## UNITED STATES DISTRICT COURT

 NORTHERN DISTRICT OF CALIFORNIA SAN JOSE DIVISIONX ONE, INC.,

Plaintiff,<br>v.<br>UBER TECHNOLOGIES, INC.,<br>Defendant.

AMENDED ORDER GRANTING IN PART AND DENYING IN PART DEFENDANT'S MOTION FOR SUMMARY JUDGMENT AND DENYING PLAINTIFF'S MOTION FOR SUMMARY JUDGMENT

This Order supersedes ECF No. 348.
Before the Court are Defendant Uber Technologies, Inc.'s ("Uber") motion for summary judgment on the grounds of noninfringement and invalidity, ECF No. 299; Plaintiff X One, Inc.'s ("X One") motion for summary judgment of validity, ECF No. 294; and the parties' three motions to strike, ECF Nos. 250, 252, 258, and three motions to exclude, ECF Nos. 292, 297, 301. All motions have been fully briefed. Having considered the submissions of the parties, the relevant law, and the record in this case, the Court GRANTS Uber's motion for summary judgment of noninfringement, DENIES as moot Uber's motion for summary judgment of invalidity, DENIES as moot X One's motion for summary judgment of validity, and DENIES as moot the parties' six
motions to strike and motions to exclude.

## I. BACKGROUND

## A. Factual Background

## 1. The Parties

Plaintiff X One is a Delaware corporation with its primary place of business in Union City, California. ECF No. 1 ("Compl.") ๆ1. X One is the original patent applicant and assignee of the X One Patents. Id. Ex. A. The patented technology was developed by X One's principal, Richard Haney. Id. II 7. Defendant Uber is a Delaware corporation with its primary place of business in San Francisco, California. Id. ฐ| 2.

## 2. The $X$ One Patents

At issue are U.S. Patent Nos. 8,798,647 (the "'647 Patent'") and 8,798,593 (the "'593 Patent") (collectively, the "X One Patents"). Compl. II 11. The '593 Patent is titled "Location Sharing and Tracking Using Mobile Phones or Other Wireless Devices." U.S. Patent No. 8,798,593 at [54]. The '647 Patent is titled "Tracking Proximity of Services Provider to Services Consumer." U.S. Patent No. 8,798,647 at [54]. The'647 Patent is a continuation of the '593 Patent, and thus the two patents share the same specification. See Monsanto Co. v. Scruggs, 459 F.3d 1328, 1337 (Fed. Cir. 2006) ("The patents are continuations or divisionals of a common parent application and therefore necessarily have almost identical specifications."). For simplicity, the Court's citations to the text and figures of the X One Patents refer to the '593 Patent specification.

## a. Specification

The X One Patents relate to "[a] system for exchanging GPS or other position data between wireless devices." '593 Patent, at [57] (Abstract). The invention thus involves "phones [or] other wireless devices" that "are programmed with software . . . to allow mutual tracking and optional position mapping displays of members of groups." Id. at col. 2:35-40. These devices "work with a . . . server coupled to the internet." Id. Critically, these devices "must be web
enabled to send and receive TCP/IP or other protocol packets over the internet to the . . server." Id. at col. 2:25-27. These devices also contain GPS receivers, and, in preferred embodiments, "sufficiently large liquid crystal displays." Id. at col. 2:23-24.

Figure 2A illustrates exemplary communications between these devices according to the invention of the X One Patents.


Id. at Fig. 2A.
As Figure 2A illustrates, the requesting phone sends packets through the local phone carrier system, which is then relayed through the internet to a server. Id. at col. 5:59-6:28. The server then obtains the relevant data from the phones associated with individuals on a buddy list for the requesting phone. Id. The server then relays the requested information-location data for each phone associated with a "buddy" and a map showing that location-back to the requesting phone through the internet and carrier service. See also id. at col. 2:51-64 ("[T]he process of the
invention [] allows exchanging and mapping of position data with persons on a Buddy List.").
However, the specification is not solely limited to the use of a server, and outlines a more generalized process as well for the functioning of the invention. Figure 13 of the X One Patents provides a "flowchart of the method of exchanging GPS position data among cell phones of a watch list":


Id. at Figs. 13A, 13B.
In this illustrated method, a buddy location update request is received, the persons in the buddy list are identified, and the requesting device sends, through the cellular system, its location data to the phones in the buddy list. Id. Those phones receive the information, interpret it, and display that location on a map, and then obtain their own position and send their location to the people on their buddy list. Id.

## 3. The Asserted Claims

X One asserts that Uber infringes claims 1-2,5-6, 9, and 19 of the ' 593 Patent and claims

1, 4-11, 13, 22-25, 27-28, 31-37, 39-42, and 45 of the ' 647 Patent. ECF No. 228.
For the '593 Patent, claims 1 and 19 are independent claims. Claims 2, 5-6 and 9 all depend on claim 1.

For the ' 647 Patent, claims 1, 22, and 28 are independent claims. Claims 4-8, 10-11, and 13 all depend on independent claim 1. Claim 9 further depends on dependent claim 8. Furthermore, claims 23-25, and 27 all depend on independent claim 22. Lastly, claims 31-34, 36-37, 39-42, and 45 all depend on independent claim 28. Claim 35 further depends on dependent claim 34.

In response to the Court's claim narrowing order, X One has selected claim 19 of the '593 Patent and claims $4,22,23,24$, and 28 of the ' 647 Patent on which to proceed through trial first. See ECF No. 280 at 4. As such, the parties' briefing addresses only these six claims.

## B. Procedural History

On October 19, 2016, X One filed the instant patent infringement suit. In its complaint, X One alleged that Uber "has infringed and continues to infringe one or more claims of the [X One Patents]." Compl. ब 13. The products and services accused included "Uber's mobile device applications on iOS, Android, and Microsoft operating systems" as well as "the Uber ride-sharing, car-pooling, and delivery services." Id.

On December 9, 2016, Uber moved to dismiss all of the asserted claims of the X One Patents for failure to claim patent-eligible subject matter pursuant to 35 U.S.C. § 101. ECF No. 24. The Court denied Uber's motion on March 6, 2017. ECF No. 52.

On May 26, 2017, the parties filed a Joint Claim Construction and Prehearing Statement, identifying disputed claim terms, proposed constructions, and citations to supporting evidence. ECF No. 62. After receiving claim construction briefing, the Court held a technology tutorial and claim construction hearing on August 17, 2017. ECF No. 70. The following day, the Court issued its Claim Construction Order, which construed four terms from the '593 Patent and three terms from the '647 Patent. ECF No. 73 ("Claim Constr. Order") at 45-46.

Prior to the Court's claim construction proceedings, on April 7, 2017, Uber filed a Petition for Inter Partes Review ("IPR") of the '593 Patent, and on April 11, 2017, Uber filed a Petition for IPR of the ' 647 Patent. See ECF No. 78 at 1. On October 16, 2017, the PTO ordered institution of both IPRs, and shortly thereafter, on October 24, 2017, the Court stayed the present case pending resolution of the IPRs. Id. Ultimately, the IPRs upheld the validity of both the '593 and '647 Patents on October 12, 2018. ECF No. 302-5 at B906 ('593 Patent IPR Final Written Decision); ECF No. 302-2 at A926 ('647 Patent IPR Final Written Decision). Approximately one month later, on November 15, 2018, the Court lifted the stay, and discovery resumed. ECF No. 89.

## C. Pending Motions

On October 31, 2019, X One filed a motion for summary judgment of validity under 35 U.S.C. §§ 102 and 103. ECF No. 294. On November 18, 2019, Uber filed an opposition to X One's motion. ECF No. 317. On November 26, 2019, X One filed a reply. ECF No. 339.

Similarly, on October 31, 2019, Uber filed a motion for summary judgment of noninfringement and invalidity under 35 U.S.C. § 101. ECF No. 299 ("Mot."). On November 18, 2019, X One filed an opposition to Uber's motion. ECF No. 323 ("Opp'n"). On November 26, 2019, Uber filed a reply. ECF No. 338 ("Reply").

In addition to the parties' summary judgment motions, both parties have filed motions to strike and motions to exclude. On August 20, 2019, Uber filed a motion to strike portions of Dr. Sigurd Meldal's expert report on infringement. ECF No. 250. On August 21, 2019, X One filed a motion to strike portions of Uber's expert report on invalidity. ECF No. 252. On August 27, 2019, Uber filed a motion to strike portions of the expert report of X One's damages expert, Dr. Lauren Stiroh. ECF No. 258. On October 31, 2019, X One filed a motion to exclude the testimony of Uber's damages expert, Vincent Thomas, ECF No. 292, and Uber filed a motion to exclude the testimony of X One's damages expert, Dr. Lauren Stiroh. ECF No. 297. Lastly, on November 1, 2019, Uber filed a motion to exclude X One's survey expert, Ms. Sarah Butler. ECF

No. 301.
On the issue of infringement, even considering the portions of Dr. Meldal's report that Uber seeks to strike, this Order grants Uber's motion for summary judgment of noninfringement of the '593 and '647 Patents. Accordingly, the Court DENIES as moot Uber's motion to strike portions of Dr. Sigurd Meldal's expert report on infringement, ECF No. 250.

