

**Toyota Motor Corp., et al.
v.
Emerging Automotive LLC**

**IPR2024-00786
(U.S. Patent No. 9,171,268)**

Patent Trial and Appeal Board

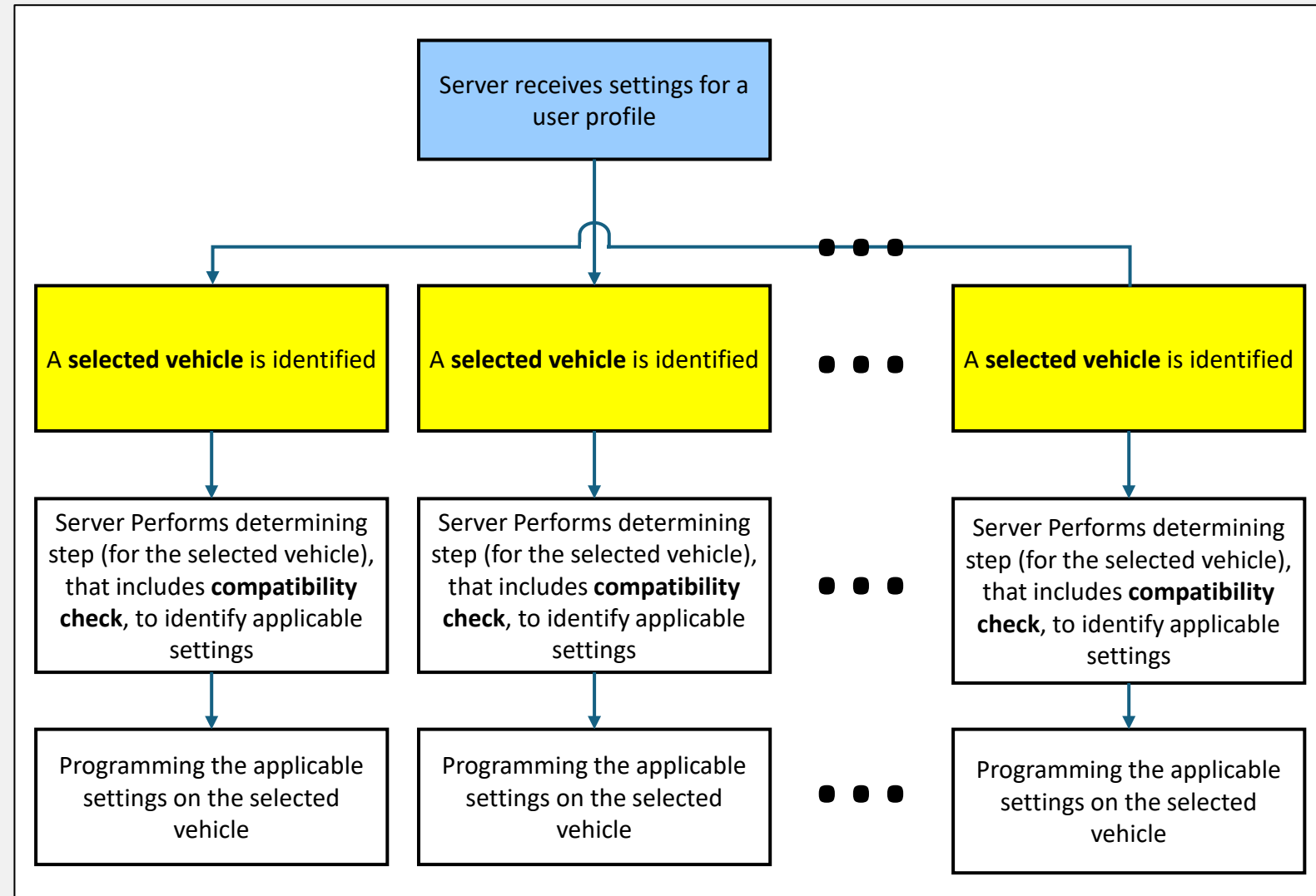
The '268 Patent

The '268 Patent fundamentally shifts the paradigm of vehicle settings: It enables the automatic transferability of user-specific settings to any vehicle based on a server performing a compatibility check between the user profile and the vehicle's supportable settings.

- This is a “shift from the current state of the art in which settings are vehicle-specific” to a system where “vehicle settings are user specific” and can be applied to “any vehicle”.

Response at 2-4, 7, 33; EX1001, 12:31-40

The Transformative Innovation of the '268 Patent



Response at 2-4, 7, 10-12; EX1001, 33:1-26

'268 Patent Independent Claim Elements 10[c] and 20[a]

(12) United States Patent Penilla et al.

(10) Patent No.: US 9,171,268 B1
(45) Date of Patent: Oct. 27, 2014

(54) METHODS AND SYSTEMS FOR SETTING AND TRANSFERRING USER PROFILES TO VEHICLES AND TEMPORARY SHARING OF USER PROFILES TO SHARED-USE VEHICLES

(71) Applicants: Angel A. Penilla, Sacramento, CA (US);
Albert S. Penilla, Sunnyvale, CA (US)

(72) Inventors: Angel A. Penilla, Sacramento, CA (US);
Albert S. Penilla, Sunnyvale, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 107 days.

(21) Appl. No.: 14/050,314

(22) Filed: Oct. 9, 2013

Related U.S. Application Data

(63) Continuation-in-part of application No. 13/452,882, filed on Apr. 22, 2012, and a continuation of application No. 13/824,158, filed on Mar. 15, 2013.

(60) Provisional application No. 61/745,729, filed on Dec. 24, 2012, provisional application No. 61/478,436, filed on Apr. 22, 2011.

(51) Int. Cl.
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G06Q 10/02 (2012.01)

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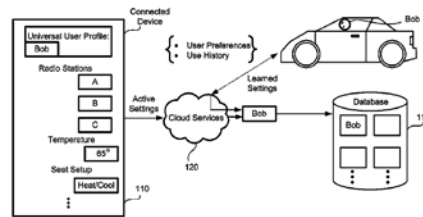
(58) Field of Classification Search
USPC: 320/109, 107; 180/65.1, 65.21; 307/10.1
See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

3,690,397 A 9/1972 Parker
3,799,063 A 3/1974 Reed

20 Claims, 22 Drawing Sheets



determining, by the server, applicable settings for the selected vehicle, the applicable settings being settings that are preferred to be set as identified from the user profile and are compatible with settings that are settable in the selected vehicle; and

EX1001, Claim 10[c]

accessing the cloud processing system by the vehicle, the user profile having user settings for the vehicle, wherein certain of the user settings are determined to be compatible for use with the vehicle;

EX1001, Claim 20[a]

Response at 5-7, 9-10, 13-14, 33

All Grounds fail at least because neither *Xiao* nor *Xiao/Hayashi* can meet the required elements of independent claims 10[c] and 20[a]

(12) United States Patent Penilla et al.

(10) Patent No.: US 9,171,268 B1
(45) Date of Patent: Oct. 27, 2013

(54) METHODS AND SYSTEMS FOR SETTING AND TRANSFERRING USER PROFILES TO VEHICLES AND TEMPORARY SHARING OF USER PROFILES TO SHARED-USE VEHICLES

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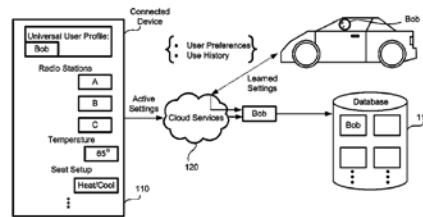
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20 Claims, 22 Drawing Sheets



determining, by the server, applicable settings for the selected vehicle, the applicable settings being settings that are preferred to be set as identified from the user profile and are compatible with settings that are settable in the selected vehicle; and

EX1001, Claim 10[c]

accessing the cloud processing system by the vehicle, the user profile having user settings for the vehicle, wherein certain of the user settings are determined to be compatible for use with the vehicle;

EX1001, Claim 20[a]

Response at 1, 33-47, 55-64; Sur-Reply 14-21, 26-27

Grounds 1, 3a, 3b, 4a, 4b all fail at least because neither *Xiao* nor *Xiao/Hayashi* can satisfy element 10[c]

Both *Xiao* and *Xiao/Hayashi* fail on determining “Applicable Settings” by server (Claim 10[c])

US009171268B1

(12) United States Patent
Penilla et al.

(10) Patent No.
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20 Claims, 22 Drawing Sheets

(57) Methods are provided for locating and providing a shared vehicle to a user for a shared period of time. The method includes receiving a request from a user for a shared vehicle. The method includes selecting a vehicle from a plurality of vehicles based on the request. The method includes providing the selected vehicle to the user. The method includes receiving a request from a user for a shared vehicle. The method includes selecting a vehicle from a plurality of vehicles based on the request. The method includes providing the selected vehicle to the user. The method includes receiving a request from a user for a shared vehicle. The method includes selecting a vehicle from a plurality of vehicles based on the request. The method includes providing the selected vehicle to the user.

10[c]: The server determines “applicable settings,” two sets of settings must be determined “compatible” with one another before being sent to the selected vehicle:

(1) settings from the user profile (from 10[a])
and

(2) the settable settings of the selected vehicle (from 10[b])

Element 10[a]

receiving, at a server, information for a user profile of a user, the user profile defining one or more settings that are preferred to be set in vehicles if the vehicles support the settings;

Element 10[b]

identifying a selected vehicle for applying the user profile, the selected vehicle having a plurality of settable settings, the selected vehicle being one of a plurality of vehicles identified as available by the server;

Response at 5-6, 10, 17-18, 33-38, 42-47, 55-64; Sur-Reply at 18-19

Ground 5 fails because neither *Xiao* nor *Xiao/Hayashi* can disclose the required compatibility check of 20[a] or “communicating ... by the vehicle” of 20[b]



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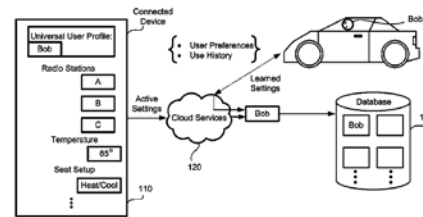
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20 Claims, 22 Drawing Sheets



accessing the cloud processing system by the vehicle, the user profile having user settings for the vehicle, wherein certain of the user settings are determined to be compatible for use with the vehicle;

EX1001, Claim 20[a]

communicating to the cloud processing system by the vehicle, changes to user settings, the cloud processing system processing the changes and other changes to the user settings to learn behavior associated with the changes to the user settings; and

EX1001, Claim 20[b]

