

Docket No. 22562-5866 / 2020-176

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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Application of:

Applicant : Toyota Motor North America, Inc.
Inventors : Anil Nagpal, et al.
Serial No. : 17/092,993
Filed : November 9, 2020
Title : SYSTEMS AND METHODS FOR SELECTING A USER PROFILE AMONG
MULTIPLE USERS CARRYING PERSONAL DEVICES
Docket : 22562-5866 / 2020-176
Examiner : ANFINRUD, GABRIEL P.
Art Unit : 3662
Confirm. No. : 6545

Mail Stop Appeal
Commissioner for Patents
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Commissioner:

APPEAL BRIEF

This Appeal Brief is submitted in support of the Notice of Appeal filed by EFS Electronic Submission on August 14, 2023. A Notice of Panel Decision from Pre-Appeal Brief Review was mailed on September 28, 2023, which reset the deadline for filing the present Appeal Brief to October 28, 2023 (one month from the September 28, 2023 mailing date of the Notice of Panel Decision from Pre-Appeal Brief Review). A petition for a one month extension of time and the associated fee are submitted herewith, thereby making the submission of the Appeal Brief timely.

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II. REAL PARTY IN INTEREST

The real party in interest in this appeal is the applicant and assignee of the present application, Toyota Motor North America, Inc.

III. RELATED APPEALS, INTERFERENCES, AND TRIALS

None.

IV. SUMMARY OF THE CLAIMED SUBJECT MATTER

The present application is directed to a method and a vehicle system for a vehicle.

Below is a concise explanation of the claimed subject matter defined in each of the independent claims argued in the appeal, including references to the specification by paragraph number and to the drawings by reference characters as required by 37 C.F.R. §41.37(c)(v). Reference numerals are denoted in bold, followed by the figure(s) in which the reference numeral is depicted. The parenthetical references to the specification provide non-limiting examples of where disclosure relevant to the associated claim features may be found, but other portions of the specification may include disclosure relevant to the features.

1. A method comprising:

broadcasting (**400**, FIG. 4) a first signal, using a first communication protocol, that may be detected by one or more mobile devices located by a vehicle; (Para. [0041])

establishing (**402**, FIG. 4) communication channels between the vehicle and a plurality of mobile devices using the first communication protocol; (Para. [0041])

determining (**406**, FIG. 4) a user profile associated with each of the plurality of mobile devices; (Para. [0043])

upon determination (**408**, FIG. 4) that a plurality of user profiles are associated with the plurality of mobile devices, accessing (**412**, FIG. 4) a profile log comprising a record indicating each time that user profiles were previously loaded on the vehicle, and loading (**414**, FIG. 4) a user profile of the plurality of user profiles that was most recently loaded on the vehicle based on the profile log; (Paras. [0035], [0045]) and

upon determination (**408**, FIG. 4) that no user profiles are associated with the plurality of mobile devices, loading (**410**, FIG. 4) a guest profile on the vehicle (Para. [0044]).

11. A vehicle system (200, FIG. 2) for a vehicle (102, FIG. 1) comprising:

one or more vehicle sensors (210, FIG. 2); (Para. [0021]) and

a controller (202, FIG. 2) (Para. [0017]) configured to:

broadcast (400, FIG. 4) a first signal, using a first communication protocol, that may be detected by one or more mobile devices located by the vehicle; (Para. [0041])

establish (402 FIG. 4) communication channels between the vehicle and a plurality of mobile devices using the first communication protocol; (Para. [0041])

determine (406, FIG. 4) a user profile associated with each of the plurality of mobile devices; (Para. [0043])

upon determination (408, FIG. 4) that a plurality of user profiles are associated with the plurality of mobile devices, access (412, FIG. 4) a profile log comprising a record indicating each time that user profiles were previously loaded on the vehicle, and load (414, FIG. 4) a user profile of the plurality of user profiles that was most recently loaded on the vehicle based on the profile log; (Paras. [0035], [0045]) and

upon determination (408, FIG. 4) that no user profiles are associated with the plurality of mobile devices, load (410, FIG. 4) a guest profile on the vehicle (Para. [0044]).

V. ARGUMENTS

Claims 1-3, 8, 10-13, 18 and 20 stand rejected under 35 U.S.C. §103 as allegedly unpatentable over U.S. Patent No. 11,396,244 to Penilla et al. (“Penilla”) in view of U.S. Patent Application Publication No. 2017/0369071 to Gould et al. (“Gould”). As revealed by the evidence of record discussed below, claims 1-3, 8, 10-13, 18 and 20 are patentable under 35 U.S.C. §103 over Penilla in view of Gould. Accordingly, the final rejection of these claims should be reversed. Favorable action by the Board is respectfully requested.