On the issue of patent validity, as explained below, the Court grants summary judgment in Uber's favor on the ground of noninfringement and need not reach the parties' arguments regarding patent validity. As a result, the Court DENIES as moot X One's motion to strike portions of Uber's expert invalidity report, ECF No. 252; Uber's motion for summary judgment of invalidity, ECF No. 299; and X One's motion for summary judgment of validity, ECF No. 294.

Similarly, because the Court enters summary judgment of noninfringement in favor of Uber, the Court need not reach the issue of damages. Accordingly, the Court DENIES as moot Uber's motion to strike portions of the expert report of X One's damages expert, Dr. Lauren Stiroh, ECF No. 258; X One's motion to exclude the testimony of Uber's damages expert, Vincent Thomas, ECF No. 292; Uber's Daubert motion to exclude the testimony of X One's damages expert, Dr. Lauren Stiroh, ECF No. 297; and Uber's motion to exclude X One's survey expert, Ms. Sarah Butler, ECF No. 301.

## II. LEGAL STANDARD

## A. Summary Judgment

Summary judgment is appropriate if, viewing the evidence and drawing all reasonable inferences in the light most favorable to the nonmoving party, there are no genuine disputes of material fact, and the movant is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a); Celotex Corp. v. Catrett, 477 U.S. 317, 321 (1986). At the summary judgment stage, the Court "does not assess credibility or weigh the evidence, but simply determines whether there is a genuine factual issue for trial." House v. Bell, 547 U.S. 518, 559-60 (2006). A fact is "material" if it "might affect the outcome of the suit under the governing law," and a dispute as to a material
fact is "genuine" if there is sufficient evidence for a reasonable trier of fact to decide in favor of the nonmoving party. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986).

The moving party bears the initial burden of identifying those portions of the pleadings, discovery, and affidavits that demonstrate the absence of a genuine issue of material fact. Celotex, 477 U.S. at 323 . Where the moving party will have the burden of proof on an issue at trial, it must affirmatively demonstrate that no reasonable trier of fact could find other than for the moving party. Id. at 322-23. But on an issue for which the opposing party will have the burden of proof at trial, the party moving for summary judgment need only point out that "the nonmoving party has failed to make a sufficient showing on an essential element of her case with respect to which she has the burden of proof." Id. at 323 . Once the moving party meets its initial burden, the nonmoving party must set forth, by affidavit or as otherwise provided in Rule 56, "specific facts showing that there is a genuine issue for trial." Anderson, 477 U.S. at 250.

If evidence produced by the moving party conflicts with evidence produced by the nonmoving party, a court must assume the truth of the evidence set forth by the nonmoving party with respect to that fact. See Leslie v. Grupo ICA, 198 F.3d 1152, 1158 (9th Cir. 1999). "Bald assertions that genuine issues of material fact exist," however, "are insufficient." Galen v. Cnty. of L.A., 477 F.3d 652, 658 (9th Cir. 2007); see also United States ex rel. Cafasso v. Gen. Dynamics C4 Sys., Inc., 637 F.3d 1047, 1061 (9th Cir. 2011) ("To survive summary judgment, a plaintiff must set forth non-speculative evidence of specific facts, not sweeping conclusory allegations."). "If the evidence is merely colorable, or is not significantly probative, summary judgment may be granted." Anderson, 477 U.S. at 249-50 (citations omitted).
"A determination of patent infringement consists of two steps: (1) the court must first interpret the claim, and (2) it must then compare the properly construed claims to the allegedly infringing device." Playtex Prods, Inc. v. Procter \& Gamble Co., 400 F.3d 901, 905-06 (Fed. Cir. 2005). "Direct infringement requires proof by preponderant evidence that the defendant performs (if a method claim) or uses (if a product claim) each element of a claim, either literally or under
the doctrine of equivalents." Cheese Sys., Inc. v. Tetra Pak Cheese \& Powder Sys., Inc., 725 F.3d 1341, 1348 (Fed. Cir. 2013).
"To support a summary judgment of noninfringement," which is what Uber seeks, "it must be shown that, on the correct claim construction, no reasonable jury could have found infringement on the undisputed facts or when all reasonable factual inferences are drawn in favor of the patentee." Netword, LLC v. Centraal Corp., 242 F.3d 1347, 1353 (Fed. Cir. 2001). "Summary judgment of noninfringement under the doctrine of equivalents is appropriate if no reasonable jury could determine two elements to be equivalent." Goldenberg v. Cytogen, Inc., 373 F.3d 1158, 1164 (Fed. Cir. 2004) (internal quotation marks omitted). Infringement, either literal or under the doctrine of equivalents, is a question of fact. See Crown Packaging Tech., Inc.v. Rexam Beverage Can Co., 559 F.3d 1308, 1312 (Fed. Cir. 2009).

## B. Claim Construction

The Court construes patent claims as a matter of law based on the relevant intrinsic and extrinsic evidence. See Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp., 744 F.3d 1272 (Fed. Cir. 2014) (en banc); Phillips v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005) (en banc). "Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim." Phillips, 415 F.3d at 1316 (citing Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1250 (Fed. Cir. 1998)). Accordingly, a claim should be construed in a manner that "stays true to the claim language and most naturally aligns with the patent's description of the invention." Id.

In construing disputed terms, a court looks first to the claims themselves, for " $[i] t$ is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" Id. at 1312 (quoting Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1115 (Fed. Cir. 2004)). Generally, the words of a claim should be given their "ordinary and customary meaning," which is "the meaning that the term[s] would have to a person of ordinary skill in the art in question at the time of the invention."

Id. at 1312-13. In some instances, the ordinary meaning to a person of skill in the art is clear, and claim construction may involve "little more than the application of the widely accepted meaning of commonly understood words." Id. at 1314.

In many cases, however, the meaning of a term to a person skilled in the art will not be readily apparent, and a court must look to other sources to determine the term's meaning. See id. Under these circumstances, a court should consider the context in which the term is used in an asserted claim or in related claims and bear in mind that "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." Id. at 1313. The specification "is always highly relevant" and "[u]sually . . dispositive; it is the single best guide to the meaning of a disputed term." Id. at 1315 (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996)). Indeed, "the only meaning that matters in claim construction is the meaning in the context of the patent." Trs. of Columbia Univ. v. Symantec Corp., 811 F.3d 1359, 1363 (Fed. Cir. 2016). Where the specification reveals that the patentee has given a special definition to a claim term that differs from the meaning it would ordinarily possess, "the inventor's lexicography governs." Id. at 1316. Likewise, where the specification reveals an intentional disclaimer or disavowal of claim scope by the inventor, the inventor's intention as revealed through the specification is dispositive. Id.

In addition to the specification, a court may also consider the patent's prosecution history, which consists of the complete record of proceedings before the United States Patent and Trademark Office ("PTO") and includes the cited prior art references. The prosecution history "can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." Id. at 1317.

A court is also authorized to consider extrinsic evidence in construing claims, such as "expert and inventor testimony, dictionaries, and learned treatises." Markman v. Westview

Instruments, Inc., 52 F.3d 967, 980 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370 (1996). Expert testimony may be particularly useful in "[providing] background on the technology at issue, . . . explain[ing] how an invention works, . . . ensur[ing] that the court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or . . . establish[ing] that a particular term in the patent or the prior art has a particular meaning in the pertinent field." Phillips, 415 F.3d at 1318. Although a court may consider evidence extrinsic to the patent and prosecution history, such evidence is considered "less significant than the intrinsic record" and "less reliable than the patent and its prosecution history in determining how to read claim terms." Id. at 1317-18 (quoting C.R. Bard, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 862 (Fed. Cir. 2004)). Thus, while extrinsic evidence may be useful in claim construction, ultimately "it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence." Id. at 1319. Any expert testimony "that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history" will be significantly discounted. Id. at 1318 (quoting Key Pharms. v. Hercon Labs. Corp., 161 F.3d 709, 716 (Fed. Cir. 1998)). Finally, while the specification may describe a preferred embodiment, the claims are not necessarily limited only to that embodiment. Id. at 1323; see also Prima Tek II, L.L.C. v. Polypap, S.A.R.L., 318 F.3d 1143, 1151 (Fed. Cir. 2003) ("The general rule, of course, is that claims of a patent are not limited to the preferred embodiment, unless by their own language.").

## III. DISCUSSION

At issue in Uber's motion for summary judgment are claim 19 of the '593 Patent and claims 4, 22, 23, 24, and 28 of the ' 647 Patent. See ECF No. 280 at 4. X One claims that Uber's two applications, Uber Rider and Uber Eats, infringe the patents-in-suit. Uber moves for summary judgment of noninfringement as to these claims. Mot. at 5-19. The Court first provides a brief overview of the two Uber applications. Then, the Court addresses the '593 Patent and the '647 Patent in turn. For each patent, the Court first resolves the parties' claim construction disputes and
then considers whether Uber infringes the claims at issue.