Response at 1, 33-34, 63-67; Sur-Reply 1, 28-29

Claim Construction Supports Patent Owner's Position

Definitive Claim Constructions Confirm Petitioner's Failures

The Compatibility Check is a Required Claim Limitation (Claims 10[c], 20[a])

- **The District Court adopted Petitioner's Agreed-upon Construction:**
Toyota expressly agrees that the server/cloud-based system must perform a compatibility check for elements 10[c] and 20[a].
 - The Court's construction is not based on disclaimer from the IPR, but on the plain and ordinary meaning of the claims, supported by both parties' citations to the intrinsic record

Plaintiff's Proposed Construction	Toyota's Proposed Construction
The parties agree these limitations require a "compatibility check" where the server / cloud based system determines whether settings are compatible with the vehicle. Otherwise, no construction necessary	the server / cloud based system determines applicable settings by performing a compatibility check to determine which settings that are preferred to be set as identified from the user profile are able to be set in the selected vehicle

Response at 1-2, 8-9; Sur-Reply at 1-8

Definitive Claim Constructions Confirm Petitioner's Failures

The Compatibility Check is a Required Claim Limitation (Claims 10[c], 20[a])

- The District Court adopted the parties' agreed-upon plain and ordinary meaning, which requires a compatibility check for claims 10 and 20

M	"determining, by the server, applicable settings for the selected vehicle, the applicable settings being settings that are preferred to be set as identified from the user profile and are compatible with settings that are settable in the selected vehicle" ('268 Patent, Claim 10) / "the user profile having user settings for the vehicle, wherein certain of the user settings are determined to be compatible for use with the vehicle" ('268 patent, claim 20)	Plain and ordinary meaning [NOTE: these limitations require a "compatibility check" where the server / cloud based system determines whether settings are compatible with the vehicle")
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Response at 1-2, 8-9; Sur-Reply at 1-8

Definitive Claim Constructions Confirm Petitioner's Failures

The Compatibility Check is a Required Claim Limitation (Claims 10[c], 20[a])

Claim Language Supports the Compatibility Check

determining, by the server, applicable settings for the selected vehicle, the applicable settings being settings that are preferred to be set as identified from the user profile and are compatible with settings that are settable in the selected vehicle; and

accessing the cloud processing system by the vehicle, the user profile having user settings for the vehicle, wherein certain of the user settings are determined to be compatible for use with the vehicle;

Response at 9-11; Sur-Reply at 2-4; EX1001, Claim 10[c], Claim 20[a]

US009171268B1

(12) **United States Patent**
Penilla et al.

(10) **Patent No.:** US 9,171,268 B1
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20 Claims, 22 Drawing Sheets

Definitive Claim Constructions Confirm Petitioner's Failures

The Compatibility Check is a Required Claim Limitation (Claims 10[c], 20[a])

Specification Supports the Compatibility Check

The **compatibility check** of claims 10 and 20 enables the automatic transferability of **user-specific settings to *any* vehicle**, because the server ensures that vehicle's receipt of user-specific settings that have been determined compatible for use in the vehicle.

The purpose of abstracting vehicle operators from the vehicle itself is a shift from the current state of the art in which settings are vehicle specific-each vehicle typically only having the ability to store 1-3 sets of settings, to where vehicle settings are user specific and 1-n logins can be managed through an access management system. The embodiments defined herein allow each user to apply his or her settings to any vehicle based on their login information in which they provide their login and password. When a user logs into a

Response at 9-12; Sur-Reply at 2-4; EX1001, Claim 10[c], Claim 20[a], 12:31-39

US009171268B1

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(Continued)

Primary Examiner — Yalkev Fintu

(57) **ABSTRACT**

Methods are provided access to cloud services over the Internet for locating and providing access to a shared vehicle of a shared vehicle network. One method includes receiving a request from a user device of a user to locate a vehicle to use for a shared period of time. The method enables providing an option of vehicles within a range of a location identified by the request. Then, detecting proximity of the user device to a selected vehicle proximate to the location identified by the request. The method enables transfer of a user profile of the user to the vehicle. The profile is configured to automatically set one or more user preferences of the vehicle. The method further includes receiving use data of the vehicle while the user profile is set for the vehicle. The user profile is deactivated on the selected vehicle when use of the vehicle is discontinued.

20 Claims, 22 Drawing Sheets

Definitive Claim Constructions Confirm Petitioner's Failures

The Compatibility Check is a Required Claim Limitation (Claims 10[c], 20[a])

Prosecution History Supports the Compatibility Check



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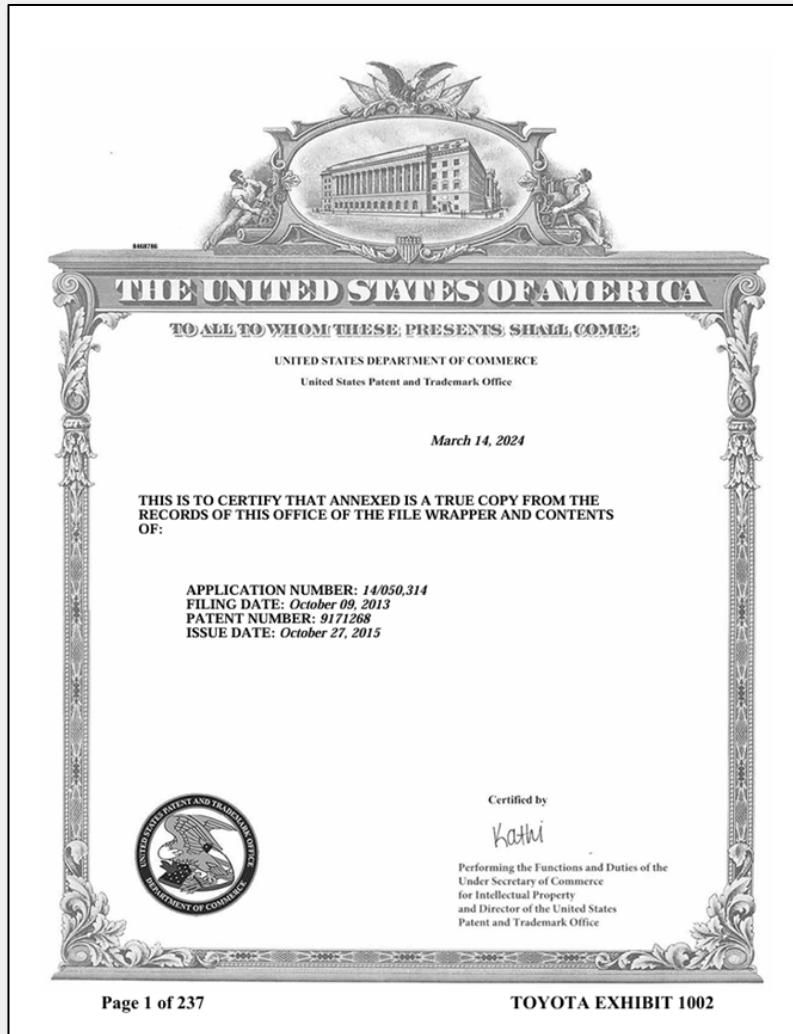
TOYOTA EXHIBIT 1002

Claims 1, 10, and 20 were rejected under 35 USC 102(b) over Hendrix et al. (US 2012/0330494). This rejection was maintained and was made final. This rejection is again traversed. The amendments made were to clarify the way in which the user profile is used to enable transfer of certain vehicle settings to the vehicle. Further, clarifications were made to claims 1 and 10, such as the determination of vehicle settings that are determined **compatible** or **are identified in** the user preferences of the user profile. Claim 1, for example, further defines the examining of the user profile to identify **available vehicle settings** of the vehicle to determine vehicle settings that are **compatible** to or are identified by one or more user preferences of the user profile. See ¶ 007, 0075, as examples of the check for compatibility of settings, for when user profiles are to be transferred to vehicles.

Response at 13-16; Sur-Reply at 4-5, 7-8

Definitive Claim Constructions Confirm Petitioner's Failures

The Compatibility Check is a Required Claim Limitation (Claims 10[c], 20[a])



Prosecution History Supports the Compatibility Check

Examiner Interview

An Examiner Interview was conducted on August 19, 2015. In the Interview, discussion was had regarding the clarifying language that defines the exchanges between the server and the vehicle and the transfer of user profiles to a vehicle, such that settings that are compatible with a vehicle can be transferred for programming on the vehicle. Agreement was reached that the cited art to Hendrix does not teach these features, considered as a whole with the claims as amended. However, the Examiner indicated that he will need to reconsider the file before determining to allow the application.

Response at 13-16; Sur-Reply at 4-5, 7-8

Definitive Claim Constructions Confirm Petitioner's Failures

The Compatibility Check is a Required Claim Limitation (Claims 10[c], 20[a])

Prosecution History Supports the Compatibility Check



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TOYOTA EXHIBIT 1002

10. (Currently amended) A method, comprising,
- receiving, at a server, information for a user profile of a user, the user profile defining one or more settings that are preferred to be set in vehicles if the vehicles support the settings;
- identifying a selected vehicle for applying the user profile, the selected vehicle having a plurality of settable settings, the selected vehicle being one of a plurality of vehicles identified as available by the server;
- determining, by the server, applicable settings for the selected vehicle, the applicable settings being settings that are preferred to be set as identified from the user profile and are compatible with settings that are settable in the selected vehicle;
- and

