[Technical Problem]

[0005]

In such visible light communication, there is a demand for an increased communication speed. Furthermore, the capability of providing information suitable for a user is desired in such visible light communication.

[0006]

~~Thus, an object~~ Embodiments of the present invention ~~is to~~ provide a visible light communication method in which the increased speed can be achieved or the information suitable for a user can be provided.

[Solution to Problem]

[0007] ~~A visible light communication method according to an aspect of the present invention includes: obtaining a first ID identifying an area in which a receiver is present; obtaining a second ID by the receiver through visible light communication in the identified area; and obtaining, by the receiver, information corresponding to a third ID which is a combination of the first ID and the second ID.~~

According to a first aspect of the present invention, there is provided a visible light communication method, comprising: obtaining location information, by a receiver, indicating a location of the receiver; obtaining a first ID, by the receiver, identifying an area in which a receiver is present by referring to a table in a first server showing correspondence between the first ID and the location information; obtaining a second ID, by the receiver, through visible light communication with a light source in the identified area by the first ID; generating a third ID, by the receiver, by combining the first ID and the second ID; and obtaining, by the receiver, information from a second server using the third ID.

[0007a]

According to a second aspect of the present invention, there is provided a visible light communication method, comprising: obtaining a first ID, from a sensor included in a receiver, indicating a physical orientation of the receiver; obtaining a second ID by the receiver through visible light communication with a light source;

generating a third ID, by the receiver, by combining the first ID and the second ID; and obtaining, by the receiver, information from a server using the third ID.

[0007b]

According to a third aspect of the present invention, there is provided a visible light communication method, comprising: obtaining a first ID indicating a user attribute previously stored in a receiver; obtaining a second ID by the receiver through visible light communication with a light source; generating a third ID, by the receiver, by combining the first ID and the second ID; and obtaining, by the receiver, information from a server using the third ID.

[0007c]

According to a fourth aspect of the present invention, there is provided an identification signal which is generated by the visible light communication method according to the first aspect and comprises the first ID and the second ID.

[0007d]

According to a fifth aspect of the present invention, there is provided a receiver which receives a signal through visible light communication, the receiver comprising: a location information obtainer configured to obtain location information indicating a location of the receiver; a first ID obtainer configured to obtain a first ID identifying an area in which the receiver is present by referring to a table in a first server showing correspondence between the first ID and the location information; a second ID obtainer configured to obtain a second ID through the visible light communication in the identified area; a third ID generator configured to generate a third ID by combining the first ID and the second ID; and an information obtainer configured to obtain information from a second server using the third ID.

[0007e]

According to a sixth aspect of the present invention, there is provided the visible light communication method according to the first aspect wherein the first server and the second server are substantially identical.

[0008]

It is to be noted that these general and specific aspects may be implemented using a system, a method, an integrated circuit, a computer program, or a computer-readable recording medium such as CD-ROM, or any combination of systems, methods, integrated circuits, computer programs, and recording media.

[Advantageous Effects of Invention]

[0009]

~~The~~Embodiments of the present invention can provide a visible light communication method in which an increased speed can be achieved or information suitable for a user can be provided.

[Brief Description of Drawings]

[0010]

[FIG. 1] FIG. 1 is a block diagram of a visible light communication system in Embodiment 1.

[FIG. 2] FIG. 2 is a flowchart of an area detection process performed by a mobile terminal in Embodiment 1.

[CLAIMS]

[Claim 1]

A visible light communication method comprising:

obtaining a first ID identifying an area in which a receiver is present;

obtaining a second ID by the receiver through visible light communication in the identified area; and

obtaining, by the receiver, information corresponding to a third ID which is a combination of the first ID and the second ID.

[Claim 2]

The visible light communication method according to Claim 1,

wherein in the obtaining of a first ID, the first ID is obtained by referring to a table showing correspondence between the first ID and location information obtained by the receiver and indicating a location of the receiver.

[Claim 3]

The visible light communication method according to Claim 2,

wherein the location information is information indicating the location of the receiver identified by a Global Positioning System (GPS) installed on the receiver.

[Claim 4]

The visible light communication method according to Claim 2,

wherein the location information is information indicating a wireless LAN access point accessible by the receiver.

[Claim 5]

The visible light communication method according to Claim 2,

wherein the location information is information obtained by the receiver and indicating a store in which the receiver is present.

[Claim 6]

A visible light communication method comprising:

obtaining a first ID indicating an orientation of a receiver;

obtaining a second ID by the receiver through visible light communication; and

obtaining, by the receiver, information corresponding to a third ID which is a combination of the first ID and the second ID.

[Claim 7]

The visible light communication method according to Claim 6,

wherein the receiver includes a first camera and a second camera, and

in the obtaining of a second ID, one of the first camera and the second camera is selected according to the orientation of the receiver and used to obtain the second ID.

[Claim 8]

The visible light communication method according to Claim 6 or 7,

wherein in the obtaining of a first ID, the first ID that indicates a tilt of the receiver is obtained.

