INFORMATION PROCESSING DEVICE AND VEHICLE SYSTEM

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0001] The present invention relates to an information processing device and a vehicle system.

2. Description of Related Art

[0002] Attempts are being made to install digital signages at bus stops to provide information. By using digital signages, it is possible to transmit information such as bus arrival times and operation information in real time. In this regard, for example, Japanese Unexamined Patent Application Publication No. 2020-060870 discloses a signage device capable of providing traffic information and disaster information in addition to operation information.

SUMMARY OF THE INVENTION

[0003] The present disclosure provides an information processing device and a vehicle system that efficiently provide information on fixed-route buses.

[0004] An information processing device according to a first aspect of the present disclosure includes a controller configured to acquire first data obtained by sensing a vehicle cabin empty seat situation and standing passenger distribution in a vehicle from the vehicle that is a fixed-route bus, output a guidance image obtained by visualizing the vehicle cabin empty seat situation and the standing passenger distribution in the vehicle based on the first data via a signage device installed at a bus stop at which the vehicle stops, identify a seat selected by a passenger boarding at the bus stop via a touch panel of the signage device, and transmit reservation information to reserve the selected seat to an in-vehicle device mounted on the vehicle.

[0005] In the first aspect, the first data may include information on a seat occupancy situation or passenger distribution in the vehicle.

[0006] In the first aspect, the controller may output, via the signage device, an image obtained by visualizing the vehicle cabin situation based on the first data.

[0007] In the first aspect, the controller may output the guidance image corresponding to the vehicle designated by a user when the first data is acquired from a plurality of vehicles.

[0008] In the first aspect, the controller may output the guidance image corresponding to the vehicle via the signage device installed at a bus stop to which the vehicle approaches so as to be within a predetermined distance.

[0009] In the first aspect, the controller may output the guidance image corresponding to the vehicle via the signage device installed at a bus stop at which the vehicle arrives within a predetermined time.

[0010] In the first aspect, the controller may acquire information on a passenger boarding at the bus stop via a touch panel of the signage device.

[0011] In the first aspect, the controller may transmit the information on the passenger to an in-vehicle device mounted on the vehicle.

[0012] In the first aspect, the information on the passenger may include whether the passenger uses a stroller or a wheelchair.

[0013] In the first aspect, the information on the passenger may include a request to reserve a seat.

[0014] In the first aspect, the controller may acquire the request via the touch panel of the signage device.

[0015] In the first aspect, the controller may acquire the request from a user terminal.

[0016] A vehicle system according to a second aspect of the present disclosure includes a first device and a second device. The first device is mounted on a vehicle that is a fixed-route bus. A second device is configured to control a signage device installed at a bus stop. The first device has a first controller configured to transmit first data obtained by sensing a vehicle cabin empty seat situation and standing passenger distribution in a vehicle to the second device, and the second device has a second controller configured to output a guidance image obtained by visualizing the vehicle cabin empty seat situation and the standing passenger distribution in the vehicle based on the first data via the signage device installed at the bus stop at which the vehicle stops, identify a seat selected by a passenger boarding at the bus stop via a touch panel of the signage device, and transmit reservation information to reserve the selected seat to the first device.

CLAIMS

1. An information processing device characterized by comprising a controller configured to:

acquire first data obtained by sensing a vehicle cabin empty seat situation and standing passenger distribution in a vehicle from the vehicle that is a fixed-route bus;

output a guidance image obtained by visualizing the vehicle cabin empty seat situation and the standing passenger distribution in the vehicle based on the first data via a signage device installed at a bus stop at which the vehicle stops;

identify a seat selected by a passenger boarding at the bus stop via a touch panel of the signage device; and

transmit reservation information to reserve the selected seat to an in-vehicle device mounted on the vehicle.

2. The information processing device according to claim 1, wherein the controller is configured to output the guidance image corresponding to a vehicle designated by a user when the first data is acquired from a plurality of vehicles.

3. The information processing device according to claim 1 or 2, wherein the controller is configured to output the guidance image corresponding to the vehicle via the signage device installed at the bus stop to which the vehicle approaches within a predetermined distance.

4. The information processing device according to claim 3, wherein the controller is configured to output the guidance image corresponding to the vehicle via the signage device installed at the bus stop at which the vehicle arrives within a predetermined time.

5. The information processing device according to claim 1, wherein the reservation information includes whether a stroller or a wheelchair is to be used.

6. A vehicle system characterized by comprising:

a first device mounted on a vehicle that is a fixed-route bus; and

a second device configured to control a signage device installed at a bus stop, wherein:

the first device has a first controller configured to transmit first data obtained by sensing a vehicle cabin empty seat situation and standing passenger distribution in a vehicle to the second device; and

the second device has a second controller configured to

output a guidance image obtained by visualizing the vehicle cabin empty seat situation and the standing passenger distribution in the vehicle based on the first data via the signage device installed at the bus stop at which the vehicle stops,

identify a seat selected by a passenger boarding at the bus stop via a touch panel of the signage device, and

transmit reservation information to reserve the selected seat to the first device.

7. The vehicle system according to claim 6, wherein:

the first device includes a sensor configured to sense a vehicle cabin of the vehicle; and

the first data including a result of the sensing is transmitted to the second device.

8. The vehicle system according to claim 6 or 7, wherein the second controller is configured to output the guidance image corresponding to the vehicle via the signage device installed at the bus stop to which the vehicle approaches within a predetermined distance.

9. The vehicle system according to claim 6, wherein the first controller is configured to notify a vehicle cabin of the vehicle regarding the information on the passenger.