Response at 13-16; Sur-Reply at 4-5, 7-8

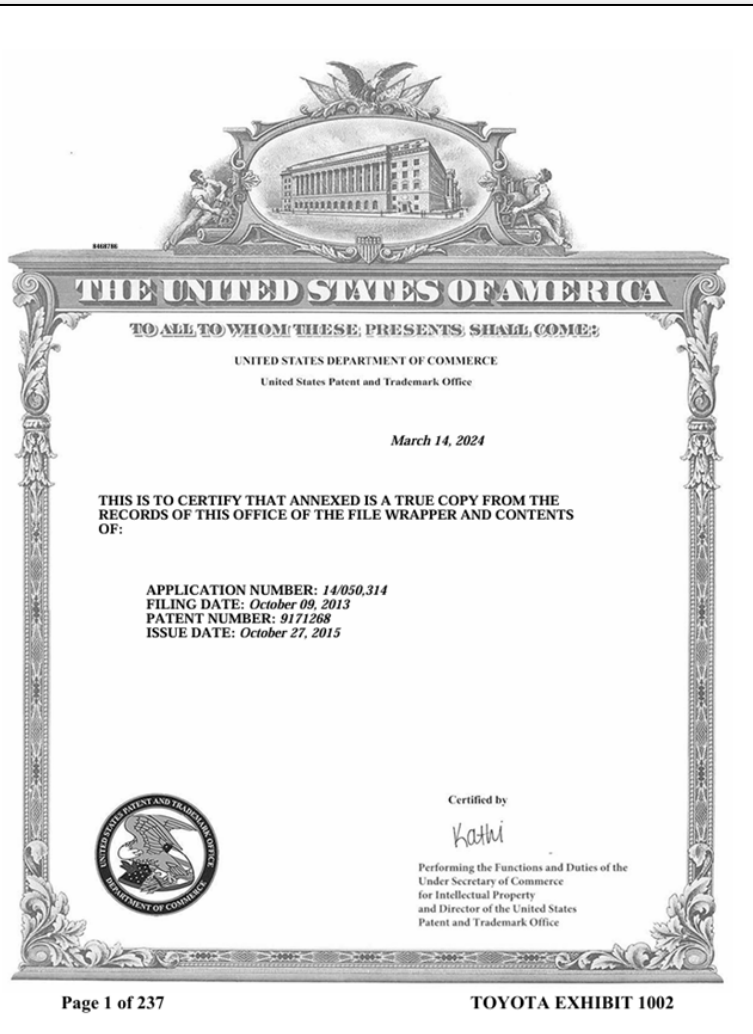
Definitive Claim Constructions Confirm Petitioner's Failures

The Compatibility Check is a Required Claim Limitation (Claims 10[c], 20[a])

Prosecution History Supports the Compatibility Check

20. (Currently amended) A method for managing a user profile of a vehicle via ~~[[on]]~~ a cloud processing system being accessible over ~~connected to~~ the Internet and ~~wherein the vehicle is provided with wireless communication logic for connecting to~~ the Internet for accessing the cloud processing system, comprising,

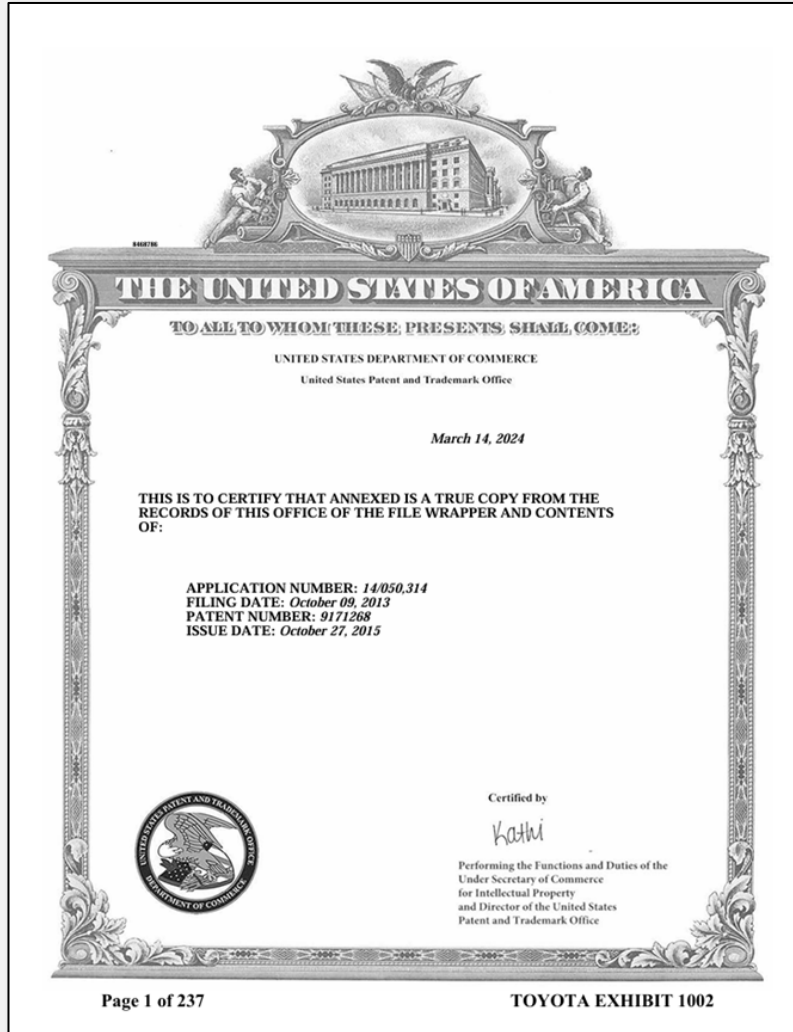
accessing the cloud processing system by the vehicle, the user profile having user settings for the vehicle, wherein certain of the user settings are determined to be compatible for use with the vehicle at the cloud processing system;



Response at 13-16; Sur-Reply at 4-5, 7-8

Definitive Claim Constructions Confirm Petitioner's Failures

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Prosecution History Supports the Compatibility Check

REASONS FOR ALLOWANCE

The following is the examiner's statement of reasons for allowance. The prior art and any art of record do not disclose or suggest the following Claims 1, 10 and 20 limitations: "... a method for locating and providing access to a shared vehicle network a server receiving a request from a user device of a user to locate vehicle to use for shared period of time, the request being associated with a user account of the user providing an option of vehicles within a range of a location identified by the request Receiving data from the user device to identify proximity of the user device to a vehicle that is selected ... transferring the user profile, and configured the vehicle to automatically set on the vehicle one or more of the available vehicle settings that are determined compatible with settings identified in one or more of the user preferences of the user profile ..." in combination with the remaining claim elements as set forth in Claims 1, 10, 20 and their depending claims 2-9, 11-19. *Therefore* claims 1-20 are allowed.

Response at 13-16; Sur-Reply at 4-5, 7-8

Definitive Claim Constructions Confirm Petitioner's Failures

Claim 10's Steps Demand a Sequential Order

Logic, Grammar, and Antecedent Basis Mandate Sequence:

a user profile of a user defined in 10[a] serves as the antecedent basis for the operations requiring *the user profile* in 10[b] and 10[c].

receiving, at a server, information for a user profile of a user, the user profile defining one or more settings that are preferred to be set in vehicles if the vehicles support the settings;

identifying a selected vehicle for applying the user profile, the selected vehicle having a plurality of settable settings, the selected vehicle being one of a plurality of vehicles identified as available by the server;

determining, by the server, applicable settings for the selected vehicle, the applicable settings being settings that are preferred to be set as identified from the user profile and are compatible with settings that are settable in the selected vehicle; and

Response at 16-19; Sur-Reply at 8-14; EX1001, Claim 10[a]-[c]

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20 Claims, 22 Drawing Sheets

ABSTRACT

Methods are provided access to cloud services over the Internet for locating and providing access to a shared vehicle of a shared vehicle network. One method includes receiving a request from a user device of a user to locate a vehicle to use for a shared period of time. The method enables providing an option of vehicles within a range of a location identified by the request. Then, detecting proximity of the user device to a selected vehicle proximate to the location identified by the request. The method enables transfer of a user profile of the user to the vehicle. The profile is configured to automatically set one or more user preferences of the vehicle. The method further includes receiving use data of the vehicle while the user profile is set for the vehicle. The user profile is deactivated on the selected vehicle when use of the vehicle is discontinued.

Diagram: A block diagram showing a system architecture. On the left, a 'Universal User Profile' box contains 'Radio Stations' (A, B, C), 'Temperature' (60°), and 'Seat Setup' (Heat/Cool). This box is connected to a 'Connected Device' box, which in turn connects to a 'User Preferences' box containing 'User History' and 'Learned Settings'. The 'Connected Device' also connects to a 'Cloud Services' box (labeled 120). The 'Cloud Services' box connects to a 'Database' box (labeled 110) which contains 'Bob'. The 'Database' box also connects to a 'Vehicle' box (labeled 115) which contains 'Bob'.

Definitive Claim Constructions Confirm Petitioner's Failures

Claim 10's Steps Demand a Sequential Order

receiving, at a server, information for a user profile of a user, the user profile defining one or more settings that are preferred to be set in vehicles if the vehicles support the settings;
identifying a selected vehicle for applying the user profile, the selected vehicle having a plurality of settable settings, the selected vehicle being one of a plurality of vehicles identified as available by the server;
determining, by the server, applicable settings for the selected vehicle, the applicable settings being settings that are preferred to be set as identified from the user profile and are compatible with settings that are settable in the selected vehicle; and

EX1001, Claim 10[a]-10[c]

Logic, Grammar, and Antecedent Basis Mandate Sequence:

- Claim language itself shows that 10[a] is a condition precedent to 10[b] and 10[c], and 10[b] is a condition precedent to 10[c]
- By “receiving information for a **user profile** of a user ... the user profile defining one or more settings ...” (step 10[a]), the operation of step 10[b] can be performed: “**identifying a selected vehicle for applying the user profile**” (step 10[b])
- The user profile of 10[a] must be known before the operations of steps 10[b] and 10[c] can be performed

Response at 16-19; Sur-Reply at 8-14; EX1001, Claim 10[a]-[c]

Definitive Claim Constructions Confirm Petitioner's Failures

Claim 10's Steps Demand a Sequence as Written

receiving, at a server, information for a user profile of a user, the user profile defining one or more settings that are preferred to be set in vehicles if the vehicles support the settings;

identifying a selected vehicle for applying the user profile, the selected vehicle having a plurality of settable settings, the selected vehicle being one of a plurality of vehicles identified as available by the server;

determining, by the server, applicable settings for the selected vehicle, the applicable settings being settings that are preferred to be set as identified from the user profile and are compatible with settings that are settable in the selected vehicle; and

EX1001, Claim 10[a]-10[c]

Logic, Grammar, and Antecedent Basis Mandate Sequence:

