

ABSTRACT

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 the predetermined time period; generate instructions for displaying an interactive graphical user interface including schedule information for a first user included in the resource data; 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.