## A. Overview of the Uber Applications

The parties do not dispute the general manner in which the Uber Rider and Uber Eats applications operate. Opp'n at 2; Mot. at 3. The Uber Rider application is a ride-sharing platform that "connects users with drivers" through their wireless devices, Opp'n at 2, while the Uber Eats application "connects consumers with restaurants and drivers for food delivery." Mot. at 3. The parties agree that the Uber Rider and Uber Eats applications operate similarly, and that the Uber Rider application is illustrative of the user experience for both. Id. at 3-4; Opp'n at 2-4. As such, the parties primarily refer to the Uber Rider process, and the Court does the same.

For the Uber Rider application, the below images reflect Uber's "Eyeball view" (left), the product selection screen (middle), and the "En Route view" (right), as further described below. Opp'n at 3 (citing ECF No. 260-8 at $9 \boldsymbol{T} \mid$ 253, 77 ("Meldal Rpt.")).


For Uber Rider, users begin interacting with the application "by tapping the [Uber] icon" on the user's device, which causes the application to open and launch. Opp'n at 2. Once the application is open on the user's device, the application initially displays the user's current location, a map of the surrounding geographic area, and the location of nearby drivers. Id. at 3. In addition, this screen also "includes information about the drivers' current directions, their recent
movements, their estimated time of arrival (ETA), and their vehicle classes (e.g. UberX; Uber Black; Uber Pool)." Id. The parties refer to this initial view as Uber's "Eyeball view." Id.; Mot. at 4. Uber's initial "Eyeball view" also enables users to input a destination, after which the application prompts users to select the type of product the user wants (e.g., Uber X, Pool, Comfort). Opp'n at 2; Mot. at 3. Once users select a desired product, the application then requests that users input or confirm a pick-up location. Mot. at 3 . Once users have input a destination, selected a product, and confirmed a pick-up location, Uber then matches the user with a driver. Id.; Opp'n at 3.

On the backend, Uber takes a number of steps to generate the Eyeball view. Uber first "obtain[s]" a map from a third-party; then, Uber "plot[s]" driver locations onto the third-party map to generate a "map-matched" location; and finally, Uber transmits map-matched driver locations to the user along with additional "route-line data" or driver characteristics (i.e., "vehicle type, vehicle direction, and vehicle movement"). Mot. at 15-16; Opp'n at 16-17. Once a receiving user's mobile device receives the "map-matched" location from Uber, the user's device plots that location on a separately acquired map from a different third-party to ultimately display Uber's Eyeball view. Mot. at 17; Opp'n at 18.

After Uber pairs a rider and driver, the application switches to displaying what the parties describe as Uber's "En Route view." Opp'n at 3; Mot. at 4. This "En Route view" displays "the selected driver and user's pick-up locations, as well as the route the driver will take to the pickup location." Opp'n at 3. This screen additionally allows users "to track the driver's progress toward the pick-up location," with the application updating the driver's location. Id. Once the driver picks up the user, the user then completes the ride and pays the driver through the Uber application. Mot. at 3. Thus, launching either the Uber Rider or Uber Eats application does not invoke the En Route view, but instead the applications require a number of steps before the En Route view is invoked. Specifically, a user must first set the desired destination, select a vehicle mode, set the location pick-up and choose "Confirm Pickup" before the En Route view is invoked.

Mot. at 4.
Here, X One alleges that Uber's Eyeball view is the infringing functionality of the two Uber applications with respect to the '593 Patent. See Opp'n at 16. X One further alleges that Uber's En Route view is the infringing functionality of the two Uber applications with respect to the'647 Patent. See Opp'n at 12. The Court first considers the '593 Patent, then the ' 647 Patent.

## B. The '593 Patent

For the '593 Patent, only claim 19 is at issue. See ECF No. 280 at 4. Claim 19 of the '593 Patent recites the following:
19. An apparatus, comprising:
a server;
a database representing an account for a first individual, the account having an associated buddy list that identifies multiple users;
software to request and store position information associated with cell phones of plural ones of the multiple users by receiving information from cell phones associated with the respective multiple users in a manner not requiring concurrent voice communications; and
software responsive to a request from the first individual to obtain a map, to obtain a last known position for multiple users identified by the buddy list, to plot the last known location of at least two of the multiple users on the map, to transmit the map with plotted locations to the first individual, and to permit the first individual to change geography represented by the map by zooming the map and to responsively transmit to the first individual a map representing the changed geography with plotted position of at least one of the multiple users, each in a manner not requiring concurrent voice communications.
'593 Patent, col. 30:49-31:2.
The parties now dispute the scope of claim 19. Before a court can make a determination of infringement, the court "must first interpret the claim." Playtex Prods., 400 F.3d at 905-06. A court is required to construe "only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy." Realtime Data, LLC v. Iancu, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (quoting Vivid Techs., Inc. v. Am. Sci. \& Eng'g, Inc., 200 F.3d 795, 803 (Fed. Cir. 1999)). Thus, the Court first resolves the parties' claim construction dispute and then turns to whether the Uber applications infringe the claim.

## 1. Construction of the limitations "to obtain a map," "to plot . . . on the map,"

 14
## and "to transmit the map with plotted locations"

As to claim 19, the parties dispute the construction of "map" in the following limitation:
software responsive to a request from the first individual to obtain a map, to obtain a last known position for multiple users identified by the buddy list, to plot the last known location of at least two of the multiple users on the map, to transmit the map with plotted locations to the first individual . . .
'593 Patent, col. 30:59-64 (emphases added); see Mot. at 14; Opp'n at 16-18. ${ }^{1}$
As an initial matter, neither party raised this construction dispute during the claim construction proceedings. See ECF No. 63 ("Am. Jt. Claim Constr. Stmt."). Instead, the parties identified only seven terms in total for construction, only four of which were from the '593 Patent: "account," "buddy list," "last known location," and "a database representing an account for a first individual, the account having an associated buddy list that identifies multiple users." Id. at 2. Uber identified the following limitations from claim 19 as disputed and sought construction of the limitations as indefinite means-plus-function:
software to request and store position information associated with cell phones of plural ones of the multiple users by receiving information from cell phones associated with the respective multiple users in a manner not requiring concurrent voice communications; and
software responsive to a request from the first individual to obtain a map, to obtain a last known position for multiple users identified by the buddy list, to plot the last known location of at least two of the multiple users on the map, to transmit the map with plotted locations to the first individual, and to permit the first individual to change geography represented by the map by zooming the map and to responsively transmit to the first individual a map representing the changed geography with plotted position of at least one of the multiple users, each in a manner not requiring concurrent voice communications.

Id. at Ex. A, 4-6 (emphasis added) (quoting '593 Patent, col. 30:59-31:2). X One contended that no construction was necessary, that Claim 19 was not a means-plus-function claim, and that the plain meaning governs. Id.

The parties now dispute whether the first three instances of "map" refer to the same map or multiple, different maps. Specifically, the disputed limitation consists of the following three steps:

[^0](1) the limitation requires software to "[respond] to a request from the first individual to obtain a map," '593 Patent col. 30:59-60 (emphasis added);
(2) the limitation requires the software "to plot the last known location of at least two of the multiple users on the map," id. at col. 30:61-62 (emphasis added); and
(3) the limitation requires the software "to transmit the map with plotted locations," id. at col. 30:63 (emphasis added).

Uber argues that the claim requires that an infringer "obtain," "plot," and "transmit" the same "map." Mot. at 14-16. By contrast, X One argues that the three maps need not be the same map, but that the maps need only be "intertwined." Opp'n at 17.

Thus, in their summary judgment briefing, although both parties purport to apply the plain and ordinary meaning of the term "map," the parties disagree as to the plain and ordinary meaning of that term. The Court construes the term "map" according to its plain and ordinary meaning. However, applying "the plain and ordinary meaning may be inadequate when a term has more than one ordinary meaning or when reliance on a term's ordinary meaning does not resolve the parties' dispute." O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., 521 F.3d 1351, 1361 (Fed. Cir. 2008). Thus, the Court must further consider, under the plain and ordinary meaning, which parties' construction is correct. The Court agrees with Uber that all three instances of "map" refer to the same map.

Uber asserts that its construction is correct because the first instance of "map" uses the indefinite article "a," and subsequently uses the definite article "the," which means that the terms all share an "antecedent basis" relationship. See Mot. at 15, Reply at 10. The limitation reads:
software responsive to a request from the first individual to obtain a map, to obtain a last known position for multiple users identified by the buddy list, to plot the last known location of at least two of the multiple users on the map, to transmit the map with plotted locations to the first individual . . .
'593 Patent, col. 30:59-64 (emphases added). Therefore, Uber argues, because of this antecedent basis relationship, all three references to a "map" must refer to the same "map." Id.; Reply at 1112. Thus, under Uber's construction, claim 19 requires that the same map be "(1) obtained; (2)
plotted with locations; and (3) transmitted with plotted locations." Reply at 10. For the following reasons, the Court adopts Uber's construction and finds that all three disputed instances of "map" refer to the same "map."