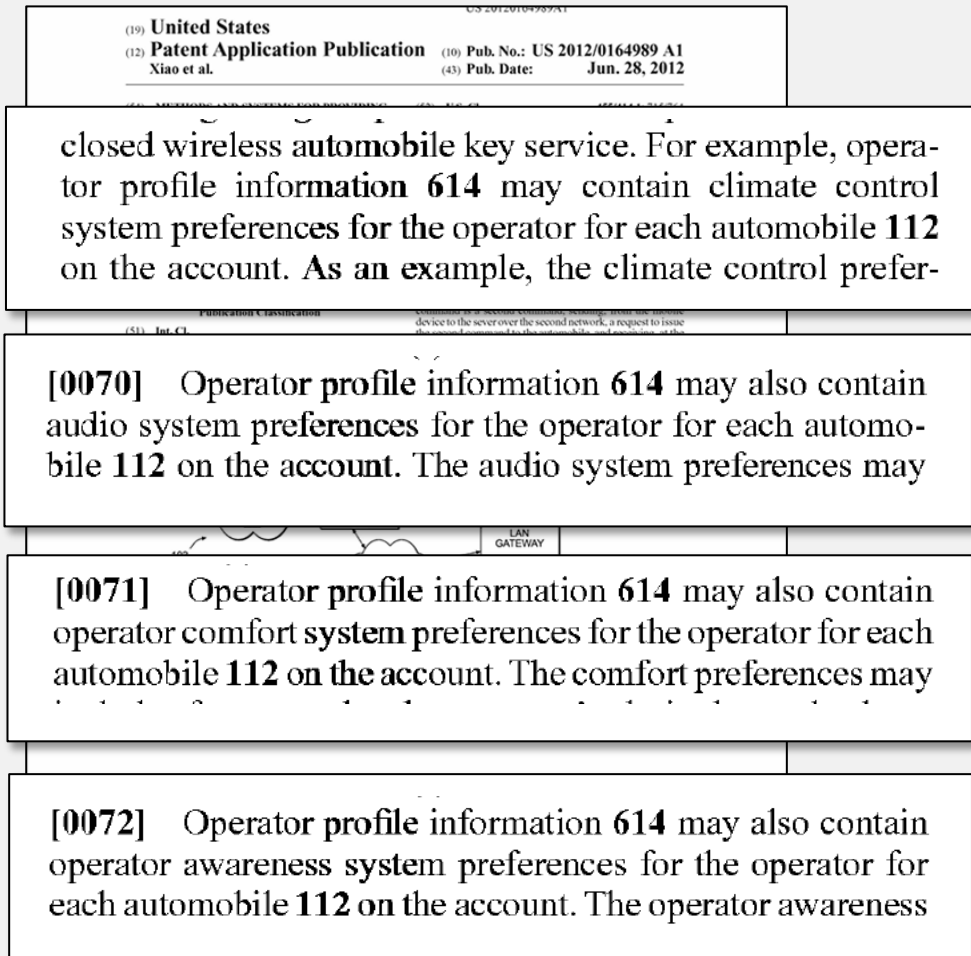
- **identifying** step of claim 10[b] and **determining** step of 10[c] each say ***the user profile*** when they could have said ***a user profile***
- this reinforces the conclusion that step 10[b] and 10[c] are each meant to come after the **receiving** step 10[a]

Response at 16-19; Sur-Reply at 8-14; EX1001, Claim 10[a]-[c]

***Xiao's* operator profile preferences are only vehicle-specific**

Xiao's Fundamental Flaw: Vehicle-Specificity

Xiao's system is static and vehicle-specific, directly contrasting with the '268 Patent's multi-vehicle transferability of user-specific settings



EX1010 at [0069]-[0072]

No "User Profile" as Claimed: *Xiao* lacks “the user profile defining one or more settings that are preferred to be set in *vehicles*” (plural) as defined by element 10[a], and required for steps 10[b] and 10[c]

- Instead, *Xiao's operator configures settings individually for each automobile* on the account at registration
 - *Xiao's "operator profile information 614" stores "system preferences for the operator **for each automobile 112 on the account**"*
 - *Xiao cannot perform the operations of claim 10 requiring "the user profile" defined by 10[a] and required by antecedent basis for steps 10[b] and 10[c]*
 - Identifying a selected vehicle **for applying the user profile** (10[b])
 - Determining ... applicable settings ... **identified from the user profile** (10[c])
- Response at 19-31; 34-37, 38-46

Response at 19-31; 34-37, 38-46

Xiao's Fundamental Flaw: Vehicle-Specificity

Xiao's Operations are Always Vehicle-Specific

- Xiao's server automatically selects a **default automobile** for which to provide the service – **Xiao's Page 900**, the service app, displays to the operator vehicle-specific commands *before* any command request can be issued
- Command requests are specific to the already-displayed vehicle and contains (1) that displayed automobile's **automobile ID** and (2) **command ID** for command that can be issued to that automobile

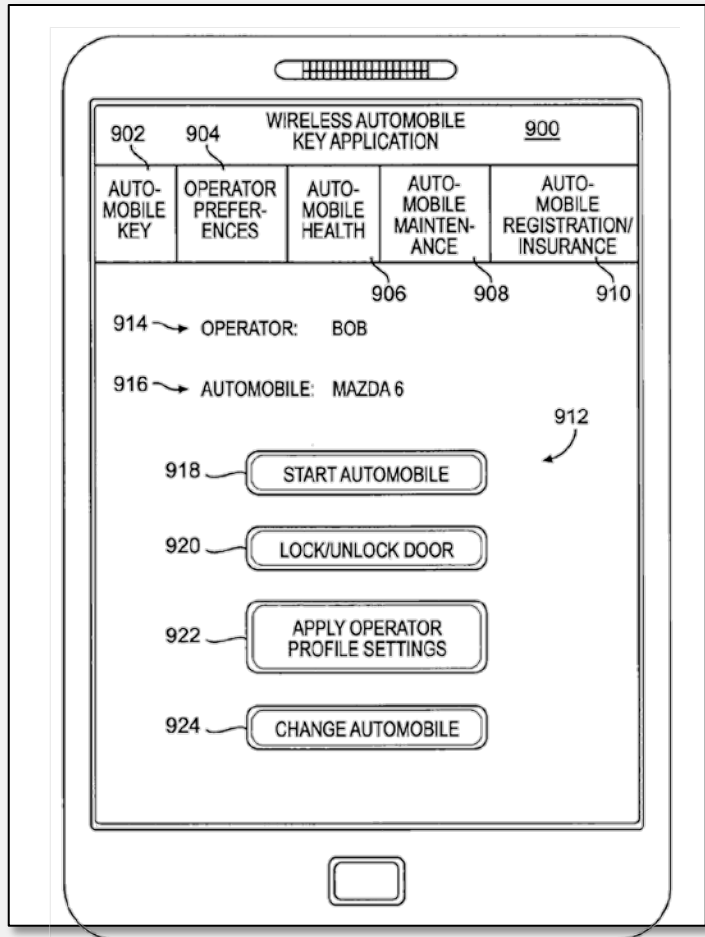
United States
Patent Application Publication
Xiao et al.

US 2012/0164989 A1
Pub. No.: US 2012/0164989 A1
Pub. Date: Jun. 28, 2012

[0077] Operator information 602 may further include a default automobile ID 617 associated with each operator on the account. Default automobile ID 617 may identify, for each operator, a default automobile 112 for which to provide the disclosed wireless automobile key service. In other words, default automobile ID 617 may identify an automobile 112 assigned to the operator for purposes of providing the disclosed wireless automobile key service. Default automobile

OPERATOR INFORMATION					
OPERATOR ID	MOBILE ID	AUTHENTICATION INFORMATION	PROFILE INFORMATION	AUTOMOBILE PERMISSIONS	DEFAULT AUTOMOBILE ID
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

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TOYOTA EXHIBIT 1010



Xiao's Fundamental Flaw: Vehicle-Specificity

Xiao's Operations are Always Vehicle-Specific

US 2012/0164989 A1

United States

Patent Application Publication

Xiao et al.

(10) Pub. No.: US 2012/0164989 A1

(43) Pub. Date: Jun. 28, 2012

(54) METHODS AND SYSTEMS FOR PROVIDING A WIRELESS AUTOMOBILE KEY SERVICE

(52) U.S. CL. 455/414.1; 715/764

(57) ABSTRACT

[0077] Operator information 602 may further include a default automobile ID 617 associated with each operator on the account. Default automobile ID 617 may identify, for each operator, a default automobile 112 for which to provide the disclosed wireless automobile key service. In other words, default automobile ID 617 may identify an automobile 112 assigned to the operator for purposes of providing the disclosed wireless automobile key service. Default automobile

608		610	612		614	616	602
OPERATOR ID		MOBILE ID	AUTHENTICATION INFORMATION		PROFILE INFORMATION	AUTOMOBILE PERMISSIONS	DEFAULT AUTOMOBILE ID 617
—	—	—	—		—	—	—
—	—	—	—		—	—	—
—	—	—	—		—	—	—

- Xiao's server automatically selects a default automobile for which to provide the service, such that any command request, e.g. apply operator profile settings, can only apply vehicle-specific system preferences that were preset for that specific vehicle
- Command requests *always* contain the automobile ID and command ID fixed to that specific vehicle

example, command codes 632 may be CAN bus codes or other codes provided by the manufacturer of automobile 112 and/or the manufacturer of the automobile systems for controlling the systems to perform various functions. In one embodiment, server 118 may look up a particular command code 632 based on the automobile ID 628 and command ID 630 contained in a command request received from mobile device 110 and/or from a terminal device associated with local system 106

AUTOMOBILE COMMAND INFORMATION		
AUTOMOBILE ID 628	COMMAND ID	COMMAND CODE 632
—	—	630
—	—	—
—	—	—
—	—	—

[0086] In one embodiment, command information 606 may include an automobile ID 628 associated with the automobile 112. Automobile ID 628 may include a vehicle identification number (VIN) associated with the automobile 112; information regarding the manufacturer, the year of manufacture, and the model of the automobile 112; and/or any other information that may be used to identify the automobile 112.

Xiao fails to perform the required compatibility check

Xiao Fails to Disclose the Required "Compatibility Check" (Claims 10[c] & 20[a])

US 2012/0164989 A1

(19) United States
(12) Patent Application Publication (10) Pub. No.: US 2012/0164989 A1
(43) Pub. Date: Jun. 28, 2012

(54) METHODS AND SYSTEMS FOR PROVIDING A WIRELESS AUTOMOBILE KEY SERVICE (52) U.S. CL. 455/414.1; 715/764 (57) ABSTRACT

(76) Inventors: Hong Xiao, Acton, MA (US); Afshin Moshrefi, Newburyport, MA (US); Andre Turner, Belmont, MA (US); Dongchen Wang, Concord, MA (US)

(21) Appl. No.: 12/975,638

(22) Filed: Dec. 22, 2010

Publication Classification
(51) Int. Cl. H04W 4/00 (2009.01) G06F 3/048 (2006.01)

SYSTEMS AND METHODS FOR PROVIDING A WIRELESS AUTOMOBILE KEY SERVICE. In one embodiment, a method includes detecting whether the mobile device is connected to the automobile over a first network, launching a wireless automobile key service application on the mobile device when it is detected that the mobile device is connected to the automobile over the first network, and receiving, via the application from an operator of the automobile using the mobile device, a request to issue a command to the automobile. The method further includes determining whether the requested command is a first command or a second command. The method further includes when the requested command is a first command, sending, from the mobile device to a server over a second network, a request to issue the first command to the automobile. The method also includes when the requested command is a second command, sending, from the mobile device to the server over the second network, a request to issue the second command to the automobile, and receiving, at the mobile device from the server over the second network, status information associated with the automobile.

