offer insights about the health, performance, service, charging and utilization of fleets at any scale.

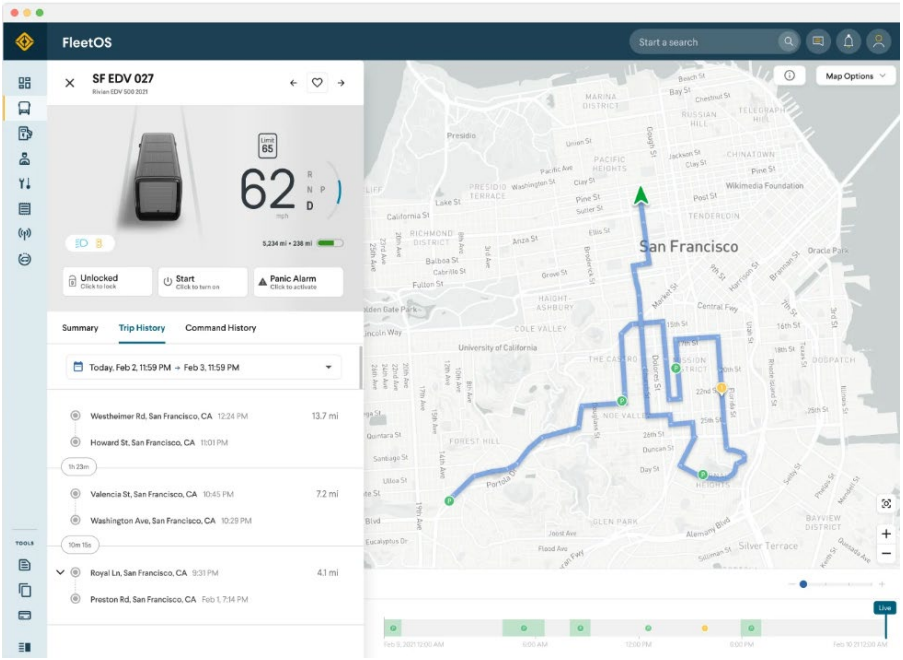
Our fleet management platform enables fleet managers to operate a safe, cost-effective fleet with ease.

Source: https://rivian.com/support/article/what-is-fleetos



Source: https://play.google.com/store/apps/datasafety?id=com.rivian.android.consumer&hl=en_US&gl=US





Source: https://rivian.com/fleet

1 **Identify**

We'll either proactively notify you of an issue or you can contact us directly through your app by calling our Rivian Service Team 24/7, or your Rivian Guide. Next, we'll set the optimal repair plan.

Source: https://stories.rivian.com/rivian-service

What is FleetOS? −

Rivian FleetOS is our clean sheet, fully integrated fleet management platform. It features everything you need to manage your vehicles with easy-to-use tools and powerful dashboards that offer insights about the health, performance, service, charging and utilization of fleets at any scale.

Our fleet management platform enables fleet managers to operate a safe, cost-effective fleet with ease.

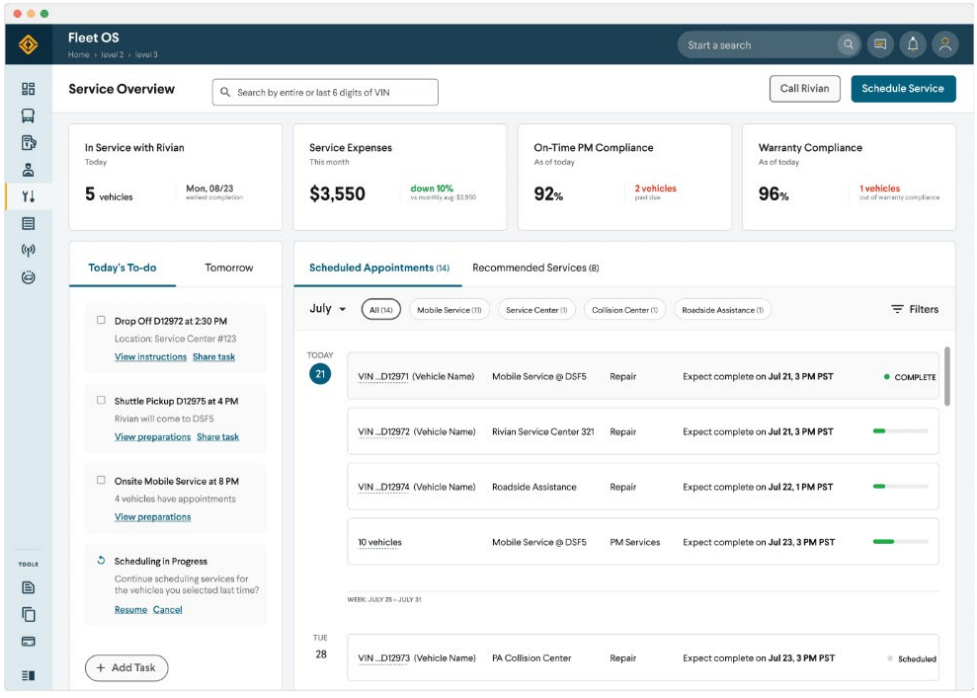
Source: https://rivian.com/support/article/what-is-fleetos

Rivian Ecosystem

Simplifying electrification at scale.

Our integrated ecosystem starts with Rivian FleetOS, our proprietary platform designed to help fleets achieve maximum efficiency, safety and functionality. FleetOS unifies full fleet telematics, charging, maintenance, purchasing and resale into a single platform. Our energy and charging solutions are built specifically for commercial customers' needs. All of our products are backed by our 24/7 support team including Rivian Mobile Service and our nationwide network of Rivian Service Centers. By integrating the entire fleet experience, Rivian is able to reduce the total cost of fleet ownership to levels unmatched in the industry.

Source: https://rivian.com/fleet



Source: https://rivian.com/fleet

14. The Accused Products perform wireless communications and methods associated with performing and/or implementing wireless communications including, but not limited to, wireless communications and methods pursuant to various protocols and implementations, including, but not limited to, Bluetooth, IEEE 802.11, and LTE protocols and various subsections thereof, including, but not limited to, 802.11ac, 802.11b, and 802.11n.

15. The wireless communications perform and/or implemented by the Accused Products, among other things, transmit data over various media, compute time slot channels, generate packets for network transmissions, perform or cause to be performed error estimation in orthogonal frequency division multiplexed ("OFDM") receivers, and various methods of processing OFDM symbols.

16. Defendant was notified that the Accused Products infringe the Asserted Patents in April of 2023.

17. For these reasons and the additional reasons detailed below, the Accused Products practice at least one claim of each of the Asserted Patents.

COUNT I: INFRINGEMENT OF UNITED STATES PATENT NO. 7,206,837

18. Fleet Connect repeats and re-alleges the allegations in the Paragraphs above as though fully set forth in their entirety.

19. U.S. Patent No. 7,206,837 (the "'837 patent") was issued on April 17, 2007, after full and fair examination by the United States Patent and Trademark Office ("USPTO") of Application No. 10/287,151, which was filed on November 4, 2002. A true and correct copy of the '837 patent is attached as Ex. A.

20. The claims of the '837 patent are not directed to an abstract idea and are not limited to

well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that improve upon the function and operation of voice and data communications systems.

21. The written description of the ’837 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

22. Fleet Connect owns all substantial rights, interest, and title in and to the ’837 patent, including the sole and exclusive right to prosecute this action and enforce the ’837 patent against infringers and to collect damages for all relevant times.

23. Fleet Connect or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the ’837 patent.

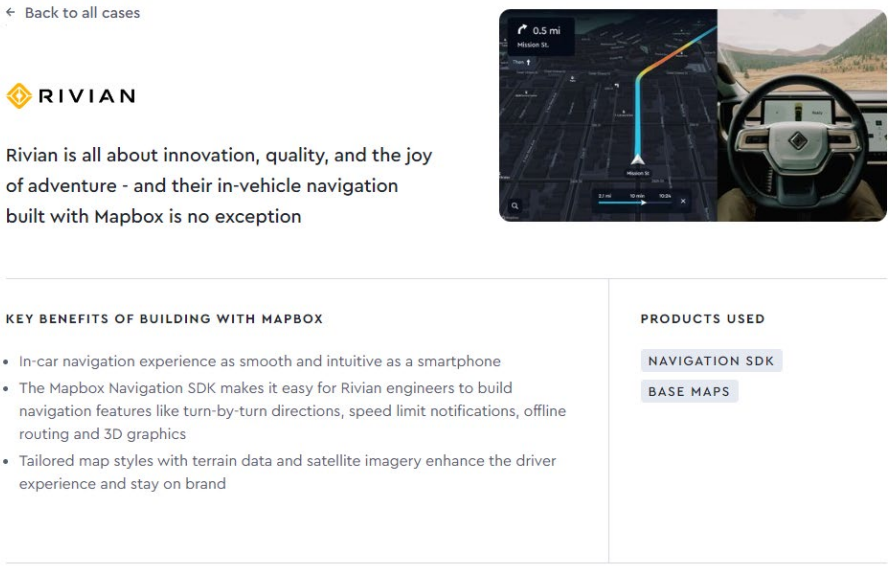
24. Based upon public information, Fleet Connect is informed and believes that Defendant has infringed one or more claims of the ’837 patent based at least on its making, use, sales, offers to sell, providing, supplying, distributing, shipping, manufacture, importation, and internal testing of the Accused Products.

