Claims

1. A networked server system for automated personnel scheduling, comprising:

at least one memory storing computer-executable instructions; and

at least one processor configured to execute the stored instructions to:

retrieve, from a first server, resource data for a predetermined time period;

generate instructions for displaying an interactive graphical user interface on a mobile device associated with a first user, wherein the interactive graphical user interface includes an interactive calendar with schedule information for the first user;

generate one or more graphic icons configured to receive input for confirming a selection of one or more candidate users and for switching between one of the interactive calendar and an interactive list of eligible trades to the other of the interactive calendar and the interactive list of eligible trades;

receive a request from the first user to trade a shift during the predetermined time period;

apply one or more rule sets to identify a candidate user in the resource data based on the received request;

modify the interactive graphical user interface to provide the candidate user;

receive a selection of the candidate user to initiate a shift trade; and

update the resource data in real time to reflect the received selection and the traded shift.

2. The system of claim 1, wherein the resource data comprises scheduled shift information, scheduled vacation information, and workgroup information associated with a plurality of users.

3. The system of claim 2, wherein the candidate user is identified based on a planned vacation reflected in the vacation information.

4. The system of claim 3, wherein the candidate user is further identified based on a match in workgroup information between the first user and the candidate user.

5. The system of claim 1, wherein the received request identifies a date of the shift during the predetermined time period, and the identified candidate user is associated with a planned vacation on the date.

6. The system of claim 5, wherein the traded shift reflected in the resource data associates the shift during the predetermined time period with the identified candidate user, and associates the planned vacation with the first user.

7. The system of claim 1, wherein the resource data reflects a required number of individuals for the predetermined time period, and

the required number of individuals is determined based on a predetermined productivity capability of the required number of individuals and a predicted workload for the predetermined time period.

8. The system of claim 7, wherein the at least one processor is further configured to confirm that the required number of individuals is satisfied after acceptance of the traded shift.

9. The system of claim 7, wherein the predicted workload is determined based on a quantity of parcels to be delivered during the predetermined time period, and the predetermined productivity capability is an amount of the parcels that each individual can deliver during the predetermined time period.

10. A computer-implemented method for automated personnel scheduling, the method being performed by at least one processor of a networked server executing stored instructions to perform steps comprising:

retrieving, from a first server, resource data for a predetermined time period;

generating instructions for displaying an interactive graphical user interface on a mobile device associated with a first user, wherein the interactive graphical user interface includes an interactive calendar with schedule information for the first user;

generating one or more graphic icons configured to receive input for confirming a selection of one or more candidate users and for switching between one of the interactive calendar and an interactive list of eligible trades to the other of the interactive calendar and the interactive list of eligible trades;

receiving a request from the first user to trade a shift during the predetermined time period;

applying one or more rule sets to identify a candidate user in the resource data based on the received request;

modifying the interactive graphical user interface to provide the candidate user;

receiving a selection of the candidate user to initiate a shift trade; and

updating the resource data in real time to reflect the received selection and the traded shift.

11. The method of claim 10, wherein the resource data comprises scheduled shift information, scheduled vacation information, and workgroup information associated with a plurality of users.

12. The method of claim 11, wherein the candidate user is identified based on a planned vacation reflected in the vacation information.

13. The method of claim 12, wherein the candidate user is further identified based on a match in workgroup information between the first user and the candidate user.

14. The method of claim 10, wherein the received request identifies a date of the shift during the predetermined time period, and the identified candidate user is associated with a planned vacation on the date.

15. The method of claim 10, wherein the traded shift reflected in the resource data associates the shift during the predetermined time period with the identified candidate user, and associates a planned vacation with the first user.

16. The method of claim 10, wherein the resource data reflects a required number of individuals for the predetermined time period, and

the required number of individuals is determined based on a predetermined productivity capability of the required number of individuals and a predicted workload for the predetermined time period.

17. The method of claim 16, wherein the at least one processor confirms that the required number of individuals is satisfied after acceptance of the traded shift.

18. The method of claim 16, wherein the predicted workload is determined based on a quantity of parcels to be delivered during the predetermined time period, and the predetermined productivity capability is an amount of the parcels that each individual can deliver during the predetermined time period.

19. The method of claim 16, further comprising providing an electronic notification in a graphical user interface to the first user and the identified candidate user, the electronic notification including information about the updated resource data.

20. A computerized method for automated personnel scheduling, the method being performed by at least one processor of a networked server executing stored instructions to perform steps comprising:

determining, using order data received from a networked order database, a quantity of parcels to be delivered during a predetermined time period;

determining, based on the quantity of parcels, a predicted workload for the predetermined time period;

generating instructions for displaying an interactive graphical user interface on a mobile device associated with a first user including:

schedule information for a first user included in resource data; and

one or more interactive graphical elements including an interactive calendar with schedule information for the first user for initiating and accepting changes to the schedule information;

generating one or more graphic icons configured to receive input for confirming a selection of one or more candidate users and for switching between one of the interactive calendar and an interactive list of eligible trades to the other of the interactive calendar and the interactive list of eligible trades;

receiving, via selection of the one or more interactive graphical elements, a request from the first user to trade a shift during the predetermined time period;

applying one or more rule sets to identify a candidate user in the resource data based on the received request, wherein the one or more rule sets filters a set of users based on a starting time and an ending time of the shift, and filters the set of users based on a predetermined productivity capability of the first user;

modifying the interactive graphical user interface to provide the candidate;

receiving a selection of the candidate to initiate a shift trade; and

providing an electronic notification to the first user and the identified candidate user, the electronic notification reflecting the shift trade.