A. Non-limiting explanation of the claimed subject matter

By way of a non-limiting example and to aid in the understanding of the claimed subject matter, a brief explanation of the subject matter disclosed in the present application will now be provided. The following explanation is merely provided for illustrative purposes and is intended to set forth a background against which the limitations at issue in this appeal may be understood. However, it should be understood that the following explanation does not limit the scope of the claims.

Embodiments are directed to systems and methods for selecting a user profile among multiple users carrying personal devices. Present Application, Para. [0013]. A data storage component 214 maintains a profile log comprising user profiles previously loaded by a vehicle system 200. *Id.* at Para. [0031]. This log may include a timestamp when each user profile was loaded. *Id.* Every time that a user profile is loaded, the log may be updated. *Id.*

A BLE communication module 300 of the vehicle system 200 causes a transceiver 208 to broadcast a BLE signal that may be detected by one or more mobile devices. *Id.* at Para. [0041]. An SPP communication module 302 may cause the transceiver 208 to ping for mobile devices that

have been previously paired to an SPP communication module 302. *Id.* As such, the vehicle system 200 may simultaneously attempt to establish communication with mobile devices using both the BLE protocol and the SPP protocol. *Id.*

A mobile device detection module 304 detects one or more devices within or near a vehicle 102. *Id.* at Para. [0042]. A user profile lookup module 306 attempts to look up user profiles associated with each of the device IDs of the detected mobile devices in the data storage component 214. *Id.* at Para. [0043]. Specifically, the user profile lookup module 306 determines whether the data storage component 214 contains a user profile associated with each of the detected device IDs. *Id.*

The user profile determination module 308 determines, for each of the detected device IDs, whether the data storage component 214 contains a stored user profile for the device ID. *Id.* at Para. [0044]. If the user profile lookup module 306 is unable to find a user profile associated with any of the detected device IDs, a guest profile loading module 310 loads a guest profile. *Id.* Alternatively, if the user profile lookup module 306 is able to find one or more user profiles associated with one or more of the detected devices IDs, then the user profile determination module 308 determines which of the user profiles associated with the detected device IDs was most recently loaded by the user profile loading module 310 and selects that user profile to be loaded. *Id.* at Paras. [0044]-[0045].

B. Independent claims 1 and 11 are patentable under 35 U.S.C. §103 over Penilla in view of Gould

Independent claims 1 and 11 are rejected under 35 U.S.C. §103 as allegedly unpatentable over Penilla in view of Gould. Appellant respectfully submits that independent claims 1 and 11 are patentable under 35 U.S.C. §103 over Penilla in view of Gould because the combination of

Penilla and Gould fails to teach or suggest each and every feature of each claim for at least the reasons set forth below. In particular, the combination of Penilla and view of Gould fails to teach or suggest the feature regarding “upon determination that a plurality of user profiles are associated with the plurality of mobile devices, accessing a profile log comprising a record indicating each time that user profiles were previously loaded on the vehicle, and loading a user profile of the plurality of user profiles that was most recently loaded on the vehicle based on the profile log”, as recited in independent claim 1, and similarly recited in independent claim 11. Accordingly, the rejections of these claims under 35 U.S.C. §103 should be reversed, and favorable action by the Board is respectfully requested.

Penilla discloses managing a user profile of a vehicle. Penilla, Col. 1, Lines 62-64. A user profile may include a group of users provided with access to a vehicle, and each user may be associated with one or more settings. *Id.* at Col. 2, Lines 56-61. A portable device may be used to access a profile. *Id.* at Col. 4, Lines 37-42. A guest profile may be remotely granted for the vehicle. *Id.* at Col. 5, Lines 1-3. A user profile can include settings made by a user, and may be associated with a user account. *Id.* at Col. 10, Lines 49-53. A user profile may be accessed from any vehicle. *Id.* at Col. 10, Lines 53-62. Past actions are logged into a database. *Id.* at Col. 28, Lines 45-47. Identities may be stored including times and dates. *Id.* at Col. 28, Lines 51-52.