25. Upon information and belief, the Accused Products meet each and every step of at least Claim 1 of the ’837 patent, either literally or equivalently, as detailed in Exhibit B to the Preliminary Infringement Contentions to be served on Defendant, which is incorporated by reference herein.

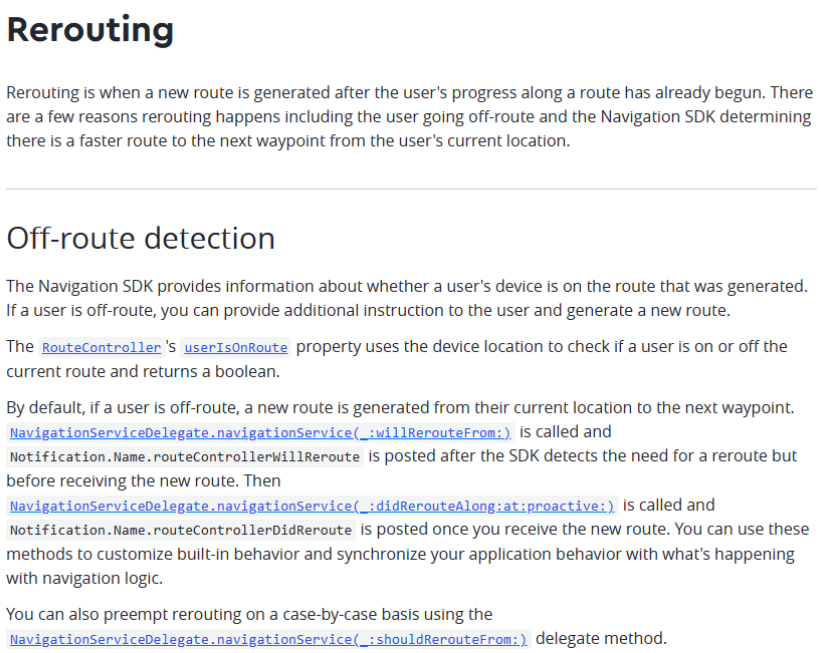
26. For example, as detailed in Exhibit B to the Preliminary Infringement Contentions to

be served on Defendant, Defendant provides and performs a method comprising receiving a location of a mobile communications device that is in transit to a destination, estimating the time-of-arrival bounds for said mobile communications device at said destination for a confidence interval based on said location and at least one historical travel time statistic, and sending the time-of-arrival bounds to said mobile communications device.

27. In addition, the navigation system of all Rivian vehicles, in conjunction with back end servers, computers, and databases, provide and perform the method of claim 1 of the ’837 patent.



Source: https://www.mapbox.com/showcase/rivian



Rerouting

Rerouting is when a new route is generated after the user's progress along a route has already begun. There are a few reasons rerouting happens including the user going off-route and the Navigation SDK determining there is a faster route to the next waypoint from the user's current location.

Off-route detection

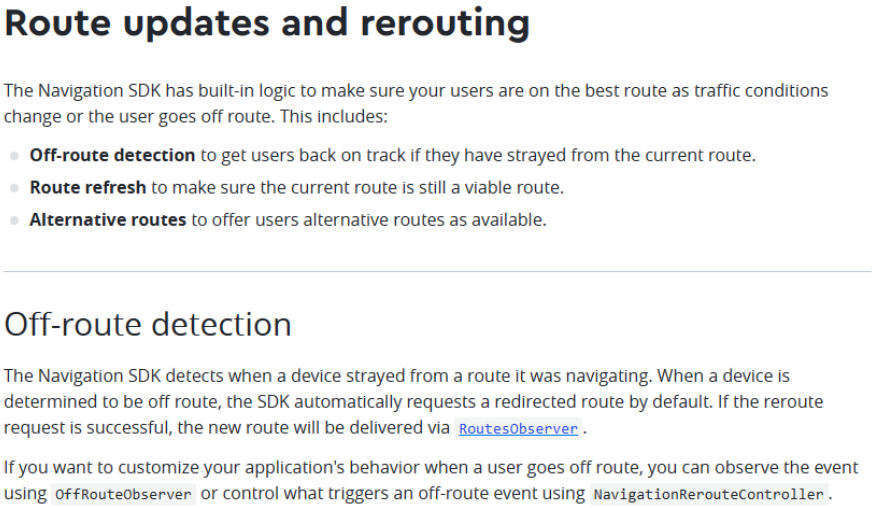
The Navigation SDK provides information about whether a user's device is on the route that was generated. If a user is off-route, you can provide additional instruction to the user and generate a new route.

The `RouteController`'s `userIsOnRoute` property uses the device location to check if a user is on or off the current route and returns a boolean.

By default, if a user is off-route, a new route is generated from their current location to the next waypoint. `NavigationServiceDelegate.navigationService(_:willRerouteFrom:)` is called and `Notification.Name.routeControllerWillReroute` is posted after the SDK detects the need for a reroute but before receiving the new route. Then `NavigationServiceDelegate.navigationService(_:didRerouteAlong:at:proactive:)` is called and `Notification.Name.routeControllerDidReroute` is posted once you receive the new route. You can use these methods to customize built-in behavior and synchronize your application behavior with what's happening with navigation logic.

You can also preempt rerouting on a case-by-case basis using the `NavigationServiceDelegate.navigationService(_:shouldRerouteFrom:)` delegate method.

Source: https://docs.mapbox.com/ios/navigation/v2/guides/turn-by-turn-navigation/rerouting



Route updates and rerouting

The Navigation SDK has built-in logic to make sure your users are on the best route as traffic conditions change or the user goes off route. This includes:

- **Off-route detection** to get users back on track if they have strayed from the current route.
- **Route refresh** to make sure the current route is still a viable route.
- **Alternative routes** to offer users alternative routes as available.

Off-route detection

The Navigation SDK detects when a device strayed from a route it was navigating. When a device is determined to be off route, the SDK automatically requests a redirected route by default. If the reroute request is successful, the new route will be delivered via `RoutesObserver`.

If you want to customize your application's behavior when a user goes off route, you can observe the event using `OffRouteObserver` or control what triggers an off-route event using `NavigationRerouteController`.

Source: https://docs.mapbox.com/android/navigation/v2/guides/turn-by-turn-navigation/rerouting/.

28. More specifically, and as just one example of infringement, Rivian, using the Accused Products, performs the method of Claim 1. The Accused Products track the current location of a Rivian connected vehicle that is in transit to a destination.

29. The Accused Products estimate the time of arrival based with a confidence interval,

based on the current location and at least one historical travel time statistic (e.g., prior use, past traffic patterns, etc.).

30. The Accused Products then send the time of arrival to the Rivian connected vehicle.

31. Since at least the time of receiving a notice letter from Fleet Connect in April of 2023, Defendant has also indirectly infringed one or more claims of the '837 patent by inducing others to directly infringe said claims. Defendant has induced end-users, including, but not limited to, its employees, partners, contractors, customers and/or potential customers, to directly infringe, either literally or under the doctrine of equivalents, the '837 patent by providing or requiring use of the Accused Products. Defendant took active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Accused Products in a manner that infringes one or more claims of the '837 patent, including, for example, claim 1. Such steps by Defendant included, among other things, advising or directing personnel, contractors, or end-users to use the Accused Products in an infringing manner; advertising and promoting the use of the Accused Products in an infringing manner; distributing instructions that guide users to use the Accused Products in an infringing manner; and/or instructional and technical support on its website, *via* the Rivian Guide, and *via* the Rivian App. Defendant performed these steps, which constitute induced infringement with the knowledge of the '837 patent and with the knowledge that the induced acts constitute infringement. Defendant was aware that the normal and customary use of the Accused Products by others would infringe the '837 patent. Defendant's inducement is ongoing.

