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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNIFIED PATENTS INC.
Petitioner

v.

SHIPPING & TRANSIT, LLC f/k/a ARRIVAL STAR, INC.
Patent Owner

IPR2016-01465
U.S. Patent 6,415,207

**SYSTEM AND METHOD FOR AUTOMATICALLY PROVIDING
VEHICLE STATUS INFORMATION**

**PETITION FOR *INTER PARTES* REVIEW OF
U.S. PATENT 6,415,207
CHALLENGING CLAIMS 1–15
UNDER 35 U.S.C. § 312 AND 37 C.F.R. § 42.104**

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I. MANDATORY NOTICES

A. Real Party-in-Interest

Pursuant to 37 C.F.R. § 42.8(b)(1), Unified Patents, Inc. (“Unified” or “Petitioner”) certifies that Unified is the real party-in-interest, and further certifies 1) that no other party exercised control over Unified’s participation in this proceeding or the filing of this petition and 2) that no other party will exercise any control over the conduct of any ensuing trial. In this regard, Unified has submitted voluntary discovery. *See* EX1010.

B. Related Matters

According to the USPTO assignment records, U.S. Patent 6,415,207 (“the ’207 Patent” (EX1001)) is assigned to Shipping and Transit, LLC (“Shipping and Transit” or “Patent Owner”).

Since January 19, 2016, Shipping and Transit has been involved in at least 85 lawsuits asserting the ’207 Patent. According to public declaratory judgment action documents filed with the assistance of the nonprofit Electronic Frontier Foundation, Shipping and Transit has sent more than 650 demand letters to small businesses demanding license fees or they will bring suit. *See Triple7Vaping.com, LLC et al. v. Shipping & Transit*, 9:16-cv-80855, ECF 1 (S.D. Fla. filed May 31, 2016) (demanding by letter \$25,000 from small retailer formed after the expiration of three of four asserted patents). Shipping and Transit was “formerly known as

ArrivalStar S.A. and Melvino Technologies Limited.” *Id.* at 6. Under either its current name or as “ArrivalStar S.A. or Melvino,” Shipping and Transit has brought hundreds of patent infringement suits against hundreds of companies, and has sent assertion letters to many other companies demanding payment of money. Many of the following cases appear to have settled or to involve declaratory judgment actions and motions for transfer.

A list of related actions—to the extent all related actions are identifiable through diligent searching—involving the ‘207 patent, as of the date of filing, follows:

Shipping and Transit, LLC v. St. Geogre Trucking & Warehouse, Inc. [sic], 0-99-cv-fl317 (FLSD July 22, 2016);

Shipping and Transit v. CD Universe, 9-16-cv-81208 (FLSD July 6, 2016);

Shipping and Transit v. Wireless Links, Inc., 9-16-cv-81210 (FLSD July 6, 2016);

Shipping and Transit v. Fairprice Tobacco, Inc., 9-16-cv-81195 (FLSD July 5, 2016);

Shipping and Transit v. GeoMetrix USA Inc., 2-16-cv-04861 (CACD July 1, 2016);

Shipping and Transit v. SFG, LLC et al, 2-16-cv-04864 (CACD July 1, 2016);

Shipping and Transit v. Efuego Corp., et al, 2-16-cv-04868 (CACD July 1, 2016);

Shipping and Transit v. Greyhound Lines, Inc et al, 2-16-cv-04869 (CACD July 1, 2016);

Shipping and Transit v. Auctane LLC d/b/a ShipStation, 9-16-cv-81119 (FLSD June 27, 2016);

Shipping and Transit, v. Eastern Shipping Worldwide, Inc., 9-16-cv-81060 (FLSD June 23, 2016);

Shipping and Transit v. iGlobal, LLC, 9-16-cv-81061 (FLSD June 23, 2016);

Shipping and Transit v. AceRoute Field Services d/b/a AceRoute Software, 9-16-cv-81053 (FLSD June 22, 2016);

Shipping and Transit v. Spice Jungle, LLC, 9-16-cv-81037 (FLSD June 21, 2016);

Shipping and Transit v. Monkey Sports, Inc., 9-16-cv-81038 (FLSD June 21, 2016);

Shipping and Transit v. IA Auto, Inc., 9-16-cv-81039 (FLSD June 21, 2016);

Shipping and Transit v. LD Products, Inc., 9-16-cv-81040 (FLSD June 21, 2016);

Shipping and Transit v. Thrifty Drug Stores, Inc., 9-16-cv-81041 (FLSD June 21, 2016);

Shipping and Transit v. Discount Electronics, Inc., 9-16-cv-80973 (FLSD June 13, 2016);

Shipping and Transit v. Leatherology, Inc., 9-16-cv-80978 (FLSD June 13, 2016);

Shipping and Transit v. LensDiscounters.com, 9-16-cv-80980 (FLSD June 13, 2016);

Mason Cos., Inc. v. Shipping and Transit, 3-16-cv-00411 (WIWD June 13, 2016);

Oden Industries v. Shipping and Transit, 5-16-cv-01216 (CACD June 9, 2016);

Shipping and Transit v. PINC Solutions, 9-16-cv-80939 (FLSD June 8, 2016);

Shipping and Transit v. iCONTROL Inc., 9-16-cv-80936 (FLSD June 8, 2016);

Shipping and Transit v. Tonzof, Inc., 9-16-cv-80938 (FLSD June 8, 2016);

Shipping and Transit v. Toolbarn.com, Inc., 9-16-cv-80940 (FLSD June 8, 2016);

Shipping and Transit v. SunFrog, LLC, 9-16-cv-80941 (FLSD June 8, 2016);

Shipping and Transit v. Baby Supermall, 2-16-cv-03947 (CACD June 6, 2016);

Shipping and Transit v. Laneaxis, Inc., 2-16-cv-03953 (CACD June 6, 2016);

Shipping and Transit v. Eyefreight Inc., 2-16-cv-03962 (CACD June 6, 2016);

Shipping and Transit v. Healthwarehouse.com, 2-16-cv-03977 (CACD June 6, 2016);

Shipping and Transit v. FragranceNet.com, Inc., 2-16-cv-03981 (CACD June 6, 2016);

Shipping and Transit v. Hawk Applications Corp., 2-16-cv-03982 (CACD June 6, 2016);

Shipping and Transit, v. Targus Group International, Inc., 2-16-cv-03912 (CACD June 3, 2016);

Shipping and Transit v. Tanner Goods, 2-16-cv-03916 (CACD June 3, 2016);

Shipping and Transit v. Holabird Sports, LLC, 9-16-cv-80910 (FLSD June 3, 2016);

Shipping and Transit v. Need Supply Co, 9-16-cv-80911 (FLSD June 3, 2016);

Shipping and Transit v. Metrologistics, LLC, 9-16-cv-80912 (FLSD June 3, 2016);

Shipping and Transit v. Stickers Galore, Inc. d/b/a Acherryontop.com, 9-16-cv-80893 (FLSD, June 2, 2016);

Shipping and Transit v. Online Stores, LLC, 9-16-cv-80894 (FLSD June 2, 2016);

Shipping and Transit v. Blue Ridge Net Publishing, Inc. d/b/a WeatherShack.com, 9-16-cv-80891 (FLSD June 1, 2016);

Shipping and Transit v. Invitation Consultants, Inc., 2-16-cv-03831 (CACD June 1, 2016);

Shipping and Transit v. Loginext Solutions Inc., 2-16-cv-03834 (CACD June 1, 2016);

Shipping and Transit v. Neptune Cigars, Inc., 2-16-cv-03836 (CACD June 1, 2016);

Shipping and Transit v. Nonin Medical, Inc., 2-16-cv-03839 (CACD June 1, 2016);

Shipping and Transit v. Sally Beauty Holdings, Inc., 2-16-cv-03841 (CACD June 1, 2016);

Shipping and Transit v. Skyline Vapor Lounge, LLC, 9-16-cv-80857 (FLSD May 31, 2016);

Shipping and Transit v. Jacksam Corporation d/b/a Blackoutx.com, 9-16-cv-80859 (FLSD May 31, 2016);

Triple7Vaping.Com v. Shipping and Transit, LLC, 9-16-cv-80855 (FLSD May 31, 2016);

Shipping and Transit v. Crunchyroll, Inc., 9-16-cv-80858 (FLSD May 31, 2016);

Shipping and Transit v. WOV, LLC, 9-16-cv-80860 (FLSD May 31, 2016);

Shipping and Transit v. Rooster Teeth Productions, LLC, 9-16-cv-80861 (FLSD May 31, 2016);

Shipping and Transit v. Incuboom, Inc. d/b/a BaxterBoo.com, 9-16-cv-80796 (FLSD May 20, 2016);

Shipping and Transit v. Vera Bradley, Inc., 0-16-cv-61076 (FLSD May 20, 2016);

Shipping and Transit v. Diakon Logistics, 1-16-cv-02908 (NJD May 18, 2016);

Shipping & Transit v. Conn's, Inc., 9-16-cv-80774 (FLSD May 17, 2016);

Shipping & Transit v. TigerGPS.com, LLC, 1-16-cv-02792, (NJD May 17, 2016);

Shipping and Transit v. Arlington Contact Lens Service, Inc. d/b/a AC Lens.com, 9-16-cv-80724 (FLSD May 9, 2016);

Shipping and Transit v. DiscountRamps.com, LLC, 2-16-cv-03026 (CACD May 3, 2016);

Shipping and Transit v. Mofware, Inc., 2-16-cv-03029 (CACD May 3, 2016);

Shipping and Transit v. Financial Graphic Services, Inc., 2-16-cv-03003 (CACD May 2, 2016);

Shipping and Transit v. Notifii, LLC, 9-16-cv-80584 (FLSD Apr. 15, 2016);

Shipping and Transit v. NFI Industries, Inc. a/k/a NFI Interactive Logistics, LLC,
9-16-cv-80585 (FLSD April 15, 2016);

Shipping and Transit v. Ride Charge, Inc. d/b/a GoCurb.com, 9-16-cv-80586
(FLSD, Apr. 15, 2016);

*Shipping and Transit v. McNutt Automotive Logistics, LLC d/b/a
McNuttTransport.com*, 9-16-cv-80587 (FLSD Apr. 15, 2016);

Shipping and Transit v. State Logistics Services, Inc., 9-16-cv-80588 (FLSD April
15, 2016);

Shipping and Transit v. Makeup Geek, LLC, 9-16-cv-80515 (FLSD April 5, 2016);

Shipping and Transit v. Chapel Headware LLC, 9-16-cv-80512 (FLSD Apr. 4,
2016);

Shipping and Transit v. Tyson's Mens Wear Inc., 2-16-cv-02223 (CACD Mar. 31,
2016);

Shipping and Transit v. Coastermatic Inc., 2-16-cv-02226 (CACD Mar. 31, 2016);

Shipping and Transit v. Apollo Future Technology, Inc., 2-16-cv-02178 (CACD
Mar. 30, 2016);

Shipping and Transit v. Adorama, Inc., 2-16-cv-02149 (CACD Mar. 29, 2016);

Shipping and Transit v. The Beauty Supply Warehouse, Inc., 2-16-cv-02101
(CACD Mar. 28, 2016);

FTL Apparel, LLC v. Shipping & Transit, 3-16-cv-01453 (CAND Mar. 23, 2016);

Humble Abode, Inc. v. Shipping & Transit, 3-16-cv-01353 (CAND Mar. 19, 2016);

Shipping and Transit v. Global Experience Specialists, Inc., 0-16-cv-60417 (FLSD Mar. 3, 2016);

Shipping and Transit v. CSA Transportation, Inc., 9-16-cv-80313 (FLSD Mar. 3, 2016);

Shipping and Transit v. Whenever Communications, LLC, 9-16-cv-80314 (FLSD Mar. 3, 2016);

Shipping and Transit v. E&L Corporation d/b/a Cameta Camera, 9-16-cv-80261 (FLSD Feb. 24, 2016);

Shipping and Transit v. The Signal Group, LLC, 9-16-cv-80247 (FLSD Feb. 22, 2016);

Shipping and Transit v. Amain.com, Inc., 9-16-cv-80248 (FLSD Feb. 22, 2016);

Shipping and Transit v. Lifetime Brands, Inc., 9-16-cv-80249 (FLSD Feb. 22, 2016);

Academy Ltd. d/b/a Academy Sports + Outdoors v. Shipping and Transit f/k/a ArrivalStar SA, 4-16-cv-00410 (TXSD Feb. 16, 2016);

Del Sol, LC v. Shipping & Transit, 2-16-cv-00118 (UTD Feb. 11, 2016);

Shipping and Transit v. Pharmapacks, LLC, 9-16-cv-80189 (FLSD Feb. 5, 2016);

Shipping and Transit v. CJ Pony Parts, Inc., 9-16-cv-80191 (FLSD Feb. 5, 2016);

Shipping and Transit v. What She Buys, 9-16-cv-80192 (FLSD Feb. 5, 2016);

Shipping and Transit v. Shutterfly, Inc. d/b/a tinyprints.com, 9-16-cv-80190 (FLSD Feb. 5, 2016);

Jackthreads, Inc. v. Shipping and Transit, 1-16-cv-00741 (NYSD Feb. 1, 2016);

Tatcha, LLC v. Shipping and Transit, 3-16-cv-00539 (CAND Feb. 1, 2016);

Shipping and Transit v. Noonday Collection, Inc. a/k/a Noonday Holdings, LLC, 9-16-cv-80098 (FLSD Jan. 20, 2016);

Shipping and Transit v. Arhaus, LLC, 0-16-cv-60110 (FLSD Jan. 19, 2016);

Shipping and Transit v. Hats.com, LLC d/b/a Hats.com, 9-16-cv-80091 (FLSD Jan. 19, 2016);

Shipping and Transit v. Langston, Co., 0-16-cv-60111 (FLSD Jan. 19, 2016);

Shipping and Transit v. Langston Co., 0-16-cv-60114 (FLSD Jan. 19, 2016);

Arrival Star, Inc. v. Cheetah Software Systems, Inc., 5-04-cv-00127 (TXED June 2, 2004);

Arrival Star, Inc. v. Descartes Systems Group, Inc. et al, 1-04-cv-00182 (NYSD Jan. 9, 2004);

Arrival Star, Inc. v. Flytecomm Corp., 1-02-cv-02543 (GAND Sept. 16, 2002).

Many of these cases remain open and in the early stages. More than 100 additional actions not listed here involve patents asserted by the same entity involving the same inventor and similar subject matter.

C. Counsel

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D. Service Information

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II. CERTIFICATION OF GROUNDS FOR STANDING

Petitioner certifies pursuant to Rule 42.104(a) that the patent for which review is sought is available for *inter partes* review and that petitioner is not barred or estopped from requesting an *inter partes* review challenging the claims on the grounds identified here.

III. OVERVIEW OF CHALLENGE AND RELIEF REQUESTED

Petitioner challenges all claims 1–15 of the '207 Patent.

A. Prior Art Patents and Printed Publications

These references relate to the grounds of unpatentability:¹

¹ The '207 patent issued from an application filed prior to enactment of the America Invents Act (“AIA”). Thus, pre-AIA statutory framework applies.