Specifically, the Court finds that the manner in which the limitation refers to map, which creates an antecedent basis relationship, implies that the latter instances of "map" carry the same meaning as the first instance of "map." The Federal Circuit has held that, generally, a "single claim term should be construed consistently with its appearance in other places in the same claim or in the other claims of the same patent." Rexnord Corp. v Laitram Corp., 274 F.3d 1336, 1342 (Fed. Cir. 2001). Furthermore, where, as here, a claim term first appears with the indefinite article "a" and later appears with a definite article, such as "the," the Federal Circuit has found that the terms share an "antecedent basis" relationship and apply an "initial assumption" that the latter occurrence carries the same meaning as the former. See Microprocessor Enhancement Corp. v. Tex. Instruments Inc., 520 F.3d 1367, 1375 (Fed. Cir. 2008) (agreeing with a "district court's initial assumption that a single 'claim term should be construed consistently with its appearance in other places in the same claim'"). The Court has consistently recognized that "the Federal Circuit has held that claim terms '[b]ased on [an] antecedent basis relationship . . . carry the same meaning throughout the claims." See, e.g., Sensor Elec. Tech., Inc. v. Bolb, Inc., No. 18-cv-05194-LHK, 2019 WL 4645338, at *47 (N.D. Cal. Sept 24, 2019) (citing HowLink Global LLC v. Network Commc'ns Int'l Corp., 561 Fed. App’x 898, 903 (Fed. Cir. 2014)).

Furthermore, as Uber argues here, courts have relied upon an antecedent basis relationship to hold that multiple references to an item refer to the same item. For example, in Process Control Corp. v. HydReclaim Corp., the Federal Circuit reversed the district court and instead construed the term "the discharge rate" as referring to the same rate as "a discharge rate" in order to "avoid[] any lack of antecedent basis problem." 190 F.3d 1350, 1356-57 (Fed. Cir. 1999).

Uber specifically analogizes the instant case to NCR Corp. Reply at 11 (citing NCR Corp. v. Documotion Research, Inc., No. 14-395-GMS, 2015 WL 6697251, at *24-25 (D. Del. Nov. 3,
2015). At issue in NCR Corp. were the terms "a printing press or a coater" and "the printing press or the coater." NCR, 2015 WL 6697251, at *4-5. The "plaintiff argue[d] that more than one printing press or coater may perform the recited steps," while the defendant argued that the antecedent basis relationship meant that the same printing press or coater performed both steps. Id. at *24-25. The court ultimately agreed with the defendant and held that, "when the claim refers to 'the printing press or the coater,' its antecedent basis is 'a printing press or a coater' [and this relationship] indicates the printing press or coater referred to in the second instance must be the same as the first printing press or coater." Id. at *25.

The Court agrees that NCR supports Uber's proposed construction of the disputed "map" terms. As in NCR, the Court finds that the first reference to an object with the indefinite article "a" (i.e., "a map") suggests that the later references with the definite article "the" (i.e. "the map") all refer to the same map. By contrast, X One fails to respond to Uber's antecedent basis argument or to cite a single case to support X One's proposed construction that disregards the terms' antecedent basis relationship. Therefore, the Court finds that the antecedent basis relationship between the three instances of "map" strongly suggests that the three terms refer to the same map.

However, as discussed above, an antecedent basis relationship is not always dispositive of the claim construction dispute, as the Federal Circuit has held that a "patentee's mere use of a term with an antecedent does not require that both terms have the same meaning." Microprocessor, 520 F.3d at 1375 (emphasis added). Instead, an antecedent basis relationship is "supportive of, rather than necessary to [a term having] a single consistent meaning." Id. at 1375-76 (citing Phonometrics, Inc. v. Northern Telecom Inc., 133 F.3d 1459, 1465 (Fed. Cir. 1998)). Accordingly, courts may find that other reasons militate against construing multiple instances of a term to refer to the same item. For example, in Microprocessor, the Federal Circuit declined to hold that the antecedent basis relationship was dispositive where it would have led to claims that were "facially nonsensical." Id. at 1375. Instead, the Federal Circuit concluded that the meaning of each instance of the term was clear "based on its context within the claim." Id. at 1376. As a
result, the Federal Circuit rejected the "apparent nonsensical reading" that would render the claims indefinite and instead construed the terms according to the meanings "readily apparent" from each term's respective context. Id. at 1376-77.

By contrast, here, interpreting the three instances of "map" as referring to the same map would not lead to "nonsensical" claim language. Uber's proposed construction based on the antecedent basis relationship provides a cogent recitation of steps, i.e., the software must allow the same map to "(1) be 'obtain[ed]'; (2) have last known locations 'plot[ted]' on it; and (3) be 'transmit[ted]' with the plotted locations to the first individual." Mot. at 15. Unlike the claims at issue in Microprocessor, this reading would not render the claims "nonsensical" and thus indefinite. See 520 F.3d at 1375.

Furthermore, the Court is not persuaded by X One's only argument: that, for technical reasons, the three instances of "map" cannot refer to the same map. See Opp'n at 17 ("[T]he map 'obtained,' the map having the last-known locations 'plotted on it,' and the map 'transmitted' to the individuals . . . cannot be [the same map]."). X One argues that because "the claims call for software to manipulate, modify, and transfer the map, they cannot require identical data throughout this process." Id. Instead, X One argues that it is sufficient to satisfy the limitation if the "maps are intertwined." Id.

As an initial matter, X One fails to identify any language from the claim itself that would indicate that the maps cannot be the same map. See id. Instead, X One argues that claim 19 does not require the maps to be the same because "[i]f the maps were identical, the plotted locations would not appear on the [transmitted] map." Id. However, X One's argument fails because it ignores the remainder of the limitation: "to transmit the map with plotted locations." '593 Patent, col. 30:63 (emphasis added). Thus, the claim language itself contemplates that the plotted locations are separate from the map that is "obtain[ed]," on which the locations are "plot[ted]," and that is ultimately "transmit[ted]" with those plotted locations. Id. at col. 30:59-64 (emphasis added).

Indeed, X One's interpretation would construe this third instance of "map" to mean a map that would itself contain and display locations, which would in turn render the additional limitation "with plotted locations" redundant. "Ideally, claim constructions give meaning to all of a claim's terms. . . . Construing a claim term to include features of that term already recited in the claims would make those expressly recited features redundant." Apple, Inc. v. Ameranth, Inc., 842 F.3d 1229, 1237 (Fed. Cir. 2016)).

Similarly, claim 19 later recites a second "map" with the indefinite article "a": "a map representing the changed geography with plotted position." '593 Patent, col. 30:66-31:1. This second occurrence of "a map" appears shortly after the three disputed "map" terms:
software responsive to a request from the first individual to obtain a map, to obtain a last known position for multiple users identified by the buddy list, to plot the last known location of at least two of the multiple users on the map, to transmit the map with plotted locations to the first individual, and to permit the first individual to change geography represented by the map by zooming the map and to responsively transmit to the first individual a map representing the changed geography with plotted position of at least one of the multiple users, each in a manner not requiring concurrent voice communications.

Id. at col. 30:59-31:2 (emphasis added). The full context of the disputed limitation illustrates that when the inventor refers to a second map, the inventor again uses the indefinite article "a." Moreover, the full context also demonstrates how X One's construction of "map" as including the plotted positions would again render claim language ("with plotted position") redundant. The Court declines to adopt X One's construction, which creates multiple redundancies. See Ameranth, 842 F.3d at 1237.

Accordingly, far from contradicting the presumption established by the antecedent basis relationship that the three instances of "map" refer to the same map, the context and additional limitations of claim 19 strongly support such a construction. Because X One's construction would render claim language redundant, and because Uber's construction is well supported by Federal Circuit precedent, the Court adopts Uber's proposed construction and construes the three limitations "to obtain a map," "to plot . . . on the map," and "to transmit the map with plotted locations" as requiring the same map and therefore carrying the same meaning of "map."

## 2. Infringement Analysis

The Court now turns to the "comparison of the properly construed claims to the accused product," ${ }^{2}$ see Abbott Labs. v. Sandoz, Inc., 566 F.3d 1282, 1288 (Fed. Cir. 2009) (en banc), which is a question of fact, see Crown Packaging, 559 F.3d at 1312.

Uber asserts three separate arguments that support a finding of noninfringement of the '593 Patent: (1) that X One cannot identify a single "map" that satisfies the claim limitations, (2) that Uber does not "transmit the map with plotted locations," as required by the claim, and (3) that X One's infringement theory is untimely because it was not disclosed in X One's infringement contentions, as Uber argues in its separate motion to strike. Because the Court agrees with Uber's first noninfringement argument, the Court need not reach Uber's second noninfringement argument nor Uber's procedural argument about timeliness. The Court first sets forth the parties' undisputed facts about Uber's Eyeball view, which X One asserts is the infringing functionality of the Uber Rider and Uber Eats applications with respect to the '593 Patent. The Court then turns to Uber's first noninfringement argument.