AUTOMOBILE COMMAND INFORMATION		
AUTOMOBILE ID	COMMAND ID	COMMAND CODE
627	630	632
—	—	—
—	—	—
—	—	—

606 628 632 630

AUTOMOBILE SERVICE SYSTEM 104

AUTOMOBILE SERVICE SERVER 118

AUTOMOBILE WEB SERVICE SERVER 120

TERMINAL DEVICE 122

TERMINAL DEVICE

TERMINAL DEVICE

Page 1 of 25 TOYOTA EXHIBIT 1010

"Generate Command" is a Mere Relay:

- Xiao's "generate command" or "look up" functions are simply relays of *already vehicle-specific* command codes
- When Xiao's server generates a command, no "applicable settings" are determined and no compatibility determination made

mation 606. For example, automobile service server 118 may look up appropriate command codes 632 based on the automobile ID 627 and on the command IDs 630 associated with the operator's desired system settings 614. Then, automobile service server 118 may generate one or more commands based on the retrieved command codes 632 to control the

Response at 25-37, 58-60

Xiao lacks the two sets of settings needed to be determined *compatible*

In Xiao's Static, Vehicle-Specific System, No Need for Any Compatibility check

US 2012/0164989 A1

(19) United States
(12) Patent Application Publication (10) Pub. No.: US 2012/0164989 A1
(43) Pub. Date: Jun. 28, 2012

(54) METHODS AND SYSTEMS FOR PROVIDING A WIRELESS AUTOMOBILE KEY SERVICE (52) U.S. CL. 455/414.1; 715/764
(57) ABSTRACT

(76) Inventors: Hong Xiao, Acton, MA (US); Afshin Moshrefi, Newburyport, MA (US); Andre Turner, Belmont, MA (US); Dongchen Wang, Concord, MA (US)

(21) Appl. No.: 12/975,638

(22) Filed: Dec. 22, 2010

Publication Classification
(51) Int. Cl. H04W 4/00 (2009.01); G06F 3/048 (2006.01)

FIG. 100: WIRELESS AUTOMOBILE KEY SYSTEM. The diagram illustrates a system architecture. At the top, two MOBILE DEVICES (110) are shown connected to a PAN (116). The PAN (116) is connected to a CELLULAR NETWORK (114). The CELLULAR NETWORK (114) is connected to a CELLULAR NETWORK GATEWAY (118). The CELLULAR NETWORK GATEWAY (118) is connected to the INTERNET (108). The INTERNET (108) is connected to a LAN GATEWAY (126). The LAN GATEWAY (126) is connected to a LAN (124). The LAN (124) is connected to several TERMINAL DEVICES (122). The INTERNET (108) is also connected to an AUTOMOBILE SERVICE SYSTEM (104), which includes an AUTOMOBILE SERVICE SERVER (118) and an AUTOMOBILE WEB SERVICE SERVER (120). The AUTOMOBILE SERVICE SYSTEM (104) is connected to an AUTOMOBILE (112). The AUTOMOBILE (112) is connected to the CELLULAR NETWORK (114) via the CELLULAR NETWORK GATEWAY (118).

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- **Xiao lacks the two sets of settings that must be determined to be compatible:**
 - In Xiao's static, vehicle-specific settings are pre-configured for each automobile, meaning without the claims' required two sets of settings, there is no need for a compatibility check
 - Xiao discloses only **one set possible set of settings**: pre-configured "system preferences for the operator for each automobile 112 on the account"
- **Xiao's server merely retrieves command codes that are already specifically linked to the vehicle and are thus compatible with that vehicle**

Response at 33-38, 60-63; Sur-Reply at 14-21

***Xiao* fails to disclose the claimed order of steps for elements 10[a], 10[b] and 10[c], resulting in failure of independent claim 10**

Xiao cannot anticipate claim 10

Xiao fails to disclose every element and limitation, as arranged in the order claimed – aspects of *Xiao* relied on for 10[a] occur after those relied on for 10[b]

receiving, at a server, information for a user profile of a user, the user profile defining one or more settings that are preferred to be set in vehicles if the vehicles support the settings;
identifying a selected vehicle for applying the user profile, the selected vehicle having a plurality of settable settings, the selected vehicle being one of a plurality of vehicles identified as available by the server;
determining, by the server, applicable settings for the selected vehicle, the applicable settings being settings that are preferred to be set as identified from the user profile and are compatible with settings that are settable in the selected vehicle; and

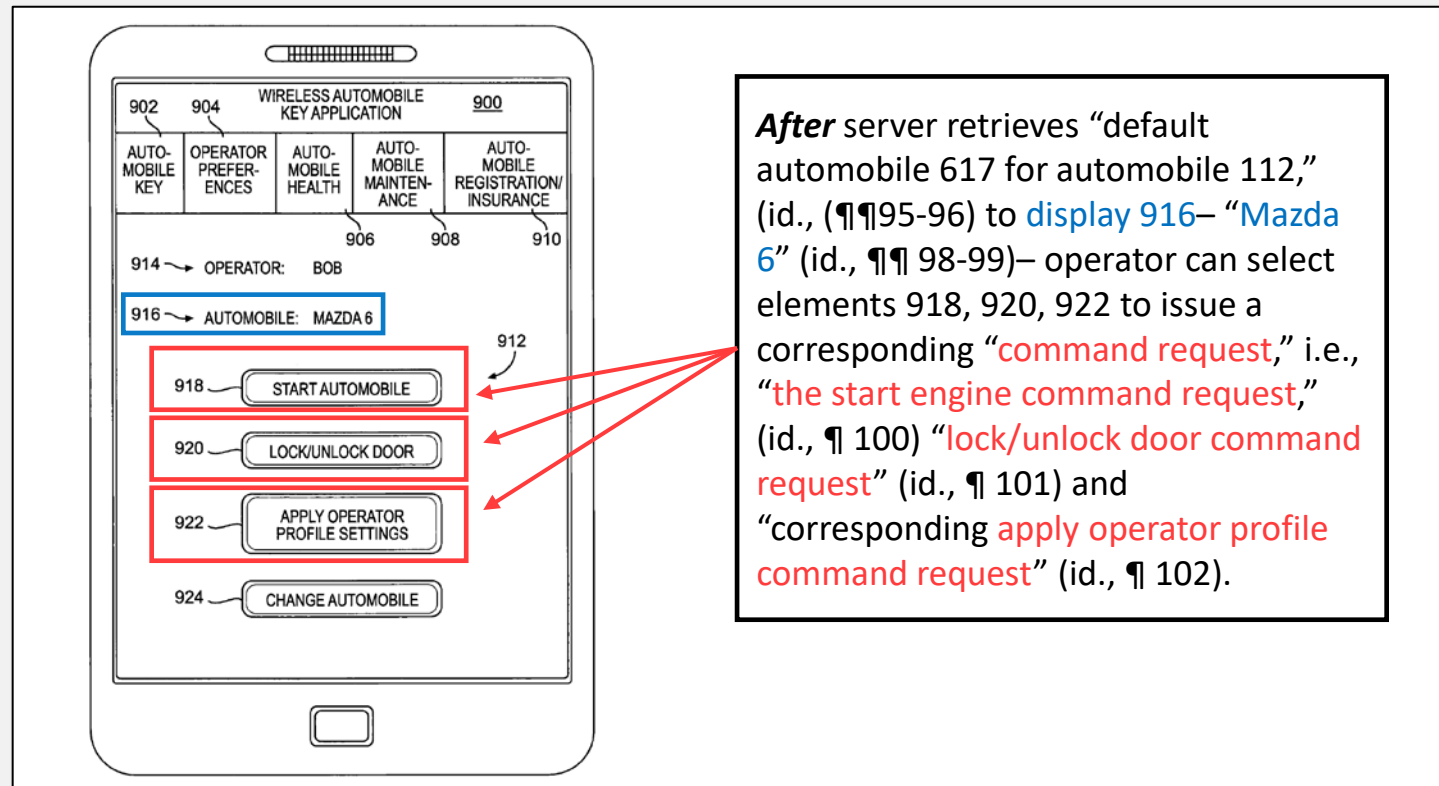
EX1001, Claim 10[a]-10[c]

- 10[a] is a condition precedent to:
 - Steps 10[b] and 10[c]
- Step 10[b] is a condition precedent to 10[c]
- Petitioner relies on *Xiao*'s command request for step 10[a]
- Petitioner relies on *Xiao*'s automobile name display 916 for step 10[b]
- *Xiao*'s command request cannot be made (let alone received by a server) until **after** *Xiao*'s system displays the automobile name display 916

Response at 47-51; Sur-Reply at 21-24; EX1001, Claim 10[a]-[c]

Xiao Fails to Disclose the Required Order of Steps (Claim 10)

- **Xiao cannot disclose the order of steps:** Xiao's server cannot receive any **command request** until after the server retrieves "the automobile 112 currently selected," "automobile name display 916"



Xiao Fails to Disclose the Required Order of Steps (Claim 10)

Xiao's command request is unavailable until after the vehicle is displayed

- Petitioner cannot demonstrate that *Xiao* discloses elements 10[a] or 10[b] because 10[a] is a condition precedent to 10[b]: Toyota attempts to piece together *Xiao's* disclosures in a way that *rearranges* the claimed order, which is impermissible
- *Xiao's* System Indicates the Name of the Automobile 112 Currently Selected Before Allowing Any **Command Request**: *Xiao's* server's receipt of any **command request** (relied on for element 10[a]) occurs **after** the **selected automobile is displayed** (relied on for element 10[b])
- **"Changed Theory" Still Fails**: Petitioner's revised argument that the command request itself satisfies both 10[a] and 10[b] is also flawed, as Petitioner admits that command request is inherently vehicle-specific and therefore cannot meet 10[b]'s requirement of identifying "one of a plurality of vehicles identified as available by the server" (element 10[b])

Response at 47-51; Sur-Reply at 21-24

Xiao's vehicle-specific system cannot disclose claims 10 and 20

Xiao fails to disclose independent claim elements for claims 10 and 20

- *Xiao* teaches only **vehicle-specific** configuration of “system preferences for each automobile 112 on the account”
- *Xiao* does not disclose “**the user-profile,**” defined in 10[a] and required by antecedent basis for the operations of steps 10[b] and 10[c]
- *Xiao* server doesn't perform the required “**compatibility check**” (10[c] and 20[a])
- *Xiao* cannot “determine ... applicable settings,” as *Xiao* lacks the **two sets of settings** from which to **determine compatibility**
- *Xiao's* teachings are **not-transferable** in vehicles due to its lack of user specific settings (10[c])
- *Xiao* fails to disclose the requisite **order** of elements 10[a], 10[b], and 10[c]

Response at 31-53, 63-64; Sur-Reply at 14-24

***Xiao* fails to disclose “User Specific” aspect of ‘268 Patent**

Xiao fails to disclose claim 10

Xiao fails on determining “Applicable Settings” by server (Claim 10[c])

US009171268B1

(12) **United States Patent**
Penilla et al.