1. U.S. Patent 5,668,543 (filed on May 2, 1995; published on September 16, 1997) (“*Jones*” (EX1002)), which is prior art under 35 U.S.C. § 102(b).
2. U.S. Patent 6,094,573 (filed on November 12, 1997; published as a US Patent on July 25, 2000) (“*Heinonen*” (EX1003)), prior art under 35 U.S.C. § 102(e).
3. U.S. Patent 5,590,178 (filed on June 27, 1994; published on December 31, 1996) (“*Murakami*” (EX1004)), prior art under 35 U.S.C. § 102(b).
4. International Publication Number WO 98/08206 (published on February 28, 1998 and corresponding to U.S. Patent 6,006,159) (“*Schmier*” (EX1005)), prior art under 35 U.S.C. § 102(b).
5. Canadian Application Publication 2200042 (published on September 18, 1997) (“*Webb*” (EX1006)), prior art under 35 U.S.C. § 102(b).

B. Grounds for Challenge

Petitioner requests cancellation of all claims 1–15 of the ’207 patent as unpatentable under 35 U.S.C. § 103(a) on at least two distinct sets of grounds:

Ground I: Claims 1, 2, 4–6, 8–11, and 13–15 are unpatentable under 35 USC 103(a) as obvious over *Jones* (EX1002) in view of *Heinonen* (EX1003);

Ground II: Claims 3, 7 and 12 obvious over *Jones* (EX1002), *Heinonen* (EX1003), and *Murakami* (EX1004);

Ground II: Claims 1, 2, 4–6, 8–11, and 13–15 obvious over *Schmier* (EX1005) in view of *Webb* (EX1006);

Ground IV: Claims 3, 7 and 12 are obvious in view of *Schmier* (EX1005), *Webb* (EX1006), and *Murakami* (EX1007).

There is a reasonable likelihood that Petitioner will prevail with respect to challenged claims 1–15. *See* 35 U.S.C. § 314(a).

IV. OVERVIEW OF THE '207 PATENT

A. Summary of the Alleged Invention

The '207 patent begins by conceding that in the prior art:

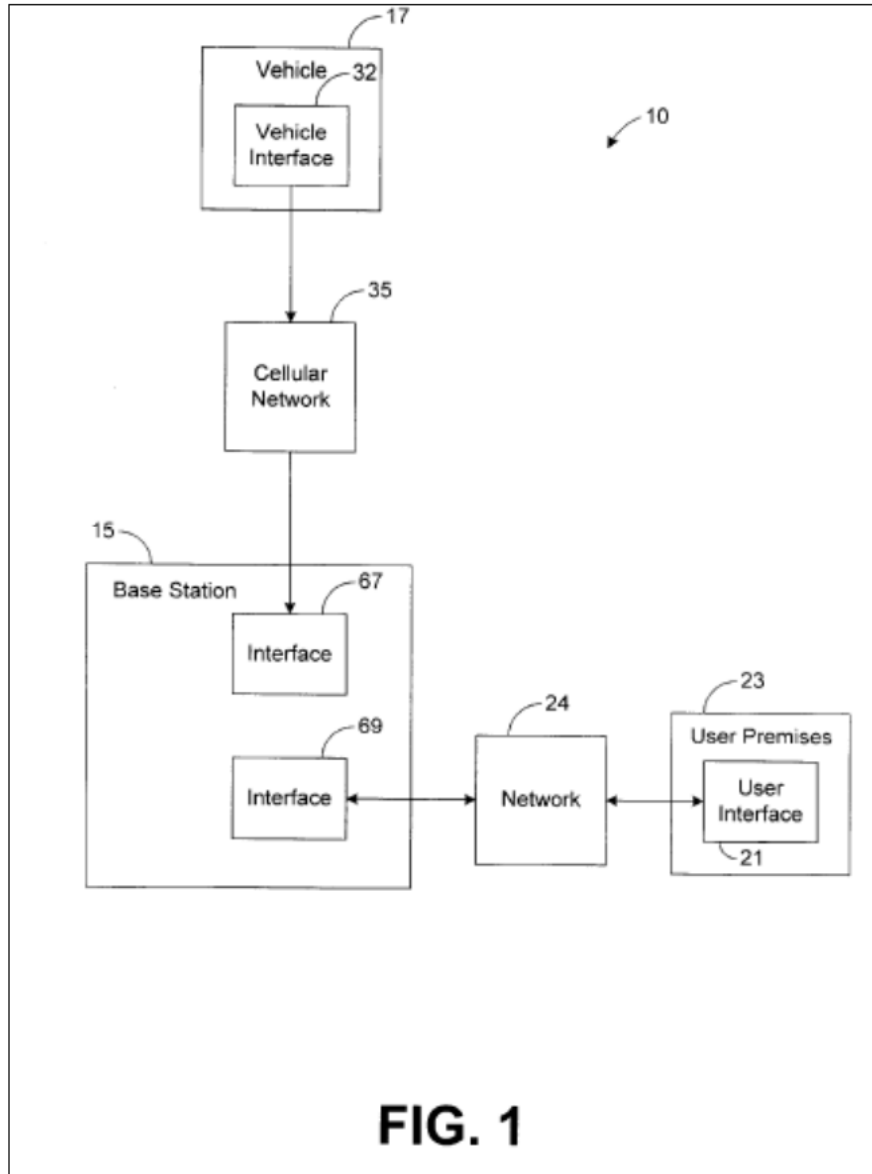
[I]t is possible for users to call a central processing station to obtain information on the status of a vehicle of interest. [... or] to call an airline or a bus depot and find out whether an airplane or bus is on- or off-schedule. In some situations a human operator at the processing station (e.g., the airline or bus depot) receives the call from the user who asks the operator for information the status of a particular vehicle.

'207 patent at 1:22–29 (EX1001). The '207 patent continues:

In other situations, the status information is automatically provided to the user after the user has submitted a status information request, thereby eliminating the need of human interaction at the processing station.... The computer then automatically retrieves information pertaining to the status of the vehicle identified by the user's inputs and provides this information to the user.

Id. at 1:33–46 (EX1001). The '207 patent alleges that providing “either the operator or the computer with information identifying which vehicle is of interest to the user is time consuming and burdensome.” *Id.* at 1:47–49 (EX1001). Thus, “[i]t would be desirable for the processing station to automatically provide the user with status information on a particular vehicle without the user having to provide a vehicle identifier.” *Id.* at 1:49–52 (EX1001).

Automating this basic previously manual process, the '207 patent describes monitoring and reporting vehicle status, making only the slightest modifications to pre-existing systems. *Id.* at 1:66–2:25 (EX1001). These include automatically retrieving and transmitting vehicle status information based on caller line identification information. *Id.* at 2:23–25; *id.* at Fig.1 (EX1001).



However, these allegedly novel modifications were well-known in the prior art. *See, e.g., Jones* at 16:5–13 and 16:34–39 (EX1002), *Heinonen* at 2:8–20 (EX1003); *Schmier* (EX1005); *Webb* (EX1006).

B. Level of Ordinary Skill in the Art

A person of ordinary skill in the art (PHOSITA) for the '207 patent would have a Master's Degree in electrical engineering, computer science, or a related

subject, and at least two years of experience working with vehicle information systems.

C. Prosecution History

The '207 patent issued from U.S. Pat. Appl. 09/516,476, which was filed on March 1, 2000, and claims priority to March 1, 1999. *Id.* at 1:7–11 (EX1001).

Of relevance, in a July 10, 2001 Office Action, the examiner rejected pending claims 1, 2, 4, 5, 7–10, and 12–14 under 35 USC 103(a) as being unpatentable over *Jones* in view of *Shah* (U.S. Patent 5,758,313), and pending claims 3, 6, and 11 under 35 USC 103(a) as being unpatentable over *Jones* in view of *Shah*, and further in view of *Murakami* (U.S. Patent 5,590,178). File History, Office Action at 38 (07/10/2001) (EX1007).

In response to the July 10, 2001 Office Action, the applicant argued that *Shah* does not disclose or suggest the element of using caller identification automatically transmitted to the vehicle monitoring system to search for and locate vehicle status information pertaining to a vehicle of interest to the user. File History, Response at 4 (10/09/2001) (EX1008).

On November 11, 2001, the examiner then allowed the claims, stating that neither the *Shah* or *Jones* references individually disclose “said system manager further configured to automatically search for and locate a set of said status information based on said caller identification information, said system manager

further configured to retrieve said set of status information and to transmit said retrieved set of status information to said remote communication device.” File History, Allowance at 1–4 (11/19/2001) (EX1009). However, automating processes was well known in the art at the time and it would have been obvious to combine any number of references with *Jones* to do so.

V. CLAIM CONSTRUCTION

Claim terms of an unexpired patent in *inter partes* review are given the “broadest reasonable construction [BRI] in light of the specification.” *See* 37 C.F.R. § 42.100(b); *see also* *Cuozzo Speed Technologies, LLC v. Lee*, 136 S.Ct. 2131, 2142 (2016). The claims here consist of general terms of art that do not require special construction beyond their plain and ordinary meaning.

Additionally, claims 5 and 8 include limitations that include the words “means for” and describe functional characteristics of the claims. Means-plus-function terms are “construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” Pre-AIA 35 U.S.C. § 112, ¶6. In determining whether a particular limitation should be construed under 35 U.S.C. § 112, ¶6, “the essential inquiry is not merely the presence or absence of the word ‘means’ but whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the

name for structure.” *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015).

Here, PHOSITAS would not have understood the claim 5 limitations listed below to have a sufficiently definite meaning as the name for structure, and thus the terms may be construed under 35 U.S.C. § 112, ¶6.

“Construing a means-plus function claim term is a two-step process. The court must first identify the claimed function.... Then, the court must determine what structure, if any, disclosed in the specification corresponds to the claimed function.” 792 F.3d 1339, 1351 (Fed. Cir. 2015). The patent discloses that “the system manager can be implemented in software, hardware or a combination of both.” *See* EX1001 at 4:11–20; 5:45–50. Unified proposes the following structure:

1. “means for maintaining status information associated with a vehicle,”

Under the BRI, the specification provides the following structure to provide the claimed “*maintaining status information associated with a vehicle*” function: “Base station 15 [shown in Fig. 1 is] configured to store information the status of at least one vehicle 17.” In figure 2, the base station is a general-purpose computer having a database 72. *See* EX1001 at 2:55–56 and 4:11–5:16.

2. “means for communicating with a remote communication device, including means for receiving caller identification information automatically transmitted to said communicating means,”

Under the BRI, the specification provides the following structure to provide the claimed “*means for communicating with a remote communication device*” function: regarding figure 1, the base station 15 includes an interface 69 for communicating with a remote communication device. “The base station 15 is designed to utilize the caller I.D. information” automatically transmitted to the interface 69. *See* EX1001 at 3:23–36 and 4:66–5:4.

3. “means for utilizing said caller identification information to automatically search for and locate a set of said status information;”

Under the BRI, the specification provides the following structure to provide the claimed “*means for utilizing said caller identification information to automatically search for and locate a set of said status information*” function: “[T]he base station 15 [shown in Fig. 1] is preferably aware of which users are associated with which vehicles 17. Accordingly after identifying the user ..., the base station 15 is configured to automatically retrieve status information.” Regarding figure 2, the base station is a general-purpose computer. *See* EX1001 at 3:36–48 and 5:5–44.

4. “means for automatically retrieving and transmitting said set of said status information,”

Under the BRI, the specification provides the following structure to provide the claimed “*means for automatically retrieving and transmitting said set of said*

status information,” function: regarding figure 2, “system manager 44 [included in base station 15], is configured to retrieve the status information from the identified entry or entries and to transmit this information to the user.” “The system manager can be implemented in software, hardware or a combination of both.” *See* EX1001 at 4:11–20 and 5:45–50.

5. “means for receiving a status message transmitted from said vehicle”

Under the BRI, the specification provides the following structure to provide the claimed “*means for receiving a status message transmitted from said vehicle*” function: regarding figure 1, the base station 15 includes an interface 67 for receiving a status message from a vehicle 17. *See* EX1001 at 4:66–5:4.

6. “means for updating said status information based on said status message”

Under the BRI, the specification provides the following structure to provide the claimed “means for updating said status information based on said status message” function: “The base station 15 is configured to receive the status message and to update the status information stored in the base station 15 in response to the status message.” The base station 15 stores the status information in database 72. *See* EX1001 at 4:6–11, 5:5–6.

VI. SPECIFIC GROUNDS FOR PETITION

The following demonstrates how the prior art discloses, teaches, and/or suggests each and every limitation of claims 1–15 of the '207 Patent, and how these claims are therefore obvious in view of the prior art.²

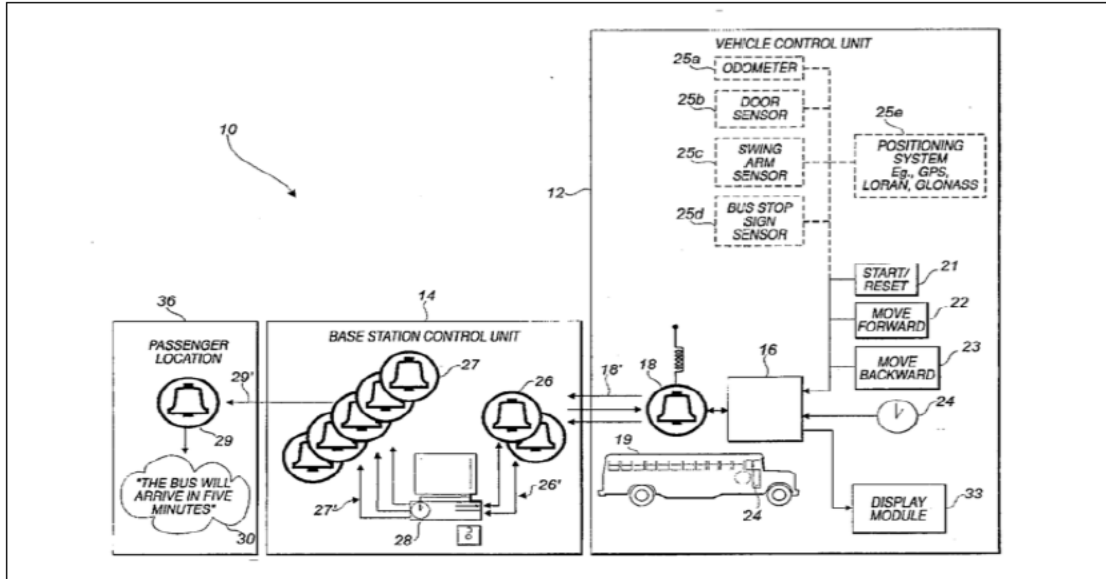
A. Ground I: Claims 1, 2, 4–6, 8–11, and 13–15 are unpatentable under 35 USC 103(a) as obvious over *Jones* in view of *Heinonen*.

1. Overview of *Jones*

Jones issued as a US patent on September 16, 1997 more than one year prior to the March 1, 1999 priority date claimed by the '207 Patent. Thus, *Jones* constitutes prior art to the '207 patent under 35 USC § 102(b).

