UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UBER TECHNOLOGIES, INC.

Petitioner

v.

X ONE, INC.

Patent Owner

Case: Unassigned

Patent 8,798,647

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,798,647

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PETITIONER'S EXHIBIT LIST

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1004	CV of Chris. G Bartone, Ph.D., P.E.
1005	JP2002-10321
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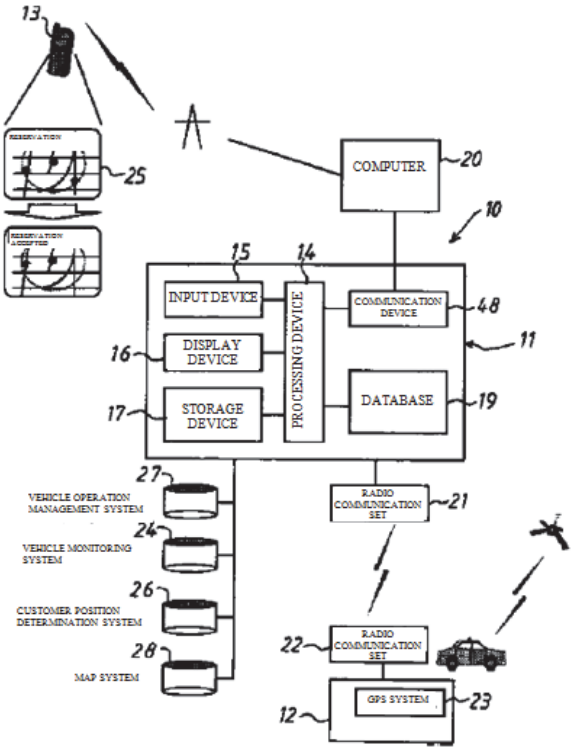
1028	U.S. Patent No. 6,925,381 to Adamczyk ("Adamczyk")

I. INTRODUCTION

Petitioner respectfully requests institution of *inter partes* review for claims 1, 4-11, 13, 22-25, 27-28, 31-37, 39-42, 45 (the "challenged claims") of U.S. Patent No. 8,798,647 ("the '647 Patent") (UBER-1001).

The '647 patent discloses a use case of location tracking with mobile devices to allow a requestor of a service to track the position of a provider of a service. The challenged claims are generally directed to allowing a service requestor's wireless device to display its and a service provider's wireless devices' respective positions and update those positions to track the changing positions of the two devices. (*e.g.,* UBER-1001 28:50-29:18 (claim 1), 30:47-31:12 (claim 22), 31:37-32:5 (claim 28).) But years before the purported invention, published patent applications disclosed exactly that.

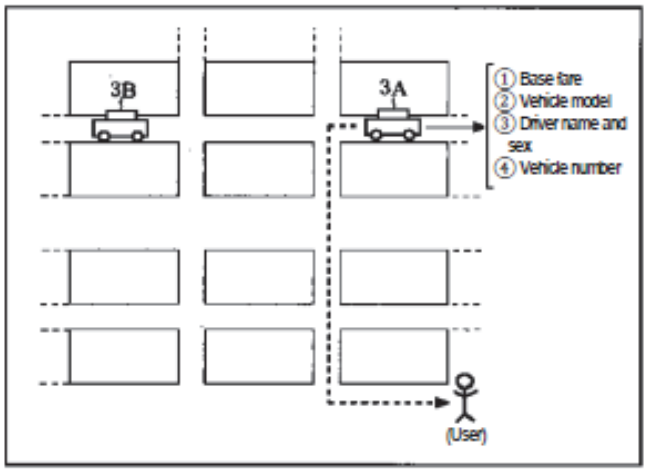
For example, a Japanese patent application to Konishi published in December 2002 that taught a system that allowed a customer to make a taxi reservation on a GPS-enabled mobile phone, as shown in Figure 1 below. The customer's phone would then display a map plotting the customer's location and the taxi's location moment-by-moment until the taxi arrived.



UBER-1012 Figure 1

A Japanese patent application to Mitsuoka that published in June 2003 likewise disclosed a system that allowed a customer to use a GPS-enabled mobile device to map the locations of nearby taxis with GPS navigation and select a taxi for service, as illustrated by Figure 4 below. The system would then provide ongoing two-way mapping until the taxi arrived.

[FIG. 4]



UBER-1015 Figure 4

Petitioner demonstrates below that a reasonable likelihood exists that all challenged claims are unpatentable. Accordingly, Petitioner respectfully requests *inter partes* review of the challenged claims.

II. BACKGROUND

A. The '647 Patent

The '647 patent, titled "Tracking Proximity Of Services Provider To Services Consumer," was filed in October 2013 and claims priority to April 2005. The '647 patent describes software to be installed on existing cell phones and other wireless devices (UBER-1001 2:20-27, 2:44-50) "to allow mutual tracking and optional position mapping displays of members of groups." (UBER-1001 2:33-39.)

The '647 patent purports to overcome drawbacks of prior art location sharing services. According to the inventor, prior art services did not provide a system for use by "motorists … to allow them to be able to contact rescuers and know the location of the rescuers as they come to the aid of the stranded person and to allow the rescuers to know the location of the victims they are trying to rescue." (*Id*. 1:42-46.) The inventor believed that known prior art services did not provide a "mechanism to add groups and members of groups…" (*Id*. 1:62-63.)

By the specification's own admission, the components of the claimed invention were well-known elements in the prior art. For instance, the inventor recognized that cell phones already had GPS receivers, the capability to run applications (e.g., Java-enabled cell phones), and "sufficiently large liquid crystal displays." (UBER-1001 2:20-27.) Thus, the invention did "not require development of new cell phone or PDA technology nor the development of new cellular communication infrastructure." (UBER-1001 2:44-48.) The inventor also recognized that maps could be retrieved from well-known map providers such as MapQuest (UBER-1001 14:13-15, 14:17-20, 24:61-65) or Yahoo (UBER-1001 22:64-23:1) and used with known cell phone technology to display the respective locations of multiple cell phones. The '647 patent depicts these well-known technologies in figure 16, shown below, which shows a server-based "buddy watch system" and comprises "a block diagram of a typical cellular system coupled by a

gateway and a Wide Area Network such as the internet to a Buddy Watch server to provide the infrastructure of the invention." (UBER-1001 4:47-50.)

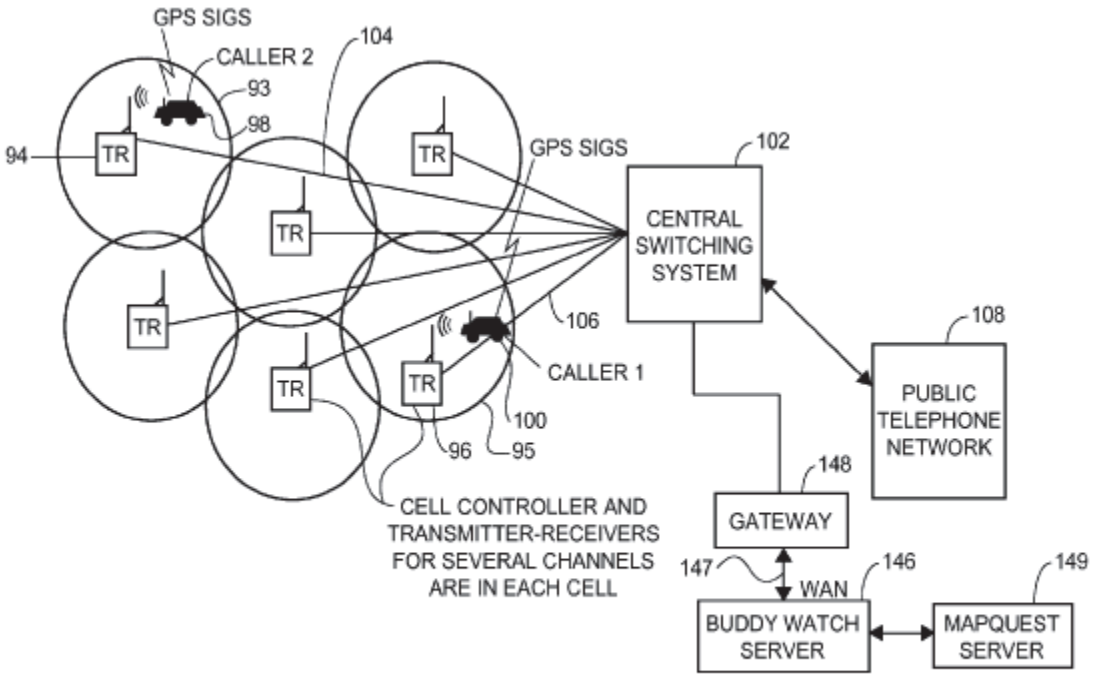


FIG. 16 SERVER-BASED BUDDY WATCH SYSTEM

UBER-1001 Figure 16

The inventor contemplated that a user could utilize the tracking capabilities already built into cell phones and communication infrastructure, including using it to allow a user with a cell phone to set up an "instant buddy" relationship with tow truck drivers. (UBER-1001 15:26-58.) The '647 patent discloses that when a user's car breaks down, the user can dial a tow truck driver's phone and request to be an "instant buddy of the tow truck driver's phone." (UBER-1001 5:29-33.) "After both phones are set up as instant buddies, each phone shows the location of the other phone on its moving map." (UBER-1001 5:29-33.)

The challenged claims are generally directed to allowing a service requestor's wireless device to display its and a service provider's wireless devices' respective positions and update those positions to track the changing positions of the two devices. (*e.g.,* UBER-1001 28:50-29:18 (claim 1), 30:47-31:12 (claim 22), 31:37-32:5 (claim 28).)

B. Prosecution History

The application that issued as the '647 patent was filed on October 15, 2013 with 37 claims generally directed to allowing a wireless device to display its and another wireless device's respective positions and update those positions to indicate the changing positions of the two devices, wherein one of the devices is associated with the provider of a desired service. (UBER-1002 pp. 815-823.) The applicant flooded the Examiner with prior art references without bringing any specific references to the Examiner's attention. Specifically, the applicant filed roughly 300 pages of Information Disclosure Statements listing prior art references with the application (UBER-1002 pp. 453-754), identifying over 2,000 U.S. patent references and hundreds of foreign patent and non-patent references, many being cumulative or irrelevant. (UBER-1001 pp. 1-26.)

Understandably, the Examiner was unable to find the most relevant prior art from amongst the thousands of disclosed references requiring review. The Examiner issued a single office action on December 3, 2013 rejecting all 37 claims

as obvious. (UBER-1002 pp. 125-144.) In response, the applicant amended the claims (UBER-1002 pp. 93-101), added new claims (UBER-1002 pp. 101-103), presented arguments characterizing the invention (UBER-1002 pp. 104-105), and argued that the prior art did not disclose the amended claims (UBER-1002 pp. 105-110.) The amendments included adding a limitation requiring the forming of a "use-specific group" to the independent claims. (UBER-1002 pp. 93-99.) The applicant argued that the prior art at issue did not disclose a use-specific group that has a service requestor and provider. (UBER-1002 pp. 106-108.) Following the amendment and response, the Examiner allowed the claims to issue. (UBER-1002 pp. 78-80.)

C. State Of The Art

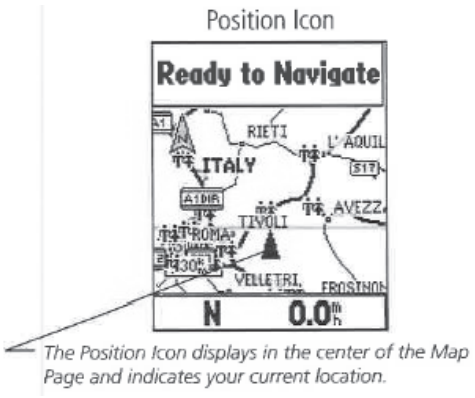
The following section describes the state of the art prior to the earliest priority date of the '647 patent. The prior art references discussed in this section are not relied on as grounds for invalidity. These prior art references are exemplary in nature and provide factual support to show the general state of the art, to identify motivation to combine the teachings of the primary references, to support reasonable expectations of success, to rebut any claims of unpredictability in the art, and to rebut any claims of unexpected results.

Prior art cited on the face of the '647 patent establishes that, despite the inventor's assertion in the specification, two-way location sharing was well-

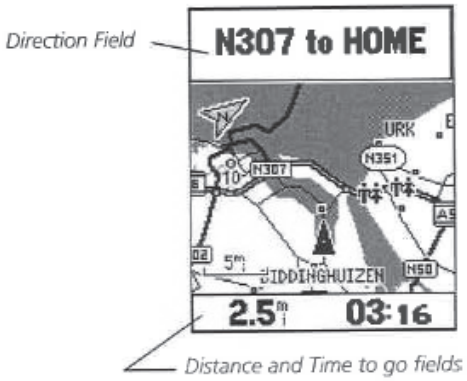
known. Two-way location sharing, for instance, was disclosed by U.S. Patent No. 6,169,902 to Kawamoto. (UBER-1021 3:37-45 ("Each user receives the positional information of other users through a predetermined sequence … and presents the received positional information of other users on the display of [his or her] own information terminal.").)

