

One-mile Mobility **Re**defined



PUBLIC PERSONAL MOBILITY

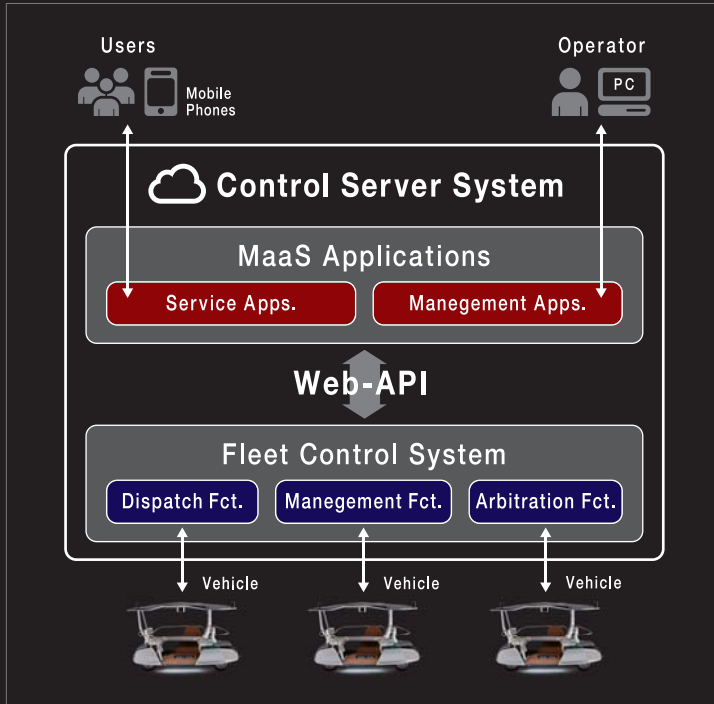
Low-Speed Automated Driving-Based Mobility Service System

Envisaged for use in environments shared with pedestrians covering a few kilometers, the Public Personal Mobility (PPM) is a new generation one-mile mobility system that provides safe, comfortable and convenient on-demand low-speed mobility autonomously. Designed to invigorate personal mobility in towns, resorts, etc., the PPM uses road image-recognition technology integrated with a cloud-based server. Low cost and highly scalable, it is expected to be incorporated in Mobility as a Service (MaaS) initiatives using web application programming interfaces (APIs).



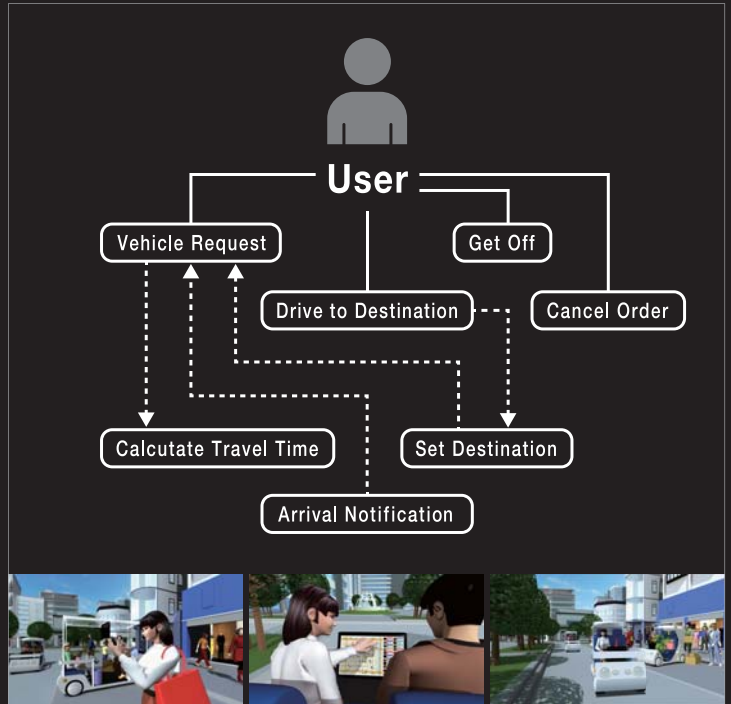
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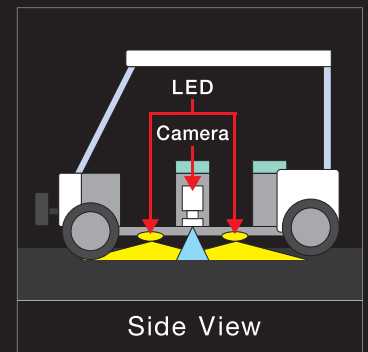
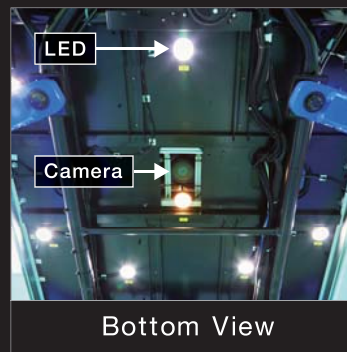
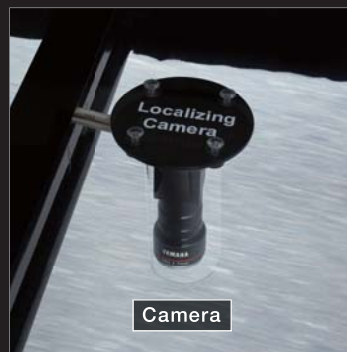
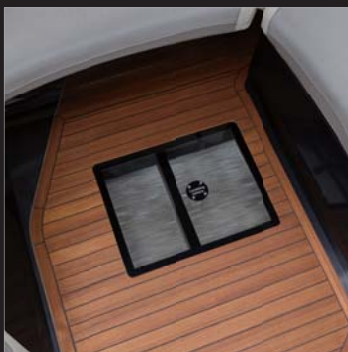
Overall configuration of the mobility service system

This section outlines the mobility service system, which consists of multiple low-speed automated vehicles and the centralized control server that controls them.



Use cases for the mobility service system

The mobility service is available from a vehicle dispatching application for smartphones. The application sends a request for a vehicle to the control server, which replies with a notification of the dispatch time and dispatches the vehicle. Users can enter the desired destination in their smartphone or in the on-board tablet to have the automated vehicle take them there.



VGL camera and LED lamps in the lower portion of the vehicle

This function is composed of a camera mounted in the base of the vehicle, multiple LED lamps for the stable taking of road surface images, a controller, and a DGPSIMU comprised of a differential GPS (DGPS) that is not as precise as, but less expensive than, RTK-GPS and posture sensors. It also contains a map database with records corresponding to the road surface images and position data. Creating this map database in advance is necessary to perform automated driving with the VGL system.

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