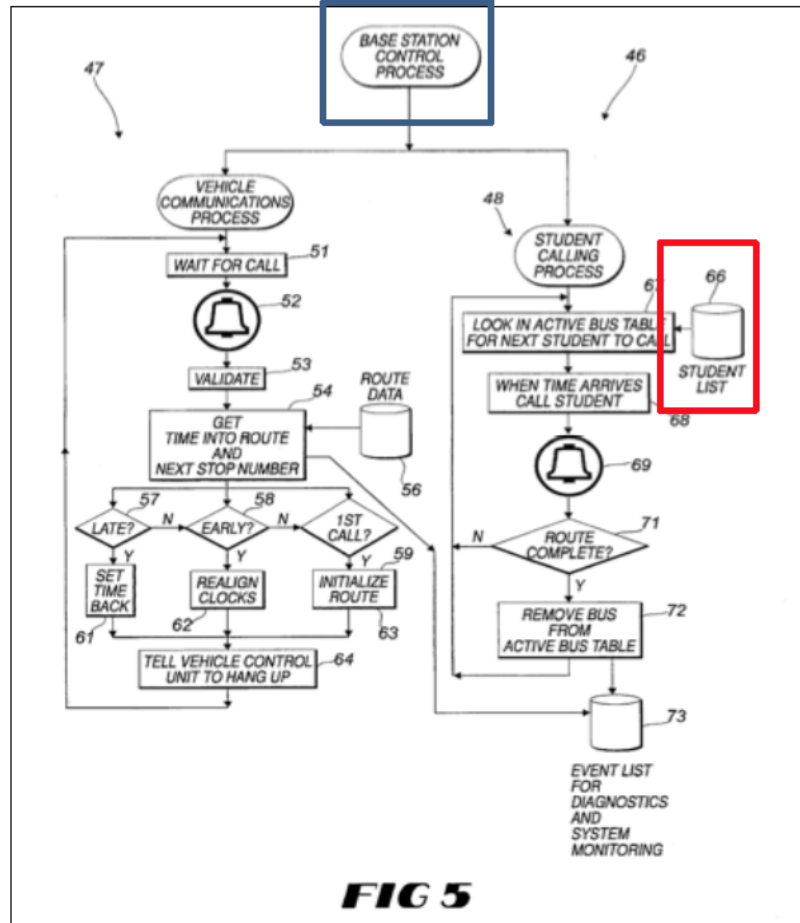
Jones discloses an advance notification system and method that notifies passengers of the impending arrival of a transportation vehicle, for example, a school bus, at a particular vehicle stop. *Jones* at Abstract (EX1002); Fig. 1.

² For the purposes of clarity in this petition, color has been added.



Jones at Fig. 1 (EX1001)

When a passenger calls the **system manager** (BCSU 14, blue in Fig. 5) to inquire about the status of the passenger’s bus, the system manager “compares the caller’s telephone number with a previously-registered number (reference caller identification number) stored in the **student list database**” (element 66 in Fig. 5, red). *Id.* at 16:9–13 (EX1002). Jones discloses that “if a subscribing passenger with calling line identification requests to use an option, the telephone number does not have to be entered. The interactive voice response system (IVR) can recognize the number delivered through calling line identification.” *Id.* at 16:34–39 (EX1002).



Jones at Fig. 5 (EX1001)

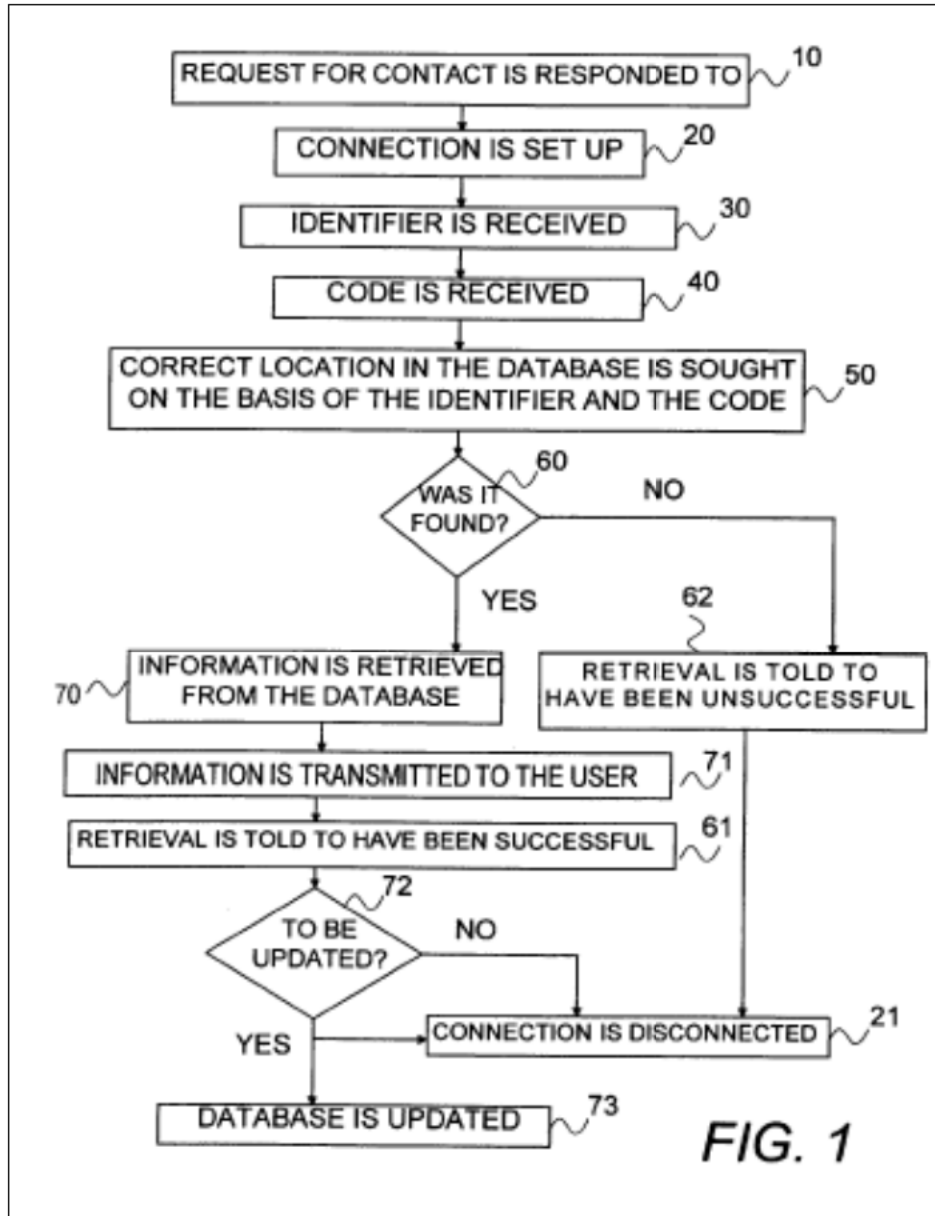
2. Overview of *Heinonen*

Heinonen was filed on Nov. 12, 1997 (more than 15 months prior to the earliest potential priority date for the '207 Patent) and issued on July 25, 2000. Thus, *Heinonen* is prior art to the '207 patent under 35 U.S.C. § 102(e).

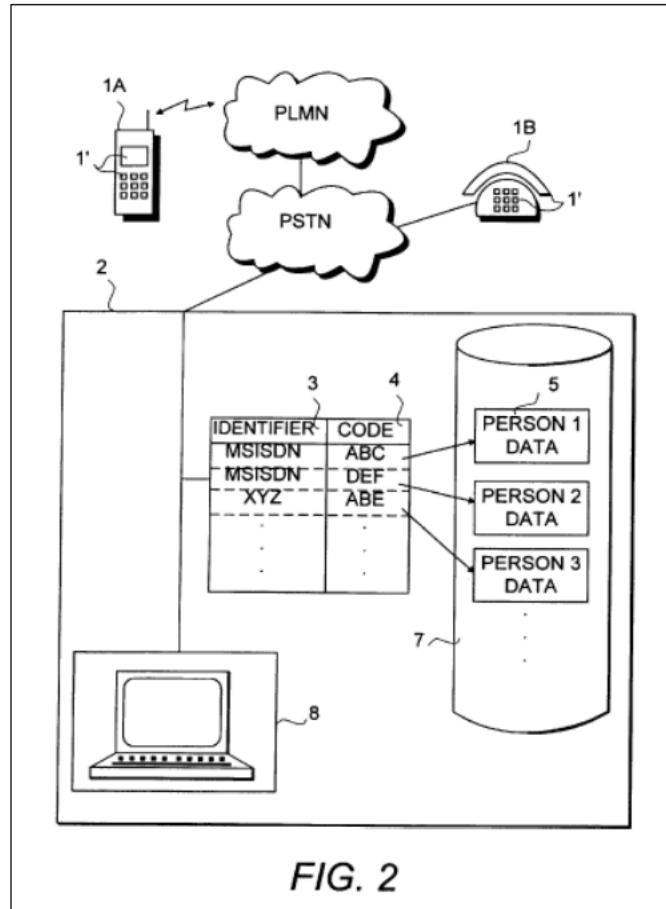
Heinonen is titled “system and a method for selective data retrieval from a remote database on the basis of Caller Line Identification.” *Heinonen* discloses where

the data processing system of subscriber B receives the identifier CLI (Caller Line Identification) of the subscriber A, the system being characterized in [that] the database comprises data relating to a number of different services and service users, data related to one of the users of one of the services being identified by the identifier of the subscriber A ... and the data processing system comprises means for receiving the predetermined code (4) from the subscriber A and means for retrieving data relating to said one service and said one user from the database on the basis of the identifier of the subscriber A and the predetermined code.

Heinonen at 2:8–20. *Heinonen* shows a similar process in figure 1, shown here, whereby a connection is set up to automate the searching and updating of database information, as implemented on general-purpose hardware as Figure 2 shows.



Heinonen, Fig. 1 (EX1003).

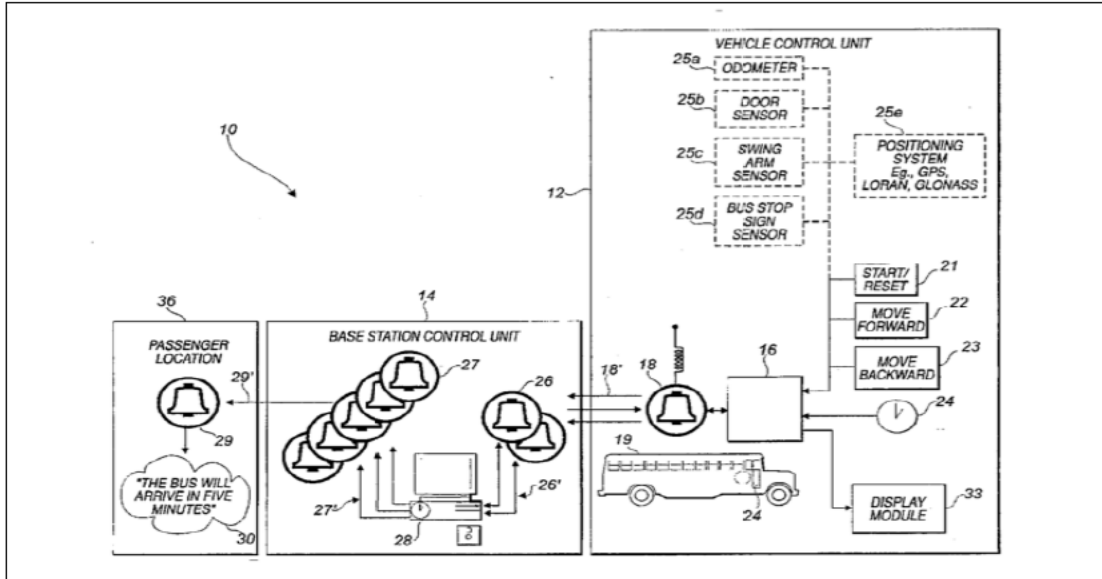


Heinonen, Fig. 2 (EX1003).

3. Claim 1 is obvious in view of *Jones* and *Heinonen*.

a) **“A system for monitoring and reporting status of vehicles, comprising”**

Jones discloses “[a]n advance notification system (10) and method [that] notifies passengers of the impending arrival of a transportation vehicle (19) ...at a particular vehicle stop.” *Jones* at Abstract (EX1002). As shown in figure 1 below, a Base Station Control Unit (BCSU) 14 communicates with a Vehicle Control Unit (VCU) 12 and with telephones 29 at passenger locations 36.



Jones (EX1002), Figure 1.

b) ***“a database storing status information associated with a vehicle, said status information indicative of a current proximity of said identified vehicle;”***

Jones discloses a **nonvolatile storage device** 6 shown in figure 3B below that stores the **event list** 73 and **route data** 56 shown in figure 5 below. The **event list** and **route data** are indicative of a current proximity of identified vehicles 19.

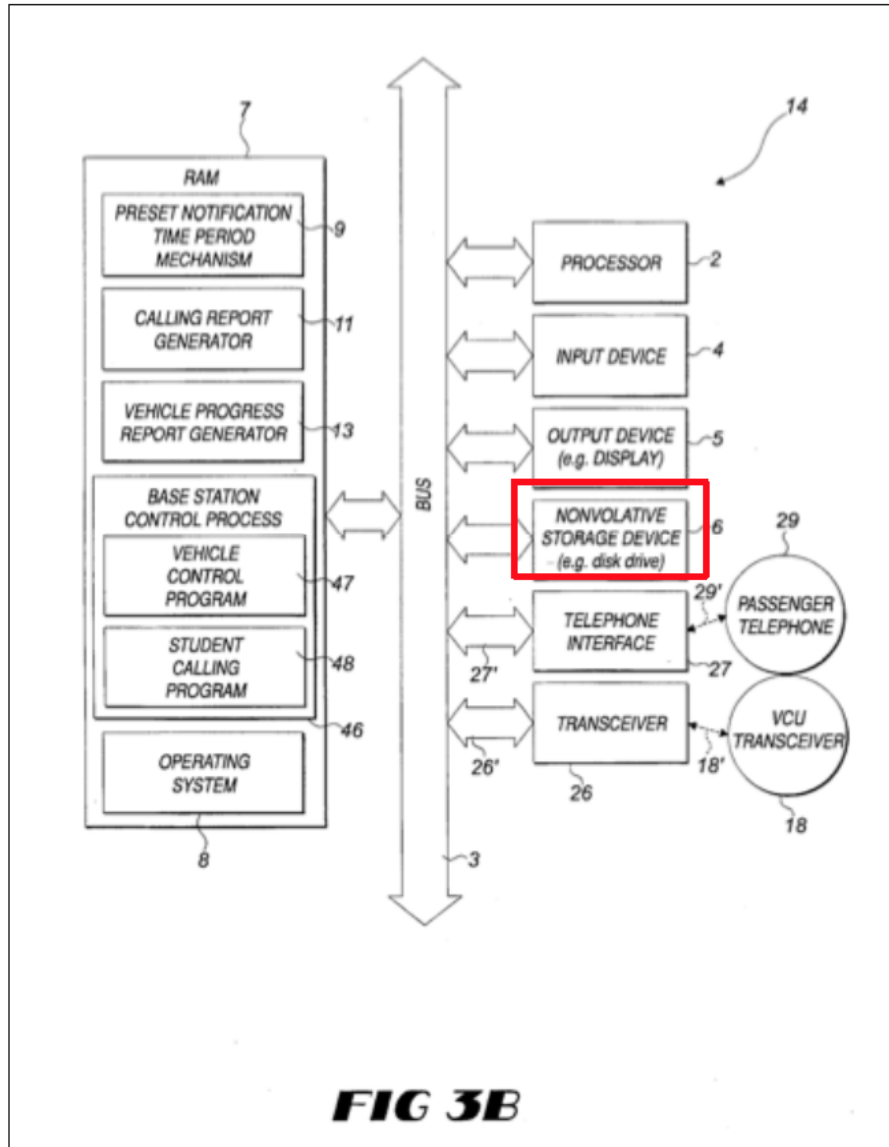


FIG 3B

Jones at Fig. 3B (EX1002)