Gould discloses techniques for automatically configuring one or more subsystems onboard a host vehicle in accordance with driver-specific settings, options, or preferences. Gould, Para. [0016]. A database includes a number of database objects corresponding to different driver IDs. *Id.* at Para. [0024]. A wireless receiver onboard the host vehicle can receive a mobile device ID that identifies a mobile device. *Id.* at Para. [0034]. A received device ID can be used to search

the driver ID database to select an active driver ID. *Id.* at Para. [0036]. When more than one device is found, the most recent used driver ID for the devices may be selected. *Id.* at Para. [0036].

The Examiner asserts that the combination of Penilla and Gould would teach the feature regarding accessing a profile log comprising a record indicating each time that user profiles were previously loaded on the vehicle. Final Office Action, Pg. 6. The Examiner asserts that Col. 28, Lines 45-52 and 58-59 of Penilla teaches a database storing data about user actions, including times and dates for use in future decision making. *Id.* The Examiner further asserts that this database would include the adjustment of settings like loading in a profile. *Id.* The Examiner asserts that Para. [0036] of Gould teaches selecting the most recent used driver ID/profile. *Id.* The Examiner asserts that one of ordinary skill in the art would recognize that adding the logic of choosing the last loaded profile, as taught by Gould, would be applicable to the database of user actions as taught by Penilla to factor into determining future actions. *Id.* Specifically, the Examiner asserts that the logic of Gould would take the time/date information stored in Penilla and choose the last profile update/user configuration action when multiple devices are detected. *Id.*

However, Penilla merely discloses, “Past actions 2210 are logged into a database either locally on the vehicle computer or remotely which are fed into module 2216. In this example, data about when the user’s actions are stored, along with unique identifiers that will allow assumptions to be made in the future. These identifiers include times, dates, rates, capacities, temperatures, frequency, degrees, distance, etc. In this example, the system has been keeping track of when the user has been starting his or her engine in the morning on weekdays and weekends. The system harvests all data points associated with given events. These data points 2210 are purely mined

data points and no assumptions or reasoning occurs at this point. This data will be used by the assumption and reasoning logic 2216 to determine future actions.” Penilla, Col. 28, Lines 45-59.

While Penilla discloses storing past actions of a user along with times and dates in a database, Penilla does not disclose storing a record indicating each time that user profiles were previously loaded on the vehicle. The specific example given in Penilla teaches that the system has been keeping track of when the user has been starting his or her engine in the morning on weekdays and weekends. Penilla, Col. 28, Lines 52-55. The Examiner asserts that this data stored in the database would include the adjustment of settings like loading in a profile. Final Office Action, Pg. 3. However, this can only be gleaned from impermissible hindsight, as there is absolutely no disclosure in Penilla suggesting that the past actions 2210 may include past times that user profiles were previously loaded.

The Examiner further asserts that one of ordinary skill in the art would combine the feature of Penilla regarding the time/date information stored in the database of with the feature of Gould regarding selecting the most recent used driver ID when more than one device is found to arrive at the claimed invention. Final Office Action, Pg. 6. However, as discussed above, while Penilla discloses that time and date information is stored in the database, Penilla does not disclose that this time and date information includes *times and dates that user profiles were previously loaded* on the vehicle.

Thus, combining the teachings of Penilla and Gould would not result in the claimed feature of a profile log comprising a record indicating each time that user profiles were previously loaded on the vehicle without the use of impermissible hindsight. In particular, there would be no reason to interpret the time and date information stored in the database of Penilla as each time that user profiles were previously loaded on the vehicle without impermissible hindsight bias.

Based on the foregoing, Appellant respectfully submits that the combination of Penilla and Gould fails to teach or suggest the features of independent claims 1 and 11. Accordingly, Appellant respectfully submits that the rejections of independent claims 1 and 11, and all claims that depend thereon, should be reversed. Favorable action by the Board is respectfully requested.

C. Dependent claims 10 and 20 are patentable under 35 U.S.C. §103 over Penilla in view of Gould

Claims 10 and 20 depend on independent claims 1 and 11, respectively. As discussed above, Appellant respectfully submits that independent claims 1 and 11 are patentable under 35 U.S.C. §103 over Penilla in view of Gould. Accordingly, Appellant respectfully submits that dependent claims 10 and 20 are patentable under 35 U.S.C. §103 at least based on their dependence upon allowable base claims.

In addition, Appellant respectfully submits that Penilla in view of Gould fails to teach or suggest the features regarding “after loading the user profile of the plurality of user profiles that was most recently loaded on the vehicle, updating the profile log based on the user profile that was loaded”, as recited in claim 10 and similarly recited in claim 20.