32. Since at least the time of receiving a notice letter from Fleet Connect in April of 2023, Defendant has also indirectly infringed by contributing to the infringement of the '837 patent. Defendant has contributed to the direct infringement of the '837 patent by their personnel, contractors, and customers. The Accused Products have special features that are specially

designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the '837 patent, including, for example, claim 1. The special features constitute a material part of the invention of one or more of the claims of the '837 patent and are not staple articles of commerce suitable for substantial non-infringing use.

33. Defendant has had knowledge of the '837 patent since at least the time of receiving a notice letter from Fleet Connect in April of 2023.

34. Furthermore, on information and belief, Defendant has a policy or practice of not reviewing the patents of others, including instructing its employees to not review the patents of others, and thus have been willfully blind of Fleet Connect's patent rights.

35. Defendant's actions are at least objectively reckless as to the risk of infringing a valid patent and this objective risk was either known or should have been known by Defendant.

36. Defendant's direct infringement of the '837 patent was willful, intentional, deliberate, or in conscious disregard of Fleet Connect's rights under the patent.

37. Fleet Connect has been damaged as a result of the infringing conduct by Defendant alleged above. Thus, Defendant is liable to Fleet Connect in an amount that compensates it for such infringements, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

38. Fleet Connect has suffered irreparable harm, through its loss of market share and goodwill, for which there is no adequate remedy at law. Fleet Connect has and will continue to suffer this harm by virtue of Defendant's infringement of the '837 patent. Defendant's actions have interfered with and will interfere with Fleet Connect's ability to license technology. The balance of hardships favors Fleet Connect's ability to commercialize its own ideas and technology. The public interest in allowing Fleet Connect to enforce its right to exclude outweighs other public

interests, which supports injunctive relief in this case.

COUNT II: INFRINGEMENT OF UNITED STATES PATENT NO. 7,058,040

39. Fleet Connect repeats and re-alleges the allegations in the Paragraphs above as though fully set forth in their entirety.

40. U.S. Patent No. 7,058,040 (the "'040 patent") was issued on June 6, 2006, after full and fair examination by the USPTO of Application No. 09/962,718, which was filed September 21, 2001. A true and correct copy of the '040 patent is attached as **Ex. B**.

41. The claims of the '040 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that improve upon the function and operation of preexisting data transmission methods.

42. The written description of the '040 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

43. Fleet Connect owns all substantial rights, interest, and title in and to the '040 patent, including the sole and exclusive right to prosecute this action and enforce the '040 patent against infringers and to collect damages for all relevant times.

44. Fleet Connect or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '040 patent.

45. Defendant has directly infringed and continue to directly infringe the '040 patent based at least on its making, use, sales, offers to sell, providing, supplying, distributing, shipping, manufacture, importation, and internal testing of the Accused Products.

46. Defendant has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least claim 1 of the '040 patent, as detailed in Exhibit E to the Preliminary Infringement Contentions to be served on Defendant, which is incorporated by reference herein.

47. For example, as detailed in Exhibit E to the Preliminary Infringement Contentions to be served on Defendant, Defendant, using the Accused Products, performs a method for data transmission over first and second media that overlap in frequency. The method includes computing one or more time division multiple access (TDMA) time-slot channels to be shared between the first and second media for data transmission; allocating one or more time-slot channels to the first medium for data transmission; allocating one or more of the remaining time-slot channels to the second medium for data transmission; and dynamically adjusting a number of timeslot channels assigned to one of the first and second media during the data transmission to remain within limits of a desired level of service.

48. More specifically, and as just one example of infringement, Defendant's conduct has comprised using the Accused Products to perform a method for data transmission over first and second media that overlap in frequency because the Accused Products communicate according to the 802.11b and Bluetooth protocols which overlap in frequency. Both 802.11b and Bluetooth operate in the same 2.4-GHz unlicensed frequency band.

Integrated Module Info:	❖ WLAN (Wi-Fi 2.4, 5 GHz) , Bluetooth BDR/EDR: • FCC ID : XPYJODYW167 • Name / Number : UBLOX / JODY-W1 ▪ Wi-Fi 2.4 and 5 GHz : 802.11 a/b/g/n/h/ac ▪ Bluetooth BDR/EDR : Disabled. See Note 1 ❖ Cellular Module: • Name / Number : ALAS5-AM • FCC ID : QIPALAS5-AM ❖ GPS/GNSS: • UBLOX NEO - M8L - 04A Standalone GNSS receiver • GEMALTO AIAS5 – GNSS receiver module integrated with the cellular modem.

Source*:* **Ex. H**, at page H-5

Source: **Ex. I**, at page I-10.

49. The Accused Products perform the step of computing one or more time division multiple access (TDMA) time-slot channels to be shared between the first and second media for data transmission.

50. 802.15.2-2003 sets forth the mechanism for Alternating Wireless Medium Access (AWMA) to reduce interference between 802.11 and 802.15 signals.

51. In AWMA, the beacon period of an 802.11b frame is shared between first media (WLAN) and second media (WPAN) for data transmission.

52. The Accused Products allocate a time-slot channel (WLAN interval) to the first medium (802.11b) for data transmission.

53. The Accused Products allocate a time-slot channel (WPAN interval) to the second medium (802.15.

54. The 802.11b beacon frame includes a Medium Sharing Element (MSE) which defines the length of the time-slot channels (WLAN, WPAN, and Guard).

55. The Offset, Length and Guard intervals can be dynamically adjusted to modify the number of time-slot channels assigned to WLAN and WPAN data transmission to remain within limits of a desired level of service.

56. Since at least the time of receiving a notice letter from Fleet Connect in April of 2023, Defendant has indirectly infringed and continues to indirectly infringe the '040 patent by inducing others to directly infringe the '040 patent. Defendant has induced and continue to induce customers and end-users, including, but not limited to, Defendant's customers, employees, partners, contractors, customers and/or potential customers, to directly infringe, either literally or under the doctrine of equivalents, the '040 patent by providing or requiring use of the Accused Products. Defendant has taken active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Accused Products in a manner that infringes one or more claims of the '040 patent, including, for example, claim 1. Such steps by Defendant included, among other things, advising or directing customers, personnel, contractors, or end-users to use the Accused Products in an infringing manner; advertising and promoting the use of the Accused Products in an infringing manner; distributing instructions that guide users to use the Accused Products in an infringing manner, and/or instructional and technical support on its website, *via* the Rivian Guide, and *via* the Rivian App. Defendant has been performing these steps, which constitute induced infringement with the knowledge of the '040 patent and with the knowledge that the induced acts constitute infringement. Defendant has been aware that the normal and customary use of the Accused Products by others would infringe the '040 patent. Defendant's inducement is ongoing.

57. Since at least the time of receiving a notice letter from Fleet Connect in April of 2023, Defendant has also indirectly infringed and continues to indirectly infringe by contributing to the infringement of the ’040 patent. Defendant has contributed and continue to contribute to the direct infringement of the ’040 patent by its customers, personnel, and contractors. The Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the ’040 patent, including, for example, claim 1. The special features constitute a material part of the invention of one or more of the claims of the ’040 patent and are not staple articles of commerce suitable for substantial non-infringing use. Defendant’s contributory infringement is ongoing.

58. Defendant had knowledge of the ’040 patent since at least the time of receiving a notice letter from Fleet Connect in April of 2023.

59. Furthermore, on information and belief, Defendant has a policy or practice of not reviewing the patents of others, including instructing its employees to not review the patents of others, and thus have been willfully blind of Fleet Connect’s patent rights.

60. Defendant’s actions are at least objectively reckless as to the risk of infringing a valid patent and this objective risk was either known or should have been known by Defendant.

61. Defendant’s infringement of the ’040 patent is, has been, and continues to be willful, intentional, deliberate, or in conscious disregard of Fleet Connect’s rights under the patent.

62. Fleet Connect has been damaged as a result of the infringing conduct by Defendant alleged above. Thus, Defendant is liable to Fleet Connect in an amount that compensates it for such infringements, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

63. Fleet Connect has suffered irreparable harm, through its loss of market share and goodwill, for which there is no adequate remedy at law. Fleet Connect has and will continue to suffer this harm by virtue of Defendant's infringement of the '040 patent. Defendant's actions have interfered with and will interfere with Fleet Connect's ability to license technology. The balance of hardships favors Fleet Connect's ability to commercialize its own ideas and technology. The public interest in allowing Fleet Connect to enforce its right to exclude outweighs other public interests, which supports injunctive relief in this case.