The parties do not dispute that Uber does not use the same "map" to "obtain a map," "plot . . . on the map," and "transmit the map with plotted locations" as required by the Court's construction of claim 19. Specifically, there is no dispute of fact as to how Uber's two applications reach the Eyeball view. Put broadly, Uber first "obtain[s]" a map from a third-party. Next, Uber "plot[s]" driver locations onto the third-party map to generate a "map-matched" location. Finally, Uber transmits map-matched driver locations to the user along with additional "route-line data" or driver characteristics (i.e., "vehicle type, vehicle direction, and vehicle movement"). Mot. at 15-16; Opp'n at 16-17. Once a receiving user's mobile device receives the "map-matched" location from Uber, the user's device plots that location on a separately acquired

[^1]map to ultimately display Uber's Eyeball view. As such, there is no dispute that the third-party map Uber uses to obtain and plot driver locations is different from the location information Uber ultimately transmits to users. See Mot. at 15; Opp'n at 17. Therefore, there is no dispute of fact that the process Uber uses to reach the Eyeball view does not use the same "map" to "obtain," "plot," and "transmit."

The Court's claim construction above requires that the same map be used at each of the three steps in order to infringe: (1) the software must "obtain a map," (2) the software must "plot the [driver locations]" on the same map, and (3) the software must transmit the same map "with plotted locations." See '593 Patent, col. 30:59-31:15. Yet, X One explicitly argues that the three instances of "map" "cannot be" the same. See Opp'n at 17. Indeed, X One concedes that the "map" at the first and second steps is different than the "map" transmitted at the third step. Thus, the Court agrees with Uber that there is "no common 'map' [in Uber Rider and Uber Eats] that satisfies all the limitations" of claim 19. See Mot. at 15.

Moreover, X One's infringement theory not only fails to use the same map for all three steps, but also fails to carry the same meaning for "map" throughout the claim. Specifically, X One construes the term "map" as follows:
(1) at the first step, X One argues that Uber obtains a "map," which consists of "roadsegment data" from a third-party vendor, Opp'n at 11;
(2) at the second step, X One argues that Uber "plots" raw driver coordinates on the thirdparty "map" that is obtained at the first step, $i d$., a process called map-matching that corrects potentially inaccurate driver GPS information, see Opp'n at 4; and
(3) at the third step, X One argues that the map-matched driver locations transmitted by Uber to app users constitute the third step's "map," Opp'n at 11.

X One thus explicitly acknowledges that it does not consider the maps used by Uber to be the same map for all three steps because the "map" at the first and second steps is the third-party road segment data. Id. By contrast, X One argues that the map-matched driver locations transmitted by

Uber to app users constitute the third step's "map." Opp'n at 16-18. For purposes of the instant motion, the Court adopts X One's claim construction that map-matched driver locations transmitted by Uber to app users constitute a "map." Nonetheless, X One's construction does not change the Court's analysis. Instead, X One's construction highlights that X One does not consider the "map" at the first and second steps to be the same as the "map" that is transmitted to the user at the third step. X One's only response to Uber's argument is that the maps are "intertwined," which again highlights that the three "maps" are not the same map but are instead merely related. See Opp'n at 17.

X One's infringement theory thus directly contradicts the Court's construction, which requires not only that the three instances of map carry the same meaning, but that the three instances of map be the same map. As such, because there is no material factual dispute that Uber's Eyeball view does not "obtain," "plot . . . with locations," and "transmit" the same map, the Court holds that Uber does not practice the claim 19 limitations. Accordingly, the Court GRANTS Uber's motion for summary judgment with respect to noninfringement of the '593 Patent.

## C. The ' 647 Patent

Only claims $4,22,23,24$, and 28 of the ' 647 Patent are currently at issue. See ECF No.
280 at 4. Independent claim 1, upon which claims 4-11, and 13 depend, recites:

1. A method of tracking proximity of position associated with a first wireless device relative to a position of a second wireless device, wherein one of the first wireless device and the second wireless device is associated with a provider of a desired service and the other of the first wireless device and the second wireless device is associated with a requestor of the desired service, the method comprising:
causing receipt of information on the first wireless device representing the position of the second wireless device and a map associated with the position associated with the first wireless device and the position of second wireless device;
causing display of the map on the first wireless device with position associated with the first wireless device and the position of the second wireless device rendered thereon; and
causing receipt of information on the first wireless device representing positional update of the second wireless device, and causing update of display of the map on the first wireless device with the position associated with the first wireless device and updated position of the second wireless device rendered thereon;
wherein the causing of the update is to be performed to indicate proximity of and direction between position of the provider of the desired service and position associated with the requestor of the desired service
wherein the method is invoked responsive to launching an application on the first wireless device in connection with a request from the requestor for the desired service; and
wherein the provider is selected in connection with the request for the desired service and the method further comprises forming a use-specific group to have the first wireless device and the second wireless device in connection with the request for the desired service.
'647 Patent, col. 28:50-29:18. Independent claim 22, upon which claims $23-25$ and 27 depend, recites:
2. A method of tracking proximity of position associated with a first wireless device relative to position of a second wireless device, wherein the first wireless device is associated with a requestor of a desired service and the second wireless device is associated with a provider of the desired service, the method comprising:
selecting the provider of the desired service in association with an application launched by the requestor on the first wireless device, wherein the second wireless device is associated with the provider and is thereby selected in associated [sic] with launch of the application;
causing receipt of information on the first wireless device representing position of the provider, dependent on global positioning system (GPS) position data provided by the second wireless device, and receipt of information representing a map associated with the position associated with the first wireless device and the position of the second wireless device;
causing display of the map on the first wireless device with the position associated with the requestor and the position of the second wireless device rendered thereon; and
causing receipt of information on the first wireless device representing intermittent positional update dependent on GPS position data provided by the second wireless device, and causing update of display of the map on the first wireless device with respective position associated with the first wireless device and positional update dependent on the GPS position data provided by the second wireless device rendered thereon;
wherein selecting the provider of the desired service includes forming a use-
specific group to have the first wireless device and the second wireless device in connection with the request for the desired service.
'647 Patent, col. 30:47-31:12. Finally, independent claim 28, upon which claims 31-39, 40-42, and 45 depend, recites:
3. An apparatus comprising instructions stored on non-transitory machinereadable media, the instructions when executed operable to:
cause receipt of information on the first wireless device representing position of the second wireless device and a map associated with position associated with the first wireless device and the position of the second wireless device;
cause display of the map on the first wireless device with the position association with the first wireless device and the position of the second wireless device rendered thereon; and
cause receipt of information on the first wireless device representing positional update of the second wireless device, and cause update of display of the map on the first wireless device with the position associated with the first wireless device and updated position of the second wireless device rendered thereon;
wherein one of the first wireless device and the second wireless device is associated with a provider of a desired service, wherein the update of the display is to [be] performed to indicate proximity of and direction between the provider of the desired service and a position associated with a requestor of the desired service, wherein the causing of the receipt of the information representing the position, the causing of the display, and the causing of the receipt of information representing positional update are invoked responsive to launching an application on the first wireless device in connection with a request by the requestor for the desired service, wherein the provider is selected in connection with the request for the desired service, wherein the instructions when executed are to cause formation of a use-specific group to have the first wireless device and the second wireless device in connection with the request for the desired service.
'647 Patent, col. 31:37-32:5.
Further, the dependent claims at issue on summary judgment-claims 4, 23, and 24 of the
'647 Patent-recite:
4. The method of claim 1, wherein the application is non-native to the first wireless device and is to be selectively downloaded to and installed on the first wireless device.
5. The method of claim 22, wherein the method is performed on a two-way basis, such that information is provided to each wireless device to indicate to each
one of the requestor and the provider the direction between and proximity of the position associated with the first wireless device to the position of the second wireless device.
6. The method of claim 22 , wherein the method further comprises providing selective, direct voice communication between the requestor and the provider. Id. at col. 29:30-32, col. 31:13-21.

As above, the Court first considers the parties' claim construction dispute, before turning to Uber's theories of noninfringement.

## 1. Construction of the limitations "invoked responsive to launching an application" and "in association with an application launched"

With regard to Uber's motion for summary judgment of noninfringement, the parties raise claim construction disputes with regard to two claim limitations-one from independent claims 1 (upon which claim 4 depends) and 28, and one from independent claim 22 (upon which claims 23 and 24 depend). The first disputed limitation, found in claims 1 and 28 , is: "invoked responsive to launching an application." '647 Patent, col. 29:9-11, col. 31:64-65. The second disputed limitation, found in claim 22, is: "in association with an application launched." ${ }^{3}$ Id. at col. 30:5354.

Notably, in the parties' Amended Joint Claim Construction Statement, the parties previously asked the Court to construe both limitations, see Am. Jt. Claim Constr. Stmt. at 2, and the Court in fact construed both, Claim Const. Order at 36-40. At claim construction, X One proposed that the Court adopt the "plain meaning" of the "responsive to launching an application" and "in association with launch of the application" limitations. See Claim Constr. Order at 36-40. Conversely, Uber argued that the Court should construe both as "in association with the running of the application." Id.