(10) Patent No.: **US 9,171,268 B1**
(45) Date of Patent: **Oct. 27, 2015**

(54) **METHODS AND SYSTEMS FOR SETTING AND TRANSFERRING USER PROFILES TO VEHICLES AND TEMPORARY SHARING OF USER PROFILES TO SHARED-USE VEHICLES**

(71) Applicants: **Angel A. Penilla**, Sacramento, CA (US);
Albert S. Penilla, Sunnyvale, CA (US)

(72) Inventors: **Angel A. Penilla**, Sacramento, CA (US);
Albert S. Penilla, Sunnyvale, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 107 days.

(21) Appl. No.: **14/050,314**

(22) Filed: **Oct. 9, 2013**

Related U.S. Application Data

(63) Continuation-in-part of application No. 13/452,882, filed on Apr. 22, 2012, and a continuation of application No. 13/824,158, filed on Mar. 15, 2013.

(60) Provisional application No. 61/745,729, filed on Dec. 24, 2012, provisional application No. 61/478,436, filed on Apr. 22, 2011.

(51) **Int. Cl.**
H02J 7/00 (2006.01)
G06Q 10/02 (2012.01)

(52) **U.S. Cl.**
CPC **G06Q 10/02** (2013.01)

(58) **Field of Classification Search**
USPC 320/109, 107; 180/65.1, 65.21; 307/10.1

See application file for complete search history.

(56) **References Cited**
U.S. PATENT DOCUMENTS
3,696,397 A 9/1972 Parker
3,799,063 A 3/1974 Reed

(57) **ABSTRACT**
Methods provide access to cloud services over the Internet for locating and providing access to a shared vehicle of a shared vehicle network. One method includes receiving a request from a user device of a user to locate a vehicle to use for a shared period of time. The method enables providing an option of vehicles within a range of a location identified by the request. Then, detecting proximity of the user device to a selected vehicle proximate to the location identified by the request. The method enables transfer of a user profile of the user to the vehicle. The profile is configured to automatically set one or more user preferences of the vehicle. The method further includes receiving use data of the vehicle while the user profile is set for the vehicle. The user profile is deactivated on the selected vehicle when use of the vehicle is discontinued.

20 Claims, 22 Drawing Sheets

determining, by the server, applicable settings for the selected vehicle, the applicable settings being settings that are preferred to be set as identified from the user profile and are compatible with settings that are settable in the selected vehicle; and

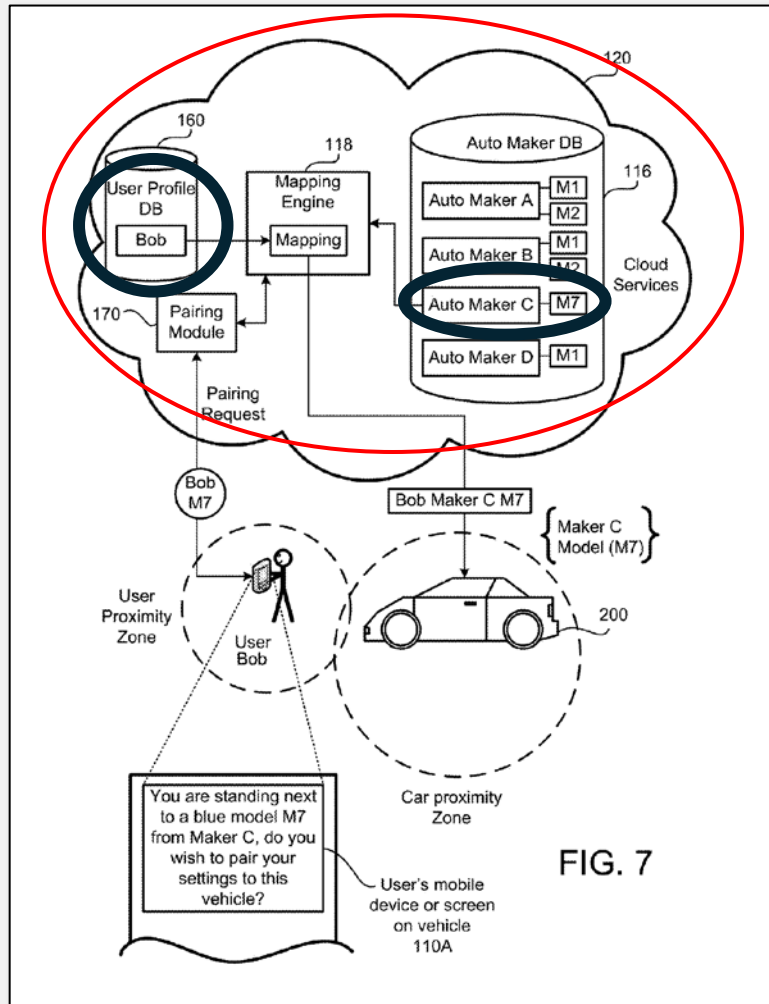
EX1001, Claim 10[c]

- A compatibility check by the server determines “applicable settings for the selected vehicle”
- Applicable settings must be determined from “the user profile” and compatible with “settings that are settable in the selected vehicle”

Response at 33-38, 42-47, 58-63; Sur-Reply at 18-21

Xiao fails to disclose claim 10

Xiao fails on determining “Applicable Settings” by server (Claim 10[c])



EX1001 at Fig. 7

10[c]: The server determines “applicable settings,” two sets of settings must be determined “compatible” with one another before being sent to the selected vehicle:

(1) settings from the user profile (e.g., Bob’s user profile settings)
and

(2) the settable settings of the selected vehicle (e.g., Auto Maker C, Model M7)

Element 10[a]

receiving, at a server, information for a user profile of a user; **the user profile defining one or more settings that are preferred to be set in vehicles if the vehicles support the settings;**

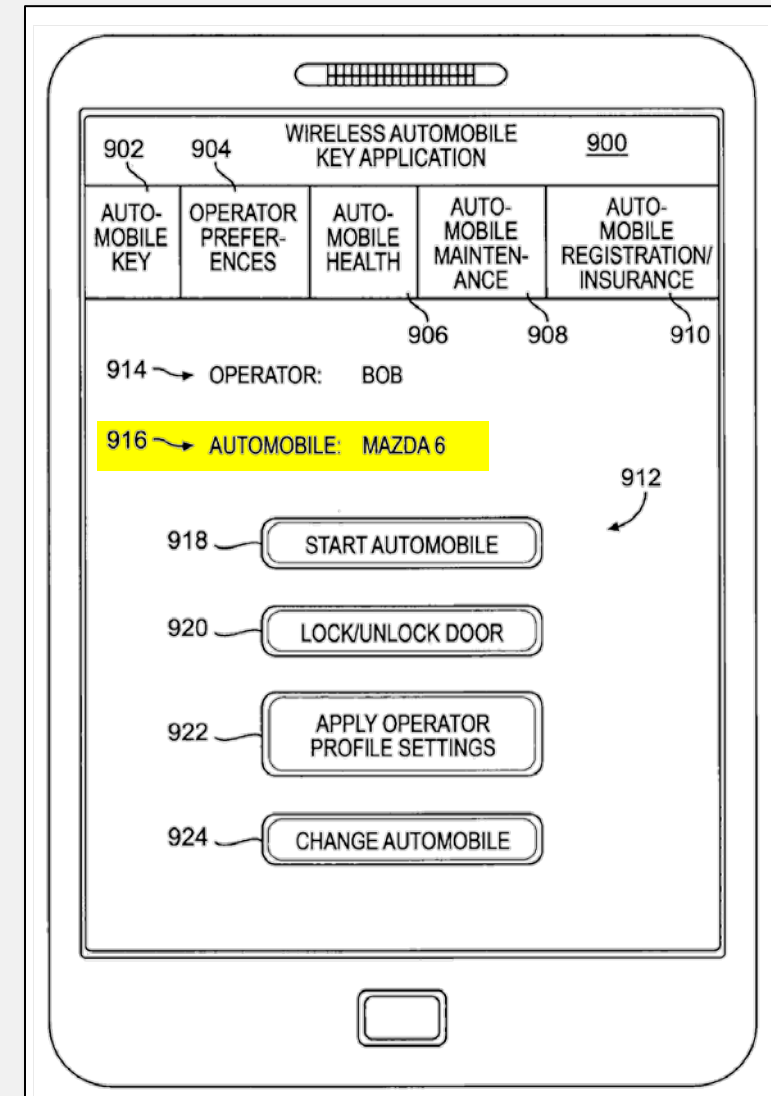
Element 10[b]

identifying a selected vehicle for applying the user profile, **the selected vehicle having a plurality of settable settings,** the selected vehicle being one of a plurality of vehicles identified as available by the server;

Response at 5-6, 33-37, 42-47, 59-63; Sur-Reply at 18-19

Petitioner's Reply confirms *Xiao*'s vehicle-specific constraints

- *Xiao* is limited to applying any setting to one and only one vehicle
- *Xiao* lacks the required “settings ... as identified from the user profile” (defined as settings preferred to be set in *vehicles*) from which to “determine, by the server, applicable settings,” as required by claim 10[c]
- *Xiao* requires operator to manually select “change automobile” button on Page 900 service app, in order to see automobile selection menu and operator must then select new automobile before system can display command requests for that new automobile and apply preferences to the new automobile



Response at 33-47; Sur-Reply at 14-21

Xiao's deficiency for limitation 20[b] was apparent even without argument by PO

- The Petition relied solely on *Xiao* for alleged disclosure of limitation 20[b], a deficiency so apparent the Board 'questioned' its veracity without any argument by Patent Owner.

reasonable expectation of success in doing so.” *Id.* at 68. Patent Owner has not addressed these arguments in the preliminary record. We question, however, whether Petitioner has sufficiently shown that limitation [20b] is taught, suggested, or rendered obvious by the proposed combination of *Xiao*, *Hayashi*, and *Patenaude*.

