When the gate apparatus disclosed in PTL 1 is used, a user opens his or her passport to a page including a face image and places the page on a passport reader (a scanner) of the gate apparatus. This gate apparatus acquires data necessary for the above matching (1-to-1 matching) from the passport reader (for example, see paragraph [0035] in PTL 1).

[0006]

To use the gate apparatus disclosed in PTL 1, a user needs to stand in front of the gate apparatus, open his or her passport, and have the gate apparatus to read information on the opened page via the passport reader. However, if the user is made to perform this operation, the significance of automatically performing the emigration and immigration examination is lost. That is, the gate apparatus disclosed in PTL 1 cannot allow its users to smoothly complete the emigration and immigration examination without stress.

[0007]

The present invention contributes to realization of smooth emigration and immigration examination, and it is a principal object of the present invention to provide a gate apparatus, a server apparatus, an emigration and immigration examination system, a control method of a gate apparatus, and a control method of a server apparatus.

[Summary]

[0007a]

According to an aspect of the present disclosure, there is provided an emigration and immigration examination system comprising:

a server apparatus that stores, as gate user information, biological information about users and MRZ (Machine Readable Zone) information written in machine readable zones in passports issued to the users in association with each other; and

a plurality of gate apparatuses that each controls ones of a plurality of gates based on an emigration and immigration examination result of a user,

wherein each of the plurality of gate apparatuses comprises a reader configured to read out information from an IC (Integrated Circuit) chip in a passport,

wherein a first gate apparatus of the plurality of the gate apparatuses acquires biological information about an examination target user and transmits the biological information about the examination target user to the server apparatus,

wherein the server apparatus searches the gate user information to determine the MRZ information corresponding to the received biological information and transmits the determined MRZ information to each of the plurality of the gate apparatuses, and

wherein, a second gate apparatus of the plurality of the gate apparatuses controls one of the plurality of gates so that the examination target user can pass through the one of the plurality of gates if information is successfully read out by its reader from an IC (Integrated Circuit) chip in a passport issued to the examination target user by using the received MRZ information, and

wherein the first gate apparatus is configured to provide a guidance to the examination target user, the guidance comprising contents corresponding to a cause of an inability to read the information, and the guidance indicating to contact the reader again with the passport if the information is not successfully read out from the IC chip by using the received MRZ information.

[0008]

According to a first example, there is provided a gate apparatus including: an acquisition unit that acquires biological information about an examination target user; a matching request unit that requests a server apparatus that stores biological information about users and MRZ (Machine Readable Zone) information written in machine readable zones in passports issued to the users in association with each other to perform matching on the biological information about the examination target user; and a control unit that controls a gate so that the examination target user can pass through the gate if information is successfully read out from an IC (Integrated Circuit) chip in a passport issued to the

examination target user by using

MRZ information determined by the matching.

[0009]

According to a second example, there is provided a server apparatus including: a storage unit that stores, as gate user information, biological information about users and MRZ (Machine Readable Zone) information written in machine readable zones in passports issued to the users in association with each other; a matching unit that searches the gate user information by using biological information about an examination target user, the biological information having been received from a gate apparatus that controls a gate based on an emigration and immigration examination result of a user, and determines the MRZ information corresponding to the received biological information; and a communication control unit that transmits the determined MRZ information to the gate apparatus.

[0010]

According to a third example, there is provided an emigration and immigration examination system including: a server apparatus that stores, as gate user information, biological information about users and MRZ (Machine Readable Zone) information written in machine readable zones in passports issued to the users in association with each other; and a gate apparatus that controls a gate based on an emigration and immigration examination result of a user, wherein the gate apparatus acquires biological information about an examination target user and transmits the biological information about the examination target user to the server apparatus, wherein the server apparatus searches the gate user information to determine the MRZ information corresponding to the received biological information and transmits the determined MRZ information to the gate apparatus, and wherein, the gate apparatus controls the gate so that the examination target user can pass through the gate if information is successfully read out from an IC (Integrated Circuit) chip in a passport issued to the examination target user by using the received MRZ information.

[0011]

According to a fourth example, there is

provided a control method of a gate apparatus including: acquiring biological information about an examination target user; requesting a server apparatus that stores biological information about users and MRZ (Machine Readable Zone) information written in machine readable zones in passports issued to the users in association with each other to perform matching on the biological information about the examination target user; and controlling a gate so that the examination target user can pass through the gate if information is successfully read out from an IC (Integrated Circuit) chip in a passport issued to the examination target user by using MRZ information determined by the matching.

[0012]

According to a fifth example, there is provided a control method of a server apparatus including a storage unit that stores, as gate user information, biological information about users and MRZ (Machine Readable Zone) information written in machine readable zones in passports issued to the users in association with each other, the control method of the server including: searching the gate user information by using biological information about an examination target user, the biological information having been received from a gate apparatus that controls a gate based on an emigration and immigration examination result of a user, and to determine the MRZ information corresponding to the received biological information; and transmitting the determined MRZ information to the gate apparatus.

[Advantageous Effects of Invention]

[0013]

The individual aspects of the present invention provide a gate apparatus, a server apparatus, an emigration and immigration examination system, a control method of a gate apparatus, and a control method of a server apparatus that contribute to realization of smooth emigration and immigration examination. The advantageous effects of the present invention are not limited to the above advantageous effect. The present invention may provide other advantageous effects, instead of or in addition to the above advantageous effect.

[Brief Description of the Drawings]

CLAIMS

1. An emigration and immigration examination system comprising:

a server apparatus that stores, as gate user information, biological information about users and MRZ (Machine Readable Zone) information written in machine readable zones in passports issued to the users in association with each other; and

a plurality of gate apparatuses that each controls ones of a plurality of gates based on an emigration and immigration examination result of a user,

wherein each of the plurality of gate apparatuses comprises a reader configured to read out information from an IC (Integrated Circuit) chip in a passport,

wherein a first gate apparatus of the plurality of the gate apparatuses acquires biological information about an examination target user and transmits the biological information about the examination target user to the server apparatus,

wherein the server apparatus searches the gate user information to determine the MRZ information corresponding to the received biological information and transmits the determined MRZ information to each of the plurality of the gate apparatuses, and

wherein, a second gate apparatus of the plurality of the gate apparatuses controls one of the plurality of gates so that the examination target user can pass through the one of the plurality of gates if information is successfully read out by its reader from an IC (Integrated Circuit) chip in a passport issued to the examination target user by using the received MRZ information, and

wherein the first gate apparatus is configured to provide a guidance to the examination target user, the guidance comprising contents corresponding to a cause of an inability to read the information, and the guidance indicating to contact the reader again with the passport if the information is not successfully read out from the IC chip by using the received MRZ information.