Further, systems that allowed tracking and mapping of mobile devices were already commercialized before the '647 patent. For instance, by 2002 Garmin offered a GPS-equipped phone, called the NavTalk GSM phone. (UBER-1019 at 2.)[1] The NavTalk GSM phone included a GPS receiver and provided mapping functions. (UBER-1019 at 75.) It offered several features that were common to mapping software. For example, maps included a "direction field" to assist a user with navigating to a destination. (UBER-1019 at 77.) As shown in the image below, the display included an "N" in the top left indicating the direction "North," as well as a position arrow on the map. The NavTalk GSM phone also included games that a user could select and launch. (UBER-1019 at 59.)

[1] UBER-1018 is an Affidavit of Christopher Butler authenticating the Benefon Esc! Owner's Manual (UBER-1017) and the NavTalk GSM Phone/GPS Owner's Manual and Reference Guide (UBER-1019).



UBER-1009 at 78



UBER-1009 at 77

By 2002 Benefon also offered a GPS-enabled personal navigation cell phone. (UBER-1017.) The Benefon Esc! Personal Navigation Phone included a feature that used two-way position information sharing to plot on a map the location of "any number of phones." (UBER-1017 p. 136.)

INTRODUCTION

BENEFON ESC!

Congratulations on your purchase of the Benefon Esc! Personal Navigation Phone, a revolutionary communication instrument you will never get lost with.

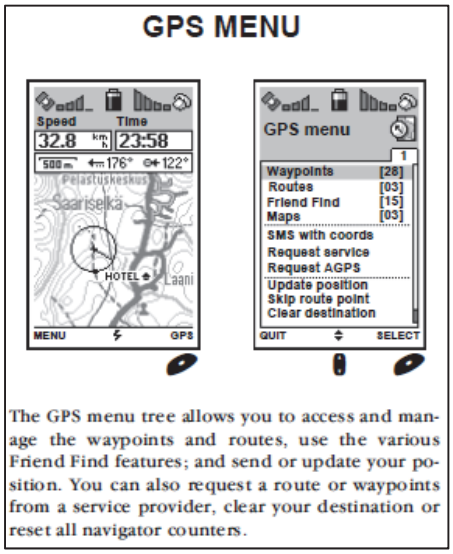
This phone is designed for use on the GSM (Global System for Mobile Communications) 900, 1800 and 900/1800 MHz Dual Band networks. You can use it in all countries where the GSM network operators have a roaming contract with your network operator.

The instrument features a powerful GPS navigator that works even if you are outside GSM coverage. The unique combination of GPS

UBER-1017 p. 13

The Benefon Manual describes a mobile phone that plots the phone's own location on a map, as shown below (UBER-1017 p. 127), and that includes a feature that uses two-way position information sharing to plot the location of "any number of

phones" (UBER-1017 p. 136) and "other information such as their speed and direction of movement" (UBER-1017 p. 135). "This information can later be updated by position updates." (*Id.*)



UBER-1017 p. 127

III. CHALLENGED CLAIMS AND STATUTORY GROUNDS

GROUND 1: Claims 1, 5, 7, 10-11, 22-23, 28, 33, 36-37, and 40-42 are obvious under 35 U.S.C. § 103 over Japanese Unexamined Patent Application Publication 2002-352388 to Konishi ("Konishi"). (UBER-1011 (Original), UBER-1012 (Translation), UBER-1013 (Certificate of Translation).)[2] Konishi is prior art at least under 35 U.S.C. § 102(b) because it was published on December 2, 2002,

[2] References herein to documents that include a translation are to the translated version unless otherwise indicated.

more than two years before the earliest priority claim of the '647 patent.[3] Konishi was not of record during prosecution of the '647 patent.

GROUND 2: Claims 1, 4-5, 7-8, 10-11, 22-23, 28, 31, 33, 36-37, and 40-42 are obvious under 35 U.S.C. § 103 over Konishi and U.S. Patent No. 6,714,797 to Rautila ("Rautila"). (UBER-1025 (Rautila).) Rautila is prior art under at least 35 U.S.C. § 102(b) because it issued on March 30, 2004, more than one year before the earliest priority claim of the '647 patent.

GROUND 3: Claims 6, 24, and 32 are obvious under 35 U.S.C. § 103 over Konishi and U.S. Patent No. 6,925,381 to Adamczyk. (UBER-1028 (Adamczyk).) Adamczyk is prior art under at least 35 U.S.C. § 102(e) because it was filed on June 24, 2003, prior to the earliest priority claim of the '647 patent. Adamczyk was not of record during prosecution of the '647 patent.

GROUND 4: Claims 8, 9, 25, 34, 35, and 45 are obvious under 35 U.S.C. § 103 over Konishi and Japanese Unexamined Patent Application Publication 2002-199433 to Makoto ("Makoto"). (UBER-1008 (Original); UBER-1009 (Translation); UBER-1010 (Certificate of Translation).) Makoto is prior art under at least 35 U.S.C. § 102(b) because it was published on July 12, 2002, more than

[3] The '647 patent claims priority to an application filed on April 4, 2005. (UBER-1001-01.)

two years before the earliest priority claim of the ‘647 patent. Makoto was not of record during prosecution of the ’647 patent.

GROUND 5: Claims 13, 27, and 39 are obvious under 35 U.S.C. § 103 over Konishi and U.S. Patent No. 6,658,260 to Knotts (“Knotts”). (UBER-1026.) Knotts is prior art under at least 35 U.S.C. § 102(b) because it issued on December 2, 2003, more than one year before the earliest priority claim of the ‘647 patent. Knotts was not of record during prosecution of the ’647 patent.

GROUND 6: Claims 1, 5, 7, 10-11, 22-23, 28, 33, 36-37, 40, and 42 are obvious under 35 U.S.C. § 103 over Japanese Unexamined Patent Application Publication 2003-168190 to Mitsuoka (“Mitsuoka”). (UBER-1014 (Original), UBER-1015 (Translation), UBER-1016 (Certificate of Translation).) Mitsuoka is prior art at least under 35 U.S.C. § 102(b) because it was published on June 13, 2003. Mitsuoka was not of record during prosecution of the ’647 patent.

GROUND 7: Claims 1, 4-5, 7, 10-11, 22-23, 28, 31, 33, 36-37, and 40-42 are obvious under 35 U.S.C. § 103 over Mitsuoka in view of Rautila.

GROUND 8: Claims 8, 9, 25, 34, 35, and 45 are obvious under 35 U.S.C. § 103 over Mitsuoka in view of Makoto.

GROUND 9: Claims 13, 27, and 39 are obvious under 35 U.S.C. § 103 over Mitsuoka in view of Konishi, further in view of Knotts.

The Board should institute review on all presented grounds: Petitioner recognizes that the Board may use its discretion to institute trial on only certain grounds. The Board typically exercises its discretion when numerous proposed grounds are asserted against the same claims. Here, only two primary references are presented, in Grounds 1 and 6 respectively. Petitioner would be prejudiced should the Board institute trial on only certain grounds because Petitioner may be precluded from asserting its best challenge. Accordingly, the Board should exercise its discretion to institute trial for the challenged claims on all grounds.

IV. LEVEL OF SKILL IN THE ART

A person of ordinary skill in the art at the time the '647 patent was filed would have had at least a four-year degree in electrical engineering, computer science, or a related field of study, or equivalent experience, and at least two years of experience in or with mobile wireless communications and navigation systems. (UBER-1003 ¶40.)

V. CLAIM CONSTRUCTION

Claims are to be given their "broadest reasonable construction in light of the specification." 37 C.F.R. § 42.100(b). The proposed constructions in this petition are intended to aid in this proceeding and do not operate to waive any arguments that may be raised in litigation. Further, because the standard for claim construction at the Patent Office is different from that used during litigation,

Petitioner expressly reserves the right to argue different claim constructions in litigation.

A. "responsive to launching an application" / "in association with an application launched"

Independent claim 1 recites "wherein the method is invoked responsive to launching an application."[4] Independent claim 22 recites "selecting the provider of the desired service in association with an application launched by a requestor." Independent claim 28 recites that certain claim elements are "invoked responsive to launching an application." The '647 patent's specification uses the term "launch" only in the context of launching the TalkControl application for a walkie-talkie embodiment. (UBER-1001 26:51-28:40.)[5] Even in the TalkControl embodiments, the specification does not disclose that any actions are invoked in response to launching the application beyond providing the user with the application and allowing the user to scroll and select options. (e.g., UBER-1001 26:55-57 ("A user who wishes to join a walkie-talkie talk group launches the TalkControl application, scrolls down to Join Group menu option, selects an Enter

[4] Emphasis added throughout unless otherwise indicated.

[5] Petitioner's proposed claim constructions are not admissions that the claims satisfy 35 U.S.C. § 112. Petitioner reserves the right to challenge the validity of the claims under § 112 in other forums.

Tokens option, fills in her name, …"), 27:14-18 ("The supervisor launches the TalkControl application program and scrolls down to the add/edit/delete user menu option and logs in as a supervisor and presses send.").)

The other embodiments likewise disclose opening an application, but nothing being triggered in response to opening the application beyond the user receiving a welcome screen with menu options. (UBER-1001 5:57-59 ("FIG. 1 is a screen shot of a typical opening screen which would be displayed on a cellphone with the Buddy Tracker™ software enabled on the phone."), Figure 1.) A user must then select what they want to do with the application by selecting menu options. Accordingly, the broadest reasonable interpretation of "responsive to launching an application" or "in association with an application launched" is that the steps are invoked or selected "in association with the running of the application." (UBER-1003 ¶¶45-46.)

B. "use-specific group"

Independent claims 1 and 22 recite "forming a use-specific group" and independent claim 28 recites "to cause formation of a use-specific group." The '647 patent's specification never uses the terms "use-specific group" or "use-specific." When the applicant amended the claims to add the "use-specific group" term, the applicant presented arguments to distinguish the prior art references because they purportedly did not disclose two specific devices as members of a

group. (UBER-1002 pp. 106-107.) In particular, the applicant distinguished the prior art as not forming a use-specific group because the prior art at issue did not disclose a use-specific group that has a service requestor and provider. (UBER-1002 p. 108 ("Grube's GLSS controller does not appear to select a specific 'service provider' or have a mechanism for forming a use-specific group in a manner that has the specific services provider and requestor.").) Accordingly, the broadest reasonable interpretation of "use-specific group" is "a group including a service requestor and a service provider." (UBER-1003 ¶47.)

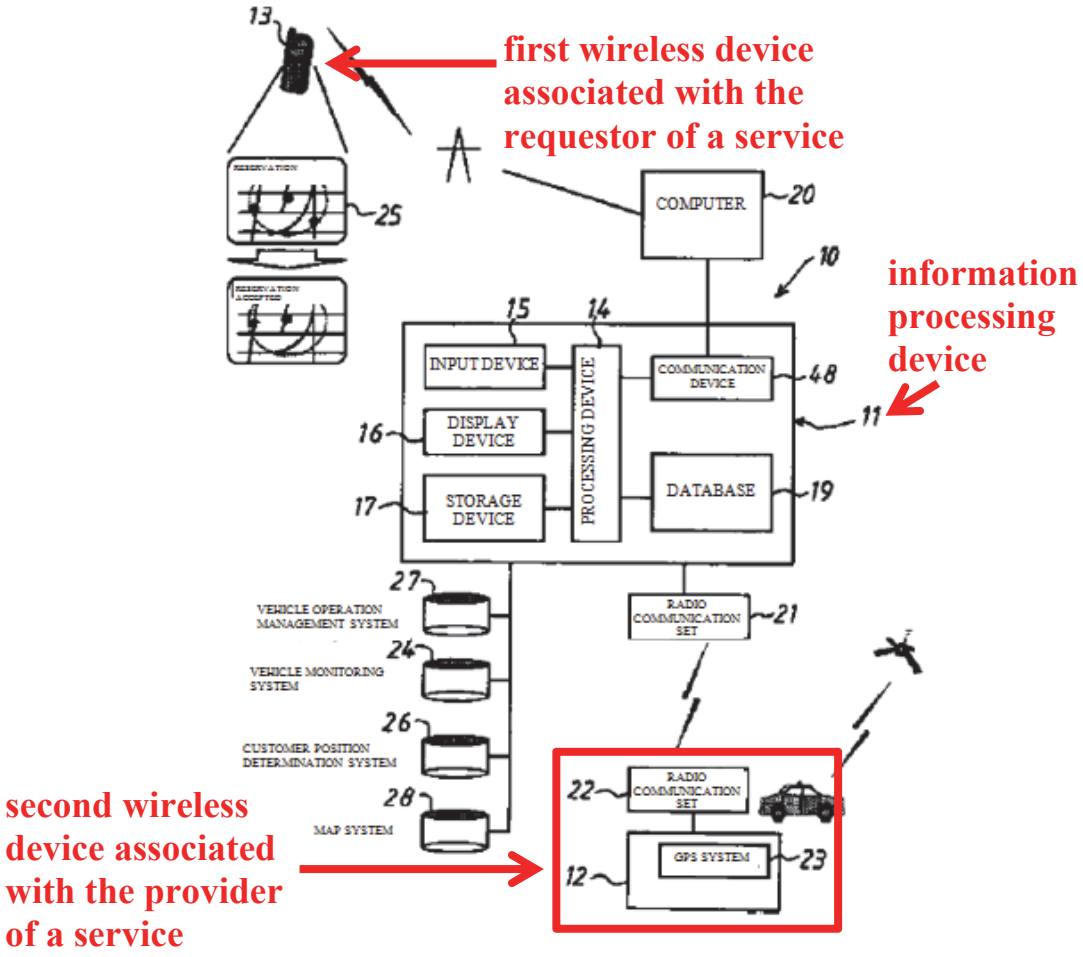
VI. THE CHALLENGED CLAIMS ARE UNPATENTABLE

A. GROUND 1: Konishi Renders Claims 1, 5, 7, 10-11, 22-23, 28, 33, 36-37, And 40-42 Obvious

1. Overview Of Konishi

Konishi discloses a position information communication system that enables a customer to make a taxi reservation and view a map with a display plotting the customer's location and the taxi's location until the taxi arrives. As shown below, the Konishi system includes "a vehicle information terminal 12 mounted in each vehicle" and "a mobile telephone set 13 held by a customer as a customer information terminal." (UBER-1012 ¶0026.) The "mobile telephone set 13 has built in GPS." (UBER-1012 ¶0028.) When a customer accesses the information processing device with the mobile phone set, the customer position determination system acquires and stores the customer's current position. (*Id.*) While the image

below shows a radio communication set for communicating with the taxi, alternatively "a mobile telephone set is mounted in each vehicle and is connected to the vehicle information terminal 12 so that the current position of the mobile telephone set may be determined by the same system as the customer position determination system 26." (UBER-1012 ¶0039.)

