

Abstract

A parking management device includes a communication unit configured to receive probe data including identification information and position information and periodically transmitted by an in-vehicle device, using an antenna having, as a communication region, a region of a parking lot including at least all parking spaces and all entrances/exits, a calculation unit configured to recognize, based on the probe data received by the communication unit, an entry time of the in-vehicle device into the parking lot and an exit time of the in-vehicle device from the parking lot, and calculate a parking fee based on a time difference between the entry time and the exit time, and a charging unit configured to charge the parking fee to the in-vehicle device by transmitting and receiving predetermined information to and from the in-vehicle device using the communication unit.