COUNT III: INFRINGEMENT OF UNITED STATES PATENT NO. 8,494,581

64. Fleet Connect repeats and re-alleges the allegations in the Paragraphs above as though fully set forth in their entirety.

65. U.S. Patent No. 8,494,581 (the "'581 patent") was issued on July 23, 2013, after full and fair examination by the USPTO of Application No. 12/547,363, which was filed August 25, 2009. A true and correct copy of the '581 patent is attached as **Ex. C**. An *Inter Partes* Review Certificate was issued on July 23, 2019 in which claims 1-17 were cancelled. An *Ex Parte* Reexamination Certificate was issued on October 29, 2019 in which affirmed the cancellation of claims 1-17 and cancelled claims 18-20 and 24.

66. The claims of the '581 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that improve upon the function and operation of preexisting methods and systems of collecting and communicating field data based on geographical location.

67. The written description of the '581 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from

and improved upon what may have been considered conventional or generic in the art at the time of the invention.

68. Fleet Connect owns all substantial rights, interest, and title in and to the ’581 patent, including the sole and exclusive right to prosecute this action and enforce the ’581 patent against infringers and to collect damages for all relevant times.

69. Fleet Connect or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the ’581 patent.

70. Based upon information and belief,, Fleet Connect is informed and believes that Defendant has infringed one or more claims of the ’581 Patent based at least on its making, using, offering for sale, and/or internal and external testing of the EDV/RCV and R1S prior to the expiration of the ’581 patent and its making, use, sales, offers to sell, providing, supplying, distributing, shipping, manufacture, importation, and internal testing of the R1T (with relevant software) prior to the expiration of the ’581 patent.[2]

71. Upon information and belief, the Accused Products meet each and every step of at least Claim 21 of the ’581 Patent, either literally or equivalently, as detailed in Exhibit F to the Preliminary Infringement Contentions to be served on Defendant, which is incorporated by reference herein.

72. For example, as detailed in Exhibit F to the Preliminary Infringement Contentions to be served on Defendant, Defendant uses the Accused Products to perform a method that using a handheld device to access an assessment program stored in a memory of a computing device

[2] *See* fn. **Error! Bookmark not defined.**.

located geographically remote from the handheld device, the assessment program being configured to enable a field assessment in a specific industry; collecting field data associated with the field assessment using the handheld device in response to the assessment program; using the handheld device to determine a geographical location of the handheld device; and communicating the field data collected using the handheld device and the geographical location of the handheld device to the computing device.

73. More specifically, and as just one example of infringement, Rivian performs the method of Claim 1.

74. Rivian, using a smartphone/tablet (with installed Rivian App) and/or similar device to access an assessment program stored in a memory of a computing device (Rivian connected vehicle) located geographically remote from the handheld device.

75. The assessment program (Rivian OS) is configured to enable a field assessment (*e.g.*, vehicle tracking, maintenance, or usage).

76. The Rivian App and Rivian connected vehicle collect field data associated with the field assessment and determine their geographical location.

77. The field data and the geographical location are then communicated to the Riviana OS from the Rivian App and Rivian connected vehicle .

78. Fleet Connect has been damaged as a result of the infringing conduct by Defendant alleged above. Thus, Defendant is liable to Fleet Connect in an amount that compensates it for such infringements, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

COUNT IV: INFRINGEMENT OF UNITED STATES PATENT NO. 7,260,153

79. Fleet Connect repeats and re-alleges the allegations in the Paragraphs above as though fully set forth in their entirety.

80. U.S. Patent No. 7,260,153 (the "'153 patent") was issued on August 21, 2007, after full and fair examination by the USPTO of Application No. 10/423,447, which was filed on April 28, 2003. A true and correct copy of the '153 patent is attached as **Ex. D**.

81. The claims of the '153 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that improve upon the function and operation of voice and data communications systems.

82. The written description of the '153 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

83. Fleet Connect owns all substantial rights, interest, and title in and to the '153 patent, including the sole and exclusive right to prosecute this action and enforce the '153 patent against infringers and to collect damages for all relevant times.

84. Fleet Connect or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the '153 patent.

85. Defendant has directly infringed and continues to directly infringe the '153 patent based at least on its making, use, sales, offers to sell, providing, supplying, or distributing manufacture, importation, and internal testing of the Accused Products.

86. Defendant has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least claim 1 of the '153 patent, as detailed in Exhibit G to the Preliminary Infringement Contentions to be served on Defendant, which is incorporated by reference herein.

87. For example, as detailed in Exhibit G to the Preliminary Infringement Contentions to be served on Defendant, Defendant, using the Accused Products, performs a method for evaluating a channel of a multiple-input multiple-output ("MIMO") wireless communication system allowing two or more communication devices with multiple radiating elements to transmit parallel data sub-streams which defines a channel matrix metric of cross-talk signal-to-noise ("SNR") for the subs-streams, estimates the channel matrix metric, performs a singular value decomposition ("SVD") of the channel matrix metric estimate to calculate estimated channel singular values, and using the channel matrix metric and estimated channel singular values to calculate a crosstalk measure for the sub-streams.

88. More specifically, and as just one example of infringement, Defendant's conduct has comprised using the Accused Products, which are adapted by Defendant for wireless communications using multiple communication protocols, including LTE and/or 802.11n.

Integrated Module Info:	❖ WLAN (Wi-Fi 2.4, 5 GHz) , Bluetooth BDR/EDR: • FCC ID : XPYJODYW167 • Name / Number : UBLOX / JODY-W1 ▪ Wi-Fi 2.4 and 5 GHz : 802.11 a/b/g/n/h/ac ▪ Bluetooth BDR/EDR : Disabled. See Note 1 ❖ Cellular Module: • Name / Number : ALAS5-AM • FCC ID : QIPALAS5-AM ❖ GPS/GNSS: • UBLOX NEO - M8L - 04A Standalone GNSS receiver • GEMALTO AIAS5 – GNSS receiver module integrated with the cellular modem.

Source: **Ex. H**, at page H-5

89. 802.11n implements beamforming in a MIMO system. LTE supports single and multi-user MIMO transmissions.

90. A MIMO communication system comprises at least two communication devices (*e.g.*, STA A, STA B, BS and/or UE) having a plurality of radiating elements (antennas) for the parallel transmission of data sub-streams.

91. 802.11n implements beamforming that defines a channel matrix metric (Hk) that comprises a predefined function (equation 20-62) of channel matrix singular values for each of the data sub-streams.

92. The channel matrix metric (H_k) comprises predefined functions for providing a measure of cross-talk signal to noise ratio (SNR) for sub-streams.

93. MIMO systems utilized within the context of LTE transmission can define a channel matrix metric that comprises a predefined function of channel matrix singular values for each of the data sub-streams.

94. Each of the predefined functions provides a measure of cross-talk signal to noise ratio (SNR) for sub-streams.

95. To implement implicit beamforming, the beamformer obtains an estimated channel matrix.

96. As part of the LTE standards, reporting of channel information further consists of a channel quality indicator (CQI).

97. To estimate channel singular values, a singular value decomposition (SVD) is performed of the baseband-to-baseband channel matrix metric. The SVD comprises a left-hand unitary weighting matrix, *e.g.,* BRX,k, a diagonal matrix of said estimated channel singular values, and a right-hand unitary weighting matrix $A_{TX,k.}$

98. Various algorithms can be implemented within an LTE MIMO system, including a singular value decomposition (SVD) comprising a left-hand unitary weighting matrix, a diagonal matrix of said estimated channel singular values, and a right-hand unitary weighting matrix.

99. A crosstalk measure (*e.g.*, $K_{A,k}$) is calculated for each sub-stream k (*e.g.,* sub-band) from the channel matrix metric (*e.g.*, $H_{AB,k}$) and the estimated channel singular values.