[^2]Ultimately, the Court rejected Uber's proposed construction and assigned both phrases their plain meaning. See Claim Constr. Order at 36-40. However, with respect to "responsive to launching," the Court held that the limitation "simply places a temporal relationship on launching and the other claimed functions: they happen in response to launching." Id. at 38 . With respect to "in association with an application launched," the Court stated that the phrase is "broader [than 'responsive to launching'], and just requires some relationship between launching and the claimed functions." Id. Furthermore, the Court stated that the limitations do "not mean that the application cannot be running." Id. The Court also held that a process that "requires user input would not be automatically excluded by" either limitation. Id. at 40.

Despite the Court's construction of these two limitations, the parties raise a new claim construction issue on summary judgment that implicates both phrases. Specifically, Uber argues that the statements X One made during the '647 Patent IPR proceeding, which occurred after the Court's claim construction, amount to prosecution disclaimer and require further narrowing of the claims. Specifically, Uber argues that X One "disavowed any interpretation of the 'launching' limitations that requires user input to trigger the claimed method." Mot. at 10. The relevant prior art reference from the '647 Patent IPR was Japanese Unexamined Patent Application Pub. 2002352388 (the "Konishi reference"), which "discloses a system to enable a customer to easily search for the status of vacant vehicles located within a prescribed range from the current position of the customer on a map and displaying the positions on the screen of the customer's information terminal." ECF No. 302-2 at A889, A903-905 (citations omitted). Uber contends that during the '647 Patent IPR, X One distinguished the '647 Patent over the Konishi reference "on the basis that [Konishi] required user input after application launch, and thus could not be 'responsive to launching' or 'in association with launch."" Id. at 10. As such, Uber argues that "X One's statements in the ['647] IPR qualify as prosecution disclaimer and confirm that the 'plain meaning' of these 'launching' limitations is that the launch, rather than user input, must trigger the claimed functions." Id. at 13-14.

X One responds that disclaimer is inappropriate in the present case because the Konishi reference is "fundamentally different" from Uber's system and because "the PTAB expressly rejected any construction excluding all user input." Id. at 14-15. First, X One argues that Uber ignores additional differences between the Konishi reference and the '647 Patent. See id. at 14. Namely, X One argues that Konishi is "outside of the claim scope" because "Konishi does not disclose any application on a user's mobile device [and thus] there could be no relationship to a launch of an application on [a] user's mobile device." Id. Second, X One relies on Power Integrations, Inc. v. On Semiconductor Corp., a district court decision, to argue that prosecution disclaimer does not apply in situations where the PTAB "expressly reject[s]" a patent owner's statements. Id. at 15 (citing Power Integrations, Inc. v. On Semiconductor Corp., 396 F. Supp. 3d 851, 866 (N.D. Cal. 2019)). X One contends that when the "PTAB found that 'the launch must be broad enough to allow for some user interaction,"" the PTAB expressly rejected X One's narrower construction that the limitations do not allow for any user input. Id. Furthermore, X One highlights that "Uber asks the Court to accept a claim interpretation that is inconsistent with the Court's [and the PTAB's] claim construction." Id. X One argues that such an interpretation would lead to claim scope that "differ[s] between X One's infringement argument and Uber's invalidity argument," and that "[t]he law does not allow such result." Id. (citing Amazon.com, Inc. v. Barnesandnoble.com, Inc., 239 F.3d 1343, 1351 (Fed. Cir. 2001)). Therefore, X One argues, the Court cannot apply prosecution disclaimer.

The Court first addresses X One's argument based on Power Integrations that Uber cannot now raise its prosecution disclaimer arguments. The Court then turns to Uber's specific prosecution disclaimer arguments to determine whether the Court should revisit its construction of the disputed claim limitations "invoked responsive to launching an application" and "in association with an application launched."

## a. Uber is not precluded from raising prosecution disclaimer arguments

Uber asks the Court to revisit claim construction to further narrow the "responsive to
launching" and "in association with launch" limitations, following X One's statements during the '647 Patent IPR proceedings, which occurred after the Court's claim construction. Courts are permitted to revisit claim construction either to engage in additional claim construction or to modify a previous construction. Utah Med. Prods., Inc. v. Graphic Controls Corp., 350 F.3d 1376, 1382 (Fed. Cir. 2003) (affirming a district court's claim construction where the district court modified its previous claim construction); see also Jack Guttman, Inc. v. Kopykake Enters., 302 F.3d 1352, 1361 (Fed. Cir. 2002) ("District courts may engage in a rolling claim construction, in which the court revisits and alters its interpretation of the claim terms as its understanding of the technology evolves."). Specifically, the Court must determine whether Uber may raise the prosecution disclaimer arguments, or, as X One argues, doing so at this juncture would be inappropriate.
"Prosecution disclaimer 'preclud[es] patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution" and requires a "clear and unmistakable disclaimer of claim scope." Aylus Networks, Inc. v. Apple, Inc., 856 F.3d 1353, 1359 (Fed. Cir. 2017) (citing Omega Eng'g, Inc. v. Raytek Corp., 334 F.3d 1314, 1323-26 (Fed. Cir. 2003)). On the other hand, statements that are "vague or ambiguous" do not trigger prosecution disclaimer. Omega Eng'g, 334 F.3d at 1325. In addition, the Federal Circuit has found prosecution disclaimer where the examiner "did not indicate reliance on the [the patentee's argument]." Seachange Int'l, Inc. v. C-Cor Inc., 413 F.3d 1361, 1374-75 (Fed. Cir. 2005); see also Springs Window Fashions LP v. Novo Indus., L.P., 323 F.3d 989, 994-95 (Fed. Cir. 2003) (applying prosecution disclaimer even though "it [was] not clear that the examiner" relied on the patentee's argument). The Federal Circuit has even found prosecution disclaimer where the patentee's "statement was unnecessary to overcome the reference and [where] the examiner explicitly disagreed with it." See, e.g., Am. Piledriving Equip., Inc. v. Geoquip, Inc., 637 F.3d 1324, 1336 (Fed. Cir. 2011). Furthermore, the Federal Circuit has applied prosecution disclaimer to statements beyond the prosecution of the patent itself, including to a patentee's post-issuance
statements made during IPR proceedings. See Aylus Networks, 856 F.3d at 1364.
To argue that prosecution disclaimer does not apply to X One's previous statements during the '647 Patent IPR, X One relies on Power Integrations, a district court decision. See Opp'n at 14-16 (citing Power Integrations, 396 F. Supp. 3d at 866). In Power Integrations, a patent owner, during an IPR proceeding, attempted to distinguish the patented invention from a prior art reference by stating that the patent "describes and claims using only a feedback signal," whereas the prior art taught "using both a feedback signal and a signal based on input voltage." Power Integrations, 396 F. Supp. 3d at 862. The PTAB ultimately rejected the patent owner's arguments, with the PTAB "construing the claims to be broader than [the patent owner] had argued." Id. The PTAB then invalidated the patent under this broader construction. However, the Federal Circuit later vacated the PTAB's Final Written Decision on procedural grounds. Id. Later, on summary judgment in district court litigation, the petitioner attempted to argue to the district court that the patent owner's prior statements during the IPR barred the patent owner from "arguing that the asserted claims cover more than a single signal." Id. at 863. The district court nonetheless held that prosecution disclaimer did not apply "for two independent reasons." Id. The district court reasoned that, "[f]irst, and most importantly, [patent challenger] failed to make this argument during claim construction and does not provide evidence to support such a construction here," and second, "prosecution disclaimer does not apply to this somewhat unique procedural posture, where (1) the PTAB expressly rejected [patent owner's] proposed construction, and (2) the Federal Circuit vacated the PTAB's final written decision on procedural, time-bar grounds, with the IPR to be dismissed." Id. at 863-64.

Because of significant procedural differences, the Court disagrees that the Power Integrations decision even extends to the facts at hand. First, in Power Integrations, the patent owner's allegedly disclaiming statements occurred before the district court's claim construction, and the patent challenger "failed to make th[e disclaimer] argument during claim construction." Id. at 863. The present case is different because here, the Court construed the claims before X

One made the relevant statements, and thus Uber could not have made its prosecution disclaimer arguments during the Court's claim construction. Compare Claim Constr. Order (filed Aug. 18, 2017) with ECF No. 302 at A307 (Patent Owner's Response filed Feb. 5, 2018).

Similarly, the Court does not find any "unique procedural posture" in this case militating against prosecution disclaimer. In Power Integrations, the PTAB expressly rejected the patent owner's proposed constructions and invalidated the patent. The Federal Circuit then vacated the PTAB's final written decision on procedural, time-bar grounds. 396 F. Supp. 3d at 864. That unique procedural posture is not present here because the PTAB upheld the validity of the ' 647 Patent and the Federal Circuit appeal is currently pending. This procedural difference is significant. In Power Integrations, the court highlighted this distinction, stating that disclaimer aims "to hold patentees to the arguments they make to secure allowed claims, not rejected claims." 396 F. Supp. 3d at 865. Here, because the PTAB affirmed validity, the Power Integrations's court distinction does not apply. In sum, because the PTAB affirmed the validity of the ' 647 patent, no special procedural circumstances warrant the Court's disregard of statements that would otherwise amount to prosecution disclaimer.