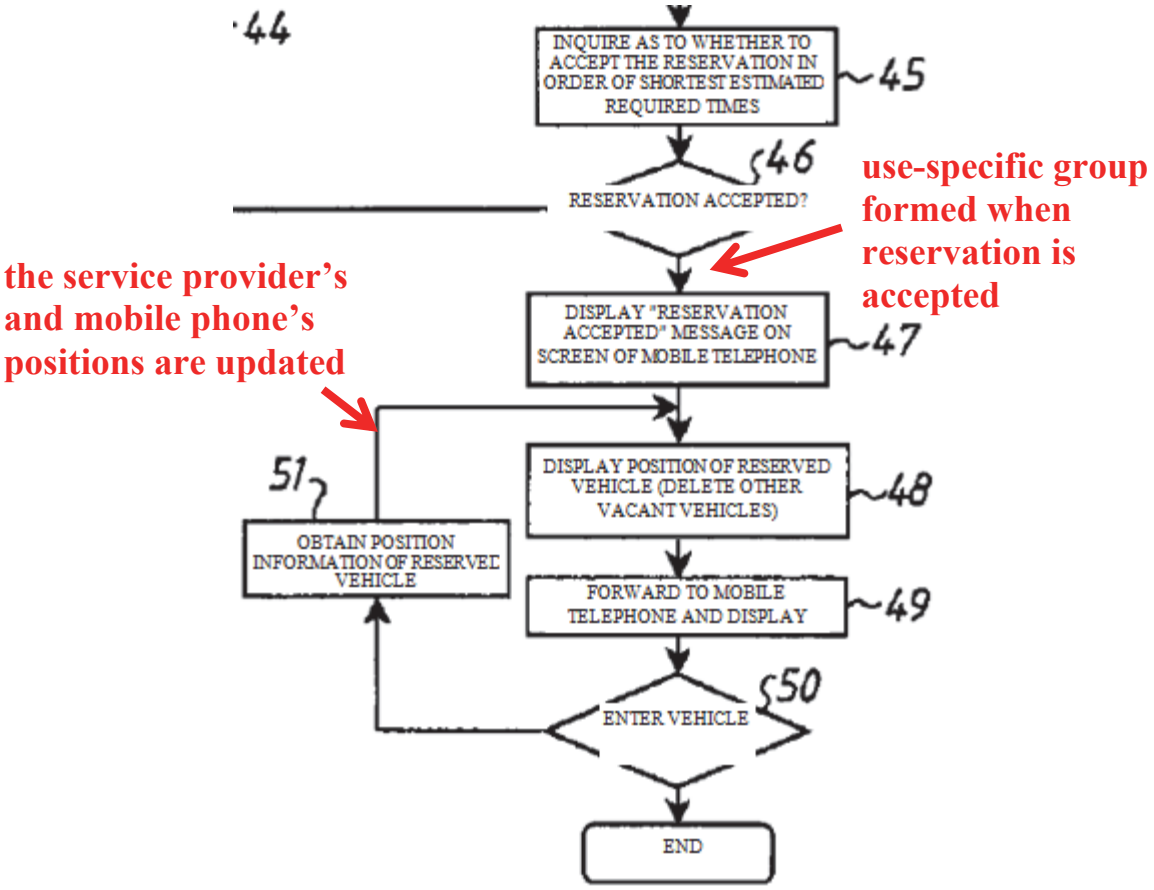


UBER-1012 Figure 1 (Annotated)

When a customer selects a vehicle allocation service with the mobile phone, the mobile phone is connected to the information processing device. (UBER-1012 ¶0029.) The information processing device receives and stores the phone's phone

number and "current position." (*Id.*) Vacant vehicles within a prescribed range from the mobile phone's current position are identified, and information processing device 11 "reads out a map of a region of a specific range with the customer position in the center from the map system 28 to the storage device 17, inputs the customer position and the current position of the retrieved vacant vehicle (step 36), transmits the information to the mobile telephone set 13, and displays the information on the screen 25 (step 37.)" (UBER-1012 ¶¶0029, 0031.)

If the customer makes a reservation and a vehicle accepts the reservation, the vehicles other than the reserved vehicle are no longer displayed on the mobile phone's map. (UBER-1012 ¶¶0032-0033.) The customer's mobile phone is then updated "at regular time intervals" to display on a map the current position of the reserved vehicle as it approaches. (*Id.* ("The current position of the reserved vehicle, which approaches moment by moment, is displayed on the map together with the customer position (step 48), transmitted to the mobile telephone set 13, and displayed as a navigation display (step 49).").) The below excerpt from Konishi's Figure 2 illustrates the group being formed between the customer and the vehicle, and then the map being updated with the positions of the vehicle and mobile phone until the vehicle arrives.



UBER-1012 Figure 2 (Annotated)

2. Konishi Renders Claim 1 Obvious

(A) "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:"

Konishi discloses a method of tracking the proximity of position between a wireless device of a customer seeking a desired service (e.g., a ride) and a provider of the desired service. (UBER-1012 ¶¶0025, 0026, 0028-0035; UBER-1003 ¶¶80-

81.) Konishi further discloses the customer and the vehicle both having GPS-equipped wireless devices that are used to provide the tracking. (UBER-1012 ¶¶0026-0028, 0035, 0039; UBER-1003 ¶¶80-81.)

(B) "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;"

Konishi discloses transmitting the position and map information from the information processing device to the customer's mobile phone (the first wireless device), thereby causing receipt of the information on the first wireless device. (UBER-1012 ¶0031; UBER-1003 ¶82.) Konishi further discloses that the information represents the position of the vacant vehicle that accepts a reservation (the second wireless device) and a map showing the position of both the customer's mobile phone and the vehicle's wireless device. Specifically, Konishi discloses that a map is received and is read out on the customer's mobile phone representing the position of the customer and the vacant vehicles within range of the customer. (UBER-1012 ¶¶0031 ("the information processing device 11 reads out a map of a region of a specific range …, inputs the customer position and the current position of the retrieved vacant vehicle (step 36), transmits the information to the mobile telephone set 13, and displays the information on the screen 25."); UBER-1003 ¶82.) If the customer makes a reservation and a vehicle accepts the

reservation, then the "vacant vehicles other than the reserved vehicle … are deleted from the map, and the current position of only the reserved vehicle is displayed on the map together with the customer position (step 48), transmitted to the mobile telephone set 13, and displayed on the screen 25." (UBER-1012 ¶¶0033, 0035.)

(C) "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"

Konishi discloses causing the customer's mobile phone to display a map with the position associated with the customer's mobile phone and the position of the reserved vehicle rendered thereon. (UBER-1012 ¶¶0035 ("the customer position and the current position of the vehicle that accepted the reservation are displayed as a navigation display on the screen of the mobile telephone set."), 0030-0031, 0033; UBER-1003 ¶83.)

(D) "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;"

Konishi discloses that after the customer makes a reservation and a vacant vehicle accepts the reservation, then the position information and map received by and rendered on the customer's mobile phone (i.e., the second wireless device) is updated to display the "current position" of the customer's mobile phone and the

vehicle "moment by moment until the customer enters the vehicle" (UBER-1012 ¶¶0033, 0035; UBER-1003 ¶84).

(E) "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;"

Konishi discloses that after the customer makes a reservation and a vacant vehicle accepts the reservation, then the position information and map received by and rendered on the customer's mobile phone is updated moment-by-moment until the customer enters the vehicle. (UBER-1012 ¶¶0033, 0035.) A skilled artisan would understand that the distance between the customer's mobile phone and the vehicle on a map would indicate the proximity between current position of the customer's mobile phone (the requestor of the desired service) and the vehicle (the provider of the desired service). (UBER-1003 ¶85.) A skilled artisan would likewise understand that the relative positions of the customer's mobile phone and the vehicle on a map would indicate the direction between the position of the customer's mobile phone and the vehicle. (*Id.*) Further, because Konishi teaches that a customer may specify search conditions, such as a prescribed range (UBER-1012 ¶0031), a skilled artisan would understand that displaying a vehicle within a prescribed range would provide an update indicating the proximity and direction between the requestor and the provider of the service (UBER-1003 ¶86).

Konishi further discloses that the estimated travel time from a vacant vehicle to a customer "is determined by dividing the travel distance on an ordinary route between the customer position and the current position of the vacant vehicle by the estimated average speed corresponding to the type of road." (UBER-1012 ¶0032.) A skilled artisan would thus understand that Konishi's server calculated the route, travel distance, and travel time between the customer and vehicle. (UBER-1003 ¶87.) Because Konishi teaches that the server had such information, it would have been an obvious design choice to display that additional proximity and direction information on the map. (*Id.*)

Konishi further discloses that the map with the current positions of the reserved vehicle and mobile phone that is transmitted to and displayed on the mobile phone is updated "moment by moment until the customer enters the vehicle." (UBER-1012-¶¶0033, 0035.) Konishi's teaching of moment-by-moment map updates with the current positions of the mobile phone and the vehicle also indicates the direction of travel of the devices. (UBER-1003 ¶88.)

(F) "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"

Konishi discloses that the operation of the vehicle allocation system 10 starts when "the customer selects a vehicle allocation service with the mobile telephone set 13." (UBER-1012 ¶0029, Figure 2.) For example, Konishi discloses that when

"the customer selects a vehicle allocation service with the mobile telephone set 13 … [t]he information processing device 11 executes a program." (*Id.*) Konishi further discloses that "execution of the program is terminated" if the customer does not make a reservation. (UBER-1012 ¶0032.) Konishi does not expressly disclose a customer launching an application. A skilled artisan, however, would understand from Konishi's teachings that a customer would launch an application on his mobile phone before selecting the vehicle allocation service and terminate the application if he chooses not to make a reservation. (UBER-1003 ¶89.) A skilled artisan would further have understood that the various methods could be invoked in response to the running of an application on the mobile device, and would have found it obvious for the method to be invoked in response to launching an application on the customer's wireless device. (UBER-1003 ¶90.)

(G) "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."

Konishi discloses that the provider (the vacant vehicle) is selected in connection with the request for the desired service. (UBER-1012 ¶¶0029-0032.) Specifically, Konishi discloses that one of the vacant vehicles is selected in response to a customer selecting a vehicle allocation service. (*Id.*) A vehicle that is within a prescribed range of the customer is selected, and if the vehicle accepts

the reservation then a group is formed consisting of the mobile phones of the service provider (the vehicle that accepted the reservation) and the customer. (UBER-1012 ¶¶0033-0035, 0039, 0041; UBER-1003 ¶91.) Konishi teaches that the "vacant vehicles other than the reserved vehicle … are deleted from the map." (UBER-1012 ¶0033.) The customer's mobile phone is then updated moment-by-moment with the customer's and vehicle's current positions until the customer enters the vehicle. (UBER-1012 ¶¶0033, 0035.) A skilled artisan would understand that a use-specific group is thus formed between the customer's wireless device and vehicle's wireless device. (UBER-1003 ¶91.)

3. Konishi Renders Claim 22 Obvious

(A) "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:"

Konishi discloses a method of tracking the proximity of position between a wireless device of a customer seeking a desired service (e.g., a ride) and a provider of the desired service. (UBER-1012 ¶¶0025, 0026, 0028-0035.) Konishi discloses the customer and the vehicle both having GPS-equipped wireless devices that are used for tracking. (UBER-1012 ¶¶0026-0028, 0035, 0039; UBER-1003 ¶¶92-93.)