100. MIMO systems improve signal-to-interference-plus-noise (SINR) and are known to improve link reliability.

101. Since at least the time of receiving a notice letter from Fleet Connect in April of 2023, Defendant has also indirectly infringed and continues to indirectly infringe the ’153 patent by inducing others to directly infringe the ’153 patent. Defendant has induced distributors and end-users, including, but not limited to, Defendant’s employees, partners, contractors, customers and/or potential customers, to directly infringe, either literally or under the doctrine of equivalents, the ’153 patent by providing or requiring use of the Accused Products. Defendant took active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Accused Products in a manner that infringes one or more claims of the ’153 patent, including, for example, claim 1 of the ’153 patent. Such steps by Defendant include, among other things, advising or directing personnel, contractors, or end-users to use the Accused Products in an infringing manner; advertising and promoting the use of the Accused Products in an infringing manner; distributing instructions that guide users to use the Accused Products in an infringing manner, and/or instructional and technical support on its website, *via* the Rivian Guide, and *via* the Rivian App. Defendant is performing these steps, which constitute induced infringement with the knowledge of the ’153 patent and with the knowledge that the induced acts constitute infringement. Defendant is aware that the normal and customary use of the Accused Products by

others would infringe the '153 patent. Defendant's inducement is ongoing.

102. Since at least the time of receiving a notice letter from Fleet Connect in April of 2023, Defendant has also indirectly infringed and continues to indirectly infringe by contributing to the infringement of the '153 patent. Defendant has contributed to the direct infringement of the '153 patent by its personnel, contractors, distributors, and customers. The Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the '153 patent, including, for example, claim 1 of the '153 patent. The special features constitute a material part of the invention of one or more of the claims of the '153 patent and are not staple articles of commerce suitable for substantial non-infringing use. Defendant's contributory infringement is ongoing.

103. Defendant had knowledge of the '153 patent since at least the time of receiving a notice letter from Fleet Connect in April of 2023.

104. Furthermore, on information and belief, Defendant has a policy or practice of not reviewing the patents of others, including instructing its employees to not review the patents of others, and thus has been willfully blind of Fleet Connect's patent rights.

105. Defendant's actions are at least objectively reckless as to the risk of infringing a valid patent and this objective risk was either known or should have been known by Defendant.

106. Defendant's direct infringement of the '153 patent is, has been, and continues to be willful, intentional, deliberate, or in conscious disregard of Fleet Connect's rights under the patent.

107. Fleet Connect has been damaged as a result of the infringing conduct by Defendant alleged above. Thus, Defendant is liable to Fleet Connect in an amount that compensates it for such infringements, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

108. Fleet Connect has suffered irreparable harm, through its loss of market share and goodwill, for which there is no adequate remedy at law. Fleet Connect has and will continue to suffer this harm by virtue of Defendant's infringement of the '153 patent. Defendant's actions have interfered with and will interfere with Fleet Connect's ability to license technology. The balance of hardships favors Fleet Connect's ability to commercialize its own ideas and technology. The public interest in allowing Fleet Connect to enforce its right to exclude outweighs other public interests, which supports injunctive relief in this case.

COUNT V: INFRINGEMENT OF UNITED STATES PATENT NO. 7,656,845

109. Fleet Connect repeats and re-alleges the allegations in the Paragraphs above as though fully set forth in their entirety.

110. U.S. Patent No. 7,656,845 (the "'845 patent") was issued on February 2, 2010, after full and fair examination by the USPTO of Application No. 11/402,172, which was filed on April 11, 2006. A true and correct copy of the '845 patent is attached as **Ex. E**. A Certificate of Correction was issued on November 30, 2010. *See id.*

111. The claims of the '845 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that improve upon the function and operation of preexisting systems and methods of wireless communication with a mobile unit.

112. The written description of the '845 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

113. Fleet Connect owns all substantial rights, interest, and title in and to the ’845 patent, including the sole and exclusive right to prosecute this action and enforce the ’845 patent against infringers and to collect damages for all relevant times.

114. Fleet Connect or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the ’845 patent.

115. Defendant has directly infringed and continues to directly infringe the ’845 patent based at least on its making, use, sales, offers to sell, providing, supplying, distributing, shipping, manufacture, importation, and internal testing Accused Products. .

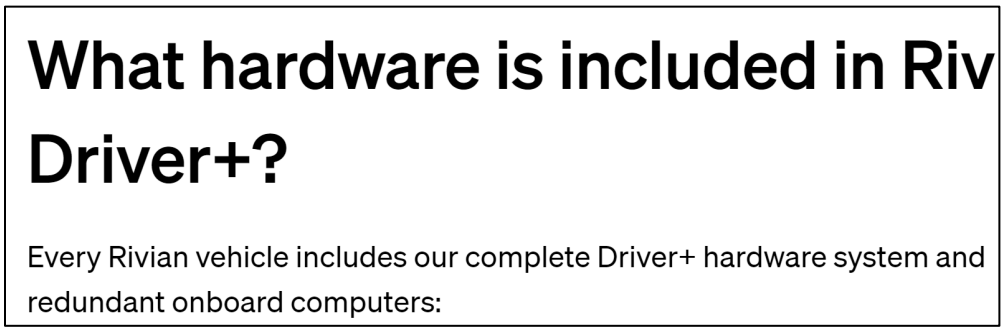
116. Defendant has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least claim 12 of the ’845 patent, as detailed in Exhibit H to the Preliminary Infringement Contentions to be served on Defendant, which is incorporated by reference herein.

117. For example, as detailed in Exhibit H to the Preliminary Infringement Contentions to be served on Defendant, the Accused Products used by Defendant provide a system comprising a processor, a first transceiver configured to communicate *via* a first medium, a second transceiver configured to communicate *via* a second medium, wherein at least one of the first transceiver and the second transceiver is configured to retry transmission of a packet at a lower rate if a prior transmission of the packet is not acknowledged, an allocation unit configured to dynamically allocate data channels to one of the first medium and the second medium based upon a desired level of service.

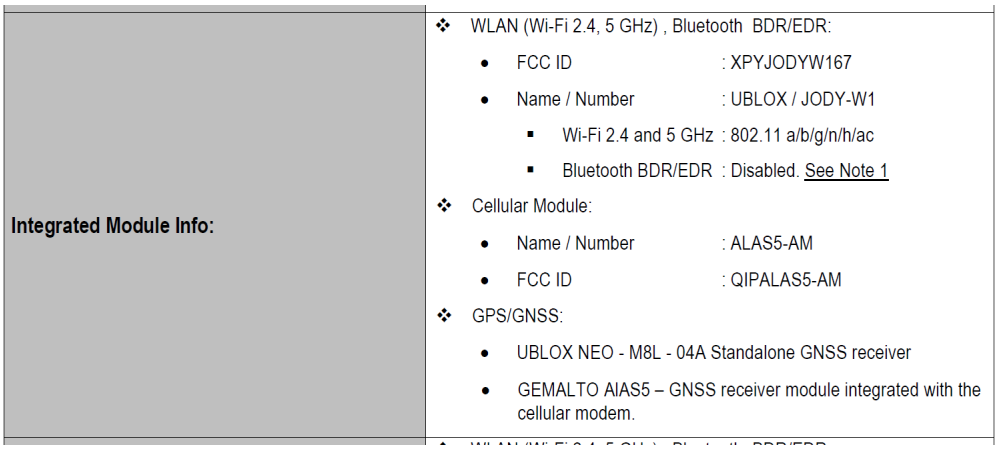
118. More specifically, and as just one example of infringement, Defendant’s vehicles, including, but not limited to, the Accused Products, comprise a processor (*e.g.*, chip that processes

data or signals).

119. The Accused Products allocate at least one of a plurality of data channels to a first medium for data transmission *via* a wireless device and allocates at least one remaining data channel of the plurality of data channels to a second medium for data transmission via the wireless device.



Source: https://rivian.com/support/article/what-hardware-is-included-in-rivian-driver



Source: **Ex. H**, at page H-5

Source: **Ex. I**, at page I-10.

120. 3GPP TS 36.211 sets forth a resource grid structure for a base station, *e.g.,* eNB, for

allocating transmission resources to 4G LTE and/or 5G communication systems.

121. According to this two-dimensional time and frequency grid structure, frequency channels are shared between different transceivers in time domain, by using time division (TDM) slot channels.

122. A unit time slot spanning a group of subcarriers (for *e.g.*, 12 adjacent subcarriers equivalent to 180KHz frequency) is referred to as a Resource Block (RB) or Physical Resource Block (PRB).

123. A resource block (a time and frequency unit) is the smallest bandwidth or unit of transmission resource that a base station can allocate to a transceiver.

124. Each radio time frame (10ms in case of LTE) is divided into multiple sub-frames (1ms each) and each such sub-frame includes two time slots.

125. 3GPP LTE base stations follow OFDMA based multiplexing in resource allocation.

126. Each media or transceiver is allocated one or more (a group of) RBs/PRBs for data communication in uplink and/or downlink, *i.e.* each transceiver is allocated a fixed set of subcarriers over period of time.

