

Claims

- [Claim 1] A method for adaptively managing a vehicle that is administered by a transport provider, comprising:
determining, by a processor, an area relating to the vehicle at a location at which the vehicle has arrived;
determining, by the processor, a number of individuals who are within the determined area; and
predicting, by the processor, a time at which the vehicle departs the location in response to the determination of the number of individuals who are within the determined area.
- [Claim 2] The method according to claim 1, wherein the step of determining a number of individuals comprises:
receiving an input relating to the number of individuals; the input being one that is sent from at least one of an image capturing device, a pressure sensor, a temperature sensor and a motion sensor, wherein the number of individuals is determined in response to the step of receiving the input.
- [Claim 3] The method according to claim 1 or claim 2, wherein the step of predicting the time at which the vehicle departs the location comprises:
retrieving, by the processor, historical data relevant to the vehicle, the historical data relating to a plurality of trips that have been done by at least one other vehicle;
analyzing, by the processor, the retrieved historical data,
wherein the time at which the vehicle departs the location is predicted in response to the step of analyzing the retrieved historical data.
- [Claim 4] The method according to claim 3, wherein the step of analyzing the retrieved historical data comprises:
retrieving, by the processor, a corresponding arrival time of the at least one vehicle at the location;
retrieving, by the processor, a corresponding departure time of the at least one vehicle at the location; and
determining, by the processor, a period of time that the at least one other vehicle has stayed at the location in response to the retrieval of the corresponding arrival time and the corresponding departure time.
- [Claim 5] The method according to claim 4, wherein the step of analyzing the retrieved historical data comprises:

- retrieving, by the processor, historical transaction data relating to the individuals who have boarded the at least one other vehicle at the location.
- [Claim 6] The method according to claim 5, wherein the step of analyzing the retrieved historical data comprises:
determining, by the processor, a corresponding number of individuals who have boarded the at least one other vehicle at the location in response to the retrieval of the historical transaction data.
- [Claim 7] The method according to claim 6, wherein the time at which the vehicle departs the location is predicted in response to at least one of the determination of the corresponding number of individuals who have boarded the at least one other vehicle at the location and the determination of the period of time that the at least one other vehicle has stayed at the location.
- [Claim 8] The method according to any one of the preceding claims, wherein the step of determining, by a processor, the determined area relating to the vehicle at a location at which the vehicle has arrived comprises:
identifying, by the processor, an area on the vehicle, the area relating to one in which the individuals may board or alight the vehicle.
- [Claim 9] The method according to any one of the preceding claims, wherein the step of predicting, by the processor, the time at which the vehicle departs the location in response to the determination of the number of individuals who are within the determined area comprises:
determining, by the processor, a time period that the vehicle is predicted to stay at the location in response to an arrival time and the predicted time at which the vehicle departs the location; and
determining, by the processor, whether or not the time period that the vehicle is predicted to stay at the location is above a threshold time period.
- [Claim 10] The method according to claim 9, further comprising:
sending, by the processor, a notification when it is determined that the time period that the vehicle is predicted to stay at the location is below a threshold time period.
- [Claim 11] An apparatus for adaptively managing a vehicle that is administered by a transport provider, the apparatus comprising:
at least one processor; and
at least one memory including computer program code;
the at least one memory and the computer program code configured to,

with at least one processor, cause the apparatus at least to:
determine an area relating to the vehicle at a location at which the vehicle has arrived;
determine a number of individuals who are within the determined area;
and
predict a time at which the vehicle departs the location in response to the determination of the number of individuals who are within the determined area.

[Claim 12] The apparatus according to claim 11, wherein the at least one memory and the computer program code is further configured with the at least one processor to:
receive an input relating to the number of individuals; the input being one that is sent from at least one of an image capturing device, a pressure sensor, a temperature sensor and a motion sensor, wherein the number of individuals is determined in response to the step of receiving the input.

[Claim 13] The apparatus according to claim 12, wherein the at least one memory and the computer program code is further configured with the at least one processor to:
retrieve historical data relevant to the vehicle, the historical data relating to a plurality of trips that have been done by at least one other vehicle;
analyze by the processor, the retrieved historical data,
wherein the time at which the vehicle departs the location is predicted in response to the step of analyzing the retrieved historical data.

[Claim 14] The apparatus according to claim 13, wherein the at least one memory and the computer program code is further configured with the at least one processor to:
retrieve a corresponding arrival time of the at least one vehicle at the location;
retrieve a corresponding departure time of the at least one vehicle at the location; and
determine a period of time that the at least one other vehicle has stayed at the location in response to the retrieval of the corresponding arrival time and the corresponding departure time.

[Claim 15] The apparatus according to claim 14, wherein the at least one memory and the computer program code is further configured with the at least one processor to:

- retrieve historical transaction data relating to the individuals who have boarded the at least one other vehicle at the location.
- [Claim 16] The apparatus according to claim 15, wherein the at least one memory and the computer program code is further configured with the at least one processor to:
- determine a corresponding number of individuals who have boarded the at least one other vehicle at the location in response to the retrieval of the historical transaction data.
- [Claim 17] The apparatus according to claim 16, wherein the at least one memory and the computer program code is further configured with the at least one processor to:
- predict the time at which the vehicle departs the location in response to at least one of the determination of the corresponding number of individuals who have boarded the at least one other vehicle at the location and the determination of the period of time that the at least one other vehicle has stayed at the location.
- [Claim 18] The apparatus according to any one of claims 11-17, wherein the at least one memory and the computer program code is further configured with the at least one processor to:
- identify an area on the vehicle, the area relating to one in which the individuals may board or alight the vehicle.
- [Claim 19] The apparatus according to any one of claims 11-18, wherein the at least one memory and the computer program code is further configured with the at least one processor to:
- determine a time period that the vehicle is predicted to stay at the location in response to an arrival time and the predicted time at which the vehicle departs the location; and
- determine whether or not the time period that the vehicle is predicted to stay at the location is above a threshold time period.
- [Claim 20] The apparatus according to claim 19, wherein the at least one memory and the computer program code is further configured with the at least one processor to:
- send a notification when it is determined that the time period that the vehicle is predicted to stay at the location is below a threshold time period.