(B) "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 with launch of the application; "

Konishi discloses locating and selecting a vehicle (the provider of the desired service) when "the customer selects a vehicle allocation service with the mobile telephone set 13." (UBER-1012 ¶0029, Figure 2.) Konishi further discloses that a customer may make a reservation and select a reservation link on the screen. (UBER-1012 ¶0032.) Vehicles within a prescribed range of the customer are selected, and if a vehicle accepts the reservation then a group is formed consisting of the mobile phones of the service provider (i.e., the vehicle that accepted the reservation) and the customer. (UBER-1012 ¶¶0033-0035, 0039.) Konishi further discloses that "execution of the program is terminated" if the customer "does not make a reservation" and then "presses a disconnect button." (UBER-1012 ¶0032.) Konishi does not expressly disclose a customer launching an application. A skilled artisan, however, would understand that the vehicle that accepts the reservation is selected in association with the customer launching an application on the mobile device, and the second wireless device is associated with the provider and is selected in association with the launch of the application. (UBER-1003 ¶94.) Further, prior to the priority date of the '647 patent various methods could be invoked in response to a user launching an application on a wireless device to request a service, thus it would have been an obvious design

choice to trigger the selection of the provider of the desired service by a user selecting to launch an application. (UBER-1003 ¶95.)

(C) "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;"

This claim element substantially mirrors the element of claim 1 addressed in § VI.A.2(B) above with the additional limitation that the information is "dependent on global positioning system (GPS) position data provided by the second wireless device." Konishi discloses that the position information received by and displayed on the customer's (the first) wireless device includes GPS information from the vehicle's (the second) wireless device. (UBER-1012 ¶¶0026-0027, 0030-0035.) A skilled artisan would have understood that the GPS-enabled vehicle information terminal and the radio communication set are the second wireless device. (UBER-1012 ¶¶0026-0027, 0039; UBER-1003 ¶96.)

(D) "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"

Konishi discloses this limitation for the same reasons discussed above in the context of the identical limitation in claim 1. (*See* § VI.A.2(C), UBER-1003 ¶97.)

(E) "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"

This claim limitation substantially mirrors the element of claim 1 addressed in § VI.A.2(D) above with the additional limitation that the information represents "intermittent" positional update and that the updates are "dependent on GPS position data provided by the second wireless device."

Konishi discloses that the vehicle location may be transmitted "every time the vehicle travels 300 meters." (UBER-1012 ¶0027.) Konishi further discloses that the time for a vehicle to reach a customer will be affected by the "type of road," the "number of intersections with traffic signals," and the like. (UBER-1012 ¶0032.) The updates would therefore be received at irregular time intervals. (UBER-1003 ¶99.) Thus, a skilled artisan would understand that Konishi's system would provide intermittent updates of the vehicle's location. (*Id.*)

Additionally, under the broadest reasonable construction, intermittent would mean not continuous. Konishi discloses displaying the customer's and vehicle's current positions "moment by moment" until the vehicle arrives. (UBER-1012 ¶¶0033, 0035; UBER-1003 ¶100.) For this additional reason, Konishi discloses providing intermittent updates of the vehicle's location.

Further, the '647 patent's specification only uses the term "intermittent" in the context of "out of coverage operation." (UBER-1001 22:44-52.) Konishi

discloses that the customer and the vehicle have GPS-enabled wireless devices, and that the updates are dependent on the position information provided by those devices. (UBER-1012 ¶¶0027-0028, 0039; UBER-1003 ¶101.) A skilled artisan at the time of the purported invention would have understood that mobile phones, especially in moving vehicles, may have intermittent coverage. (UBER-1003 ¶101.) The wireless devices would be unable to send their current locations to the server when out of coverage, but then could resume when back in coverage. (*Id.*) Thus, a skilled artisan would understand that when coverage is intermittent then the customer's mobile device would receive updates with the vehicle's location from its GPS intermittently. (*Id.*) Konishi thus discloses this limitation consistent with the disclosure of the '647 patent.

(F) "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;"

This claim element is substantially similar to the element of claim 1 addressed in § VI.A.2(E) above with the additional limitation that the information is "dependent on global positioning system (GPS) position data provided by the second wireless device." Konishi discloses that the position information received by and displayed on the customer's (the first) wireless device includes GPS information from the vehicle's (the second) wireless device. (UBER-1012 ¶¶0027,

0030-0035; UBER-1003 ¶102.) A skilled artisan would understand that the GPS-enabled vehicle information terminal and the radio communication set (UBER-1012 ¶¶0026-0027, 0039) are the second wireless device (UBER-1003 ¶102.)

(G) "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."

Konishi discloses this limitation for the same reasons discussed above in the context of a counterpart limitation in claim 1. (*See* § VI.A.2(G), UBER-1003 ¶103.)

4. Konishi Renders Claim 28 Obvious

(A) "An apparatus comprising instructions stored on non-transitory machine-readable media, the instructions when executed operable to:"

Konishi's Figure 1 illustrates a "vehicle allocation system" that "comprises an information processing device 11 serving as the core of the system, a vehicle information terminal 12 mounted in each vehicle," and "a mobile telephone set 13 held by a customer." (UBER-1012 ¶0026; s*ee also* UBER-1012 ¶¶0025, 0028-0035.) A skilled artisan would understand that components in Konishi's Figure 1 constitute an apparatus including instructions stored on non-transitory machine-readable media operable to perform a method of tracking the proximity of position between a wireless device of a customer seeking a desired service (e.g., a ride) and a service provider offering the desired service. (UBER-1003 ¶105.)

(B) "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;"

Konishi discloses this limitation for the same reasons discussed above in the context of a counterpart limitation in claim 1. (*See* § VI.A.2(B), UBER-1003 ¶106.)

(C) "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"

Konishi discloses this limitation for the same reasons discussed above in the context of a counterpart limitation in claim 1. (*See* § VI.A.2(C), UBER-1003 ¶107.)

(D) "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;"

Konishi discloses this limitation for the same reasons discussed above in the context of a counterpart limitation in claim 1. (*See* § VI.A.2(D), UBER-1003 ¶108.)

(E) "wherein one of the first wireless device and the second wireless device is associated with a provider of a desired service,"

Konishi discloses a first wireless device associated with the requestor of a service (e.g., a ride) and a second wireless device associated with the provider of the desired service. (UBER-1012 ¶¶0025-0035, 0039; UBER-1003 ¶109.)

(F) "wherein the update of the display is to 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,"

Konishi discloses this limitation for the same reasons discussed above in the context of a counterpart limitation in claim 1. (*See* § VI.A.2(E), UBER-1003 ¶110.)

(G) "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,"

Konishi discloses this limitation for the same reasons discussed above in the context of a counterpart limitation in claim 1. (*See* § VI.A.2(F), UBER-1003 ¶111.)

(H) "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."

Konishi discloses this limitation for the same reasons discussed above in the context of a counterpart limitation in claim 1. (*See* § VI.A.2(G), UBER-1003 ¶112.)

5. Konishi Renders Claims 5, 23, And 42 Obvious

Claim 5, which depends from independent claim 1, recites: "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 to the other one of the requestor and the provider." Claims 23 and 42 depend from independent claims 22 and 28 respectively and recite counterpart limitations. Konishi teaches the limitations of claims 1, 22, and 28. (*See* § VI.A.2, VI.A.3, VI.A.4.)

Konishi additionally renders obvious that the information is provided on a two-way basis. In particular, Konishi discloses that the user and taxi position information is provided to a map on the **user's** wireless device, and that this information is updated. (UBER-1003 ¶114.) For example, the vehicle monitoring system 24 built into the information processing device 11 registers the vehicle identification and current position information. (UBER-1012 ¶0027.) The customer position determination system 26 acquires the customer identification (i.e., telephone number) and current position and stores the information in the storage device 17. (UBER-1012 ¶0028.) Konishi teaches using the customer

position information and the vehicle position information to read out a map of a region centered on the customer's location, input the customer position and the current position of retrieved vacant vehicles, transmit the information to the customer's mobile phone, and display the information on the mobile phone's screen. (UBER-1012 ¶0031.) Konishi further discloses updating the map with the customer's location and the location of a vehicle that accepts a reservation until the customer enters the vehicle. (UBER-1012 ¶¶0031, 0033.)

In addition, Konishi renders obvious that the user and taxi position information is provided to a map on the **taxi's** wireless device, and that this information is updated. (UBER-1003 ¶115.) For example, Konishi discloses that its system may be configured so that "a mobile telephone set is mounted in each vehicle and is connected to the vehicle information terminal 12 so that the current position of the mobile telephone set may be determined by the same system as the customer position determination system 26." (UBER-1012 ¶0039.) Konishi does not expressly disclose transmitting the map including the location of the customer and the vehicle for display on the mobile telephone mounted in the vehicle. However, because Konishi teaches that the vehicle's mobile phone is connected to the same position determination system as the customer's mobile phone, and because Konishi teaches generating such a map that could be displayed on the mobile telephone of the customer, a skilled artisan would have found it obvious

also to transmit this information for display on the vehicle's mobile phone so that the taxi driver could drive to the customer. (UBER-1003 ¶115.) As addressed above in § VI.A.2(E), a skilled artisan would understand that the map would indicate the direction between and proximity to the other one of the requestor and the provider.

6. Konishi Renders Claims 7 And 33 Obvious

Claims 7 and 33, depend from independent claims 1 and 28, respectively, and recite: "wherein at least one of the first wireless device and the second wireless device is associated with an automobile." Konishi teaches the limitations of claims 1 and 28. (*See* § VI.A.2, VI.A.4.) Konishi further discloses that a wireless device is associated with an automobile. (UBER-1012 ¶¶0025 ("The vehicle allocation system … is suited to the allocation of hired automobiles"), 0027, 0039; UBER-1003 ¶116.)

7. Konishi Renders Claims 10 And 36 Obvious

Claim 10 depends from claim 1 and recites: "wherein causing receipt of information on the first wireless device and causing update of display of the map on the first wireless device include causing intermittent receipt of information on the first wireless device representing positional update of the second wireless device and causing intermittent 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, to thereby track a progression of relative movement between the first wireless device and the second wireless device." Claim 36 depend from independent claim 22 and recites a counterpart limitation. Konishi teaches the limitations of claims 1 and 22. (*See* § VI.A.2, VI.A.3.)

As discussed above in § VI.A.3(E), Konishi further discloses that the vehicle location may be transmitted at distance intervals (UBER-1012 ¶0027) and that the time for a vehicle to reach a customer will be affected by variables (UBER-1012 ¶0032). A skilled artisan would therefore understand that the updates would be received at irregular time intervals. (UBER-1003 ¶118.)

Additionally, Konishi's "moment by moment" updates (UBER-1012 ¶¶0033, 0035; UBER-1003 ¶119) disclose providing intermittent updates of the vehicle's location under the term's broadest reasonable construction. (*See* § VI.A.3(E).)

Further, the '647 patent's specification only uses the term "intermittent" in the context of "out of coverage operation." (UBER-1001 22:44-52.) Konishi discloses that the customer and the vehicle have GPS-enabled wireless devices, and that the updates are dependent on the position information provided by those devices. (UBER-1012 ¶¶0027-0028, 0039; UBER-1003 ¶120.) A skilled artisan would understand that the wireless devices would be unable to send their current

locations to the server when out of coverage, but then could resume when back in coverage. (UBER-1003 ¶120.) Thus, a skilled artisan would understand that when coverage is intermittent then the customer's mobile device would receive updates with the vehicle's location from its GPS intermittently. (*Id.*) Konishi thus discloses this limitation consistent with the disclosure of the '647 patent.

Additionally, Konishi discloses that after the customer makes a reservation, the position information and map received by and rendered on the customer's mobile phone is updated "moment by moment until the customer enters the vehicle." (UBER-1012 ¶¶0030, 0033, 0035.) A skilled artisan would therefore understand that Konishi discloses that the method tracks a progression of relative movement between the first wireless device (the customer's wireless device) and the second wireless device (the vehicle's wireless device). (UBER-1003 ¶121.)

8. Konishi Renders Claims 11 And 37 Obvious

Claim 11 depends from claim 1 and recites the additional limitation "wherein at least one of the first wireless device and the second wireless device is embodied as a cell phone." Konishi teaches the limitations of claim 1. (*See* § VI.A.2.) Konishi additionally discloses that the customer's wireless device is a "mobile telephone set" with a "built-in GPS system." (UBER-1012 ¶0028; UBER-1003 ¶123.)

Claim 37 recites "[t]he apparatus of claim 28, embodied as instructions resident on non-transitory memory of a cell phone." Konishi teaches the limitations of claim 28. (*See* § VI.A.4.) Because Konishi discloses that that the customer's wireless device is a mobile phone, a skilled artisan would understand that the apparatus of claim 28 could be embodied as instructions on a non-transitory memory of a mobile phone so that software could perform the steps disclosed in Konishi. (UBER-1003 ¶124.)