127. A first transceiver communicates using its allocated frequency subcarriers (first medium), while a second transceiver uses its allocated subcarriers to communicate (second medium).

128. A first and second media that are allocated RBs along the same time frame or sub-frame overlap in frequency.

129. 3GPP sets forth a process of Link Adaptation, including Adaptive Modulation and Coding, wherein the modulation order (*e.g.,* QPSK, 16-QAM, 64-QAM, etc.) and channel coding scheme is adapted to adjust the transmission rate based on the acknowledgement/lack of

acknowledgement for transmitted packets and the Channel Quality Indicator (CQI)/.

130. LTE supports TCP protocol for data transmission. TCP (*See* RFC 2581) follows a of retrying data packet transmission at a lower or diminished rate if the packet is not acknowledged after transmission at a first rate.

131. At least one of the first transceiver and the second transceiver is configured to retry transmission of a packet at a lower rate if a prior transmission of the packet is not acknowledged.

132. 802.11b utilizes the Automatic Rate Fallback (ARF) mechanism to lower transmission rate in view of packet loss.

133. More specifically, and as just one example of infringement, the base station dynamically adjusts, during data transmission, a number of the data channels assigned to one of the first and second media to remain within limits of a desired level of service. 3GPP TS 36.211, 36.212, 36.213, 36.300 specify that 3GPP LTE base stations (eNBs) implement resource scheduling and allocation of one or more time slots or PRBs or RBs, *i.e.*, a group of subcarriers for a predetermined time period, to a first transceiver to use as a transmission medium (first medium), and the remaining time slots or PRBs or RBs to a second transceiver to use as a transmission medium (second medium).

134. Further, the time slot channels allocation is dynamic, and can be dynamically adjusted during the data transmission based on various criteria, such as data traffic volume, QoS requirements, *etc.* to remain within limits of a desired level of service.

135. 802.15.2-2003 defines a Collaborative Coexistence Mechanism ("allocation unit") with an AWMA Medium Free Generation that is configured to dynamically allocate data channels to one of the 802.11 device and the 802.15.1 device based upon a desired level of service.

136. The Accused Products allocate a time-slot channel (WLAN interval) to the first

medium (802.11b) for data transmission and a different time-slot channel (WPAN interval) to the second medium (802.15.1).

137. The 802.11b beacon frame includes a Medium Sharing Element (MSE) which defines the length of the time-slot channels (WLAN, WPAN, and Guard).

138. The Offset, Length and Guard intervals can be dynamically adjusted to modify the number of time-slot channels assigned to WLAN and WPAN data transmission to remain within limits of a desired level of service.

139. Since at least the time of receiving a notice letter from Fleet Connect in April of 2023, Defendant has also indirectly infringed and continues to indirectly infringe the ’845 patent by inducing others to directly infringe the ’845 patent. Defendant has induced distributors and end-users, including, but not limited to, Defendant’s employees, partners, contractors, customers and/or potential customers, to directly infringe, either literally or under the doctrine of equivalents, the ’845 patent by providing or requiring use of the Accused Products. Defendant took active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Accused Products in a manner that infringes one or more claims of the ’845 patent, including, for example, claim 12 of the ’845 patent. Such steps by Defendant include, among other things, advising or directing personnel, contractors, or end-users to use the Accused Products in an infringing manner; advertising and promoting the use of the Accused Products in an infringing manner; distributing instructions that guide users to use the Accused Products in an infringing manner, and/or instructional and technical support on its website, *via* the Rivian Guide, and *via* the Rivian App. Defendant is performing these steps, which constitute induced infringement with the knowledge of the ’845 patent and with the knowledge that the induced acts constitute infringement. Defendant is aware that the normal and customary use of the Accused Products by

others would infringe the ’845 patent. Defendant’s inducement is ongoing.

140. Since at least the time of receiving a notice letter from Fleet Connect in April of 2023, Defendant has also indirectly infringed and continues to indirectly infringe by contributing to the infringement of the ’845 patent. Defendant has contributed to the direct infringement of the ’845 patent by its personnel, contractors, distributors, and customers. The Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the ’845 patent, including, for example, claim 12 of the ’845 patent. The special features constitute a material part of the invention of one or more of the claims of the ’845 patent and are not staple articles of commerce suitable for substantial non-infringing use. Defendant’s contributory infringement is ongoing.

141. Defendant had knowledge of the ’845 patent since at least the time of receiving a notice letter from Fleet Connect in April of 2023.

142. Furthermore, on information and belief, Defendant has a policy or practice of not reviewing the patents of others, including instructing its employees to not review the patents of others, and thus has been willfully blind of Fleet Connect’s patent rights.

143. Defendant’s actions are at least objectively reckless as to the risk of infringing a valid patent and this objective risk was either known or should have been known by Defendant.

144. Defendant’s direct infringement of the ’845 patent is, has been, and continues to be willful, intentional, deliberate, or in conscious disregard of Fleet Connect’s rights under the patent.

145. Fleet Connect has been damaged as a result of the infringing conduct by Defendant alleged above. Thus, Defendant is liable to Fleet Connect in an amount that compensates it for such infringements, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

146. Fleet Connect has suffered irreparable harm, through its loss of market share and goodwill, for which there is no adequate remedy at law. Fleet Connect has and will continue to suffer this harm by virtue of Defendant's infringement of the '845 patent. Defendant's actions have interfered with and will interfere with Fleet Connect's ability to license technology. The balance of hardships favors Fleet Connect's ability to commercialize its own ideas and technology. The public interest in allowing Fleet Connect to enforce its right to exclude outweighs other public interests, which supports injunctive relief in this case.

COUNT VI: INFRINGEMENT OF UNITED STATES PATENT NO. 7,742,388

147. Fleet Connect repeats and re-alleges the allegations in the Paragraphs above as though fully set forth in their entirety.

148. U.S. Patent No. 7,742,388 (the "'388 patent") was issued on June 22, 2010, after full and fair examination by the USPTO of Application No. 11/185,665, which was filed July 20, 2005. A true and correct copy of the '388 patent is attached as **Ex. F**.

149. The claims of the '388 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that improve upon the function and operation of preexisting systems and methods of generating packets in a digital communications system.

150. The written description of the '388 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

151. Fleet Connect owns all substantial rights, interest, and title in and to the ’388 patent, including the sole and exclusive right to prosecute this action and enforce the ’388 patent against infringers and to collect damages for all relevant times.

152. Fleet Connect or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the ’388 patent.

153. Defendant has directly infringed and continue to directly infringe one or more claims of the ’388 patent based at least on its making, use, sales, offers to sell, providing, supplying, distributing, shipping, manufacture, importation, and internal testing Accused Products.

154. Defendant has directly infringed and continues to directly infringe, either literally or under the doctrine of equivalents, at least claim 1 of the ’388 patent, as detailed in Exhibit I to the Preliminary Infringement Contentions to be served on Defendant, which is incorporated by reference herein.

155. For example, as detailed in Exhibit I to the Preliminary Infringement Contentions to be served on Defendant, Defendant performs a method including generating a packet with a size corresponding to a protocol used for a network transmission, wherein the packet comprises a preamble having a first training symbol and a second training symbol. The method further includes increasing the size of the packet by adding subcarriers to the second training symbol of the packet to produce an extended packet, wherein a quantity of subcarriers of the second training symbol is greater than a quantity of subcarriers of the first training symbol; and transmitting the extended packet from an antenna.

156. More specifically, and as just one example of infringement, Defendant’s conduct has comprised using the Accused Products, which are adapted for wireless communications using

802.11n and/or the 3GPP Long Term Evolution cellular standard ("LTE").

Integrated Module Info:	❖ WLAN (Wi-Fi 2.4, 5 GHz) , Bluetooth BDR/EDR: • FCC ID : XPYJODYW167 • Name / Number : UBLOX / JODY-W1 ▪ Wi-Fi 2.4 and 5 GHz : 802.11 a/b/g/n/h/ac ▪ Bluetooth BDR/EDR : Disabled. See Note 1 ❖ Cellular Module: • Name / Number : ALAS5-AM • FCC ID : QIPALAS5-AM ❖ GPS/GNSS: • UBLOX NEO - M8L - 04A Standalone GNSS receiver • GEMALTO AIAS5 – GNSS receiver module integrated with the cellular modem.

Source: **Ex. H**, at page H-5.

157. The Accused Products receive the generated packet (or "frame") with a size ("Tf") corresponding to a protocol (LTE) used for network transmission. Each packet (or "frame) comprises 10 subframes, each sub frame equals 1ms duration. Further each subframe includes two slots each 0.5 ms long.