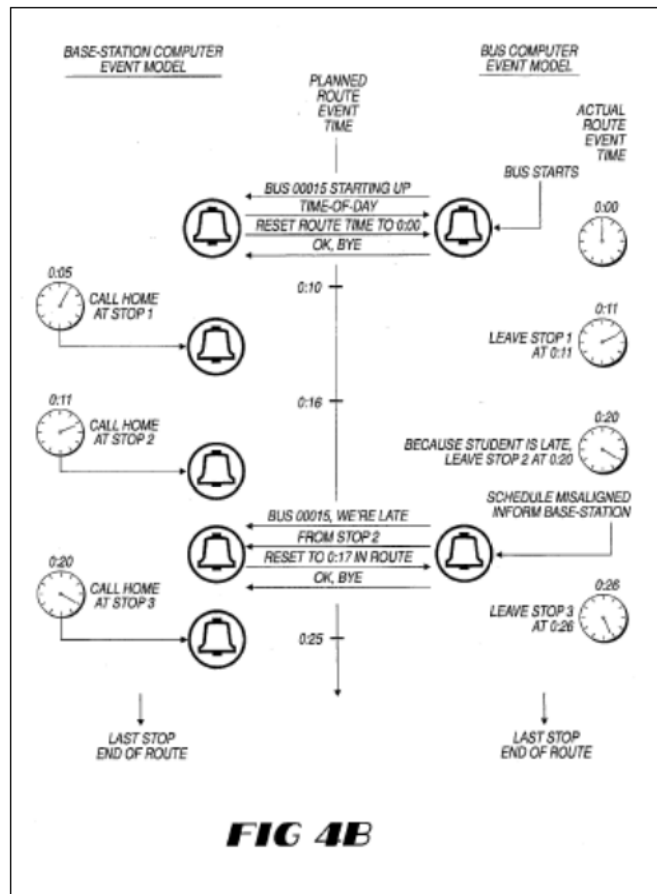
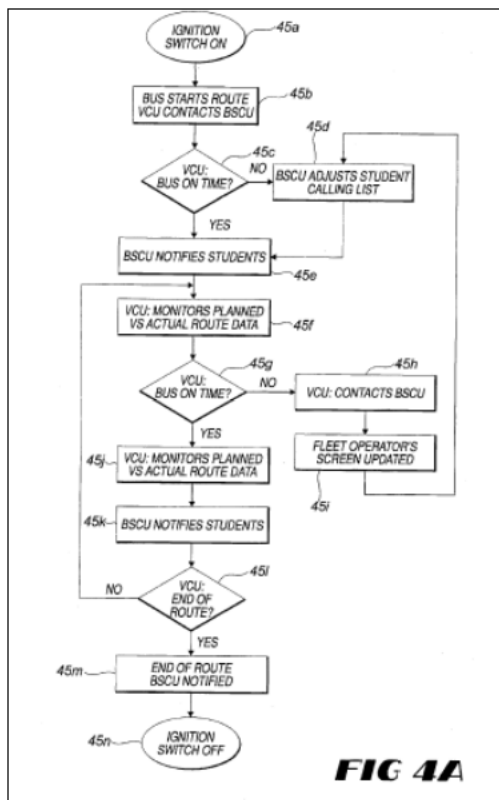
A **nonvolatile storage device 6** [shown in Fig. 3], for example, a hard disk drive or CDROM mechanism, may be used to permanently store the software of the [Base Station Control Unit] BSCU 14 [shown in Fig. 1], as well as to store the databases generated by the BSCU 14.

Jones at 6:45–50 (EX1002). *Jones* continues:

Next, as indicated at flow chart block 45c (FIG.4A), the VCU 12

determines, continuously or periodically, if the bus 19 is on time by analyzing the status of devices 21-25 (FIG. 1) in view of planned route data ...the VCU 12 at least compares its elapsed time from the clock 24 (FIG.1) with its scheduled time from the planned route data.... [W]hen the VCU 12 determines that the bus 19 is early or late at this juncture, the VCU 12 contacts the BSCU 14.

Jones at 10:5–30 (EX1002)).



Jones Figs. 4A, 4B (EX1002)

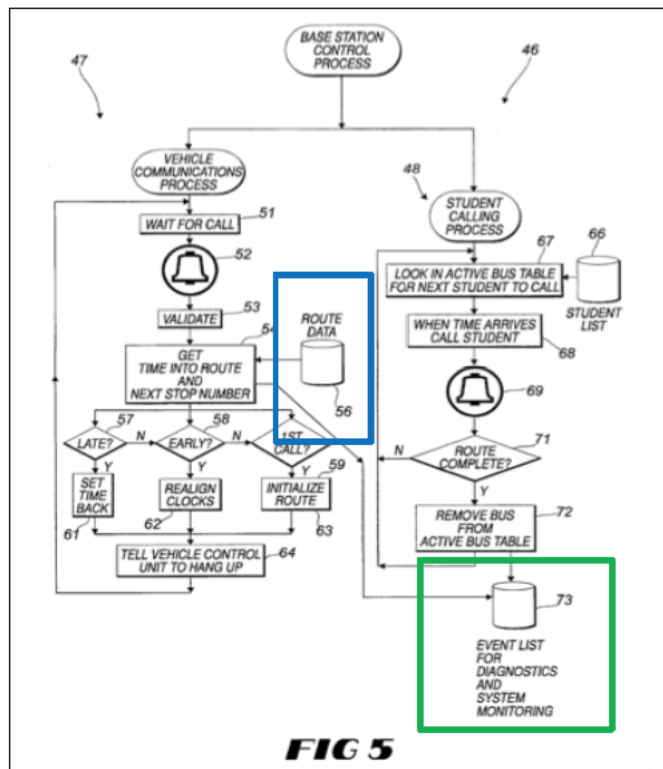
Next, as shown in a flow chart block 54, the BSCU 14 asks the VCU 12 for information regarding (a) the time into the route and (b) the number designating the next stop. In addition, route data 56 is

obtained from a local database. The **route data** 56 includes information pertaining to each bus stop and how much time it should take to reach each bus stop during the route. From the **route data** 56 and the information (a) and (b), as indicated previously, received from the VCU 12, the BSCU 14 can determine whether the bus 19 is late or early, as indicated by flow chart blocks 57, 58, or whether the bus 19 has just started its route.

Jones at 12:30–39 (EX1002). According to *Jones*:

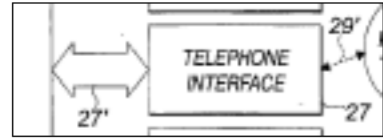
As further shown in FIG. 5 [below], an **event list** 73 is maintained for diagnostics and system monitoring. The **event list** 73 receives data from both the vehicle communications program 47 and the student calling program 46. The **event list** 73 essentially comprises records of, among other things, all telephone calls and all past and current bus locations.

Id. at 13:36–42.



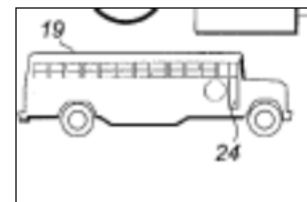
c) “a communication interface configured to communicate with communication devices remotely located from said system; and”

Jones discloses a communication interface 27 shown in Fig. 3B (see below) configured to communicate with communication devices, e.g., passenger phones remotely located from said system. As *Jones* notes, “[t]he BSCU 14 can communicate to one or more passenger telephones 29, or student homes, via the telephone interface(s) 27 and telephone connection(s) 29’.” *Jones* at 7:46–8:2; Fig. 3B (EX1002). Additionally, “[t]he base station control mechanism causes calls to be made to each of the passengers to be boarded at a particular stop location via the base station communication mechanism prior to the arrival of the vehicle at the particular stop location.” *Id.* at 3:5–9 (EX1002).



d) “a system manager configured to receive a message transmitted from said vehicle and to update said status information based on said message,”

Jones discloses a system manager (BSCU 14 in Fig. 1) configured to receive a message transmitted from a vehicle (19 in Fig. 1) and to update said status information based on the message.



As *Jones* explains,

The BSCU has a base station communication mechanism ...The base station communication mechanism **receives the calls** from the [Vehicle Control Unit] VCU and receives the amount of time and/or distance in which the vehicle is ahead or behind relative to the

schedule.

Jones at 3:1–5 (EX1002) (emphasis added).

Next, as shown in a flow chart block 54, the BSCU 14 *asks the VCU 12 for information* regarding (a) the time into the route and (b) the number designating the next stop. In addition, *route data 56 is obtained from a local data base* [sic]. The *route data 56* includes information pertaining to each bus stop and how much time it should take to reach each bus stop during the route. From the *route data 56* and the information (a) and (b), as indicated previously, received from the VCU 12, the BSCU 14 can determine whether the bus 19 is late or early, as indicated by flow chart blocks 57, 58, or whether the bus 19 has just started its route.

Id. at 12:30–39; Figs. 1, 5 (EX1002) (emphases added). In explaining figure 5,

Jones adds:

an *event list 73* is maintained for diagnostics and system monitoring. The *event list 73 receives data from both the vehicle communications program 47 and the student calling program 46*. The *event list 73* essentially comprises records of, among other things, all telephone calls and all past and current bus locations.

Id. at 13:36–42; Fig. 5 (EX1002) (emphasis added).

e) **“said system manager further configured to analyze caller identification information automatically transmitted to said communication interface when a remote communication device establishes communication with said communication interface,”**

Jones discloses a system manager (BCSU 14) further configured to analyze caller identification information (e.g., telephone number or reference caller identification number) automatically transmitted to the communication interface 27 (see Fig. 3B of *Jones*) when a remote communication device (e.g., a passenger's phone) establishes communication with the BCSU's communication interface 27.

The BCSU 14 is configured so that when a passenger requests any of the foregoing information, *the telephone number of the passenger telephone 29* is checked by the BCSU 14. If a passenger's telephone service has the commercially available feature typically known as "calling line identification," the BCSU 14 *compares the caller's telephone number with a previously-registered number* (reference caller identification number) stored in the student list database 66 (FIG. 5).

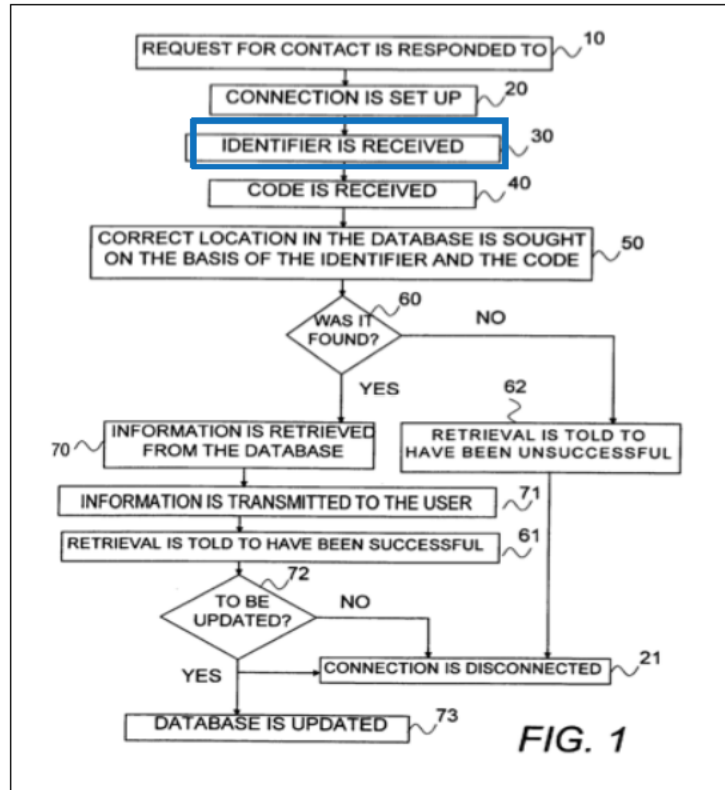
Jones at 16:5–13 (EX1002). (emphases added). *Jones* continues that similarly, "once registered and if a subscribing passenger with calling line identification requests to use an option, the telephone number does not have to be entered. The interactive voice response system (IVR) *can recognize the number* delivered through calling line identification." *Id.* at 16:34–39 (EX1002) (emphasis added).

f) "said system manager further configured to automatically search for and locate a set of said status information based on said caller identification information, said system manager further configured to retrieve said set of status information and to transmit said retrieved set of status information to said remote communication device."

Jones, in combination with *Heinonen*, discloses a system manager (BCSU 14, *see* Fig. 1) further configured to automatically search for and locate a set of said status information (e.g., “**data related to one of the users**,”) based on the caller identification information (“**identified by the identifier**”; e.g., **identifier 30, which can be the Caller Line Identification, or CLI**), the system manager (BCSU 14) further configured to retrieve the set of status information and to transmit the retrieved **set of status information** (from database 70) to the remote communication devices (e.g., user 71). For instance, *Heinonen* discloses

a system, ..., wherein the data processing system of the subscriber B receives the **identifier CLI (Caller Line Identification)** of the subscriber A, the system being characterized in [that] the database comprises data relating to a number of different services and service users, **data related to one of the users** of one of the services being **identified by the identifier** of the subscriber A and a predetermined code, and the data processing system comprises means for receiving the predetermined code (4) from the subscriber A and means for retrieving data relating to said one service and said one user from the database on the basis of the identifier of the subscriber A and the predetermined code.

Heinonen at 2:8–20; Figs. 1, 2 (EX1002) (emphases added).



Heinonen at Fig.1 (EX1003).

Further explaining figure 1:

the operations are presented assuming that the response 10 to the request for contact, made by the subscriber A, is positive, a connection 20 is established and an identifier 30 of the subscriber A is received. The subscriber A's identifier can be a telephone number relating to a subscriber device (i.e. the CLI), an invoiced telephone number given to the subscriber device through an intelligent card or a corresponding identifier automatically transmitted to the subscriber B at the point when the connection is formed. After receiving 30 the identifier, the data processing system can ask, e.g., by means of a voice message or a short message, the subscriber A the code or the subscriber A can give it without being ask [sic]. The subscriber A can

give the code, e.g., as DTMF sounds by tapping it in with the keypad of the phone. Alternatively, the code can be given through a storage location of the subscriber device containing the code or by other means supported by the network used by the telecommunication connection.

The data processing system receives a code 40 and searches, on the basis of the identifier and the code, for a **correct location 50** in the database. One or more predetermined codes can be connected with a single identifier and, thus, there may be several possible correct locations to be searched for by means of the identifier, whereupon one of them will be selected by the code.