9. Konishi Renders Claim 40 Obvious

Claim 40 depends from claim 28 and further recites "wherein" followed by four additional limitations. Konishi teaches the limitations of claim 28. (*See* § VI.A.4.) Konishi also teaches each of the following limitations.

(A) "the requestor is associated with the first wireless device and the provider is associated with the second wireless device;"

Konishi teaches that the customer (requestor) is associated with a first wireless device (UBER-1012 ¶0028) and the vacant vehicle (provider) is associated with a second wireless device (UBER-1012 ¶0039).

(B) "the apparatus is embodied as instructions stored on non-transitory memory of the first wireless device and further comprise instructions that when executed are operable to launch an application on the first wireless device in association with a request by the requestor for the desired service;"

Konishi teaches that the operation of the vehicle allocation system 10 starts when "the customer selects a vehicle allocation service with the mobile telephone set 13." (UBER-1012 ¶0029, Figure 2.) The customer may make a reservation by selecting reservation link on the screen. (UBER-1012 ¶0032.) For a customer to select a vehicle allocation service with a mobile phone (i.e., the first wireless device), a skilled artisan would understand that the mobile phone would include instructions stored on a non-transitory memory that, when executed, operate to launch an application on the phone. (UBER-1003 ¶127.) The launch of the application would therefore be in association with the customer's request for the desired service (i.e., a ride). (*Id*.)

(C) "the provider and the second wireless device are selected in association with the request by the requestor for the desired service;"

Konishi discloses that in response to the customer selecting a vehicle allocation service with the mobile phone (UBER-1012 ¶0029) a vehicle (or multiple vehicles) within a prescribed range of the customer are displayed along with the map (UBER-1012 ¶0031), and the customer may make a reservation by selecting reservation link on the screen. (UBER-1012 ¶0032.) The vehicle that accepts the reservation is the provider of the service (i.e., the ride). (UBER-1012 ¶¶0033-0035, 0039; UBER-1003 ¶128.) A skilled artisan would thus understand

that both the vehicle and the wireless device in the vehicle are thus selected in association with the customer request. (UBER-1003 ¶128.)

(D) "the instructions when executed are operable to generate the display in a manner operable to convey to the requestor cartographic location of the provider as a prelude to rendering the desired service."

Konishi discloses that "when a customer searches for available vehicles," the customer's mobile phone "displays the current positions of the customer and available vehicles located within a prescribed range from the current position of the customer and transmits the map to an information terminal of the customer." (UBER-1012 ¶0004.) Konishi discloses initially rendering the location of all vacant vehicles within the prescribed range prior to a vehicle accepting the reservation. (UBER-1012 ¶0030.) Once a vehicle accepts the reservation, the other vacant vehicles may be deleted from the map while the current location of the reserved vehicle may be updated until the customer enters the vehicle (i.e., when rendering the service commences). (UBER-1012 ¶¶0033, 0035.) Konishi's system may also display the location of the provider vehicle by adding a shape or color differentiating it from the other vehicles. (UBER-1012 ¶0041.) A skilled artisan would thus understand that the software on the customer's mobile phone would include instructions operable to generate a display to convey to the customer (the requestor) the cartographic location of a vehicle (the provider) as a prelude to

the vehicle picking up the customer (i.e., rendering the desired service). (UBER-1003 ¶129.)

The '647 patent does not use the term "cartographic" outside of the claims and Figure 31, which is "a block diagram of the system for TalkControl to simplify cell phone walkie-talkie operations." (UBER-1001 26:12-13.) Nor does the patent disclose performing actions "as a prelude to rendering the desired service." A skilled artisan would understand generating a display to convey to the requestor the location of a vehicle prior to the vehicle picking up the customer as teaching generating "the display in a manner operable to convey to the requestor cartographic location of the provider as a prelude to rendering the desired service" under the broadest reasonable construction of the claim.

10. Konishi Renders Claim 41 Obvious

Claim 41 recites "[t]he apparatus of claim 28, at least partially embodied as network-resident instructions stored on non-transitory server-accessible media." Konishi teaches the limitations of claim 28. (*See* § VI.A.4.) Konishi further discloses a system that includes a mobile phone associated with a customer, mobile phones associated with vehicles, and an "information processing device 11 serving as the core of the system." (UBER-1012 ¶¶0026, 0028, 0039.) Konishi teaches that "[t]he information processing device 11 executes a program." (*Id.* ¶0029.) A skilled artisan would understand that the "information processing device" is a

server located on a network and would include instructions stored on non-transitory media that it would be able to access to provide the vehicle allocation services. (UBER-1003 ¶130.)

B. GROUND 2: Konishi And Rautila Render Claims 1, 4-5, 7-8, 10-11, 22-23, 28, 31, 33, 36-37, And 40-42 Obvious

1. Overview Of Rautila

Rautila discloses a system for downloading digital products to an Internet-capable cellular phone. (UBER-1025 1:7-12.) As background, Rautila explains that a user may "surf" the Internet and order goods directly through a cellular phone in a similar manner as that used with a PC. (UBER-1025 1:42-46.) The downloaded digital products contemplated by Rautila include software. For example, Rautila discloses "download[ing] a … software file using a cellular phone." (UBER-1025 1:62-63.) Rautila also discloses installing the downloaded software on the mobile phone. For example, in the context of the downloaded software being a game, Rautila discloses that a person could "order a video game from a web site on the other side of the planet and download it into his palm computer connected to a cellular or standalone WAP or HTML (Hypertext Markup Language) capable phone and play the game on the spot." (UBER-1025 1:49-55.)

Rautila teaches a system that includes a "mobile station or terminal 10" such as "a WAP-capable cellular telephone, a Hypertext Markup Language (HTML) capable cellular telephone, or a cellular telephone with a processor-based system

connected to it." (UBER-1025 4:14-20.) The mobile station may "communicate through the mobile network 80 to the Internet 150 and then to an electronic shop server 40." (UBER-1025 4:26-29.) The "electronic shop server 40 provides a menu of digital products supplied from content providers 100 available for purchase by user 20." (UBER-1025 4:41-43.) The user may then "directly download the digital products from the electronic shop server 40 using the cellular phone capabilities of the mobile station 10." (UBER-1025 4:43-45.)

2. Motivation To Combine Konishi And Rautila

A skilled artisan would have considered Konishi in conjunction with Rautila. (UBER-1003 ¶¶131-35.) Konishi and Rautila are in the same field of endeavor, as both relate to software provided on mobile phones. For example, as explained above (§ VI.A.8), a skilled artisan would understand that the various features performed by the mobile telephone set of Konishi are performed by a software application on the mobile device. (UBER-1003 ¶133; UBER-1012 ¶0029 (disclosing that the operation of the vehicle allocation system starts when "the customer selects a vehicle allocation service with the mobile telephone set 13.").) Similarly, Rautila discloses a "system, method and computer program" for "a user of a mobile device to download large amounts of digital data," including software. (UBER-1025 Abstract, 1:62-63.) Thus, a person of ordinary skill in the art would have been motivated to combine their teachings to create a more robust system.

(UBER-1003 ¶133.) For example, a person of ordinary skill in the art would understand how to incorporate various features described in Rautila into the system taught by Konishi and would have had an expectation of success. (*Id.*)

A skilled artisan would also have considered Konishi in light of Rautila because Konishi discloses transmitting position information from a mobile device to a server. (UBER-1012 ¶0029; UBER-1003 ¶134.) A skilled artisan would have recognized that the wireless application protocol ("WAP") is useful for transmitting information indicating the location of a mobile phone. (UBER-1027 ¶¶0003, 0022.) A skilled artisan could thus have predictably implemented Konishi's teachings with the WAP. (UBER-1003 ¶134.) Rautila further discloses that a WAP capable phone may be used to download and launch applications. (UBER-1025 1:49-55.) Thus, a skilled artisan would have known how to combine the well-known WAP capable phone disclosed in Rautila as being capable of downloading and launching an application with Konishi's system. (UBER-1003 ¶134.)

Further, Konishi is silent regarding the source of the software running on the mobile telephone. For example, Konishi does not specify whether the software is pre-installed on the phone or is obtained and installed by the user. Thus, a skilled artisan would have investigated references that teach how software may be installed on mobile phones. (UBER-1003 ¶135.) A skilled artisan would have

found Rautila because Rautila discloses a method for downloading and installing software, including games, to a mobile phone. (*Id.*; UBER-1025 1:49-55 (disclosing "order[ing] a video game … and download[ing] it into [an] HTML (Hypertext Markup Language) capable phone and play[ing] the game on the spot.").) Thus, a skilled artisan would have come across Rautila based on the disclosure of Konishi and would have been motivated to combine the references' teachings. (UBER-1003 ¶135.)

3. Konishi And Rautila Render Claims 1, 5-7, 10-11, 22-23, 28, 32-33, 36-37, And 40-42 Obvious

To the extent the Board finds that Konishi does not render obvious to a skilled artisan the limitation of claim 1 reciting that "the method is invoked responsive to launching an application on the first wireless device," this limitation would have been obvious over Konishi in view of Rautila. (UBER-1003 ¶¶136-37.)

Rautila discloses that non-native software, including a game, may be downloaded and installed on a mobile phone. (UBER-1025 1:49-55, 1:62-63; UBER-1003 ¶137.) For example, Rautila discloses that the software may be downloaded from an "electronic shop server" to a user's mobile phone. (UBER-1025 4:41-45.) Thus, it would have been obvious to a skilled artisan to obtain the software running on Konishi's mobile telephone set using Rautila's electronic shop server. (UBER-1003 ¶137.) Because the software is non-native, a skilled artisan

would understand that a user would need to launch the application to invoke the various method steps disclosed by Konishi. (*Id.*) For the same reasons, Konishi in view of Rautila render obvious the similar limitations of claim 22 ("selecting … in association with an application launched"), claim 28 ("invoked responsive to launching an application"), and claim 40 ("instructions … operable to launch an application"). (*Id.*)

4. Konishi And Rautila Render Claims 4 And 31 Obvious

Claim 4, which depends from independent claim 1, recites: "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." Claim 31, which depends from independent claim 28, recites substantially the same limitation. Konishi teaches the limitations of claims 1 and 28 (§ VI.A.2, VI.A.3) and the teachings of Konishi and Rautila render claims 1 and 28 obvious (§ VI.B.3.) As discussed above, it would further have been obvious to a skilled artisan to obtain the software running on Konishi's mobile telephone set using Rautila's electronic shop server and install it thereon. (§ VI.B.3; UBER-1003 ¶139.)

C. GROUND 3: Konishi And Adamczyk Render Claims 6, 24, And 32 Obvious

1. Overview Of Adamczyk

Adamczyk discloses a system to match a passenger with a driver based on the current location of the driver. As shown below, the system may receive a trip

request from a passenger. (UBER-1028 9:45-60, Figure 6.) The request may be received from a location-enabled mobile terminal, and the "current location for the requesting passenger's mobile terminal may then be presumed to be the start location for the trip." (UBER-1028 9:56-63.) The system identifies a driver based in-part on the customer's location and driver's last known location. (UBER-1028 9:64-10:33.) "After a candidate driver is identified, a communication connection is established between the passenger and the candidate driver." (UBER-1028 10:33-35.) "The connection may be a voice connection." (UBER-1028 10:40-41.)