158. An LTE frame structure (for example frame structure Type 1) is defined using a resource grid that include multiple subcarriers and OFDM symbols.

159. The resource grid represents various subframes/slots that can include multiple signals such as synchronization signals and reference signals.

160. The synchronization signals PSS and SSS (first training symbols) are used for time and frequency synchronization steps to identify where the frame begins and ends. Also, the reference signals/symbols (second training symbols) are used for the channel estimation.

161. Similarly, the Accused Products generate a packet (or "frame") with a size ("LENGTH") corresponding to a protocol (*e.g.,* 802.11n) used for network transmission. The packet (or "frame") comprises a preamble ("PLCP Preamble") having a first training symbol ("Short Training Sequence" or "STS") in HT-STF field and a second training symbol ("Long

Training Sequence" or "LTS") in HT-LTF fields.

162. The Accused Products increase the size of the packet by adding subcarriers to the second training symbol ("Reference Signal") to produce an extended packet. The quantity of subcarriers of the second training symbol ("Reference Signal") is greater than a quantity of subcarriers of the first training symbol ("Synchronization Signals").

163. Likewise, when utilizing the 802.11 protocols, the Accused Products increase the size of the packet by adding subcarriers to the second training symbol ("LTS") to produce an extended packet.

164. The quantity of subcarriers of the second training symbol ("LTS") is greater than a quantity of subcarriers of the first training symbol ("STS").

165. The Accused Products receive the extended packet transmitted via network and include antennas for transmitting the extended packet.

166. Since at least the time of receiving a notice letter from Fleet Connect in April of 2023, Defendant has indirectly infringed and continues to indirectly infringe the '388 patent by inducing others to directly infringe the '388 patent. Defendant has induced and continue to induce customers and end-users, including, but not limited to, Defendant's customers, employees, partners, contractors, customers and/or potential customers, to directly infringe, either literally or under the doctrine of equivalents, the '388 patent by providing or requiring use of the Accused Products. Defendant has taken active steps, directly or through contractual relationships with others, with the specific intent to cause them to use the Accused Products in a manner that infringes one or more claims of the '388 patent, including, for example, claim 1. Such steps by Defendant included, among other things, advising or directing customers, personnel, contractors, or end-users to use the Accused Products in an infringing manner; advertising and promoting the use of the

Accused Products in an infringing manner; distributing instructions that guide users to use the Accused Products in an infringing manner, and/or instructional and technical support on its website, *via* the Rivian Guide, and *via* the Rivian App. Defendant has been performing these steps, which constitute induced infringement with the knowledge of the '388 patent and with the knowledge that the induced acts constitute infringement. Defendant has been aware that the normal and customary use of the Accused Products by others would infringe the '388 patent. Defendant's inducement is ongoing.

167. Since at least the time of receiving a notice letter from Fleet Connect in April of 2023, Defendant has indirectly infringed and continues to indirectly infringe by contributing to the infringement of the '388 patent. Defendant has contributed and continue to contribute to the direct infringement of the '388 patent by its customers, personnel, and contractors. The Accused Products have special features that are specially designed to be used in an infringing way and that have no substantial uses other than ones that infringe one or more claims of the '388 patent, including, for example, claim 1. The special features constitute a material part of the invention of one or more of the claims of the '388 patent and are not staple articles of commerce suitable for substantial non-infringing use. Defendant's contributory infringement is ongoing.

168. Defendant had knowledge of the '388 patent since at least the time of receiving a notice letter from Fleet Connect in April of 2023.

169. Furthermore, on information and belief, Defendant has a policy or practice of not reviewing the patents of others, including instructing its employees to not review the patents of others, and thus have been willfully blind of Fleet Connect's patent rights.

170. Defendant's actions are at least objectively reckless as to the risk of infringing a valid patent and this objective risk was either known or should have been known by Defendant.

171. Defendant's infringement of the '388 patent is, has been, and continues to be willful, intentional, deliberate, or in conscious disregard of Fleet Connect's rights under the patent.

172. Fleet Connect has been damaged as a result of the infringing conduct by Defendant alleged above. Thus, Defendant is liable to Fleet Connect in an amount that compensates it for such infringements, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

173. Fleet Connect has suffered irreparable harm, through its loss of market share and goodwill, for which there is no adequate remedy at law. Fleet Connect has and will continue to suffer this harm by virtue of Defendant's infringement of the '388 patent. Defendant's actions have interfered with and will interfere with Fleet Connect's ability to license technology. The balance of hardships favors Fleet Connect's ability to commercialize its own ideas and technology. The public interest in allowing Fleet Connect to enforce its right to exclude outweighs other public interests, which supports injunctive relief in this case.

COUNT VII: INFRINGEMENT OF UNITED STATES PATENT NO. 6,941,223

174. Fleet Connect repeats and re-alleges the allegations in the Paragraphs above as though fully set forth in their entirety.

175. U.S. Patent No. 6,941,223 (the "'223 patent") was issued on September 6, 2005, after full and fair examination by the USPTO of Application No. 10/339,663, which was filed on January 10, 2003. *See* **Ex. G**.

176. The claims of the '223 patent are not directed to an abstract idea and are not limited to well-understood, routine, or conventional activity. Rather, the claimed inventions include inventive components that improve upon the function and operation of preexisting routing and navigation systems.

177. The written description of the ’223 patent describes in technical detail each limitation of the claims, allowing a skilled artisan to understand the scope of the claims and how the non-conventional and non-generic combination of claim limitations is patently distinct from and improved upon what may have been considered conventional or generic in the art at the time of the invention.

178. Fleet Connect owns all substantial rights, interest, and title in and to the ’223 patent, including the sole and exclusive right to prosecute this action and enforce the ’223 patent against infringers and to collect damages for all relevant times.

179. Fleet Connect or its predecessors-in-interest have satisfied all statutory obligations required to collect pre-filing damages for the full period allowed by law for infringement of the ’223 patent.

180. Based upon information and belief, Fleet Connect is informed and believes that Defendant has infringed one or more claims of the ’223 patent based at least on its making, using, offering for sale, and/or internal and external testing of the EDV/RCV and R1S (with relevant software) prior to the expiration of the ’223 patent, and its making, use, sales, offers to sell, providing, supplying, distributing, shipping, manufacture, importation, and internal testing of the R1T (with relevant software) prior to the expiration of the ’223 patent.[3]

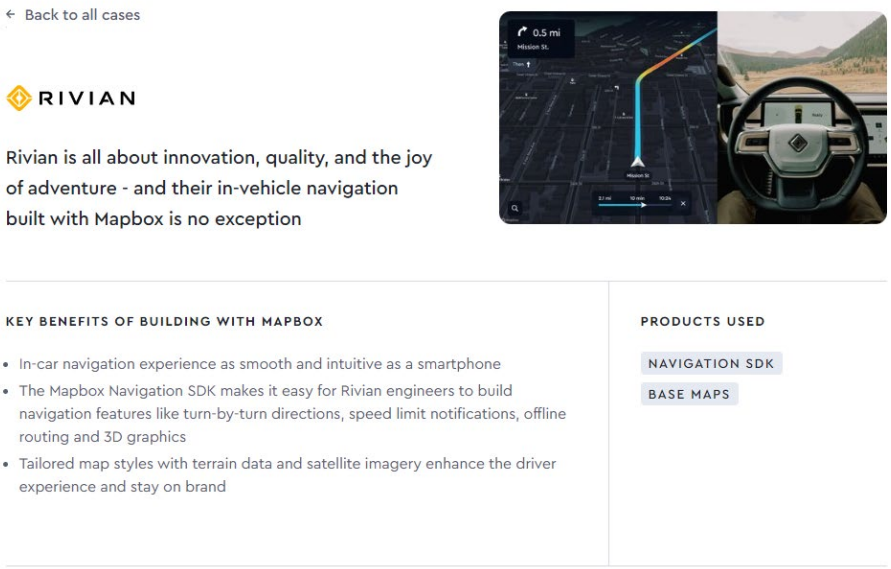
181. Defendant has directly infringed, either literally or under the doctrine of equivalents, at least claim 19 of the ’223 patent.