Heinonen at 3:39–67 (EX1003). Thus, “[w]hen the search for the correct location has ended, the data processing system informs whether or not the information was found 60 ... *If the information was found, it is retrieved from a database 70 and transmitted to a user 71* of the data processing system.” *Heinonen* at 4:14–24 (EX1003) (emphases added).

It would have been obvious to a PHOSITA to combine 1) the advance notification system using caller identification of *Jones* with 2) *Heinonen*’s disclosure of using caller identification to selectively retrieve data from a remote database, at least to achieve the above-noted recitation and solve the purported problem of a user having to provide the system with information identifying which vehicle is of interest. As the Supreme Court has held, “[t]he combination of familiar elements according to known methods is likely to be obvious when it does

no more than yield predictable results.” *See KSR International Co. v. Teleflex Inc.* (*KSR*), 550 U.S. 398, 415-16 (2007). And “when a patent simply arranges old elements with each performing the same function it had been known to perform and yields no more than one would expect from such an arrangement, the combination is obvious.” *Id.* at 417 (internal quotations omitted). *Jones* and *Heinonen* are in the same field of endeavor—automating caller identification processes—and both disclose calling systems with databases. *Compare Jones* at Abstract (EX1002) *with Heinonen* at Abstract (EX1003). Using known programming methods to refine *Jones*’ advance notification system with *Heinonen*’s system for using caller identification to selectively retrieve data would have yielded a predictable result, i.e., a user not having to provide the system with information identifying which vehicle is of interest to find out the vehicle’s status.

Obviousness can also be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. *In re Kahn*, 441 F.3d 977, 986, (Fed. Cir. 2006). *Jones* suggests this *Jones/Heinonen* combination to achieve the claimed subject matter by stating that if a subscribing passenger with calling line identification requests to use an option, the telephone number doesn’t have to be entered. *Jones* at 16:34–39 (EX1002). This statement in *Jones* suggests the

obviousness of the combination of the *Jones* vehicle notification system with a system that use caller identification to selectively retrieve data.

4. Claim 2 is obvious in view of *Jones* and *Heinonen*.

a) “wherein said caller identification information is a telephone number associated with said remote communication device”.

“If a passenger’s telephone service has the commercially available feature typically known as “calling line identification,” the BSCU 14 compares the caller’s telephone number with a previously-registered number (reference caller identification number) stored in the student list database 66 (FIG. 5).” *Jones* at 16:5–13 (EX1002).

5. Claim 4 is obvious in view of *Jones* and *Heinonen*.

a) “wherein said system manager is configured to transmit said retrieved set of status information to said remote communication device in response to said caller identification information”

Jones, in combination with *Heinonen*, discloses a system manager (BCSU 14 in Fig. 1) configured to retrieve the set of status information and to transmit the retrieved set of status information to the remote communication device in response to the caller identification information. *Jones* discloses receiving and processing Caller Line Identification information as part of its automated process. *Jones* at 16:5–13 and 16:34–39 (EX1002). *Heinonen* discloses:

a system, ..., wherein the data processing system of the subscriber B receives the identifier CLI (Caller Line Identification) of the subscriber A ...data related to one of the users of one of the services

being identified by the identifier of the subscriber A and a predetermined code, and the data processing system comprises means for receiving the predetermined code (4) from the subscriber A and means for retrieving data relating to said one service and said one user from the database on the basis of the identifier of the subscriber A and the predetermined code.

Heinonen at 2:8–20; Figs. 1, 2 (EX1002). *Heinonen* continues that if

the response 10 to the request for contact, made by the subscriber A, is positive, a connection 20 is established and an identifier 30 of the subscriber A is received. The subscriber A's identifier can be a telephone number relating to a subscriber device (i.e. the CLI), The data processing system receives a code 40 and searches, on the basis of the identifier and the code, for a correct location 50 in the database.

Heinonen at 3:39–67 (EX1003). According to *Heinonen*, “[w]hen the search for the correct location has ended, ...If the information was found, it is retrieved from a database 70 and transmitted to a user 71 of the data processing system.” *Heinonen* at 4:14–24 (EX1003).

6. Claim 5 is obvious in view of *Jones* and *Heinonen*.

a) **”[a] system for monitoring and reporting status of vehicles, comprising:”**

Jones discloses a system for monitoring and reporting status of vehicles 19, using buses as one example. For example, *Jones* discloses “[a]n advance notification system (10) and method [that] notifies passengers of the impending

arrival of a transportation vehicle (19), for example, a school bus, at a particular vehicle stop.” *Jones* at Abstract (EX1002).

b) “means for maintaining status information associated with a vehicle, said status information indicative of a current proximity of said identified vehicle;”

Jones discloses maintaining status information associated with a vehicle, that status information indicative of a current proximity of the vehicle. For example, *Jones* discloses a **nonvolatile storage device** 6 shown in figure 3B that stores the **event list** 73 and **route data** 56 shown in figure 5. The **event list** and **route data** are indicative of a current proximity of identified vehicles 19. As *Jones* explains, this “**nonvolatile storage device** 6, for example, a hard disk drive or CDROM mechanism, may be used to permanently store the software of the [Base Station Control Unit] BSCU 14 [shown in Fig. 1], as well as to store the databases generated by the BSCU 14.” *Jones* at 6:45–50; Fig. 3B (EX1002). *Jones* continues that

the BSCU 14 asks the VCU 12 for information regarding (a) the time into the route and (b) the number designating the next stop. In addition, **route data** 56 is obtained from a local database. The **route data** 56 includes information pertaining to each bus stop and how much time it should take to reach each bus stop during the route. From the **route data** 56 and the information (a) and (b), as indicated previously, received from the VCU 12, the BSCU 14 can determine whether the bus 19 is late or early, as indicated by flow chart blocks 57, 58, or whether the bus 19 has just started its route.

Jones at 12:30–39 (EX1002). *Jones* explains:

an **event list 73** is maintained for diagnostics and system monitoring. The **event list 73** receives data from both the vehicle communications program 47 and the student calling program 46. The **event list 73** essentially comprises records of, among other things, all telephone calls and *all past and current bus locations*.

Jones at 13:36–42; Fig. 5 (EX1002) (emphasis added).

c) “means for communicating with a remote communication device,”

Jones discloses a communication interface 27 shown in figure 3B configured to communicate with communication devices, e.g., passenger phones, remotely

located from the BSCU 14. For instance, *Jones* discloses that “[t]he BSCU 14 can communicate to one



or more passenger telephones 29, or student homes, via the telephone interface(s) 27 and telephone connection(s) 29'.” *Jones* at 7:46–8:2; Fig. 3B (EX1002).

Furthermore, “[t]he base station control mechanism causes calls to be made to each of the passengers to be boarded at a particular stop location via the base station communication mechanism prior to the arrival of the vehicle at the particular stop location.” *Jones* at 3:5–9 (EX1002).

d) “said means for communicating including a means for receiving caller identification information automatically transmitted to said communicating means;”

Jones discloses a system manager (BCSU) further configured to analyze caller identification information automatically transmitted to the communication

interface 27 (*Jones* Fig. 3B) when a remote communication device (a passenger's phone) establishes communication with the BCSU's communication interface 27. *Jones* discloses



The BCSU 14 is configured so that when a passenger requests any of the foregoing information, the telephone number of the passenger telephone 29 is checked by the BCSU 14. If a passenger's telephone service has the commercially available feature typically known as "calling line identification," the BCSU 14 compares the caller's telephone number with a previously-registered number (reference caller identification number) stored in the student list database 66 (FIG. 5).

Jones at 16:5–13 (EX1002).

e) ***“means for utilizing said caller identification information to automatically search for and locate a set of said status information; and”***

Jones, in combination with *Heinonen*, discloses a system manager (BCSU 14 in Fig. 1) that utilizes caller identification information to automatically search for and locate a set of status information. This is at least because *Jones* discloses receiving and processing Caller Line Identification (CLI) information, *Jones* at 16:5–13; 16:34–39 (EX1002), while *Heinonen* discloses using CLI information to search for and locate a set of status information. More specifically, *Heinonen* discloses:

[A] system, ..., wherein the data processing system of the subscriber B receives the identifier CLI (Caller Line Identification) of the subscriber A, ... data related to one of the users of one of the services being identified by the identifier of the subscriber A and a predetermined code, and the data processing system comprises means for receiving the predetermined code (4) from the subscriber A and means for retrieving data relating to said one service and said one user from the database on the basis of the identifier of the subscriber A and the predetermined code.

Heinonen at 2:8–20; Figs. 1, 2 (EX1002). Further,

operations are presented assuming that the response 10 to the request for contact, made by the subscriber A, is positive, a connection 20 is established and an identifier 30 of the subscriber A is received. The subscriber A's identifier can be a telephone number relating to a subscriber device (i.e. the CLI), The data processing system receives a code 40 and searches, on the basis of the identifier and the code, for a correct location 50 in the database.

Heinonen at 3:39-67 (EX1003)).

Then, “[w]hen the search for the correct location has ended, ... If the information was found, it is retrieved from a database 70 and transmitted to a user 71 of the data processing system.” *Heinonen* at 4:14–24 (EX1003).

f) “means for automatically retrieving and transmitting said set of said status information.”

Jones in combination with *Heinonen* discloses means for automatically retrieving and transmitting the set of status information. *Jones* discloses receiving

and processing Caller Line Identification (CLI) information. *Jones* at 16:5–13; 16:34–39 (EX1002). *Heinonen* discloses that, “[i]f the information was found [based on the CLI], it is retrieved from a database 70 and transmitted to a user 71 of the data processing system.” *Heinonen* at 4:14–24 (EX1003).

7. Claim 6 is obvious in view of *Jones* and *Heinonen*.

a) “wherein said caller identification information is a telephone number.”

“If a passenger’s telephone service has the commercially available feature typically known as “calling line identification,” the BSCU 14 compares the caller’s telephone number with a previously-registered number (reference caller identification number) stored in the student list database 66 (FIG. 5).” *Jones* at 16:5–13 (EX1002).

8. Claim 8 is obvious in view of *Jones* and *Heinonen*.

a) “means for receiving a status message transmitted from said vehicle; and means for updating said status information based on said status message.”

Jones discloses a system manager (BSCU 14 in Fig. 1) for receiving a status message transmitted from a vehicle (19 in Fig. 1) and to update the status information based on the message. In *Jones*, this “BSCU has a base station communication mechanism and a base station control mechanism for controlling the base station communication mechanism,” and that “base station communication mechanism receives the calls from the [Vehicle Control Unit] VCU and receives the amount of time and/or distance in which the vehicle is ahead

or behind relative to the schedule.” *Jones* at 3:1–5 (EX1002). In block 54:

the BSCU 14 asks the VCU 12 for information regarding (a) the time into the route and (b) the number designating the next stop. In addition, **route data** 56 is obtained from a local data base [sic]. The **route data** 56 includes information pertaining to each bus stop and how much time it should take to reach each bus stop during the route. From the **route data** 56 and the information (a) and (b), as indicated previously, received from the VCU 12, the BSCU 14 can determine whether the bus 19 is late or early, as indicated by flow chart blocks 57, 58, or whether the bus 19 has just started its route.

Jones at 12:30–39; Figs.1, 5 (EX1002). *Jones* explains:

an **event list** 73 is maintained for diagnostics and system monitoring. The **event list** 73 receives data from both the vehicle communications program 47 and the student calling program 46. The **event list** 73 essentially comprises records of, among other things, all telephone calls and all past and current bus locations.

Jones at 13:36–42; Fig. 5 (EX1002).

9. Claim 9 is obvious in view of *Jones* and *Heinonen*.

a) “*wherein said status information indicates a proximity of said vehicle from a particular location.*”

Jones discloses a **nonvolatile storage device** 6 shown in figure 3B (repeated right) that stores the **event list** 73 and **route data** 56 shown in figure 5 (shown above).



In *Jones*, the **event list** and **route data** are indicative of a current proximity of identified vehicles, i.e., the monitored buses. *Jones* explains

the VCU 12 determines, continuously or periodically, if the bus 19 is on time by analyzing the status of devices 21-25 (FIG. 1) in view of planned **route data** (derived from initialization). ... the VCU 12 at least compares its elapsed time from the clock 24 (FIG.1) with its scheduled time from the planned **route data** the BSCU 14 adjusts its student calling lists accordingly so that the students are called in accordance with the predefined time notice, e.g., five minutes.

Jones at 10:5–30; Figs. 4A, 4B (EX1002). *Jones* explains that:

the BSCU 14 asks the VCU 12 for information regarding (a) the time into the route and (b) the number designating the next stop. In addition, **route data** 56 is obtained from a local database. The **route data** 56 includes information pertaining to each bus stop and how much time it should take to reach each bus stop during the route. From the **route data** 56 and the information (a) and (b), as indicated previously, received from the VCU 12, the BSCU 14 can determine whether the bus 19 is late or early, as indicated by flow chart blocks 57, 58, or whether the bus 19 has just started its route.

Jones at 12: 30–39 (EX1002). *Jones* explains:

an **event list** 73 is maintained for diagnostics and system monitoring. The **event list** 73 receives data from both the vehicle communications program 47 and the student calling program 46. The **event list** 73 essentially comprises records of, among other things, all telephone calls and all past and current bus locations.

Jones at 13:36–42; Fig. 5 (EX1002).

10. Claim 10 is obvious in view of *Jones* and *Heinonen*.

a) “[a] method for monitoring and reporting status of vehicles, comprising the steps of”

Jones discloses a method for monitoring and reporting status of vehicles. For example, *Jones* discloses “[a]n advance notification system (10) and method [that] notifies passengers of the impending arrival of a transportation vehicle (19), for example, a school bus, at a particular vehicle stop.” *Jones* at Abstract (EX1002).

b) “maintaining status information associated with a vehicle, said status information indicative of a current proximity of said vehicle;”

Jones discloses maintaining status information associated with a vehicle such as a bus, the status information indicative of a current proximity of the vehicle. For example, *Jones* discloses a **nonvolatile storage device** 6 shown in figure 3B that stores the **event list** 73 and **route data** 56 shown in figure 5. The **event list** and **route data** are indicative of a current proximity of identified vehicles, i.e., monitored buses. *See, e.g., Jones* at 6:45–50; Fig. 3B; 10:5–30; Figs. 4A, 4B; 12: 30–39; 13:36–42; Fig. 5 (EX1002) (as described in VI.A.6(b) re: element in claim 5).

c) “communicating with a remote communication device;”

Jones discloses a communication interface 26 and 27 shown in figure 3B (see above) configured to communicate with communication devices remotely located from said system, where “[t]he BSCU 14 can communicate to one or more

passenger telephones 29, or student homes, via the telephone interface(s) 27 and telephone connection(s) 29'." *Jones* at 7:46–8:2; *id.* at Fig. 3B (EX1002); *id.* at 3:5–9 (EX1002).

d) "receiving caller identification information automatically transmitted in said communicating step;"

Jones discloses a system manager (i.e., the BCSU) that receives caller identification information automatically transmitted to the communication interface 27 (Fig. 3B of *Jones*) when a remote communication device (a passenger's phone) establishes communication with the BCSU's communication interface 27. As explained in *Jones*:

The BSCU 14 is configured so that when a passenger requests any of the foregoing information, the telephone number of the passenger telephone 29 is checked by the BSCU 14. If a passenger's telephone service has the commercially available feature typically known as "calling line identification," the BSCU 14 compares the caller's telephone number with a previously-registered number (reference caller identification number) stored in the student list database 66 (FIG. 5).