Indeed, as stated above, Federal Circuit precedent supports applying prosecution disclaimer even when an examiner rejects the patentee's argument but nonetheless allows the claims. See, e.g., Am. Piledriving, 637 F.3d at 1336 (applying prosecution disclaimer even though "the examiner explicitly disagreed with [the patentee's statement]"). As such, the Court holds that, even though the PTAB rejected X One's argument when the PTAB upheld the ' 647 Patent's validity, X One cannot escape any disclaiming effect of its statements.

## b. X One's IPR statements constitute prosecution disclaimer

Because the Court finds that Uber may raise its prosecution disclaimer argument, the Court turns to whether the Court's prior construction of "responsive to launching" and "in association with launch" now warrant further review or modification. For the reasons below, the Court finds disclaimer applicable and holds that X One disclaimed processes requiring user input from the
scope of "responsive to launching" and "in association with launch."
Uber argues that X One triggered prosecution disclaimer when " X One distinguished
Konishi on the basis that the claimed location sharing method required user input after application launch, and thus could not be 'responsive to launching' or 'in association with launch.'" Mot. at 10. Uber highlights several specific statements from X One's IPR Patent Owner Response, including:

Because Konishi requires user input at step 35 before proceeding to the steps of plotting, transmitting the map, and displaying the map, an ordinary artisan would not have understood that plotting, transmitting the map, and displaying the map occur "responsive to launching" an application on the user's device. 'Launching,' understood as the startup process of an application, and 'responsive to launching' require the claimed operations to be triggered by [the] startup process, not by subsequent user actions that occur later.

Mot. at 11 (citing ECF No. 302 at A335 (Patent Owner's Response)).
The transition from step 33 to step 35 would be understood to mark the delineation from "launching" to "running" an application, because actions subsequent to step 35 depend not on the startup procedures, but instead on what the user inputs at step 35. An ordinary artisan would thus understand steps subsequent to step 35 are responsive to the user's input, not "responsive to launching" an application, because that user input is required to proceed. An ordinary artisan would recognize this "launching" to "running" transition because information processing device 11 has begun exchanging information with the user, rather than reacting to commands initiated by the startup procedure. As such, subsequent steps - such as plotting, transmitting the map, and displaying the map in Konishi-occur in response to the user's taxi selection criteria, not "launching" an application on the user device, as recited in claims 1 and 28.

## Id. at 12 (citing ECF No. 302 at A335 (Patent Owner's Response)).

[A]n ordinary artisan would also not understand Konishi as disclosing "selecting the provider . . . in associat[ion] with launch of the application" on the user device, as recited in claim 22. Konishi's system requires the user to input taxi selection criteria at step 35 before the system plots, transmits, and display [sic] taxis on the map, at which point the user can choose to "reserv[e]" the taxi, which would be understood as "selecting the provider." Thus, selecting the service provider-the taxi-is tied to the user's taxi specifications at step 35 processed by information processing device 11, not the "launch" or startup procedures of an application on the user's device.

Id. (citing ECF No. 302 at A335 (Patent Owner's Response)). ${ }^{4}$
The Court agrees with Uber that X One's statements amount to disclaimer of "user input"

[^3]from "launch" or "launching." Although X One, in its Patent Owner's Response, acknowledged that the Court's prior claim construction did not per se exclude user input from the scope of "responsive to launching" nor "in association with launch," X One repeatedly attempted to rely on Konishi's "user input" requirement to argue that Konishi was distinct from the '647 Patent. See ECF No. 302 at A333-A337. Indeed, X One's Patent Owner Response contains an entire subsection titled "Konishi Requires Users to Input Taxi Selection Criteria Before Sending Maps or Selecting Providers, Not 'Responsive to' or 'in Associat[ion] with' Launching." Id. at A333. The Court finds the first two sentences of this subsection illustrative, wherein X One stated:

Konishi does not disclose performing steps "responsive to" launching an application (claims 1, 28) or "selecting the provider . . . in associat[ion] with launch of the application" (claim 22), as claimed. Ex. 2004 II 53. Konishi instead discloses sending location information to the mobile device only after the user enters search criteria and sends it to a central server.

Id. at A333-A334.
The Court finds such statements to be a clear expression by X One that, if a process requires user input, that process is distinct from launching, and neither "responsive to" or "in association with" launch. That X One repeatedly made this argument to the PTAB leads the Court to find that these statements, taken together, amount to a "clear and unmistakable disclaimer" of the '647 Patent's scope. See Omega Eng'g., 344 F.3d at 1325-26 ("for prosecution disclaimer to attach, our precedent requires that the alleged disavowing actions or statements made during prosecution be both clear and unmistakable").

Although X One describes Uber's argument as "not a fair characterization of X One's statements," X One does not elaborate on how the argument is unfair. Instead, X One focuses on its argument that disclaimer cannot apply in light of Power Integrations, an argument the Court rejected above. See Opp'n at 15. To the extent X One does attempt to rebut Uber's argument, X One merely responds that the Konishi reference was fundamentally different from the '647 Patent because "Konishi does not disclose any application on a user's mobile device." The Court agrees with Uber that this additional difference from the '647 Patent is beside the point. See Reply at 5-
6. The Federal Circuit has already recognized that "[a]n applicant's invocation of multiple grounds for distinguishing a prior art reference does not immunize each of them from being used to construe the claim language. Rather, as [the Federal Circuit has] made clear, an applicant's argument that a prior art reference is distinguishable on a particular ground can serve as a disclaimer of claim scope even if the applicant distinguishes the reference on other grounds as well." Andersen Corp. v. Fiber Composites, LLC, 474 F.3d 1361, 1374 (Fed. Cir. 2007) (emphases added) (citing Digital Biometrics, Inc. v. Identix, Inc., 149 F.3d 1335, 1347 (Fed. Cir. 1998) (holding that a patentee's attempts to distinguish the prior art "on more narrow grounds . . . does not eliminate global comments made to distinguish the applicants' 'claimed invention' from the prior art."); Gentry Gallery, Inc. v. Berkline Corp., 134 F.3d 1473, 1477 n. 1 (Fed. Cir. 1998) (holding that when a patentee distinguishes the prior art on several grounds, "any of those grounds may indicate the proper construction of particular claim terms"). As such, even though X One distinguished Konishi on other grounds, those additional statements do not negate X One's statements concerning user input.

Lastly, X One's reliance on Amazon.com is likewise misplaced. X One cites Amazon.com to argue that "claim scope must be consistent for both infringement and invalidity analysis." Opp'n at 15-16 (citing Amazon.com, 239 F.3d at 1351). X One contends that " $[\mathrm{i}] \mathrm{f}$ the Court accepts Uber's disclaimer argument, the claim scope would differ between X One's infringement argument and Uber's invalidity argument," and that "[t]he law does not allow such result." Id. at 15. However, as discussed above, Federal Circuit precedent authorizes courts to revisit claim construction. See, e.g., Utah Med. Prods., 350 F.3d at 1381-83 (affirming district court's amended claim construction). As precedent establishes, the Court is free to revisit claim construction as necessary and chooses to do so here as a result of X One's own arguments during the ' 647 Patent IPR proceeding that took place after the Court's claim construction. In any case, the Court need not reach Uber's invalidity arguments in the instant motion.

Therefore, because the Court finds that X One's statements amount to a "clear and
unmistakable" disavowal of processes requiring user input from the disputed "launching" limitations, the Court further construes "responsive to launching" and "in association with launch" to be exclusive of processes that require user input. See Vivid Techs., 200 F.3d at 803 (holding that a court need only construe claims "to the extent necessary to resolve the controversy"). As such, a process that requires user input cannot be "responsive to launch" or "in association with launch" within the context of the ' 647 Patent.

## 2. Infringement Analysis

Having further construed the ' 647 Patent claims, the Court now turns to the "comparison of the properly construed claims to the accused product." See Abbott Labs, 566 F.3d at 1288. At issue in the instant motion are independent claims 22 and 28 and dependent claims 4, 23, and $24 .{ }^{5}$

With respect to the '647 Patent, both parties agree that Uber allegedly practices the claimed invention when Uber Rider and Uber Eats invoke Uber's En Route view. See Reply at 78 (quoting ECF No. 298-5 ("Meldal Dep."), at 177:22-179:10). Uber asserts three separate arguments that support a finding of noninfringement of the '647 Patent: (1) that Uber's En Route view lacks the requisite relationships with "launching" to satisfy the disputed limitations pursuant to the Court's initial claim construction, (2) that X One's statements during the '647 Patent IPR trigger prosecution disclaimer, additionally narrowing the disputed limitations and excluding Uber's En Route view, and (3) that X One's infringement theory is untimely because it was not disclosed in X One's infringement contentions, as Uber argues in its separate motion to strike. Because the Court finds that the first two arguments warrant summary judgment of noninfringement, the Court need not reach Uber's procedural argument about timeliness.