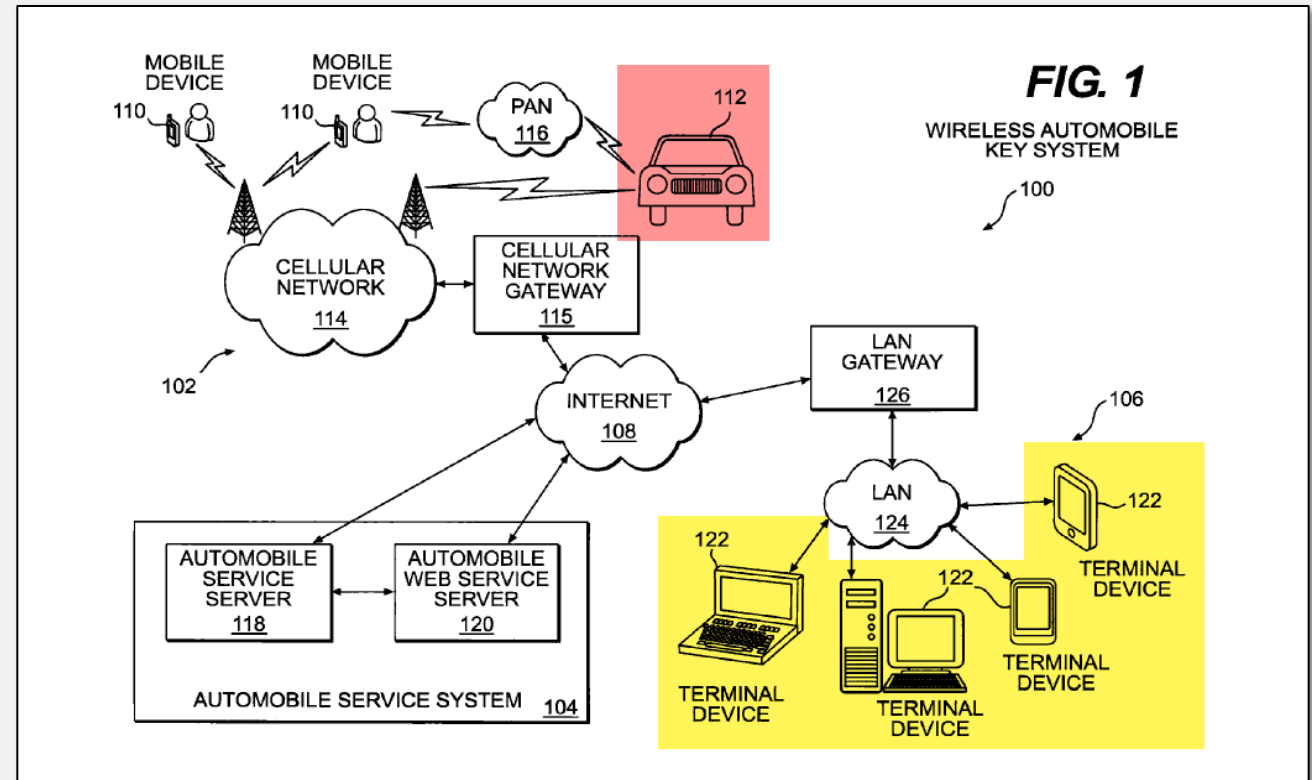
ID at 42

Response at 63-66; Sur-Reply at 28

Petitioner Misidentifies *Xiao's* “terminal device” as a vehicle (Claim 20)

Xiao Fails on "Communicating... by the Vehicle, Changes to User Settings" (Claim 20[b])

- *Xiao's* "Terminal Device" is not a "Vehicle": *Xiao* clearly distinguishes between an “**automobile**” and a “**terminal device**”; only the mobile device 110 or **terminal device 122** can send changes.



***Xiao/Hayashi* combination does not cure *Xiao's* lack of compatibility check
or vehicle specific functionality**

Proposed Combinations Cannot Cure *Xiao*'s Deficiencies

Petition only argues obviousness modification for element 10[c]

- *Hayashi* cannot cure *Xiao*'s other failures as to 10[a], 10[b] and 10[c]
- Specifically, *Xiao*'s failure to disclose order of steps, as claimed, and *Xiao*'s failure to disclose “the user profile” required by antecedent basis in steps 10[b] and 10[c]

As explained above with respect to ground 1, *Xiao* discloses the limitations of claim 10. To the extent, however, element 10[c] is interpreted to require determining that applicable settings are “compatible with settings that are settable in the selected vehicle,” it would have been obvious to implement this feature based on *Hayashi*. Ex. 1009, ¶¶ 189-192. The resulting combination would have met all elements of claims 10, 11, 13, 15-19. *Id.*, ¶¶ 193-198.

Response 55-63; Sur-Reply at 26; Petition at 44

Proposed Combination with *Hayashi* Cannot Cure *Xiao*'s Deficiencies

Adding *Hayashi* to *Xiao* – even if proper – cannot satisfy Claim 10[c]

[0002]

Cars (vehicles) are equipped with various functions. Since the operating methods for these functions depends on the vehicle model, model year, etc. of the vehicle, they generally differ for each vehicle. For this reason, a driver driving a car that he/she does not normally use, such as a rental car or car share, checks manuals or the like to compare with the car he/she normally uses regarding differing operating methods for functions.

G08G 1/00 (2006.01)

[FI]

B60R 16/02 660B

***Hayashi*'s Irrelevance:**

- *Hayashi* **compares**: whether the operating method is the same or different
- If different, the system provides manual operating instructions (e.g. how to use the parking brake)
- *Hayashi* has nothing to do with programming a user's preferred settings in a vehicle

[Full name] Tomoo NODA
[Full name] Shin'ichi HAYASHI
[Full name] Shojiro TAKEUCHI

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1

- **No suggestion or motivation to include added functionality to *Xiao*'s already vehicle-specific system:** An operator's system preferences are always specific to and stored according to "each automobile 112 on the account" and are compatible with that vehicle. When *Xiao*'s server pulls command codes for applying settings, they are already specific to and compatible with that vehicle.
- **Nonsensical Result:** Adding *Hayashi*'s comparison functionality with *Xiao*'s vehicle-specific system cannot satisfy 10[c]'s "determining ... applicable settings"
 - This outcome does nothing to determine compatibility between the claim's two required sets of settings: from 10[a] and 10[b]

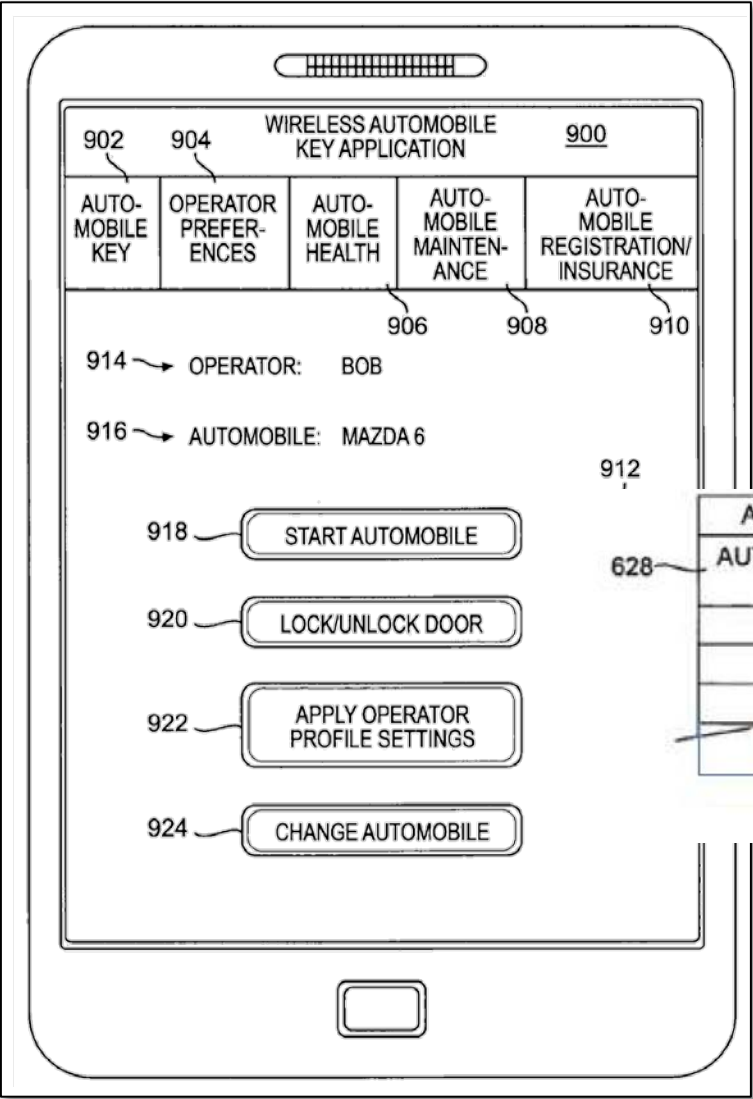
Response at 35-36, 55-63; Sur-Reply at 26-27

Xiao + Hayashi fails to disclose claim 10[c]

Xiao fails on determining “Applicable Settings” by server, as Xiao is already vehicle-specific when the server looks up “appropriate command codes” – adding “none” does nothing to achieve “Applicable Settings” (Claim 10[c])

Claim 10[c]: The server determines “applicable settings,” two sets of settings must be determined “compatible” with one another before being sent to the selected vehicle:

- (1) settings from the user profile (10[a]) and
- (2) the settable settings of the selected vehicle (10[b])



AUTOMOBILE COMMAND INFORMATION		
AUTOMOBILE ID	COMMAND ID	COMMAND CODE
—	—	—
—	—	—
1234	Abcd	None

Annotated Excerpt of Fig. 6 of Xiao

- Adding “none” to Xiao’s table 606 still cannot satisfy claim 10[c]’s determining “Applicable Settings”

Response at 58-63; Sur-Reply 1, 26-27

Hayashi fails to cure deficiencies of *Xiao* (Grounds 2, 3b and 4b)

- In *Hayashi*, the system compares the operating method of a vehicle function— how to engage a parking brake, how to adjust a mirror— to that of the user’s typical vehicle; is it the same or different?
 - nothing to do with settings preferred to be set, nothing to do with whether preferred settings are compatible with settable settings in a vehicle
- *Hayashi* doesn’t address *Xiao*'s vehicle-specific constraints or lack of transferrable user profile settings to **vehicles**— combination, even if proper, cannot meet the required determining applicable settings of Claim 10
- *Xiao/Hayashi* combination doesn’t disclose the compatibility check required by claims 10[c] and 20[a]
- POSITA would know there is no need for a compatibility check in *Xiao*'s system because the operator profile preferences are always specific to “each automobile 112.” Adding *Hayashi*’s ability to store “none” does nothing to cure *Xiao*’s vehicle-specific deficiencies.
- Even if combination were proper, the modified system cannot meet missing elements or proper order of 10[a], 10[b], and 10[c]

Response at 55-63; Sur-Reply at 26-27

***Patenaude*, relied on alone for disclosure of Claim 12[c]’s “sending the learned settings to the user profile,” is limited to “retrieving” data from the vehicle’s memory, resulting in failure of Claim 12**

Proposed Combinations Cannot Cure *Xiao's* Deficiencies

Patenaude Fails on "Sending" vs. "Retrieving" (Claim 12[c])

US 2006/0136106 A1

(19) United States
(12) Patent Application Publication (10) Pub. No.: US 2006/0136106 A1
Patenaude et al. (43) Pub. Date: Jun. 22, 2006

(54) METHOD OF DETERMINING AND (21) Appl. No.: 11/021,446

in-vehicle memory, a power-up input is generated instructing the processor 120 to retrieve the user-specific entertainment selection profile from the in-vehicle memory 128.