Jones at 16:5–13 (EX1002).

e) "utilizing said caller identification information to automatically search for and locate a set of said status information;"

Regarding *Jones*'s figure 1, *Jones* in combination with *Heinonen* discloses a system manager (BCSU 14) that utilizes caller identification information to

automatically search for and locate a set of said status information, as *Jones* discloses receiving and processing Caller Line Identification (CLI) information.

Jones at 16:5–13 and 16:34–39 (EX1002). *Heinonen* discloses

a system ... wherein the data processing system of the subscriber B receives the identifier CLI (Caller Line Identification) of the subscriber A, ... and the data processing system comprises means for receiving the predetermined code (4) from the subscriber A and means for retrieving data relating to said one service and said one user from the database on the basis of the identifier of the subscriber A and the predetermined code.

Heinonen at 2:8–20; *id.* at Figs. 1, 2 (EX1002). *Heinonen* discloses that:

a connection 20 is established and an identifier 30 of the subscriber A is received. The subscriber A's identifier can be a telephone number relating to a subscriber device (i.e. the CLI) ,The data processing system receives a code 40 and searches, on the basis of the identifier and the code, for a correct location 50 in the database.

Heinonen at 3:39–67 (EX1003).

f) “retrieving said set of status information based on said searching for and locating step; and”

Jones in combination with *Heinonen* discloses retrieving the set of status information based on the searching for and locating step. “If the information was found, it is retrieved from a database 70 and transmitted to a user 71 of the data processing system.” *Heinonen* at 4:14–24 (EX1003).

g) “transmitting said retrieved set of status information to said remote communication device.”

Jones in combination with *Heinonen* discloses transmitting the retrieved set of status information to the remote communication device. For instance, *Heinonen* discloses that, “[i]f the information was found, it is retrieved from a database 70 and transmitted to a user 71 of the data processing system.” *Heinonen* at 4:14–24 (EX1003).

11. Claim 11 is obvious in view of *Jones* and *Heinonen*.

a) “wherein said caller identification information is a telephone number.”

Jones discloses this limitation, at least by disclosing that, “[i]f a passenger’s telephone service has the commercially available feature typically known as ‘calling line identification,’ the BSCU 14 compares the caller’s telephone number with a previously-registered number (reference caller identification number) stored in the student list database 66 (FIG. 5).” *Jones* at 16:5–13 (EX1002).

12. Claim 13 is obvious in view of *Jones* and *Heinonen*.

a) “receiving a status message transmitted from said vehicle; and updating said status information based on said status message.”

Jones discloses a **nonvolatile storage device** 6, shown in Fig. 3B, that stores the **event list** 73 and **route data** 56, shown in figure 5. The **event list** and **route data** are indicative of a current proximity of identified vehicles, i.e., monitored buses. As *Jones* explains, “A **nonvolatile storage device** 6, for example, a hard disk drive or CDROM mechanism, may be used to permanently store the software of the

[Base Station Control Unit] BSCU 14 [shown in Fig. 1], as well as to store the databases generated by the BSCU 14.” *Jones* at 6:45–50; *id.* at Fig. 3B (EX1002).

Jones continues:

the BSCU 14 asks the VCU 12 for information regarding (a) the time into the route and (b) the number designating the next stop. In addition, **route data** 56 is obtained from a local database. The **route data** 56 includes information pertaining to each bus stop and how much time it should take to reach each bus stop during the route. From the **route data** 56 and the information (a) and (b), as indicated previously, received from the VCU 12, the BSCU 14 can determine whether the bus 19 is late or early, as indicated by flow chart blocks 57, 58, or whether the bus 19 has just started its route.

Jones at 12:30–39 (EX1002). Additionally,

an **event list** 73 is maintained for diagnostics and system monitoring. The **event list** 73 receives data from both the vehicle communications program 47 and the student calling program 46. The **event list** 73 essentially comprises records of, among other things, all telephone calls and all past and current bus locations.

Jones at 13:36–42; *id.* at Fig. 5 (EX1002).

13. Claim 14 is obvious in view of *Jones* and *Heinonen*.

a) “indicating a proximity of said vehicle from a particular location via said status information.”

Jones discloses indicating a proximity of a vehicle, e.g., a bus, from a specific location, e.g., a specific bus stop. For example, *Jones* discloses a

nonvolatile storage device 6 shown in figure 3B that stores the **event list** 73 and **route data** 56 shown in figure 5. The **event list** and **route data** indicate a current proximity of an identified vehicle to a particular location, as explained below:

[A]s indicated at flow chart block 45c (FIG.4A), the VCU 12 determines, continuously or periodically, if the bus 19 is on time by analyzing the status of devices 21–25 (FIG. 1) in view of planned **route data** (derived from initialization). In the preferred embodiment, the VCU 12 at least compares its elapsed time from the clock 24 (FIG.1) with its scheduled time from the planned **route data**.... [W]hen the VCU 12 determines that the bus 19 is early or late at this juncture, the VCU 12 contacts the BSCU 14, as indicated at flow chart block 45d (FIG.4A), and the BSCU 14 adjusts its student calling lists accordingly so that the students are called in accordance with the predefined time notice, e.g., five minutes.

Jones at 10:5–30; *id.* at Figs. 4A, 4B (EX1002).

14. Claim 15 is obvious in view of *Jones* and *Heinonen*.

a) “wherein said utilizing, retrieving, and transmitting steps are performed in response to said receiving step.”

Jones, in combination with *Heinonen*, discloses a system manager (BCSU 14 in Fig. 1) configured to perform the utilizing, retrieving and transmitting steps in response to receiving caller identification information associated with a user.

Heinonen discloses: “[A] system, ..., wherein the data processing system of the subscriber B receives the identifier CLI (Caller Line Identification) of the

subscriber A ...and a predetermined code.” *Heinonen* at 2:8–12; *id.* at Figs. 1, 2 (EX1002). *Heinonen* continues:

the operations are presented assuming that the response 10 to the request for contact, made by the subscriber A, is positive, a connection 20 is established and an identifier 30 of the subscriber A is received. The subscriber A’s identifier can be a telephone number relating to a subscriber device (i.e. the CLI), The data processing system receives a code 40 and searches, on the basis of the identifier and the code, for a correct location 50 in the database.

Heinonen at 3:39–67 (EX1003).

As *Heinonen* demonstrates, “[i]f the information was found, it is retrieved from a database 70 and transmitted to a user 71 of the data processing system.”

Heinonen at 4:14–24 (EX1003).

B. Ground II: Claims 3, 7 and 12 are obvious in view of *Jones, Heinonen* and *Murakami*.

1. Overview of Murakami

Murakami issued as a US patent on December 31, 1996 more than one year prior to the March 1, 1999 priority date claimed by the ’207 Patent. Thus, *Murakami* constitutes prior art to the ’207 patent under 35 USC § 102(b).

Murakami discloses linking an electronic mail (email) system with an existing telephone system and automatically identifying the user communicating

with the system via information contained within an email received from the User. *Murakami* at Abstract 9:5–38; *id.* at Figs. 1, 6 (EX1004).

It would have been obvious to a PHOSITA to use *Murakami*'s electronic mail system with *Jones*' advance notification system and *Heinonen*'s selective data retrieval system, as this would link electronic mail and telephone systems as outlined in *Murakami*. *Murakami* at 2:20–22 (EX1004). Doing so would apply computer and internet technology to a method capable of use via telephone, replacing older electronics. *See Western Union Co. v. MoneyGram Payment Sys., Inc.*, 626 F.3d 1361, 1370 (Fed. Cir. 2010) (“applying computer and internet technology to replace older electronics has been commonplace in recent years.”).

2. Claim 3 is obvious in view of *Jones*, *Heinonen*, and *Murakami*.

a) “wherein said caller identification information is included within a message transmitted over the internet and received by said communication interface, and”

Murakami discloses that the caller identification information is included within a message transmitted over the Internet and received by said communication interface, where it shows in figure 6 a “diagram showing an example of electronic mail format,” and “[t]he electronic mail message of this format is made up of a header and a text, the header consisting of a "From" field indicating the originator. *Murakami* at 5:10–17 (EX1004).

```
HEADER
From:      Telsu
To:        Mul
Date:      Tue, 16 Feb 93 04:35:11 JST
Message-ID: <9302151935.AA22067>
References: <9302082038.AA03689>

TEXT
THIS IS GOTO.
REGARDING THE NEXT MEETING, FOR THE
TIME BEING...
.
.
.
```

Murakami, Figure 6 (EX1004)

b) “wherein said caller identification information is a source address automatically inserted into said message by said remote communication device, said source address identifying an address of said remote communication device”

Murakami discloses that the caller identification information is a source address automatically inserted into a message by a remote communication device, the source address identifying an address of the remote communication device.

More specifically, *Murakami* discloses:

An electronic mail system linked with a telephone system, comprising: [a] an electronic mail system composed of a plurality of terminals connected through a network, and an electronic mail center via which electronic mail is exchanged among users of said terminals; and [b] a telephone system composed of a plurality of telephones and a telephone exchange for connecting said telephones, wherein said telephones are associated in advance with individual users of said electronic mail system, said electronic mail center comprises: [i]

correspondence table storing means for storing a table of correspondence between user IDs and telephone numbers as well as electronic mail for individual users; [and] [ii] a terminal interface for identifying the users using said terminals; ... said telephone exchange, upon reception of a call request, notifies the called telephone number to said electronic mail center, and said electronic mail center identifies the user ID of the called user corresponding to the notified telephone number by referencing said correspondence table.

Murakami at 9:5–38; *id.* at Fig. 6 (EX1004).

3. Claim 7 and 12 are obvious in view of *Jones*, *Heinonen*, and *Murakami*.

a) “*wherein said caller identification information is an e-mail address*”

Murakami discloses “FIG. 6 [which] is a diagram showing an example of electronic mail format. The electronic mail message of this format is made up of a header and a text, the header consisting of a "From" field indicating the originator.

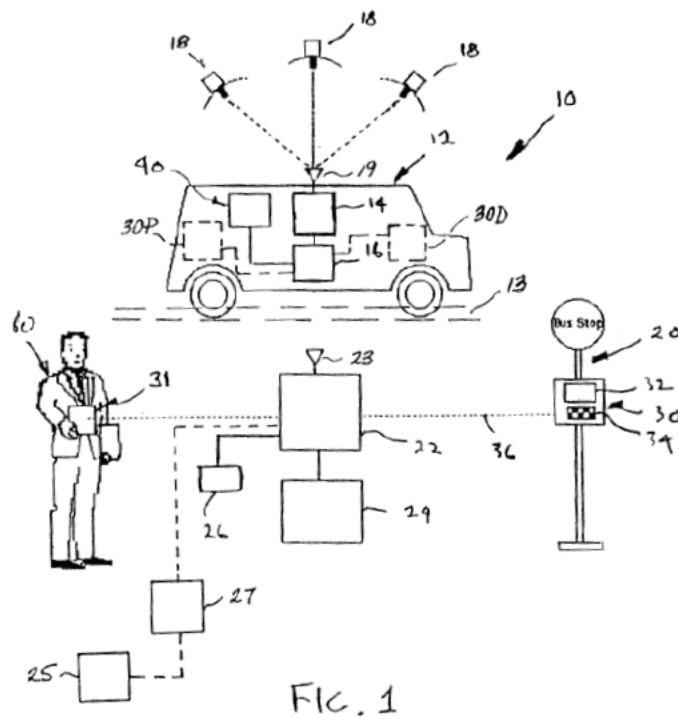
Murakami at 5:10–17 (EX1004).

C. Ground III: Claims 1, 2, 4–6, 8–11, and 13–15 are unpatentable under 35 USC 103(a) as obvious over *Schmier* in view of *Webb*.

1. Overview of *Schmier*

Schmier published as an international application under the Patent Cooperation Treaty (PCT) on February 26, 1998, more than one year before the earliest potential priority date for the '207 Patent. Thus, *Schmier* constitutes prior art to the '207 patent under 35 USC § 102(b).

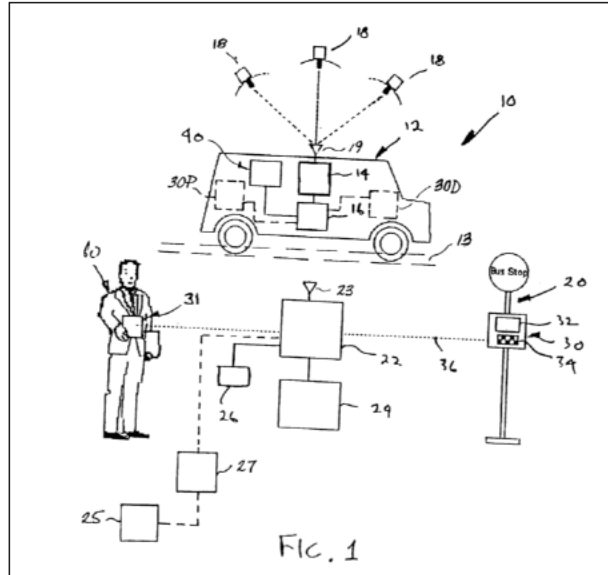
Schmier discloses a system for notifying passenger waiting for vehicles of the status of the vehicles, including the arrival times of vehicles at stops. *Schmier* at Abstract, Fig. 1 (EX1005). It applies to all types of vehicles, routes, tracks, or stops. *Id.* at 5:10–22. It discloses a processor with “means for computing” various types of “status information” for all types of vehicles. 7:22–25.



Schmier at Fig. 1 (EX1005).

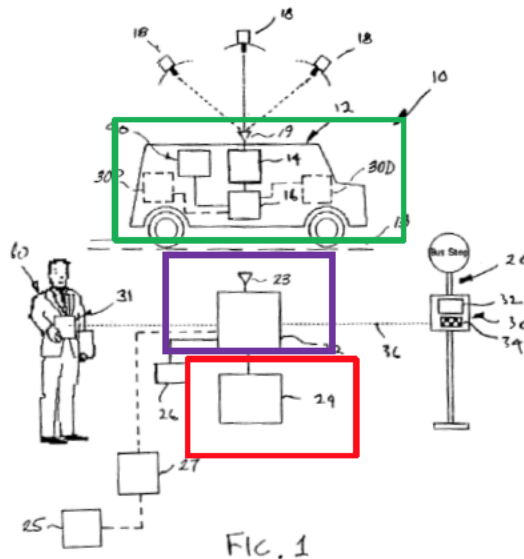
2. Overview of *Webb*

Webb published as a Canadian patent application on September 19, 1997 more than one year before the earliest potential priority date for the '207 Patent. Thus, *Webb* constitutes prior art to the '207 patent under 35 USC § 102(b).



b) “a database storing status information associated with a vehicle, said status information indicative of a current proximity of said identified vehicle;”

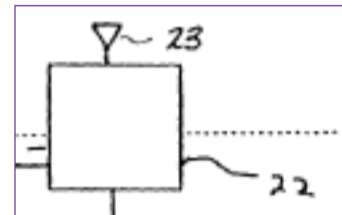
Regarding Fig. 1, *Schmier* discloses a **database** (a transit data table located in **electronic storage** 24) that stores **status information** associated with a **vehicle** 12, the status information indicative of a current proximity of the identified **vehicle**.