[Claim 9]

The visible light communication method according to Claim 8,

wherein in the obtaining of a first ID, the first ID is obtained by referring to a table showing correspondence between the tilt of the receiver and the first ID.

[Claim 10]

A visible light communication method comprising:

obtaining a first ID indicating a user attribute of a receiver;

obtaining a second ID by the receiver through visible light communication; and

obtaining, by the receiver, information corresponding to a third ID which is a combination of the first ID and the second ID.

[Claim 11]

The visible light communication method according to one of Claims 1 to 10, further comprising:

performing processing of receiving a request to distribute information from a requester;

distributing, as the information corresponding to the third ID, the information subject to the request from the requester; and

performing information processing for charging the requester according to the distribution of the information.

[Claim 12]

An identification signal which is generated by the visible light communication method according to one of Claims 1 to 10 and comprises the first ID and the second ID.

[Claim 13]

A receiver which receives a signal through visible light communication, the receiver comprising:

a first ID obtaining unit configured to obtain a first ID identifying an area in which the receiver is present;

a second ID unit configured to obtain a second ID through the visible light communication in the identified area; and

an information obtaining unit configured to obtain information corresponding to a third ID which is a combination of the first ID and the second ID.

[Claim 14]

A program for causing a computer to execute the visible light communication method according to one of Claims 1 to 11.

Claims:

1. A visible light communication method, comprising:

obtaining location information, by a receiver, indicating a location of the receiver;

obtaining a first ID, by the receiver, identifying an area in which a receiver is present by referring to a table in a first server showing correspondence between the first ID and the location information;

obtaining a second ID, by the receiver, through visible light communication with a light source in the identified area by the first ID;

generating a third ID, by the receiver, by combining the first ID and the second ID; and

obtaining, by the receiver, information from a second server using the third ID.

2. The visible light communication method according to claim 1,

wherein in the obtaining of a first ID, the first ID is obtained by referring to a table showing correspondence between the first ID and location information obtained by the receiver and indicating a location of the receiver.

3. The visible light communication method according to claim 2,

wherein the location information is information indicating the location of the receiver identified by a Global Positioning System (GPS) installed on the receiver.

4. The visible light communication method according to claim 2,

wherein the location information is information indicating a wireless LAN access point accessible by the receiver.

5. The visible light communication method according to claim 2,

wherein the location information is information obtained by the receiver and indicating a store in which the receiver is present.

6. A visible light communication method, comprising:

obtaining a first ID, from a sensor included in a receiver, indicating a physical orientation of the receiver;

obtaining a second ID by the receiver through visible light communication with a light source;

generating a third ID, by the receiver, by combining the first ID and the second ID; and

obtaining, by the receiver, information from a server using the third ID.

7. The visible light communication method according to claim 6,

wherein the receiver includes a first camera and a second camera, and

in the obtaining of a second ID, one of the first camera and the second camera is selected according to the orientation of the receiver and used to obtain the second ID.

8. The visible light communication method according to claim 6,

wherein in the obtaining of a first ID, the first ID that indicates a tilt of the receiver is obtained.

9. The visible light communication method according to claim 8,

wherein in the obtaining of a first ID, the first ID is obtained by referring to a table showing correspondence between the tilt of the receiver and the first ID.

10. A visible light communication method, comprising:

obtaining a first ID indicating a user attribute previously stored in a receiver;

obtaining a second ID by the receiver through visible light communication with a light source;

generating a third ID, by the receiver, by combining the first ID and the second ID; and

obtaining, by the receiver, information from a server using the third ID.

11. The visible light communication method according to claim 1, further comprising:

performing processing of receiving a request to distribute information from a requester;

distributing, as the information corresponding to the third ID, the information subject to the request from the requester; and

performing information processing for charging the requester according to the distribution of the information.

12. An identification signal which is generated by the visible light communication method according to claim 1 and comprises the first ID and the second ID.

13. A receiver which receives a signal through visible light communication, the receiver comprising:

a location information obtainer configured to obtain location information indicating a location of the receiver;

a first ID obtainer configured to obtain a first ID identifying an area in which the receiver is present by referring to a table in a first server showing correspondence between the first ID and the location information;

a second ID obtainer configured to obtain a second ID through the visible light communication in the identified area;

a third ID generator configured to generate a third ID by combining the first ID and the second ID; and

an information obtainer configured to obtain information from a second server using the third ID.

14. A non-transitory computer-readable recording medium having recorded thereon a program for causing a computer to execute the visible light communication method according to claim 1.

15. The visible light communication method according to claim 1,

wherein the first ID includes a plurality of first bytes,

the second ID includes a plurality of second bytes, and

the third ID includes at least the plurality of first bytes and the plurality of second bytes.

16. The visible light communication method according to claim 1,
wherein the first server and the second server are substantially identical.

17. The visible light communication method according to claim 1,
wherein the first server is different from the second server.