The Examiner relies on paragraph [0036] of Gould to teach this feature. Final Office Action, Pg. 5. In particular, the Examiner takes the position that this feature is implied by the teaching of Gould regarding selecting the most recent used driver ID for the devices present, which requires knowledge of what the last profile was and would update the profile used to the one last used for subsequent determinations. *Id.*

However, paragraph [0036] of Gould merely states “If more than one device is associated to a driver ID with an associated user profile and the location of the devices does not identify the driver then the most recent used driver ID for the devices present is selected”. The Examiner takes

the position that this implies that the profile would be updated to the last one used. However, claim 10 recites updating the *profile log* based on the user profile that was loaded. Updating the profile log is not the same thing as updating the profile. Independent claims 1 and 11 recite that the profile log comprises a record indicating each time that user profiles were previously loaded on the vehicle. Paragraph [0036] of Gould merely discloses using the most recently used driver ID, and does not disclose updating a profile log comprising a record *indicating each time* that user profile were previously loaded. That is, Gould does not disclose updating a log indicating the time that the device ID is selected. Accordingly, Applicant respectfully submits that Penilla in view of Gould fails to teach or suggest the features of dependent claims 10 and 20.

Based on the foregoing, Appellant respectfully submits that the combination of Penilla and Gould fails to teach or suggest the features of dependent claims 10 and 20. Accordingly, Appellant respectfully submits that the rejections of dependent claims 10 and 20 should be reversed. Favorable action by the Board is respectfully requested.

VI. CONCLUSION

For at least the reasons set forth herein, claims 1-3, 8, 10-13, 18 and 20 are patentable under 35 U.S.C. §103 over Penilla in view of Gould. Favorable action by the Board is respectfully requested.

Respectfully submitted,

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VII. CLAIMS APPENDIX

1. (Previously Presented) A method comprising:

broadcasting a first signal, using a first communication protocol, that may be detected by one or more mobile devices located by a vehicle;

establishing communication channels between the vehicle and a plurality of mobile devices using the first communication protocol;

determining a user profile associated with each of the plurality of mobile devices;

upon determination that a plurality of user profiles are associated with the plurality of mobile devices, accessing a profile log comprising a record indicating each time that user profiles were previously loaded on the vehicle, and loading a user profile of the plurality of user profiles that was most recently loaded on the vehicle based on the profile log; and

upon determination that no user profiles are associated with the plurality of mobile devices, loading a guest profile on the vehicle.
2. (Previously Presented) The method of claim 1, wherein each of the plurality of user profiles and the guest profile comprises one or more settings preferred by a user associated with one or more components of the vehicle.
3. (Original) The method of claim 1, wherein the guest profile comprises one or more default settings associated with one or more components of the vehicle.
4. (Canceled)
5. (Canceled)

6. (Canceled)
7. (Canceled)
8. (Previously Presented) The method of claim 1, further comprising:
determining a device ID associated with each of the plurality of mobile devices.
9. (Canceled)
10. (Previously Presented) The method of claim 1, further comprising:
after loading the user profile of the plurality of user profiles that was most recently
loaded on the vehicle, updating the profile log based on the user profile that was loaded.
11. (Previously Presented) A vehicle system for a vehicle comprising:
one or more vehicle sensors; and
a controller configured to:
broadcast a first signal, using a first communication protocol, that may be detected by one
or more mobile devices located by the vehicle;
establish communication channels between the vehicle and a plurality of mobile devices
using the first communication protocol;
determine a user profile associated with each of the plurality of mobile devices;
upon determination that a plurality of user profiles are associated with the plurality of
mobile devices, access a profile log comprising a record indicating each time that user profiles

were previously loaded on the vehicle, and load a user profile of the plurality of user profiles that was most recently loaded on the vehicle based on the profile log; and

upon determination that no user profiles are associated with the plurality of mobile devices, load a guest profile on the vehicle.

12. (Previously Presented) The vehicle system of claim 11, wherein each of the plurality of user profiles and the guest profile comprises one or more settings preferred by a user associated with one or more components of the vehicle.

13. (Original) The vehicle system of claim 11, wherein the guest profile comprises one or more default settings associated with one or more components of the vehicle.

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Previously Presented) The vehicle system of claim 11, wherein the controller is configured to:

determine a device ID associated with each of the detected one or more mobile devices.

19. (Canceled)

20. (Previously Presented) The vehicle system of claim 11, wherein the controller is configured to:

after loading the user profile of the plurality of user profiles that was most recently loaded on the vehicle, update the profile log based on the user profile that was loaded.