For example, *Schmier* discloses continually updating “a transit data table which includes **status information** for all the vehicles in the system, including the location of scheduled stops, connections to other transit vehicles at the stops, and the arrival times of vehicles at their stops.” *Schmier* at Abstract (EX1005). The location of the stops, the connections, and the arrival times are computed in “near-real time,” *id.* at 1:12, 4:18–22 (discussing “having available information such as the location of all vehicles operating in the system.”). Thus the data shows proximity, in time as well as distance, of the **vehicle** to the stop.

c) “a communication interface configured to communicate with communication devices remotely located from said system; and”

Schmier discloses a communication interface (e.g., telephone exchange 27 and/or **central processor** 22 with antenna 23) configured to communicate with communication devices, e.g., passenger phones 25 or a vehicle antenna 19, remotely located from said system. For example, the access means can be a telephone 25 which communicates with the central **processor or computer** 22 via a telephone exchange 27 or cellular installation [23].” *Schmier* at 21¶3 (EX1005).



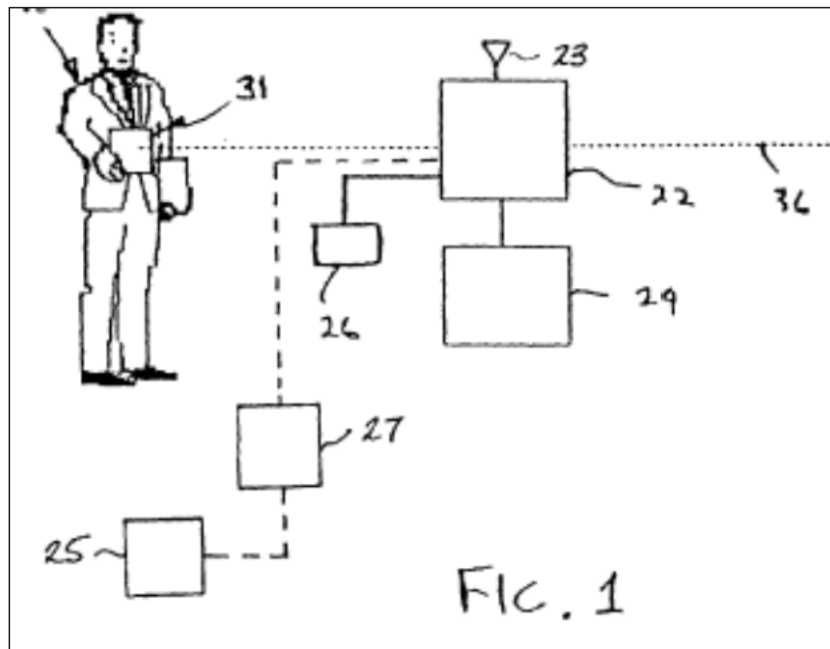
d) “a system manager configured to receive a message transmitted from said vehicle and to update said status information based on said message,”

Schmier discloses a system manager (**central processor** 22 in Fig. 1) configured to receive a message transmitted from a vehicle and to update the status

information based on the message. For example, *Schmier* discloses that “[t]he central processor routinely updates the transit data tables as new information is received from the vehicle information units.” *Schmier* at 8¶2 (EX1005).

e) “said system manager further configured to analyze caller identification information automatically transmitted to said communication interface when a remote communication device establishes communication with said communication interface,”

Regarding *Schmier*'s figure 1, *Schmier* in combination with *Webb* discloses a system manager (central processor 22) further configured to analyze caller identification information automatically transmitted to the communication interface (e.g., telephone exchange 27 and/or central processor 22 with antenna 23) when a remote communication device (e.g., portable device 31 or telephone 25) establishes communication with the system manager's communication interface.



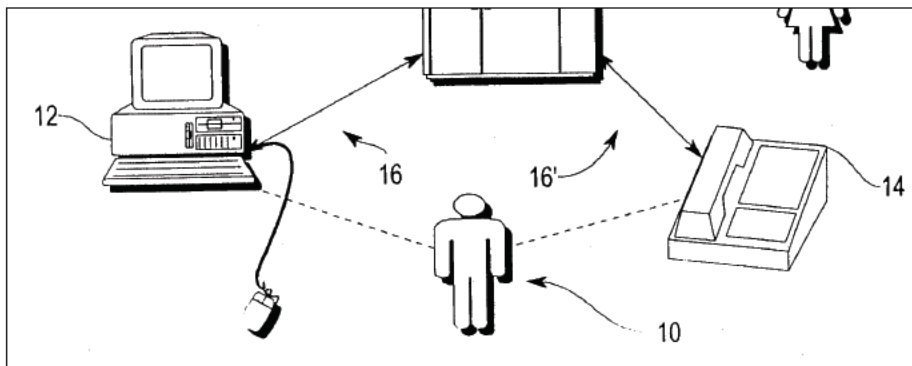
Schmier at Fig. 1 (EX1005)

Regarding figure 1, *Schmier* discloses:

The portable display modules 31, can be used to receive the transit data table, and access arrival information for any particular transit line and transit stop. In this way a person can know ... precisely when the next vehicle will arrive.... *Devices will include a priority display to make access of information for designated stops easy.*

Schmier at 26¶2 (EX1005) (emphasis added).

Regarding *Webb*'s figure 1, a "remote user 10 may gain access to an information service provider via a standard interface, such as an application program running on computer 12 or via telephone 14." *Webb* at 6:18–23 (EX1006).



Regarding figure 2, *Webb* discloses:

[B]lock 50 represents the step of permitting the remote user to establish a connection to the systems controlled by the information service provider.... [T]he system may utilize a feature such as 'caller ID' to *automatically* obtain identifying information before the call is even answered.... *This information may be compared to information previously accumulated by the service provider* to determine whether

the caller is an authorized user of the system.

Webb at 11:3–22 (EX1006) (emphases added).

It would have been obvious to a PHOSITA to combine 1) the vehicle arrival information system of *Schmier* with 2) *Webb*'s selective data retrieval from a remote database on the basis of caller identification to achieve the above-noted recitation and solve the purported problem of a user having to provide the system with information identifying which vehicle is of interest.

As the Supreme Court has held, “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *See KSR International Co. v. Teleflex Inc. (KSR)*, 550 U.S. 398, 415–16 (2007). Further, “when a patent simply arranges old elements with each performing the same function it had been known to perform and yields no more than one would expect from such an arrangement, the combination is obvious.” *Id.* at 417 (internal quotations and citation omitted.). *Schmier* and *Webb* are in the same field of endeavor—automating caller identification processes—and both disclose simple computer algorithms, and both disclose calling systems with databases. *Compare Schmier* at Abstract, Fig. 1 (EX1004) *with Webb* at Abstract, Fig. 1 (EX1005). Using known programming methods to combine 1) *Schmier*'s vehicle arrival information system with 2) *Webb*'s remote user access system utilizing caller ID would have yielded a predictable result, i.e., a user not having to

provide the system with information identifying which vehicle is of interest to find out the vehicle's status. *Webb* notes that “[t]o survive in the marketplace, it is necessary to continually improve various aspects of customer service,” and “[a]s the personal computer becomes less expensive, and virtually ubiquitous,” these “service providers compete for consumer dollars by offering services which are either unique, less expensive, more comprehensive, easier to access, or the like” so that many moved to “offer 24-hour access to customer service,” and would be motivated “[t]o increase the efficiency of personnel use,” by “integrat[ing] computers to automate a number of routinely requested customer services.” *Webb* at 3:10–22 (EX1005).

To the extent it can be argued that *Schmier* fails to explicitly disclose the use of caller identification to automatically identify the user without need for the user to do anything so as to provide relevant info to the user, *Webb*, which is similar because it is concerned with easy retrieval of information by phone (just as *Schmier* is concerned with easy retrieval of vehicle arrival information by phone), teaches using caller identification to automatically identify the user without need for the user to do anything so as to provide relevant info to the user. *Webb* at Abstract (EX1005). Thus, it would have been obvious to a PHOSITA to combine the system of *Schmier* with modifications from *Webb*.

f) “said system manager further configured to automatically search for and locate a set of said status information based on said caller identification

information, said system manager further configured to retrieve said set of status information and to transmit said retrieved set of status information to said remote communication device.”

Regarding *Schmier's* figure 1, *Schmier* in combination with *Webb* discloses a system manager (central processor 22) further configured to automatically search for and locate a set of said status information (e.g., information contained in the transit data table) based on the caller identification information, the system manager further configured to retrieve the set of status information and to transmit the retrieved set of status information to the remote communication devices (portable device 31 or passenger telephone 25).

For example, regarding figure 1, *Schmier* discloses “the access means can be a telephone 25 which communicates with the central processor or computer 22 via a telephone exchange 27 or cellular installation.” *Id.* at 21¶4. Additionally, regarding figure 1, *Schmier* discloses:

The portable display modules 31, can be used to receive the transit data table, and access arrival information for any particular transit line and transit stop. In this way a person can know, without leaving home, work, a restaurant, etc., precisely when the next vehicle will arrive
Devices will include a priority display to make access of information for designated stops easy.

Schmier at 26¶2 (EX1005) (emphasis added).

Regarding figure 1, *Webb* discloses that a “remote user 10 may gain access to

an information service provider via a standard interface, such as an application program running on computer 12 or via telephone 14.” *Webb* at 6:18–23 (EX1006). Regarding figure 2, *Webb* discloses:

[B]lock 50 represents the step of permitting the remote user to establish a connection to the systems controlled by the information service provider.... [T]he system may utilize a feature such as “caller ID” to automatically obtain identifying information before the call is even answered.... This information may be compared to information previously accumulated by the service provider to determine whether the caller is an authorized user of the system. For example, authorized users would be allowed to access information relative to their accounts.

Webb at 11:3–24 (EX1006). Thus, *Webb* discloses an information service provider retrieving and transmitting information based on caller ID information, where the information is particular to the user.

For at least the reasons noted in VI.C.3(f), it would have been obvious to a PHOSITA to combine 1) the vehicle arrival information system of *Schmier* with 2) *Webb*’s selective data retrieval from a remote database on the basis of caller identification to achieve the above-noted recitation and solve the purported problem of a user having to provide the system with information identifying which vehicle is of interest.

4. Claim 2 is obvious in view of *Schmier* and *Webb*.

a) “wherein said caller identification information is a telephone number associated with said remote communication device”

Webb discloses that “the system may utilize a feature such as “caller ID” to automatically obtain identifying information before the call is even answered. Such information may include the telephone number...of a user.” *Webb* at 11:8–12 (EX1006).

5. Claim 4 is obvious in view of *Schmier* and *Webb*.

a) “wherein said system manager is configured to transmit said retrieved set of status information to said remote communication device in response to said caller identification information”

Schmier, in combination with *Webb*, discloses a system manager configured to transmit the retrieved set of status information (information stored in *Schmier*'s transit data table) to the remote communication device (portable device 31 or telephone 25 in *Schmier*'s figure 1 in response to the caller identification information.

Schmier discloses “computers, ... may be used to access route information which is broadcast by wireless transmission and/or supplied to the telephone network and/or to the Internet system, etc., by or under the control of the central computer(s).” *Schmier* at 13¶1 (EX1005)).

Schmier further discloses:

[R]eferring to FIG. 1, the access means can be a telephone 25 which communicates with the **central processor or computer** 22 via a telephone exchange 27 or cellular installation, for transmitting ... the information which is broadcast electronically over the system under control of the computer. A server or other suitable device is used to store transit data table information and provide access from telephone(s).

Schmier at 21¶3 (EX1005).

Likewise, regarding *Webb*'s figure 2:

[B]lock 50 represents the step of permitting the remote user to establish a connection to the systems controlled by the information service provider.... [T]he system may utilize a feature such as "caller ID" to automatically obtain identifying information before the call is even answered.... This information may be compared to information previously accumulated by the service provider to determine whether the caller is an authorized user of the system.

Webb at 11:3–22 (EX1006).

6. *Claim 5 is obvious in view of Schmier and Webb.*

a) ***"[a] system for monitoring and reporting status of vehicles, comprising:"***

Schmier discloses a system for monitoring and reporting status of "a wide variety of vehicles, such as boats, airplanes, helicopters, automobiles, vans, buses, trolleys, trains, etc." *Id.* at 5:10–13. In figure 1, *Schmier* discloses a "preferred embodiment 10 of a transit vehicle arrival notification system." *Schmier* at 17¶1(EX1005).

b) “means for maintaining status information associated with a vehicle, said status information indicative of a current proximity of said identified vehicle;”

Regarding figure 1, *Schmier* discloses the processor 22 maintaining a transit data table located in electronic storage 24 that stores status information associated with a vehicle 12, the status information indicative of a current proximity of the identified vehicle. For example, *Schmier* discloses a processor programmed “to compute and update from the present location of the transit system vehicles and electronically stored information” as “a transit data table which includes status information for all the vehicles in the system, including the location of scheduled stops, connections to other transit vehicles at the stops, and the arrival times of vehicles at their stops.” *Schmier* at Abstract (EX1005). The arrival time, *inter alia*, indicates the current proximity of the vehicle.

c) “means for communicating with a remote communication device,”

Regarding figure 1, *Schmier* discloses means (telephone exchange 27 and/or central processor 22) for communicating with a remote communication device (e.g., telephone 25 or portable device 31). For example, micro-processor “16 is in wireless communication with central processor system 22, for example, via a communications link such as wireless radio link established between antenna 19 of vehicle 12 and antenna 23 associated with central processor system 22.” *Schmier* at 17¶4 (EX1005).

d) “said means for communicating including a means for receiving caller identification information automatically transmitted to said communicating means;”

Regarding *Schmier*'s figure 1, *Schmier* in combination with *Webb* discloses a central processor 22 configured to analyze caller identification information automatically transmitted to the communication interface (e.g., telephone exchange 27 and/or central processor 22 with antenna 23) when a remote communication device (e.g., portable device 31 or telephone 25) establishes communication with the central processor 22.

For example, regarding figure 1, *Schmier* discloses:

“The portable display modules 31, can be used to receive the transit data table, and access arrival information for any particular transit line and transit stop. In this way a person can know, without leaving home, work, a restaurant, etc., precisely when the next vehicle will arrive **Devices will include a priority display to make access of information for designated stops easy.**”

Schmier at 26¶2 (EX1005) (emphasis added).

Regarding figure 1, *Webb* discloses that a “remote user 10 may gain access to an information service provider via a standard interface, such as an application program running on computer 12 or via telephone 14.” *Webb* at 6:18–23 (EX1006)). Regarding figure 2, *Webb* discloses:

[B]lock 50 represents the step of permitting the remote user to establish a connection to the systems controlled by the information

service provider.... [T]he system may utilize a feature such as “caller ID’ to automatically obtain identifying information before the call is even answered This information may be compared to information previously accumulated by the service provider to determine whether the caller is an authorized user of the system.

Webb at 11:3–22 (EX1006).

