for measuring the number of users, and may be data having anonymity. In addition, different identification information may be assigned to the same person for each time zone.

Further, a building/elevator information storage unit 17 stores building master information 10 and elevator information 11.

Here, a hardware configuration for realizing the data center server 5 as a computer will be described with reference to Fig. 14. The data center server 5 includes a processor 51, a memory 52, a storage device 514, and the communication device 12.

The processor 51 has a function of performing computation according to a program such as a CPU. In the present embodiment, the processor 51 executes processes according to a congestion-state screen generation program 507, an information search program 508, an elevator operation simulation program 509, and an elevator operation data collection program 513 expanded in the memory 52. Here, each program illustrated in Fig. 2 and each configuration of Fig. 1 has the following correspondence relationship. That is, the function of each configurations in Fig. 1 can be realized by the computation performed according to each program.

Congestion-state screen generation program 507:

congestion-state screen generation unit 7

Information search program 508: information search unit 8

Elevator operation simulation program 509: elevator operation simulator 9

Elevator operation data collection program 513: elevator operation data collection device 13

The storage device 514 stores the above-described various types of information. The communication device 12 is connected to the customer terminal 2, the engineer terminal 4, and the group management elevator 20 via the above-described high-speed communication network.

The description of the data center server 5 has ended as above. Next, the group management elevator 20 and a people flow monitoring device 26 connected to the group management elevator 20 will be described with reference to Fig. 2.

Fig. 2 is a functional block diagram of the group management elevator 20 and the people flow monitoring device 26. The group management elevator 20 is installed in a customer building, includes a plurality of elevators 23a to 23n, and has a configuration for controlling the elevators. This configuration includes the communication device 21 connected to the high-speed communication network and a group management control device 22 that controls

congestion state from the retrieve elevator operation information 15 and people flow monitoring information 16. The congestion-state information 18 stores a congestion state of each elevator in association with each comparison unit for grasping the congestion state. Fig. 17 illustrates an example of the congestion-state information 18. The congestion-state information 18 includes a building ID 181, a bank ID 182, a building name 183, a bank name 184, a unit 185, a floor 186, date and time 187, an average waiting time 188, and the number of users 189. Here, the floor 186 and the date and time 187 are used as comparison units in the example of Fig. 17, but either one thereof or the others may be used. Although the date and time is set on an hourly basis, the date and time may be set in another unit. Although the average waiting time 188 and the number of users are used as the congestion state, either one thereof or the others may be used.

Then, the congestion-state screen generation unit 7 generates a screen indicating a congestion degree, obtained from a congestion state of an elevator based on absolute evaluation illustrated in Fig. 5, from the congestion-state information 18. Then, the congestion-state screen generation unit 7 causes the screen of the customer terminal 2 or the engineer terminal 4 to transition to a screen illustrated in Fig. 5.

CLAIMS

1. A lift congestion-state display system for displaying a congestion state regarding a lift, the lift congestion-state display system comprising:

an information search unit that identifies a first congestion state of a lift designated by a user and searches for history data of congestion states of a plurality of similar lifts similar to the lift designated,

wherein the similar lifts are identified by the information search unit by comparison of elevator information of the lift designated and the similar lifts; and

wherein the elevator information includes at least one of a use of an installed building, a number of available floors, a number of units, a speed, and a transport amount in the lift designated; and

a congestion-state screen generation unit that calculates a second congestion state representing the congestion states of the plurality of similar lifts based on the history data, compares the first congestion state with the second congestion state for each of a plurality of predetermined comparison units, identifies a relative congestion degree of the lift designated by the user using a result of the comparison, and causes a display device to display information related to at least one of the first congestion state, the second congestion state, and the relative congestion degree for each of the comparison units.

2. The lift congestion-state display system according to claim 1, wherein

the comparison units are date and time and floors at which the lift designated by the user is used, and

the first congestion state and the second congestion state are average waiting times at the date and time for each of the floors.

3. A lift congestion-state display method for displaying a congestion state regarding a lift, the lift congestion-state display method comprising:

identifying a first congestion state of a lift designated by a user and searching for history data of congestion states of a plurality of similar lifts similar to the lift designated,

wherein the similar lifts are identified by the information search unit by comparison of elevator information of the lift designated and the similar lifts; and

wherein the elevator information includes at least one of a use of an installed building, a number of available floors, a number of units, a speed, and a transport amount in the lift designated;

calculating a second congestion state representing the congestion states of the plurality of similar lifts based on the history data;

comparing the first congestion state with the second congestion state for each of a plurality of predetermined comparison units;

identifying a relative congestion degree of the lift

designated by the user using a result of the comparison; and

causing a display device to display information related to at least one of the first congestion state, the second congestion state, and the relative congestion degree for each of the comparison units.

4. The lift congestion-state display method according to claim 3, wherein

the comparison units are date and time and floors at which the lift designated by the user is used, and

the first congestion state and the second congestion state are average waiting times at the date and time for each of the floors.