CLAIMS

[Claim 1]

An elevator apparatus that assigns one of in-service units providing a service to each of users, on the basis of elevator usage information including at least an origin floor and a destination floor of the user, the elevator usage information being registered by the user before the user enters an elevator, the elevator apparatus comprising:

a route creation section that creates a future operation route that is fixed in reflection of the elevator usage information;

an evaluation section that evaluates equality of time intervals of each of the in-service units in future on the basis of the future operation route; and

a to-be-assigned unit determination section that assigns one of the in-service units providing a service to each of the users, on the basis of an evaluation result generated by the evaluation section.

[Claim 2]

The elevator apparatus according to Claim 1, wherein the elevator usage information includes the number of users on the origin floor and the destination floor.

[Claim 3]

The elevator apparatus according to Claim 2, further comprising:

a high-demand information creation section that creates,

for each traffic flow, high-demand information including a high-demand origin floor, a high-demand destination floor, and the number of users who exit/enter on each floor, on the basis of past elevator usage information, wherein

the route creation section creates a future high-demand route by using the high-demand information to determine an estimated stopping floor and an estimated number of users who exit/enter in future, and

the evaluation section evaluates, on the basis of the future high-demand route, equality of time intervals of each of the in-service units in future.

[Claim 4]

The elevator apparatus according to Claim 3, wherein the evaluation section performs risk evaluation on equality of time intervals for a future user, on the basis of the future operation route and the future high-demand route.

[Claim 5]

The elevator apparatus according to Claim 1, wherein the evaluation section evaluates equality of time intervals on arrival at a final reserved destination floor, which is a stopping floor farthest from a current point.

[Claim 6]

The elevator apparatus according to Claim 1, further comprising:

an operation information management section that calculates an estimated arrival time and an estimated departure time on the basis of the future operation route and that presents

the estimated arrival time and the estimated departure time to the user.

[Claim 7]

The elevator apparatus according to Claim 3, further comprising:

an operation information management section that calculates an estimated earliest arrival time and an estimated latest arrival time on the basis of the future operation route and the future high-demand route and that presents the estimated earliest arrival time and the estimated latest arrival time to the user.

[Claim 8]

The elevator apparatus according to Claim 7, wherein the operation information management section calculates an operation route for estimated earliest arrival and an operation route for estimated latest arrival on the basis of the future operation route and the future high-demand route, and presents the calculated operation routes to the user.

[Claim 9]

A method for controlling an elevator apparatus that assigns one of in-service units providing a service to each of users on the basis of elevator usage information including at least an origin floor and a destination floor of the user, the elevator usage information being registered by the user before the user enters an elevator, the method comprising:

creating a future operation route that is fixed in reflection of the elevator usage information;

evaluating equality of time intervals of each of the in-service units in future on the basis of the future operation route; and

assigning one of the in-service units providing a service to each of the users on the basis of an evaluation result generated through the evaluating.