182. For example, Defendant, using the Accused Products, performs a method for destination routing of a vehicle. The method includes the acts of: determining, based on static

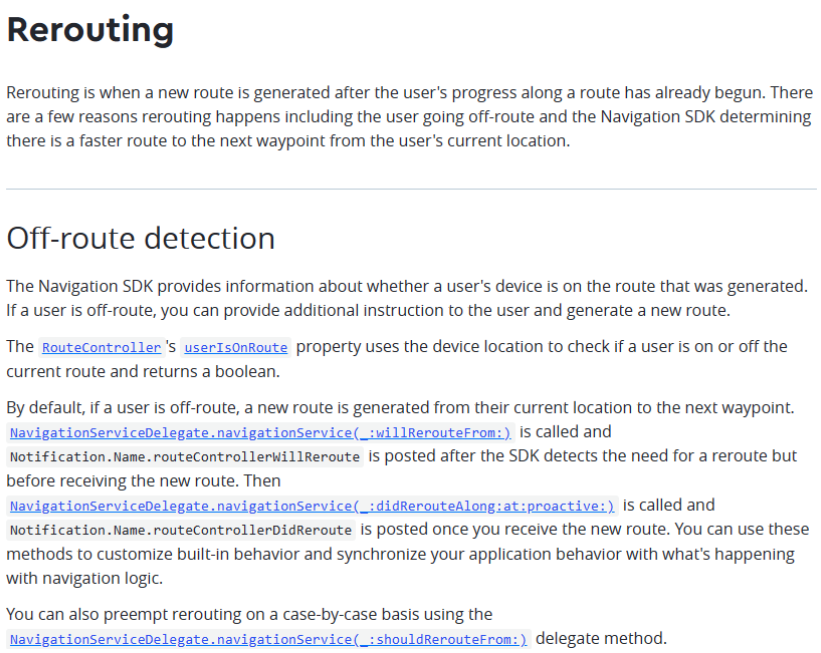
[3] *See* fn. **Error! Bookmark not defined.**.

information, an optimal route, receiving additional information, determining, based on a comparison of real travel parameters of the vehicle with travel parameters associated with the optimal route, whether the optimal route remains optimal, and determining a new optimal route when the optimal route does not remain optimal, wherein the new optimal route is determined using the additional information, wherein the travel parameters include at least one of travel time and traveled distance.

183. More specifically, and as just one example of infringement, the navigation system of the Accused Products are adapted for destination routing to maintain an optimal route based on real-time up-to-date parameters.



Source: https://www.mapbox.com/showcase/rivian



Rerouting

Rerouting is when a new route is generated after the user's progress along a route has already begun. There are a few reasons rerouting happens including the user going off-route and the Navigation SDK determining there is a faster route to the next waypoint from the user's current location.

Off-route detection

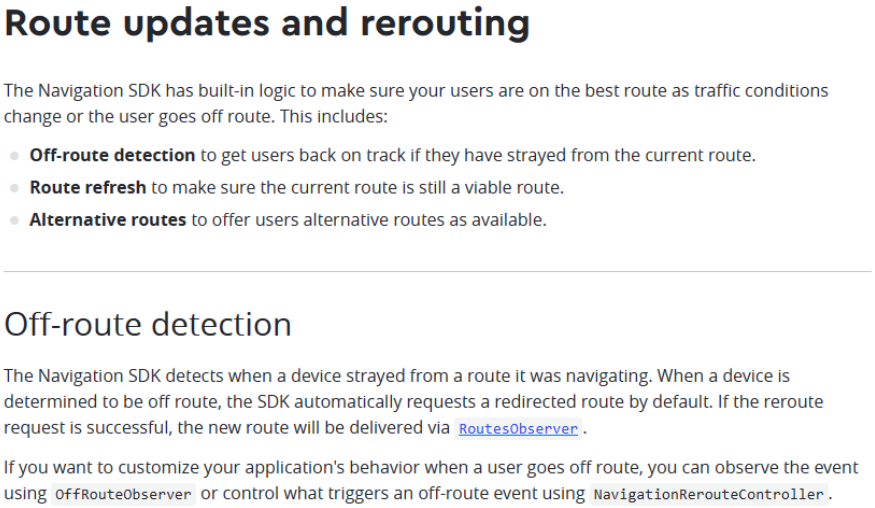
The Navigation SDK provides information about whether a user's device is on the route that was generated. If a user is off-route, you can provide additional instruction to the user and generate a new route.

The `RouteController`'s `userIsOnRoute` property uses the device location to check if a user is on or off the current route and returns a boolean.

By default, if a user is off-route, a new route is generated from their current location to the next waypoint. `NavigationServiceDelegate.navigationService(_:willRerouteFrom:)` is called and `Notification.Name.routeControllerWillReroute` is posted after the SDK detects the need for a reroute but before receiving the new route. Then `NavigationServiceDelegate.navigationService(_:didRerouteAlong:at:proactive:)` is called and `Notification.Name.routeControllerDidReroute` is posted once you receive the new route. You can use these methods to customize built-in behavior and synchronize your application behavior with what's happening with navigation logic.

You can also preempt rerouting on a case-by-case basis using the `NavigationServiceDelegate.navigationService(_:shouldRerouteFrom:)` delegate method.

Source: https://docs.mapbox.com/ios/navigation/v2/guides/turn-by-turn-navigation/rerouting



Route updates and rerouting

The Navigation SDK has built-in logic to make sure your users are on the best route as traffic conditions change or the user goes off route. This includes:

- **Off-route detection** to get users back on track if they have strayed from the current route.
- **Route refresh** to make sure the current route is still a viable route.
- **Alternative routes** to offer users alternative routes as available.

Off-route detection

The Navigation SDK detects when a device strayed from a route it was navigating. When a device is determined to be off route, the SDK automatically requests a redirected route by default. If the reroute request is successful, the new route will be delivered via `RoutesObserver`.

If you want to customize your application's behavior when a user goes off route, you can observe the event using `OffRouteObserver` or control what triggers an off-route event using `NavigationRerouteController`.

Source: https://docs.mapbox.com/android/navigation/v2/guides/turn-by-turn-navigation/rerouting/.

184. Fleet Connect has been damaged as a result of the infringing conduct by Defendant alleged above. Thus, Defendant is liable to Fleet Connect in an amount that compensates it for such infringements, which by law cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

DEMAND FOR JURY TRIAL

185. Fleet Connect hereby requests a trial by jury on all issues so triable by right.

PRAYER FOR RELIEF

186. WHEREFORE, Fleet Connect requests that the Court find in its favor and against Defendant, and that the Court grant Fleet Connect the following relief:

a. Judgment that one or more claims of each of the Asserted Patents has been infringed, either literally or under the doctrine of equivalents, by Defendant or others acting in concert therewith;

b. A permanent injunction enjoining Defendant and its officers, directors, agents, servants, affiliates, employees, divisions, branches, subsidiaries, parents, and all others acting in concert therewith from infringement of the ’040 patent, the ’837, the ’153 patent, the ’845 patent, and the ’388 patent; or, in the alternative, an award of a reasonable ongoing royalty for future infringement of the Asserted Patents by such entities;

c. Judgment that Defendant account for and pay to Fleet Connect all damages to and costs incurred by Fleet Connect because of Defendant’s infringing activities and other conduct complained of herein;

d. Judgment that Defendant’s infringements of the ’040 patent, the ’837 patent, the ’153 patent, the ’845 patent, and the ’388 patent be found willful, and that the Court award treble damages for the period of such willful infringement pursuant to 35 U.S.C. § 284;

e. Pre-judgment and post-judgment interest on the damages caused by Defendant’s infringing activities and other conduct complained of herein;

f. That this Court declare this an exceptional case and award Fleet Connect its reasonable

attorneys' fees and costs in accordance with 35 U.S.C. § 285; and

g. All other and further relief as the Court may deem just and proper under the circumstances.

Dated: May 20, 2024

Respectfully submitted,

By:/s/ James F. McDonough, III
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*Admitted to the Western District of Texas

List of Exhibits

A. U.S. Patent No. 7,206,837
B. U.S. Patent No. 7,058,040
C. U.S. Patent No. 8,494,581
D. U.S. Patent No. 7,260,153
E. U.S. Patent No. 7,656,845
F. U.S. Patent No. 7,742,388
G. U.S. Patent No. 6,941,223
H. "Radio Frequency Exposure Evaluation Report" for Telematics Control Module
I. Excerpt from R1T Owner's Guide (United States - August 14, 2023)

CERTIFICATE OF SERVICE

I hereby certify that on this day a true and correct copy of the foregoing document was filed electronically with the Clerk of Court using the Court's CM/ECF system. As such, this document was served on all counsel who are deemed to have consented to electronic service.

Dated: May 20, 2024

By: */s/ James F. McDonough, III*
James F. McDonough, III