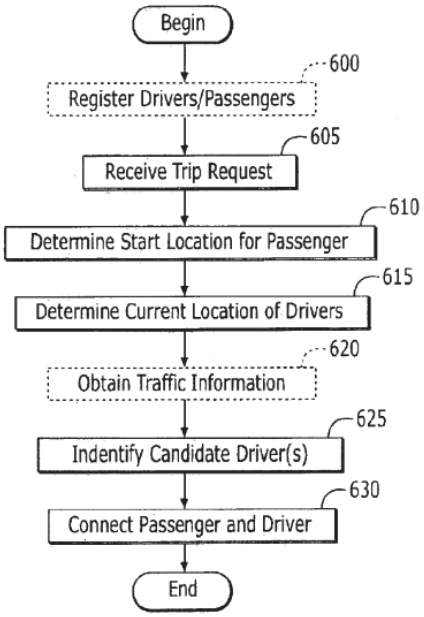


FIGURE 6

UBER-1028 Figure 6

2. Motivation To Combine Konishi And Adamczyk

A skilled artisan would have considered Konishi in light of Adamcyzk because both are directed to the same problem: matching a customer with a vehicle. (UBER-1003 ¶141; §§ VI.A.1, VI.C.1.) A skilled artisan would be

motivated to combine Konishi with Adamczyk because doing so would have been a simple combination of prior-art elements according to known methods to yield the predictable result of allowing voice communication between a ride requestor and ride provider. (UBER-1003 ¶141.) Konishi discloses that a system in which a customer with a mobile phone may make a reservation and a vehicle with a mobile phone may then travel to the customer. (UBER-1012 ¶¶0033, 0035, 0039.) Adamczyk also discloses a system in which a customer with a mobile phone may request a ride (UBER-1028 9:56-60), and discloses establishing a voice communication between the customer and a candidate driver (UBER-1028 9:24-30, 10:33-44). Combining the references' teachings would have been obvious to a skilled artisan, who would have had an expectation of success, because Konishi's system already includes the mobile phones needed to establish voice communication as disclosed by Adamczyk. (UBER-1003 ¶141.) A person of ordinary skill in the art would have been motivated to combine the references' teachings because, for example, using Konishi's phone-based vehicle allocation system to provide voice communication between the customer and driver as disclosed by Adamczyk would allow a driver having difficulty finding a customer to call the customer's mobile phone. (*Id.*)

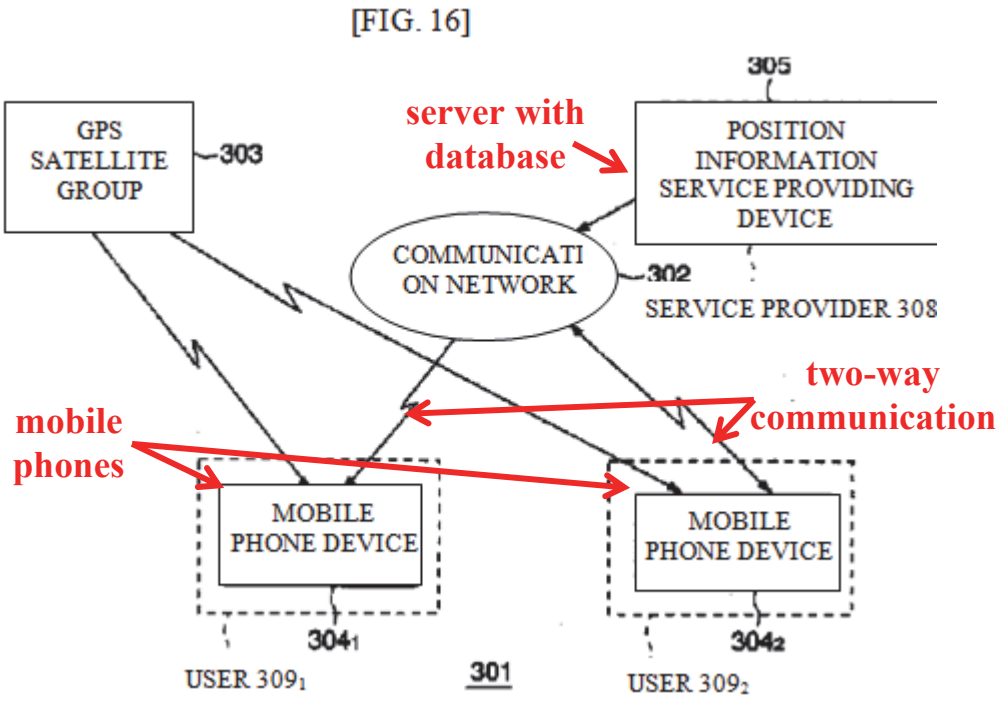
3. Konishi And Adamczyk Render Claims 6, 24, And 32 Obvious

Claim 6 depends from claim 1 and recites "wherein the method further comprises providing selective, direct voice communication between the requestor and the provider." Claims 24 and 32 depend from claims 22 and 28, respectively, and recite counterpart limitations. Konishi teaches the limitations of claims 1, 22, and 28. (*See* § VI.A.2, VI.A.3, VI.A.4.) Adamczyk teaches that after a driver is identified, a voice connection may be established between the customer and driver. (UBER-1028 10:33-44, 3:30-34, 9:26-30.) It would have been obvious to a skilled artisan to allow selective, direct voice communication between the requestor and provider, as taught by Adamczyk, with Konishi's system. (UBER-1003 ¶142, § VI.C.2.)

D. GROUND 4: Konishi And Makoto Render Claims 8, 9, 25, 34, 35, And 45 Obvious

1. Overview Of Makoto

Makoto discloses a system for mapping the location of group members on a group member's mobile phone. As shown in the figure below, an embodiment of the Makoto system includes mobile phones in two-way communication with a server referred to as "position information service providing device 305." (UBER-1009 ¶¶0097-0098, Figure 16.)



UBER-1009 Figure 16 (Annotated)

Makoto teaches that a mobile communication device may generate a location information request containing the device ID and group ID and transmit the request to the server. (UBER-1009 ¶¶0119-0120.) The server then determines whether location information is stored for any other devices associated with the group ID. (UBER-1009 ¶0122.) If a time limit has not expired (UBER-1009 ¶0123), the server transmits the location information for the group members to the mobile communication device that sent the request (UBER-1009 ¶0124.) The mobile communication device may then display a map with the GPS information for the other group members. (UBER-1009 ¶¶0125-0126.)

2. Motivation To Combine Konishi And Makoto

Konishi and Makoto both relate to displaying one's own location and additional location information on a map on a mobile device. For example, Konishi discloses that "the current position of the customer and the current positions of the vacant vehicles located within the prescribed range are displayed on a map and transmitted to the customer information terminal." (UBER-1012 Abstract.) Similarly, Makoto discloses that "[i]n a processing unit 14 of mobile phone device 4_1, the map information required to display the location of mobile phone devices 4_1 and 4_2 on a map is specified." (UBER-1009 ¶0053.) Incorporating features described in Makoto into the system taught by Konishi would have been an obvious step with predictable results and a simple matter of design choice because Konishi's system included the components to implement Makoto's teachings. A skilled artisan would have been motivated to add Makoto's "time to permit" permission requirement to Konishi's system because the benefit of placing a time limit on location sharing could be predictably applied to any location tracking system. (UBER-1003 ¶144.)

Further, Konishi and Makoto teach disabling location sharing in certain conditions. Konishi teaches that once a reservation is made in Konishi's system, the "vacant vehicles other than the reserved vehicle, which is the vacant vehicle that accepted the reservation, are deleted from the map, and the current position of only the reserved vehicle is displayed on the map together with the customer

position." (UBER-1012 ¶0033.) Makoto teaches a mobile mapping system that includes a permission requirement specifying a "time to permit" the provision of location information. (UBER-1009 ¶0123.) A person of ordinary skill in the art would have thus found it obvious to implement the conditions for disabling location sharing disclosed in Makoto into Konishi's system. A skilled artisan would have a reasonable expectation of success because it merely involves using Makoto's "time to permit" permission requirement for its intended purpose in a similar system. (UBER-1003 ¶¶144-45.)

3. Konishi And Makoto Render Claims 8, 25, And 34 Obvious

Claims 8 and 25 depend from claims 1 and 22, respectively, and recite "wherein the method further comprises initiating a function to stop the receiving of information on the first wireless device representing positional update of the second wireless device upon occurrence of an event." Claim 34 depends from claim 28 and recites a counterpart limitation. Konishi teaches the limitations of claims 1, 22, and 28. (*See* § VI.A.2, VI.A.3, VI.A.4.) Makoto discloses permission requirements information "specifying the time to permit the provision of the location information." (UBER-1009 ¶0123.) If the predetermined "time to permit" period has been exceeded, then the software disables transmission of a map and instead "generates a notice for the purpose of notifying that there is no location information that can be provided." (UBER-1009 ¶¶0123, 0130.) Makoto

therefore disables transmission of a map representing the plotted position of a specific one of the multiple users if the predetermined "time to permit" period has been exceeded. (UBER-1003 ¶146.) Given Makoto's teachings, a skilled artisan would have found it obvious to stop transmitting the location information representing positional updates of the location of the reserved vehicle after a predetermined time interval. (*Id.*)

Further, under the broadest reasonable interpretation of the claim, a skilled artisan would have understood that the customer turning off its phone would be an event to initiate a function to stop the receiving of information. (UBER-1003 ¶147.) A skilled artisan would have found it obvious to for the system disclosed in Konishi to initiate a function to stop the receiving of information on the first wireless device upon a user turning off the device. (*Id.*)

4. Konishi And Makoto Render Claims 9 And 35 Obvious

Claims 9 and 35 depend from claims 8 and 34, respectively, and further recite "wherein the event is a timeout, such that the function is automatically invoked following passage of a predetermined interval of time." Konishi and Makoto render these claims obvious for the same reasons discussed above in the context of claims 8 and 34. (*See* § VI.D.3, UBER-1003 ¶148.)

5. Konishi And Makoto Render Claim 45 Obvious

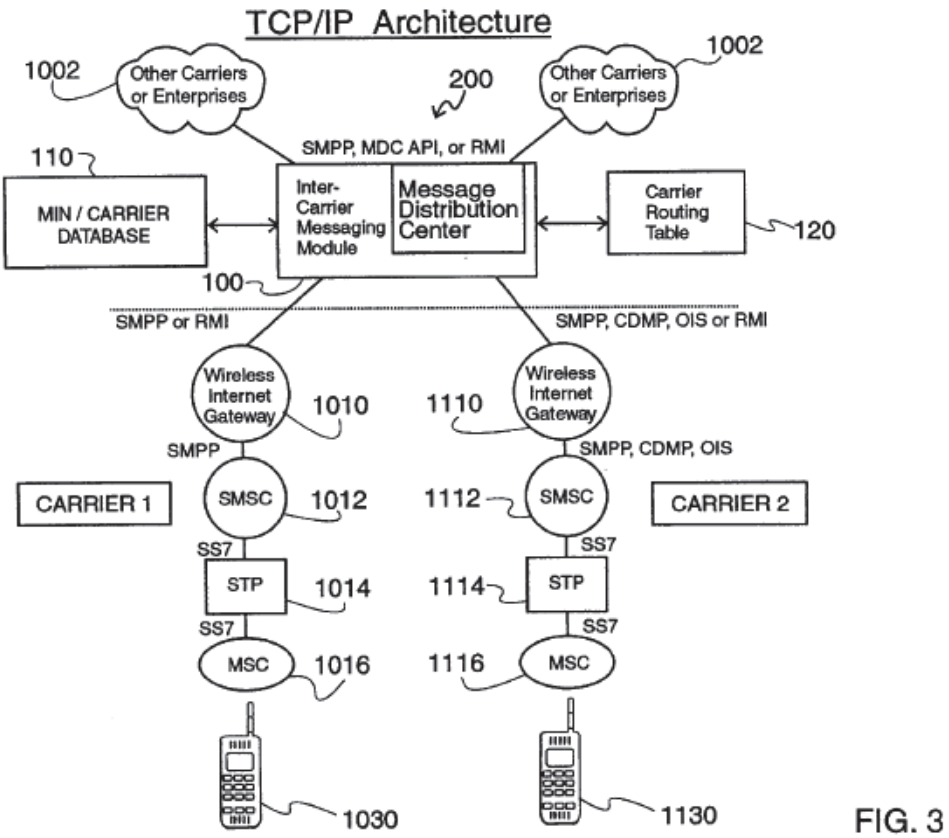
Claim 45, which depends from claim 28, recites "the instructions when executed are to cause the at least one machine to check a subscription status associated with the requestor prior to the receipt of the information on the first wireless device representing the positions." Konishi teaches the limitations of claim 28. (*See* § VI.A.4.) Makoto discloses that "a user of the communication device registers in advance with the administrator of the service providing device for receiving the service before transmitting the service request," and "an administrator of the service providing device collects a fee from a user of the communication device according to the aforementioned registration." (UBER-1009 at claims 43 and 44.) Thus, it would have been obvious in view of Makoto to check a subscription status of the user (whether the user has registered and paid the fee) before transmitting the service request (to provide a taxi). (UBER-1003 ¶149.)

E. GROUND 5: Konishi And Knotts Render Claims 13, 27, And 39 Obvious

1. Overview Of Knotts

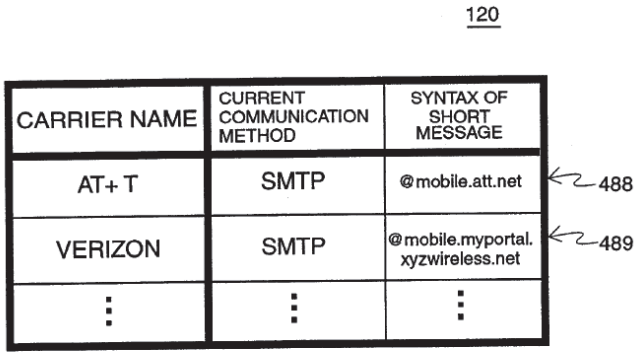
Knotts discloses that it was known to communicate to a wireless device on a carrier's network by transmitting communications to a Wireless Internet Gateway (WIG) added to the carrier's network. (UBER-1003 ¶72, UBER-1026:2:40-50.) Knotts teaches an Inter-Carrier messaging module that "determines the appropriate carrier for the recipient, appends the appropriate syntax to the short message to allow internet protocol (IP) or other standardized communication techniques

between SMSCs [Short Message Service Centers] of the two carriers, and routes the short message to the destination carrier. Once received, the destination carrier's network delivers the message to the final destination." (UBER-1026 5:59-67.) As shown below, Knotts Figure 3 shows "exemplary interconnecting between the MDC [Messaging Distribution Center] including an Inter-Carrier messaging module, and other carrier's networks using TCP/IP protocols." (UBER-1026 7:27-30.)