For at least the reasons noted in VI.C.3(f), it would have been obvious to a PHOSITA to combine 1) the vehicle arrival information system of *Schmier* with 2) *Webb*’s selective data retrieval from a remote database on the basis of caller identification to achieve the above-noted recitation and solve the purported problem of a user having to provide the system with information identifying which vehicle is of interest.

e) “means for utilizing said caller identification information to automatically search for and locate a set of said status information; and”

Regarding figure 1, *Schmier* discloses “the access means can be a telephone 25 which communicates with the central processor or computer 22 via a telephone exchange 27 or cellular installation. Additionally, regarding figure 1, *Schmier* discloses that “[t]he portable display modules 31, can be used to receive the transit data table, and access arrival information for any particular transit line and transit stop. In this way a person can know, without leaving home, work, a restaurant, etc., precisely when the next vehicle will arrive Devices will include a priority

display to make access of information for designated stops easy. *Schmier* at 26¶2 (EX1005).

Regarding figure 1, *Webb* discloses that a “remote user 10 may gain access to an information service provider via a standard interface, such as an application program running on computer 12 or via telephone 14.” *Webb* at 6:18–23 (EX1006). Regarding figure 2, *Webb* discloses “permitting the remote user to establish a connection to the systems controlled by the information service provider, so “the system may utilize a feature such as “caller ID’ to automatically obtain identifying information before the call is even answered This information may be compared to information previously accumulated by the service provider to determine whether the caller is an authorized user of the system.” *Webb* at 11:3–22 (EX1006).

It would have been obvious to a PHOSITA to combine 1) the vehicle notification system of *Schmier* with 2) *Webb*’s selective data retrieval from a remote database on the basis of caller identification to achieve the above-noted recitation and solve the purported problem of a user having to provide the system with information identifying which vehicle is of interest.

f) “means for automatically retrieving and transmitting said set of said status information.”

Regarding *Schmier* figure 1, *Schmier* in combination with *Webb* discloses a central processor 22 further configured to retrieve the set of status information and

to transmit the retrieved set of status information to the remote communication devices (portable device 31 or passenger telephone 25). *See Schmier* at 26¶2 (EX1005); *Webb* at 6:18–23 (EX1006); *Webb* at 11:3–24 (EX1006) (quoted immediately above with regard to recitation (e)). *Webb* discloses an information service provider retrieving and transmitting information to an authorized user, where the information is particular to the user. It would have been obvious to a PHOSITA to combine 1) the vehicle notification system of *Schmier* with 2) *Webb*'s selective data retrieval from a remote database on the basis of caller identification to achieve the above-noted recitation and solve the purported problem of a user having to provide the system with information identifying which vehicle is of interest.

7. *Claim 6 is obvious in view of Schmier and Webb.*

a) “wherein said caller identification information is a telephone number.”

Webb discloses that “the system may utilize a feature such as “caller ID” to automatically obtain identifying information before the call is even answered. Such information may include the telephone number ...of a user.” *Webb* at 11:8–12 (EX1006).

8. *Claim 8 is obvious in view of Schmier and Webb.*

a) “means for receiving a status message transmitted from said vehicle; and means for updating said status information based on said status message.”

Regarding figure 1, *Schmier* discloses a **central processor system 22** for receiving a status message transmitted from a vehicle 12 and for updating the status information in electronic storage means 24 based on the message. “In electronic storage means 24 are stored the identification of all vehicles or buses in communication with **central processor 22** and the location coordinates representing the routes of all vehicles in communication with **central processor 22**.” *Schmier* at 18¶1 (EX1005). Thus:

Information regarding current conditions or status can be input to the central processor means, either locally (at the central processor means itself) or remotely (for example, from transit vehicles, transit line booths, etc.), and used for revising the predicted time intervals [and] times of arrival ... in the transit data table.... After updating the transit data table to reflect current information, the central processor means controls the broadcast of the revised schedule information.

Id. at 18¶1 (EX1005).

9. *Claim 9 is obvious in view of Schmier and Webb.*

a) “wherein said status information indicates a proximity of said vehicle from a particular location.”

Regarding figure 1, *Schmier* discloses maintaining a transit data table located in electronic storage 24 that stores status information associated with a vehicle 12, wherein the status information is indicative of a current proximity of the identified vehicle. For example, *Schmier* discloses “a transit data table which

includes status information for all the vehicles in the system, including the location of scheduled stops, connections to other transit vehicles at the stops, and the arrival times of vehicles at their stops.” *Schmier* at Abstract (EX1005).

10. *Claim 10 is obvious in view of Schmier and Webb.*

a) “[a] method for monitoring and reporting status of vehicles, comprising the steps of”

Regarding Fig. 1 above, *Schmier* discloses a “preferred embodiment 10 of a transit vehicle arrival notification system in accordance with the present invention. *Schmier* at 17¶1 (EX1005)).

b) “maintaining status information associated with a vehicle, said status information indicative of a current proximity of said vehicle;”

Schmier discloses “a transit data table which includes status information for all the vehicles in the system, including the location of scheduled stops, connections to other transit vehicles at the stops, and the arrival times of vehicles at their stops.” *Schmier* at Abstract (EX1005).

c) “communicating with a remote communication device;”

Regarding figure 1, *Schmier* discloses telephone exchange 27 and/or central processor 22 for communicating with a remote communication device (e.g., telephone 25 or portable device 31). For example, the access means can be a telephone 25 which communicates with the central processor or computer 22 via a telephone exchange 27 or cellular installation.” *Schmier* at 21¶3 (EX1005)).

d) "receiving caller identification information automatically transmitted in said communicating step;"

Regarding *Schmier* Fig. 1, *Schmier* in combination with *Webb* discloses a central processor 22 configured to receive caller identification information automatically transmitted in the communicating step when a remote communication device (e.g., portable device 31 or telephone 25) establishes communication, via telephone exchange 27 and/or antenna 23, with the central processor system 22. *Schmier* discloses "The portable display modules 31, can be used to receive the transit data table, and access arrival information for any particular transit line and transit stop." *Schmier* at 26¶2 (EX1005).

Regarding figure 1, *Webb* discloses that a "remote user 10 may gain access to an information service provider via a standard interface, such as an application program running on computer 12 or via telephone 14." *Webb* at 6:18–23 (EX1006). Regarding figure 2, *Webb* discloses:

permitting the remote user to establish a connection to the systems controlled by the information service provider [. . . using] a feature such as "caller ID" to automatically obtain identifying information before the call is even answered [t]his information may be compared to information previously accumulated by the service provider to determine whether the caller is an authorized user of the system. Various levels of access to information may be provided based on whether the caller is a previously authorized user.

Webb at 11:3–22 (EX1006). It would have been obvious to a PHOSITA to

combine 1) the vehicle notification system of *Schmier* with 2) *Webb*'s selective data retrieval from a remote database on the basis of caller identification to achieve the above-noted recitation and solve the purported problem of a user having to provide the system with information identifying which vehicle is of interest.

e) “utilizing said caller identification information to automatically search for and locate a set of said status information;”

Regarding *Schmier* figure 1, *Schmier* in combination with *Webb* discloses a central processor 22 configured to utilize caller identification information to automatically search for and locate a set of status information (e.g., information contained in the transit data table). See, e.g., *Schmier* at 26¶2 (EX1005), *Webb* at 6:18–23 (EX1006); *id.* at 11:3–22 (EX1006) (described *supra* re element (d)). It would have been obvious to a PHOSITA to combine 1) the vehicle notification system of *Schmier* with 2) *Webb*'s selective data retrieval from a remote database on the basis of caller identification to achieve the above-noted recitation and solve the purported problem of a user having to provide the system with information identifying which vehicle is of interest.

f) “retrieving said set of status information based on said searching for and locating step; and transmitting said retrieved set of status information to said remote communication device.”

Schmier figure 1, *Schmier* in combination with *Webb* discloses a central processor 22 further configured to retrieve the set of status information and to transmit the retrieved set of status information to the remote communication

devices (portable device 31 or passenger telephone 25). *See Schmier* at 26¶2 (EX1005), *Webb* at 6:18–23 (EX1006); *id.* at 11:3–24 (EX1006) (quoted immediately *supra* re: element (d)). *Webb* discloses an information service provider retrieving and transmitting information to an authorized user, where the information is particular to the user. It would have been obvious to a PHOSITA to combine 1) the vehicle notification system of *Schmier* with 2) *Webb*'s selective data retrieval from a remote database on the basis of caller identification to achieve the above-noted recitation and solve the purported problem of a user having to provide the system with information identifying which vehicle is of interest.

11. *Claim 11 is obvious in view of Schmier and Webb.*

a) ***“wherein said caller identification information is a telephone number.”***

Webb discloses that “the system may utilize a feature such as “caller ID” to automatically obtain identifying information before the call is even answered. Such information may include the telephone number...of a user.” *Webb* at 11:8–12 (EX1006).

12. *Claim 13 is Obvious in view of Schmier and Webb.*

a) ***“receiving a status message transmitted from said vehicle; and updating said status information based on said status message.”***

Schmier discloses that “In electronic storage means 24 are stored the identification of all vehicles or buses in communication with **central processor 22** and the location coordinates representing the routes of all vehicles in

communication with **central processor** 22. ... [I]nformation current conditions or status can be input to the central processor means, either locally (at the central processor means itself) or remotely (for example, from transit vehicles, transit line booths, etc.), and used for revising the predicted time intervals [and] times of arrival ... in the transit data table.... After updating the transit data table to reflect current information, the central processor means controls the broadcast of the revised schedule information.” *Schmier* at 18 (EX1005).

13. *Claim 14 is obvious in view of Schmier and Webb.*

a) “indicating a proximity of said vehicle from a particular location via said status information.”

Schmier discloses “a transit data table which includes status information for all the vehicles in the system, including the location of scheduled stops, connections to other transit vehicles at the stops, and the arrival times of vehicles at their stops.” *Schmier* at Abstract (EX1005).

14. *Claim 15 is obvious in view of Schmier and Webb.*

a) “wherein said utilizing, retrieving, and transmitting steps are performed in response to said receiving step.”

Schmier in combination with *Webb* discloses the utilizing, retrieving, and transmitting steps are performed in response to the receiving step. *See, e.g., Schmier* at 26¶2 (EX1005), *Webb* at 6:18–23 (EX1006), and *Webb* at 11:3–24 (EX1006) quoted immediately above with regard to recitation (d) of claim 10. *Webb* discloses an information service provider retrieving and transmitting

information to an authorized user, where the information is particular to the user. It would have been obvious to a PHOSITA to combine 1) the vehicle notification system of *Schmier* with 2) *Webb*'s selective data retrieval from a remote database on the basis of caller identification to achieve the above-noted recitation and solve the purported problem of a user having to provide the system with information identifying which vehicle is of interest.

D. Ground IV: Claims 3, 7 and 12 are obvious in view of *Schmier*, *Webb* and *Murakami*.

At the time of the invention, it would have been obvious to skilled in the art to utilize *Murakami*'s electronic mail system with *Schmier*'s vehicle notification system and *Webb*'s selective data retrieval system because doing so would interlink independent electronic mail and telephone systems *Murakami* at 2:20–22 (EX1004).

1. *Claim 3 is obvious in view of Schmier, Webb, and Murakami.*

a) “wherein said caller identification information is included within a message transmitted over the internet and received by said communication interface, and”

Murakami discloses that “FIG. 6 is a diagram showing an example of electronic mail format. The electronic mail message of this format is made up of a header and a text, the header consisting of a "From" field indicating the originator.

Murakami at 5:10–17 (EX1004).

b) “wherein said caller identification information is a source address automatically inserted into said message by said remote communication device,

said source address identifying an address of said remote communication device”

Murakami discloses “An electronic mail system linked with a telephone system” where “telephones are associated in advance with individual users of said electronic mail system, said electronic mail center comprises: [i] correspondence table storing means for storing a table of correspondence between user IDs and telephone numbers as well as electronic mail for individual users; [ii] a terminal interface for identifying the users using said terminals; ..., said telephone exchange, upon reception of a call request, notifies the called telephone number to said electronic mail center, and said electronic mail center identifies the user ID of the called user corresponding to the notified telephone number by referencing said correspondence table.” *Murakami* at 9:5–38 (EX1004).

2. *Claims 7 and 12 are obvious in view of Schmier, Webb, and Murakami.*

a) ***“wherein said caller identification information is an e-mail address”***

Murakami discloses “FIG. 6 [which] is a diagram showing an example of electronic mail format. The electronic mail message of this format is made up of a header and a text, the header consisting of a "From" field indicating the originator. *Murakami* at 5:10–17 (EX1004).

VII. CONCLUSION

The challenged claims of the '207 patent are unpatentable. Please institute an *inter partes* review and cancel claims 1–15.

Respectfully,

Jonathan Stroud

Jonathan Stroud
Registration No. 72,518

Table of Exhibits for Petition for *Inter Partes* Review of U.S. Patent 6,415,207

Exhibit	Description
EX1001	U.S. Patent 6,415,207
EX1002	U.S. Patent 5,668,543 (“ <i>Jones</i> ”) (filed on May 2, 1995, published on Sept. 16, 1997)
EX1003	U.S. Patent 6,094,573 (“ <i>Heinonen</i> ”) (filed on Nov. 12, 1997, published on July 25, 2000)
EX1004	U.S. Patent 5,590,178 (“ <i>Murakami</i> ”) (filed on June 27, 1994, published on Dec. 31, 1996)
EX1005	International Publication Number WO 98/08206 (“ <i>Schmier</i> ”) (international filing date of Aug 12, 1997, international publication date of February 28, 1998)
EX1006	Canadian Application Publication No. 2200042 (“ <i>Webb</i> ”) (filed on March 14, 1997, published on September 18, 1997)
EX1007	File History, Office Action (07/10/2001)
EX1008	File History, Response (10/09/2001)
EX1009	File History, Allowance (11/19/2001)
EX1010	Petitioner’s Voluntary Interrogatories
EX1011	Demand Letter to CD Universe (June 6, 2016)
EX1012	<i>Triple7Vaping Inc. v. Shipping & Transit, LLC</i> , No. 9-16-cv-80855 (S.D. Fla. filed May 31, 2016)

CERTIFICATE UNDER 37 C.F.R. § 42.24(d)

Under the provisions of 37 CFR § 42.24(d), the undersigned hereby certifies that the word count for the foregoing petition for *inter partes* review totals 13,944 words, not including mandatory notices, certificate of service, table of exhibits, title page, table of contents, but including the certificate of standing, which is less than the 14,000 words allowed under 37 CFR § 42.24(a)(i).

Respectfully,

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Dated: July 25, 2016

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CERTIFICATE OF SERVICE

I hereby certify that on July 25, 2016, I caused a true and correct copy of the foregoing materials:

- Petition for Inter Partes Review of U.S. Patent 6,425,207 under 35 U.S.C. § 312 and 37 C.F.R. § 42.104
- Exhibits for Petition for Inter Partes Review of U.S. Patent 6,415,207 (EX1001–12).
- Certificate Under 37 C.F.R. § 42.24(d)
- Power of Attorney
- Certificate of Service

to be served via Express Mail on the following correspondent of record as listed on the Assignment at Reel 36305 Frame 472.

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