[0073] During stage S610, processor 122 in the telematics unit 120 retrieves the user-specific entertainment selection profile stored in the in-vehicle memory 128 and the current time, day of week, week of the month and date from a clock and calendar internal to the telematics unit 120. The pro-

EX1011, at [0072]-[0073]

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graph TD; S608[Determine power-up input responsive to a power-up of the vehicle] --> S610[Retrieve the user-specific entertainment selection profile from a memory in the TU responsive to the determined power-up input]; S610 --> S612[Power up at least one entertainment unit based on the retrieved user-specific entertainment selection profile];
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Page 1 of 16 TOYOTA EXHIBIT 1011

- **Crucial Distinction:** *Patenaude* "retrieves" data from the vehicle's in-memory profile, which is fundamentally different from "sending" learned settings **to** the user profile
- **Data Flow:** "Sending" requires data being **pushed**, while "retrieving" is data being **pulled**. *Patenaude's* retrieval operations cannot achieve the *additive result* of "sending the learned settings to the user profile"

Response at 54-55; Sur-Reply at 27-28

Patenaude fails to disclose the “sending” operation of element 12[c]

Ground 3a & 3b - claim 12

- Petition improperly relies on *Patenaude*'s disclosure of "retrieval" operations despite the claim's explicit requirement of "sending" learned settings to the user profile.
- POSITA would understand the technical distinction between actively pushing data ("sending") and passively pulling data ("retrieving").
- Ground 3a and 3b obviousness challenges to claim 12 fail due to Petition's sole reliance on *Patenaude* for 12[c].

Response at 54-55; Sur-Reply at 27-28

***Xiao* doesn't disclose administrative control/privileges or the required one or more sub-user accounts, resulting in failure of Claims 17, 18 and 19**

Dependent Claims Remain Valid

Claim 18 and Claim 19: *Xiao* lacks any "Administrator Account that can Enable/Disable Settable Settings"


US009171268B1

(12) **United States Patent**
Penilla et al.

(10) **Patent No.:** US 9,171,268 B1
(45) **Date of Patent:** Oct. 27, 2015

(54) **METHODS AND SYSTEMS FOR SETTING** 3,867,682 A 2/1975 Ohya

18. The method of claim 10, wherein the selected vehicle is a private vehicle or a shared vehicle associated with a car sharing system,

if the vehicle is associated with a car sharing system, the settable settings of the selected vehicle can be enabled or disabled using an administrator account of the car sharing system, or

if the vehicle is a private vehicle, the settable settings of the selected vehicle can be enabled or disabled using an administrator account that can define one or more sub-user accounts with the same or varying privileges for use of the selected vehicle,

the user profile being accessible via a computer having Internet access to the server.

EX1001, Claim 18

- *Xiao*'s "permissions" only identify which automobiles an operator can operate, not the ability to enable or disable settable settings of a vehicle using an "**administrator account**," as mandated by claim 18
- Claim 19 is dependent on claim 18

Response at 53-54; Sur-Reply at 25-26

Dependent Claims Remain Valid

Claims 17 & 19: Absence of "Any Sub-User Account"

 US009171268B1	
(12) United States Patent Penilla et al.	(10) Patent No.: US 9,171,268 B1 (45) Date of Patent: Oct. 27, 2015
17. The method of claim 10, further comprising, associating one or more sub-user accounts to the user profile, the sub-user accounts having predefined privileges for the selected vehicle to enable or restrict settings or function of the selected vehicle.	
filed on Apr. 22, 2012, and a continuation of application No. 13/824,158, filed on Mar. 15, 2013. (60) Provisional application No. 61/745,729, filed on Dec. 24, 2012, provisional application No. 61/478,436, filed on Apr. 22, 2011. (51) Int. Cl.	Primary Examiner — Yalkev Fannu (57) ABSTRACT Methods are provide access to cloud services over the Internet for locating and providing access to a shared vehicle of a shared vehicle network. One method includes receiving a
EX1001, Claim 17	
19. The method of claim 18, wherein particular sub-user accounts enable access to specific information concerning the selected vehicle, the information including one or more of vehicle sensors, vehicle electronics, vehicle mechanics, engine control, vehicle diagnostics, or combinations thereof, wherein said particular sub-user accounts are accessible over the Internet for viewing or control using a password.	
EX1001, Claim 19	

- *Xiao's* disclosure of a "family account" with multiple operators on a single family account cannot meet the limitations of claims 17 and 19
- There is no disclosure of "child accounts" in *Xiao*
- *Xiao* fails to disclose the claimed "one or more sub-user accounts" to the user profile
- *Xiao* fails to disclose any sub-user accounts having predefined privileges (claim 17), let alone disclose any sub-user accounts that enable access to specific information (claim 19)
- That *Xiao* can store different accounts, each merely an account with one or more operators, likewise fails to disclose the recited one or more sub-user accounts to the user profile

Response at 51-52; Sur-Reply at 25-26

Applicable Law



“critically, such proof of combination in a single source, arranged as described in the claim, is deficient here”.

Chem. Separation Tech., Inc. v. United States, 51 Fed. Cl. 771 (2002)

Response at 48

Applicable Law



“[U]nless a reference discloses within the four corners of the document not only all of the limitations claimed but also all of the limitations arranged or combined in the same way as recited in the claim, it cannot be said to prove prior invention of the thing claimed and, thus, cannot anticipate under 35 U.S.C. § 102.”

“[O]ne seeking to invalidate a patent may not demonstrate invalidity of a claim simply by citing isolated steps in prior art that are not combined in the same fashion as the patent. . . . To the contrary, the Federal Circuit has repeatedly made clear that ‘to anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim.’”

NetMoneyIN, Inc. v. VeriSign, Inc., 545 F.3d 1359 (Fed. Cir. 2008)

Response at 48, 50

Applicable Law



“The requirement that the prior art elements themselves be arranged as in the claim means that claims cannot be treated ... as mere catalogues of separate parts, in disregard of the part-to-part relationships set forth in the claims and that give the claims their meaning.”

Therasense, Inc. v. Becton, Dickinson & Co., 593 F.3d 1325 (Fed. Cir. 2010)

Response at 51

Applicable Law



Where “the sequential nature of the claim steps is apparent from the plain meaning of the claim language and nothing in the written description suggests otherwise,” placing a temporal limitation on the steps of a method is appropriate

Tuna Processors, Inc. v. Hawaii Int’l. Seafood, Inc., 327 Fed. Appx. 204 (Fed. Cir. 2009)

Applicable Law



“According to Mantech, the steps of claim 1 of the '483 patent could be performed in any order, or simultaneously. We disagree. Step (a) provides the wells. No monitoring or injecting of the groundwater can occur until wells are provided; hence, step (a) must be performed first. ... Hence, in order to accomplish step (b), the wells of step (a) must already have been provided. ... We hold, therefore, that the sequential nature of the claim steps is apparent from the plain meaning of the claim language and nothing in the written description suggests otherwise.”

Mantech Env't Corp. v. Hudson Env't Servs., Inc., 152 F.3d 1368, 1375–76 (Fed. Cir. 1998)

Sur-Reply at 9, 14

Applicable Law



“the language at the end of element 1H—'when both the first and second thresholds are exceeded'—indicates, ‘as a matter of logic [and] grammar’ (*id.* at 1369), that the ‘determining’ steps of elements 1F and 1G must be performed prior to the ‘authorizing . . . of payment’ recited in element 1H.”

Askeladden v. Hardison Holding Co., IPR2021-00278, Paper 7 at 11 (P.T.A.B. Apr. 15, 2021)

Response at 3, 8, 19, 51; Sur-Reply at 9-10

Applicable Law



“[W]hen the current step of a method claim refers to a previous step using the definite article ‘the,’ the claim language indicates that the previous step occurs sequentially before the current step.”

Medtronic, Inc. v. Teleflex Life Scis. Ltd., No. 2022-1605, 2024 WL 1208642, at *3-4 (Fed. Cir. 2024)

Sur-Reply at 11

Applicable Law



“subsequent use of the definite articles ‘the’ or ‘said’ in a claim refers back to the same term recited earlier in the claim”

Wi-Lan, Inc. v. Apple, Inc., 811 F.3d 455, 462-63 (Fed. Cir. 2016)

Sur-Reply at 11

Applicable Law



“the fact that the ‘determining’ step says ‘the’ when it could have said ‘a’ reinforces our conclusion that it is meant to come after the ‘preparing’ step”

“Because we conclude that the claim language demonstrates the order of the steps, we need not look further into the specification.”

Hytera Commc'ns Co. v. Motorola Sols., Inc., 841 F. App'x 210, 218 (Fed. Cir. 2021)

Sur-Reply at 11-12

Applicable Law



requiring a sequential order of steps where step 1[c] recited “receiving” “a search query,” while steps 1[d] and 1[e] recited “searching” and “returning” operations according to “the search query.” The Board held that “the sequential nature of the steps is apparent from the plain meaning of the claim language and appl[ied] the plain and ordinary meaning of the steps in claim 1 considering the recited antecedent basis for steps 1[c] to 1[h].”

Zillow Grp., Inc. v. IBM, IPR2020-01656, Paper 33 at 10, 5-6 (P.T.A.B. Mar. 3, 2022)

Sur-Reply at 12