UBER-1026 Figure 3

Figure 5 below illustrates entries in an exemplary Carrier Routing Table 120. As shown, Knott's teaches routing between devices associated with different cell phone carriers, such as AT&T and Verizon. (UBER-1026 10:20-25.)



UBER-1026 Figure 5

2. Motivation To Combine Konishi And Knotts

A person of ordinary skill would have considered Konishi in conjunction with Knotts. (UBER-1003 ¶¶152-53.) Both relate to transmitting data to a mobile device over an existing telecommunications carrier's network. Konishi's "communication device 18 is connected to a computer of an existing telecommunications carrier, for example, and is connected to the mobile telephone set 13 via the computer 20." (UBER-1012 ¶0026.) Similarly, Knotts "relates generally to wireless carriers, Internet service providers (ISPs), and information content delivery services/providers." (UBER-1026 1:13-15.) Knotts discloses that it was known to provide inter-carrier messaging to mobile devices. (UBER-1026 Abstract.) A skilled artisan would have been motivated to apply the known

technique disclosed in Knotts to the system of Konishi because the benefit of providing a multi-carrier system could be predictably applied to Konishi's system. (UBER-1003 ¶152.)

Further, while Konishi discloses a system that includes a "communication device" "connected to a computer of an existing telecommunications carrier" (UBER-1012 ¶0026), Konishi does not expressly state whether its system operates with mobile telephones from different telecommunications carriers. A skilled artisan would have investigated whether it was known to provide systems for multi-carrier communications. (UBER-1003 ¶153.) A skilled artisan thus would have found Knotts, which discloses inter-carrier messaging. (UBER-1026 Abstract). Because Knotts shows that it was known to route communications to different cell phone carriers by utilizing routing tables to match communication methods and syntax, a skilled artisan would have found it obvious to implement a system as disclosed in Konishi where the customer's mobile device and a vehicle's mobile device are associated with different carriers in light of Knotts. (UBER-1003 ¶153.)

3. Konishi And Knotts Render Claims 13, 27, And 39 Obvious

Claim 13 depends from claim 1 and further recites "wherein the method is adapted for operation where each of the first wireless device and the second wireless device are associated with different cell phone carriers." Claims 27 and

39 depend from claims 22 and 28, respectively, and recite counterpart limitations. Konishi teaches the limitations of claims 1, 22, and 28. (*See* § VI.A.2, VI.A.3, VI.A.4.)

Konishi does not expressly state that its system operated with mobile telephones from different phone carriers. Knotts, however, teaches a system for allowing inter-carrier communications. (UBER-1026 Abstract, 2:40-50, 10:42-55; § VI.E.1; UBER-1003 ¶155.) Given Knotts's teachings, a skilled artisan would have found it obvious to implement Konishi's system where the customer's mobile device and a vehicle's mobile device are associated with different carriers. (*See* § VI.E.2; UBER-1003 ¶155.)

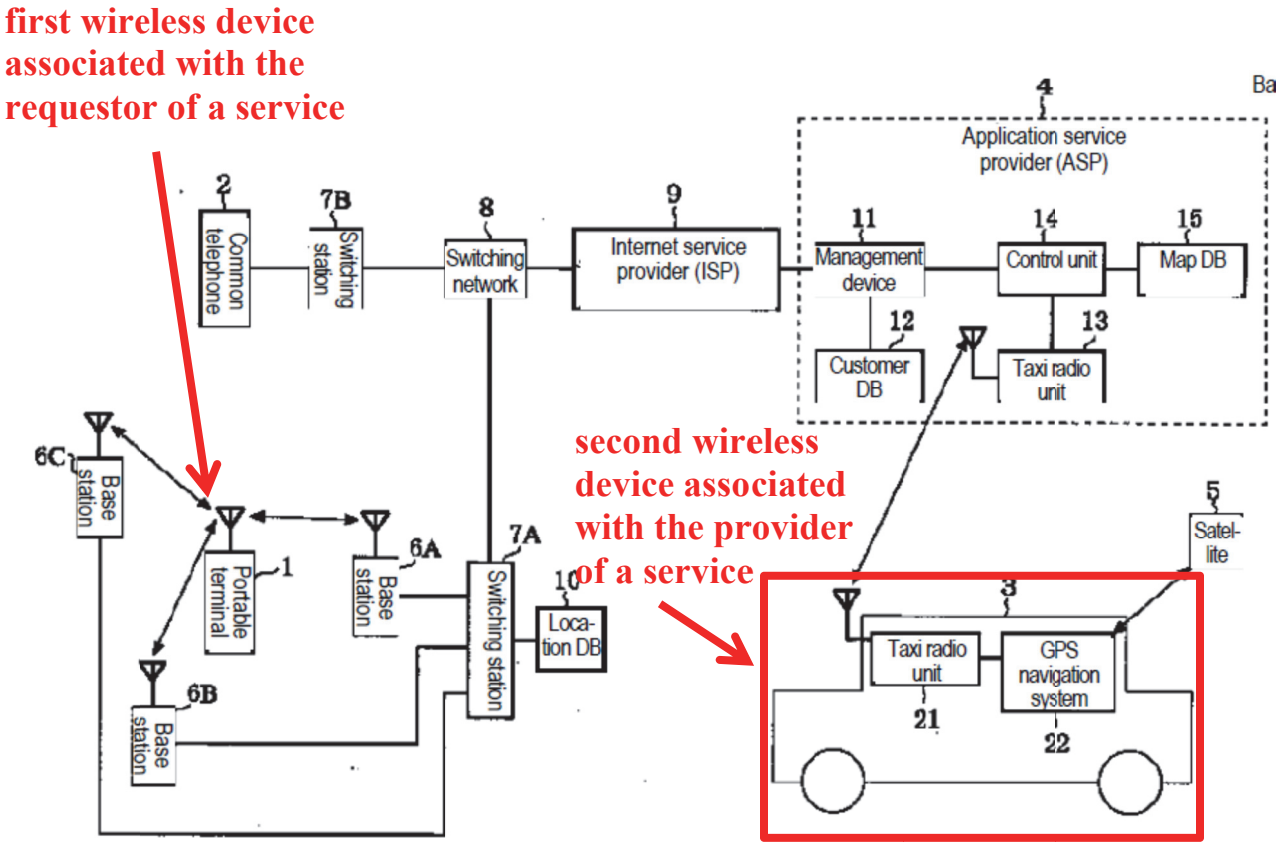
F. GROUND 6: Mitsuoka Renders Claims 1, 5, 7, 10-11, 22-23, 28, 33, 36-37, 40, And 42 Obvious

1. Overview Of Mitsuoka

Mitsuoka discloses a system that enables a customer to make a taxi reservation and view a map with a real-time display plotting a customer's and taxi's locations until the taxi arrives. For example, Mitsuoka discloses that a "user who wishes to request dispatch of taxi" may "transmit[] location information for portable terminal 1 to ASP 4," which "adds display data representing the user at the current location of the user on said map, adds display data representing a taxi at the current location of the available taxi 3, and transmits this together with the

vicinity map to portable terminal 1 and causes it to be displayed thereon." (UBER-1015 Abstract.)

[FIG. 1]

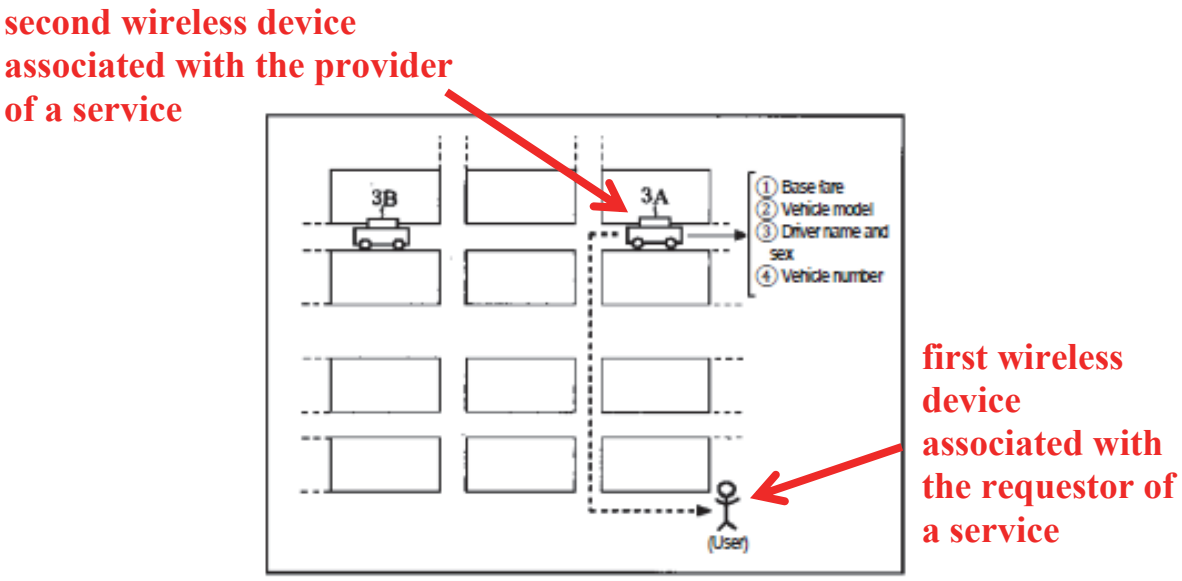


UBER-1015 Figure 1 (Annotated)

As illustrated in Figure 4 below, the "vicinity of the user is displayed on the display unit of the user's portable terminal 1, along with taxis 3A, 3B currently traveling at certain points on the map." (UBER-1015 ¶0019.) While the taxi travels to the user, "the ASP [Application Service Provider] 4 receives input of taxi 3A location information successively transmitted from taxi 3A, adds an image of the taxi to the corresponding location on the vicinity map, and delivers this display

data in real time to the portable terminal 1, as a result of which the status of the requested taxi heading to one's own current location is displayed in real time along with a map of the vicinity on the display unit of the portable terminal 1 of the user who is the vehicle dispatch requester." (UBER-1015 ¶0021.)

[FIG. 4]



UBER-1015 Figure 4 (Annotated)

2. Mitsuoka Renders Claim 1 Obvious

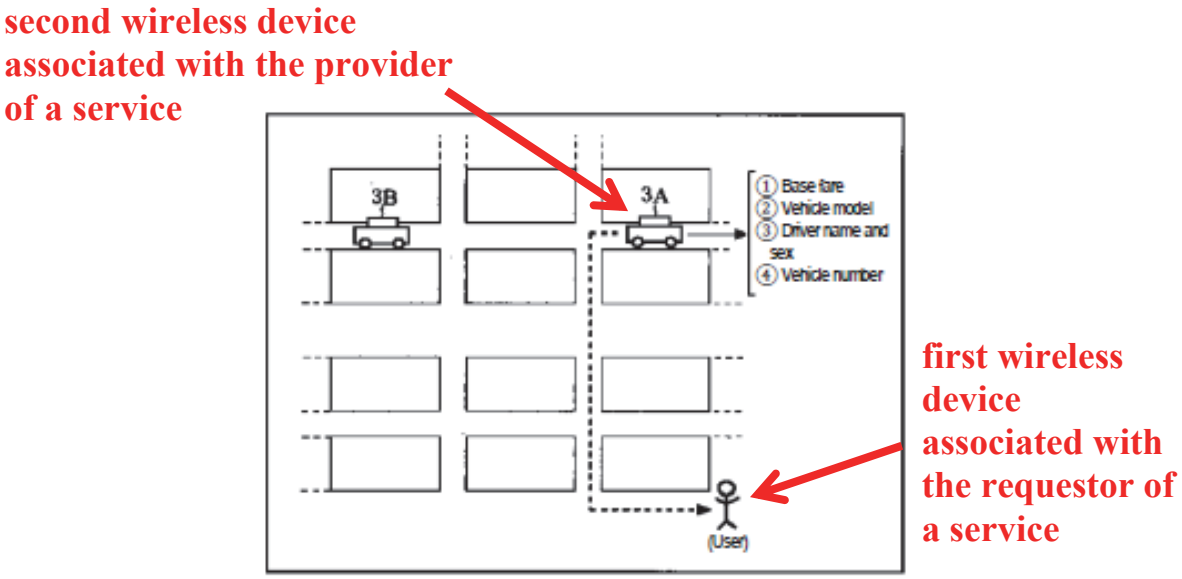
(A) "A method … comprising:"

Mitsuoka discloses a method of tracking the proximity of position between a wireless device of a customer seeking a desired service (e.g., a ride) and a service provider offering the desired service. (UBER-1015 ¶¶0019, 0021, Figures 1, 2; UBER-1003 ¶¶157-59.)

(B) "causing receipt of information on the first wireless … and the position of second wireless device;"

Mitsuoka discloses 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. (UBER-1015 ¶0019, Figure 4; UBER-1003 ¶160.)