Because the Court held above that X One's '647 Patent IPR statements constituted

[^4]prosecution disclaimer, the Court first considers Uber's argument based on the Court's narrower construction of the limitations at issue. The Court then turns to Uber's independent argument for noninfringement based on the Court's initial claim construction.

## a. Under the Court's narrowed claim construction, the En Route view is not invoked "responsive to launching" or "in association with launch"

In light of the Court's further claim construction applying prosecution disclaimer, the Court finds no dispute of fact that Uber does not infringe claims 4, 22, 23, 24, and 28 of the ' 647 Patent. Specifically, the Court found prosecution disclaimer applied when, following the Court's initial claim construction, X One repeatedly argued to the PTAB that the Konishi prior art was distinguishable because it "requires user input," and was thus not "responsive to" or "in association with" launching. See supra Section III.C.1. As such, consistent with X One's own position in the ' 647 Patent IPR proceeding, the Court now construes the limitations "responsive to launching" and "in association with launch" to be exclusive of processes that require user input. Under this narrower construction, the Court finds that, as a matter of law, Uber's En Route view does not infringe the '647 Patent claims at issue.

X One asserts that Uber Rider's and Uber Eats' En Route view is the allegedly infringing functionality with respect to the '647 Patent. See Mot. at 6; Opp'n at 12. Neither party disputes the basic facts about how Uber Rider and Uber Eats invoke Uber's En Route view. Both parties agree that launching either the Uber Rider or Uber Eats application does not invoke the En Route view, but instead the applications require user input before invoking the En Route view. Mot. at 4 ("several user input steps are required in Uber Eats [and Uber Rider] before the En Route view shows the location of the driver"); Opp'n at 3 ("If the user requests a ride, the Uber system matches the user with a driver, and causes display of a different map to the user. . . . Uber calls this an 'En Route' view." (emphasis added)). This user input consists of the following steps before the applications ultimately display the En Route view: a user must first set the desired destination, select a vehicle mode, set the location pick-up, and choose "Confirm Pickup" before the En Route view is displayed. Mot. at 4. Furthermore, both parties agree that when the application is
launched, but before the application displays the En Route view, Uber's system generates a "session ID" which "persists until the trip ends" or until "expir[ing] after 30 minutes of inactivity." Opp'n at 2-4; Reply at 8-9.

Specifically, because this Court has now further construed "responsive to launching" and "in association with launch" to exclude processes requiring user input, the Court concludes that Uber's En Route view does not infringe the '647 Patent claims at issue. Neither party disputes that Uber's application requires user input to invoke the allegedly infringing En Route view. See Mot. at 3-4; Opp'n at 11. X One's arguments rely on the Court's initial claim construction of the "responsive to launching" or "in association with launch" limitations, see Opp'n at 10-13, which the Court narrowed as a result of X One's prosecution disclaimer, see supra Section III.C.1. In view of the Court's narrowed construction of these limitations and absent any factual dispute that Uber's En Route view is not invoked "responsive to launching" or "in association with launch," X One cannot establish infringement.

## b. Even without additional claim construction, Uber does not infringe the asserted '647 Patent claims under the Court's initial claim construction

Uber also argues in the alternative that, if the Court declines to narrow its initial claim construction, the Uber applications would not infringe the '647 Patent claims at issue even under the Court's initial claim construction of "responsive to launching" and "in association with launch." Mot. at 5-9. The Court agrees with Uber that the En Route view would not infringe the '647 Patent claims even under the Court's initial claim construction.

Specifically, prior to the ' 647 Patent IPR, the Court construed the limitations at issue as their plain and ordinary meaning but held that "[r]esponsive to launching simply places a temporal relationship on launching and the other claimed features," while "" $[\mathrm{i}] \mathrm{n}$ association with an application launched' is broader, and just requires some relationship between launching and the claimed functions" (hereafter, "initial claim construction"). Claim Constr. Order at 38. In so doing, the Court explicitly rejected Uber's proposed construction that those limitations merely require that the infringing functionalities be invoked "in association with the running of the
application." Id. at 36 (emphasis added).
X One attempts to circumvent the Court's initial claim construction by arguing that because Uber assigns a "session ID" identifier every time the Uber applications are launched, that "session ID" supplies the requisite relationship between launch and the En Route view.

Specifically, to establish infringement, X One argues that "each completed ride or delivery [is tied] to a particular application [through a] unique session ID." Mot. at 9. Uber responds that X One's broad reading would directly contradict the Court's initial claim construction because it would, in effect, mean that the limitation merely requires that the infringing method be invoked in association with running the application-a construction that this Court rejected. Mot. at 8 . The Court agrees with Uber.

Neither party disputes that Uber's applications generate a session ID every time a user launches either application. See Reply at 8-9; Opp'n at 2. Both parties further agree that, just because an application is launched and a session ID is generated, does not mean that the the En Route view is invoked. See Opp'n at 3-4; Reply at 9-10. Instead, the same session ID persists until the application terminates, even if a user never invokes the En Route view. See id. The En Route view is invoked if and only if the user enters certain criteria for a desired ride and affirmatively requests that ride. See Opp'n at 3. By contrast, users may launch the application for any number of purposes that would never invoke the En Route view: for example, to modify their account profile, to add a payment method, or to review charges for past trips, see Mot. at 5, and the session ID would only expire after 30 minutes of inactivity, Opp'n at 4. Moreover, "a user can launch the Uber application and interact with it indefinitely using the same session ID without the session ending, and without ever invoking the En Route view." Mot. at 9. Thus, although X One is technically correct that the En Route view may only be invoked after a session ID is assigned, the reverse is not true. The creation of a session ID does not invoke the En Route view. Thus, the session ID merely "identifies activity while the application is running." Id. at 10. Because the Court already rejected a claim construction that merely required a relationship with running as
opposed to launching the application, the Court holds that the session ID identifier cannot supply the requisite relationship.

In fact, Uber argues that because the applications require user input to invoke the En Route view, there is no relationship between application launch and the En Route view. Mot. at 6-9. X One responds that the Court's initial claim construction held that some user input "would not be automatically excluded" by either limitation. See id. (citing Claim Constr. Order at 39). Nonetheless, as initially construed by the Court, the limitations at issue still require some relationship between the launch of the application and the invocation of the En Route view. Claim Constr. Order at 38. As explained above, the Court finds that Uber's En Route view does not have the necessary relationship with launch required by either the "responsive to launching" and "in association with launch" limitations. Instead, under the Court's initial claim construction, the En Route view is "invoked responsive to" and "triggered by" a user's request, rather than the launch of the application, and is thus neither "responsive to launching" nor "in association with launch." See Mot. at 5.

Accordingly, even under either the Court's initial claim construction, X One has failed to raise a genuine dispute of material fact that Uber's "En Route view" infringes the asserted '647 Patent claims. Accordingly, the Court GRANTS Uber's motion for summary judgment of noninfringement with respect to independent claims 22 and 28, and dependent claims 4, 23, and 24.

## IV. CONCLUSION

For the foregoing reasons, the Court GRANTS Uber's motion for summary judgment of noninfringement, DENIES as moot Uber's motion for summary judgment of invalidity, DENIES as moot X One's motion for summary judgment of validity, and DENIES as moot the parties' six motions to strike and motions to exclude.

## IT IS SO ORDERED.

Dated: February 12, 2020


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[^0]:    ${ }^{1}$ The parties also raise a second claim construction dispute. X One argues that the map-matched driver locations transmitted by Uber to app users constitute a "map with plotted locations." For purposes of the instant motion, the Court adopts X One's construction, as explained below. See section III.B.2.

[^1]:    ${ }^{2}$ As discussed above, X One has selected only independent claim 19 from the '593 Patent on which to proceed at this time. See ECF No. 280 at 4. Thus, Uber's motion for summary judgment addresses only claim 19 of the '593 Patent. See Mot. at 14-19. The Court notes, however, that the limitations at issue in claim 19 of the '593 Patent are shared by the remaining claims of the '593 Patent for which X One has asserted infringement. As such, Uber's arguments and the Court's analysis with respect to claim 19 may apply to the remaining claims asserted by X One.

[^2]:    ${ }^{3}$ The parties' briefing treats the limitation "in association with an application launched," '647 Patent, col. 30:53-54, interchangeably with a similar phrase from the same claim: "in associated [sic] with launch of the application," id. at col. 30:56-57. As such, the Court treats the "in association with an application launched" and "in associated [sic] with launch of the application" synonymously. The Court refers to these limitations as "in association with launch."

[^3]:    ${ }^{4}$ See also ECF No. 299-7 (collecting additional statements not directly quoted in Uber's briefing).
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[^4]:    ${ }^{5}$ The Court notes that the disputed limitations appear in independent claims 1, 22, and 28. Specifically, the disputed limitation "responsive to launching an application" appears in independent claims 1 and 28, and the "in association with an application launched" appears in independent claim 22. ' 647 Patent, col. 29:9, col. 31:64, col. 30:53-54. As such, Uber's arguments for noninfringement and the Court's corresponding analysis may apply to the remaining claims asserted by X One.