[FIG. 4]



UBER-1015 Figure 4 (Annotated)

(C) "causing display of the map … rendered thereon; and"

Mitsuoka discloses that the "vicinity of the user is displayed on the display unit of the user's portable terminal 1, along with taxis 3A, 3B currently traveling at certain points on the map." (UBER-1015 ¶0019, Figure 4; UBER-1003 ¶161.)

(D) "causing receipt of information on the first wireless device … and updated position of the second wireless device rendered thereon;"

Mitsuoka teaches a system that "**successively acquires location information** transmitted from the selected vehicle, generates map information to which vehicle display data has been added at the acquired location on map data each time the location information is acquired, and transmits this map information to the portable terminal and causes it to be displayed thereon, so the **user is able to track** the movement status of the dispatch requested vehicle **in real time** until the dispatch requested vehicle which the user has selected arrives at the user's waiting location." (UBER-1015 ¶0042; *see also* UBER-1015 ¶0021; UBER-1003 ¶162.)

(E) "wherein the causing of the update is to be performed to indicate proximity of and direction …;"

Mitsuoka teaches that the map of the user and taxi position is updated so that the user may track his location relative to the location of the taxi in real time. (UBER-1015 ¶0042.) A skilled artisan would understand that this information indicates proximity of and direction between the user and the taxi. (UBER-1003 ¶¶163-64; *see also* § VI.A.2(E).)

(F) "wherein the method is invoked responsive to launching an application …; and"

Mitsuoka discloses that "to request dispatch of a taxi 3, the user makes a dial up connection to ASP 4 from the user's own portable terminal." (UBER-1015 ¶0026.) Mitsuoka additionally discloses that the user device is a "portable terminal such as a portable telephone." (UBER-1015 ¶0002.) A skilled artisan would have

found it obvious for the method of claim 1 to be invoked in response to running of an application on the mobile device. (UBER-1003 ¶165.)

(G) "wherein … the method further comprises forming a use-specific group …."

Mitsuoka discloses that the user may select the desired taxi. (UBER-1015 ¶0007 ("after transmission of map information to the portable terminal …, [a taxi may be] selected as a dispatch requested vehicle by the portable terminal.").) After the user selects the taxi, Mitsuoka discloses forming a use-specific group by "generat[ing] vehicle display data for the selected vehicle so as to be distinguishable from the vehicle display data for non-selected vehicles." (*Id.*) At this point, not only does the user receive the taxi location, but the taxi receives the user location. (UBER-1015 ¶0030 ("Upon [selection], the taxi 3 … displays the customer name (i.e. the name of the user) at a location on the vicinity map displayed on the display unit of its GPS navigation system corresponding to the location of portable terminal 1.").) A skilled artisan would understand that forming the group comprising the user and the taxi for the display constitutes forming a use-specific group. (UBER-1003 ¶166.)

3. Mitsuoka Renders Claim 22 Obvious

(A) "A method … comprising:"

Mitsuoka discloses the preamble for the same reasons discussed above in the context of claim 1. (*See* § VI.F.2(A); UBER-1003 ¶¶167-69.)

(B) "selecting the provider of the desired service in association with an application launched by the requestor …;"

Mitsuoka discloses that the user may select the desired taxi. (UBER-1015 ¶0007; Fig. 2 at S7.) A skilled artisan would have found it obvious for the selection to be in association with the user launching the application on the mobile device. (UBER-1003 ¶170.) The user then receives the taxi location and the taxi receives the user location. (UBER-1015 ¶0030.) The taxi's wireless device is the second wireless device associated with the provider. (UBER-1003 ¶170.)

(C) "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, …;"

This claim element substantially mirrors the element of claim 1 addressed in § VI.F.2(B) above with the additional limitation that the information is "dependent on global positioning system (GPS) position data provided by the second wireless device." Mitsuoka discloses that the taxi receives its position information via GPS. (UBER-1015 ¶0015, Fig. 1; UBER-1003 ¶171.)

(D) "causing … rendered thereon; and"

Konishi discloses this limitation for the same reasons discussed above in the context of the identical limitation in claim 1. (*See* § VI.F.2(C), UBER-1003 ¶172.)

(E) "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"

This claim limitation substantially mirrors the element of claim 1 addressed in § VI.F.2(D) above with the additional limitation that the information represents "intermittent" positional update and that the updates are "dependent on GPS position data provided by the second wireless device." As discussed above in § VI.F.2(D), Mitsuoka discloses that the map of the user and taxi position is updated so that the user may track his location relative to the location of the taxi in real time. (UBER-1015 ¶0042.) A skilled artisan would understand that these updates would be performed intermittently when the wireless devices have intermittent coverage. (UBER-1003 ¶173; *see also* § VI.A.3(E).) In addition, Mitsuoka discloses that the taxi receives its position information via GPS. (UBER-1015 ¶0015, Fig. 1.)

(F) "causing update of display of the map on the first wireless device … dependent on the GPS position data provided by the second wireless device rendered thereon;"

This claim element is substantially similar to the element of claim 1 addressed in § VI.F.2(E) above with the additional limitation that the information is "dependent on global positioning system (GPS) position data provided by the second wireless device." Mitsuoka discloses that the taxi receives its position information via GPS. (UBER-1015 ¶0015, Fig. 1; UBER-1003 ¶174.)

(G) "wherein selecting the provider of the desired service includes forming a use-specific group …."

Mitsuoka discloses this limitation for the same reasons discussed above in the context of a counterpart limitation in claim 1. (*See* §VI.F.2(G), UBER-1003 ¶175.)

4. Mitsuoka Renders Claim 28 Obvious

Independent claim 28 recites an apparatus comprising instructions stored on machine-readable media, the instructions operable to perform a method substantially corresponding to method recited in claim 1. For the same reasons as explained above in § VI.F.2, Mitsuoka similarly discloses or renders obvious each limitation of claim 28. (UBER-1003 ¶176.)

5. Mitsuoka Renders Claims 5, 23, And 42 Obvious

As explained above in § VI.F.2(G), Mitsuoka discloses two-way mapping. (UBER-1015 ¶0030; UBER-1003 ¶177.)

6. Mitsuoka Renders Claims 6, 24, And 32 Obvious

Mitsuoka discloses that the user's telephone number is provided to the taxi. (UBER-1015 ¶0020 ("the telephone number of the portable terminal 1 is transmitted to the taxi and displayed along with the current location of the user").) If a taxi is having difficulty finding a user, it would have been obvious to the taxi driver that he could call the user's telephone number and establish direct voice communications. (UBER-1003 ¶178.)

7. Mitsuoka Renders Claims 7 And 33 Obvious

Mitsuoka discloses that the second wireless device is associated with an automobile. (UBER-1015 ¶0015, Fig. 1; UBER-1003 ¶179.)

8. Mitsuoka Renders Claims 10 And 36 Obvious

Mitsuoka discloses the limitations of claims 10 and 36 for the same reasons discussed above in §§ VI.F.2(B)-VI.F.2(D). (UBER-1015 ¶¶0020, 0042; UBER-1003 ¶180.)

9. Mitsuoka Renders Claims 11 And 37 Obvious

Mitsuoka discloses that the user device is a "portable terminal such as a portable telephone." (UBER-1015 ¶0002; UBER-1003 ¶¶181-82.)

10. Mitsuoka Renders Claim 40 Obvious

(A) "the requestor is associated with the first wireless device and the provider is associated with the second wireless device;"

Mitsuoka discloses that the customer (requestor) is associated with a first wireless device and the vacant vehicle (provider) is associated with a second wireless device. (UBER-1015 Figure 1 at 1 & 3; UBER-1003 ¶184).

(B) "the apparatus is embodied as instructions stored on non-transitory memory of the first wireless device and further comprise instructions that when executed are operable to launch an application on the first wireless device in association with a request by the requestor for the desired service;"

As explained above in § VI.F.2(F), it would have been obvious to a skilled artisan to have the various claimed method steps of Mitsuoka be implemented as executable instructions that are invoked in response to running of an application on the mobile device. (UBER-1003 ¶185.)

(C) "the provider and the second wireless device are selected in association with the request by the requestor for the desired service;"

Mitsuoka discloses that the user may select the desired taxi. (UBER-1015 ¶¶0007, 0020, 0040; Fig. 2 at S7; UBER-1003 ¶186.)

(D) "the instructions when executed are operable to generate the display in a manner operable to convey to the requestor cartographic location of the provider as a prelude to rendering the desired service."

Mitsuoka discloses that prior to the user selecting a taxi to request taxi service, the location of the user as well as the location of available taxis are displayed on a map to the user. (UBER-1015 ¶0029; UBER-1003 ¶187.)

11. Mitsuoka Renders Claim 41 Obvious

Mitsuoka discloses a system that includes mobile devices associated with customers and with vehicles, and an "application service provider (ASP) 4." (UBER-1015 at Fig. 1.) The ASP 4 is a server that includes software that performs mapping and tracking functions. (UBER-1015 ¶0005; UBER-1003 ¶188.)

G. GROUND 7: Mitsuoka And Rautila Render Claims 1, 4-5, 7, 10-11, 22-23, 28, 31, 33, 36-37, And 40-42 Obvious

For the same reasons discussed above in § VI.B, it would have been obvious to combine Rautila with the teachings of Mitsuoka, and, for the same reasons, such a combination renders obvious claims 1, 4-5, 7, 10-11, 22-23, 28, 31, 33, 36-37, and 40-42. (UBER-1003 ¶¶189-93.)

H. GROUND 8: Mitsuoka And Makoto Render Claims 8, 9, 25, 34, 35, And 45 Obvious

For the same reasons discussed above in § VI.C, it would have been obvious to combine Makoto with the teachings of Mitsuoka, and, for the same reasons, such a combination renders obvious claims 8, 9, 25, 34, 35, and 45. (UBER-1003 ¶¶194-98.)

I. GROUND 9: Mitsuoka And Konishi, Further In View Of Knotts Render Claims 13, 27, Aand 39 Obvious

It would have been obvious to combine the Konishi with the teachings of Mitsuoka because both are related to enabling a user to order a taxi using a mobile phone and view a map tracking the location of the taxi. (UBER-1003 ¶202.) For the same reasons discussed above in § VI.E.2, it would have been obvious to further combine Knotts with the teachings of Mitsuoka and Konishi. (*Id.*)

Mitsuoka discloses that the taxi has a "taxi radio unit 21" but does not expressly disclose that this device may be a mobile phone. Konishi discloses that the taxi has a "radio communication set 3," but further discloses that this may be a "mobile telephone set." (UBER-1012 ¶0039.) Thus, it would be obvious to a

skilled artisan to replace Mitsuoka's radio unit with a mobile phone. (UBER-1003 ¶200.)

Thus, for the same reasons discussed in § VI.E.3, it would have been obvious to a skilled artisan in view of Knotts that the user's mobile device and the taxi's mobile device may be associated with different cell phone carriers. (UBER-1003 ¶201.)

VII. GROUNDS FOR STANDING

Petitioner certifies that the '647 patent is available for *inter partes* review and that Petitioner is not barred or estopped from requesting an *inter partes* review on the grounds identified in this Petition.

VIII. MANDATORY NOTICES

A. Real Party-in-Interest

The real party-in-interest in this Petition is Uber Technologies, Inc.

B. Related Matters

To the best knowledge of Petitioner, the '647 patent is involved in *X One, Inc. v. Uber Technologies, Inc.* in the Northern District of California, Case No. 5:16-cv-6050-LHK (filed on October 19, 2016).

Petitioner is also filing a petition for *inter partes* review of U.S. Patent No. 8,798,593 ("the '593 patent"), which is the parent of the '647 patent. The '593 patent is also at issue in the above-identified litigation.

C. Lead/Back-Up Counsel And Service Information

Lead Counsel	Back-Up Counsel
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Petitioner consents to electronic service by email at the above email addresses.

IX. CONCLUSION

Petitioner respectfully requests that a Trial be instituted and that the Challenged Claims of the ’647 Patent be canceled as unpatentable.

Attached hereto or included herewith are Powers of Attorney, an Exhibit List, and copies of the references per 37 C.F.R. §§ 42.10(b), 42.63(e), and 42.6(c). Petitioner paid the requisite fee via Deposit Account. The Office is authorized to charge fee deficiencies and credit overpayments to Deposit Account No. 50-1529 (Order No. 971877.60029).

Dated: April 11, 2017

Respectfully submitted,

/s/ Gerard M. Donovan
Gerard M. Donovan
Registration No. 67,771

CERTIFICATION OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), I certify that this **PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,798,647** comprises 13,955 words, excluding parts exempted by 37 C.F.R. § 42.24(a), and thus complies with the type-volume limitation of 14,000 words.

Respectfully submitted,

Date: April 11, 2017

/s/ Gerard M. Donovan

Gerard M. Donovan
Registration No. 67,771

CERTIFICATION OF SERVICE

The undersigned hereby certifies that on April 11, 2017, the foregoing **PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,798,647**, the accompanying Power of Attorney, and all associated exhibits were served on the following attorney of record for the patent via Express Mail.

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A courtesy copy of the foregoing **PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,798,647**, the accompanying Power of Attorney, and all associated exhibits was on Patent Owner's litigation counsel via email at the following addresses:

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