DISTRIBUTED MATCHING ENGINE

CROSS REFERENCE TO RELATED APPLICATION

[0001] This application claims the benefit of US provisional application No. 61/737,553 filed December 14, 2012 and 13/832,472 filed March 15, 2013 to Jacob Loveless, both of which are hereby incorporated by reference herein in their entireties.

FIELD

[0002] Some embodiments relate to matching and/or trading items.

BACKGROUND

[0003] Systems may be used for the electronic matching and/or trading of items between users.

SUMMARY

[0003a] According to an aspect, there is provided a method including: controlling, by at least one processor of a first server of a system comprising a plurality of servers, wherein the plurality of servers is configured for interconnection by at least one network: maintaining a first order book for a first item to be traded; receiving a first order for the first item, wherein the first order includes a quantity; placing the first order in the first order book, wherein the first server is responsible for controlling execution of contra-orders against the first order; communicating the first order over the at least one network by selectively specifying the first order for at least one specified server of the plurality of servers, in which the at least one specified server includes a second server; wherein the second server is configured to: maintain a second order book for the first item; receive the first order communicated by the first server; place the first order in the second order book; receive a second order for the first item; determine the second order is a contra-order to the first order; and in response to determining the second order is a contra-order to the first order, communicate the second order to the first server; receiving the second order from the second server; determining whether the first order is available; when the first order is determined to be available, executing a trade between the first and second orders; removing the first order from the first order book when the second order is for all available quantity of the first order; communicating a first confirmation message on the at least one network indicating the first order is traded against; wherein the second server is further configured to: receive the first confirmation message; and in response to receiving the first confirmation message, remove the first order from the second order book when the second order is for all available quantity of the first order, receive a third order for the first item, wherein the third order includes a quantity; place the third order in the second order book, wherein the second server is responsible for controlling execution of contra-orders against the third order; and communicate the third order on the at least one network; receiving the third order communicated by the second server; placing the third order in the first order book; receiving a fourth order for the first item; determining the

fourth order is a contra-order to the third order; and in response to determining the fourth order is a contra-order to the third order, communicating the fourth order to the second server; wherein the second server is further configured to: receive the fourth order from the first server; determine whether the third order is available; when the third order is determined to be available, execute a trade between the third and fourth orders; remove the third order from the second order book when the fourth order is for all available quantity of the third order; and communicate a second confirmation message on the at least one network indicating the third order is traded against; receiving the second confirmation message from the second server; and in response to receiving the second confirmation message, removing the third order from the first order book when the fourth order is for all available quantity of the third order.

BRIEF DESCRIPTION OF THE FIGURES

[0004] Figure 1 shows an example distributed matching engine according to some embodiments.

DETAILED DESCRIPTION

[0005] Referring to Figure 1, there is shown an example system 100 according to an example embodiment. System 100 may include one or more computing systems (e.g. servers) 101-106. Computing systems 101-106 may be referred to herein as servers for purposes of description. However, it should be understood that the use of the term server is non-limiting, and that other types of computing systems may be used.

[0006] Each server 101-106 may include one or more processors and one or more memories, which may include one or more databases. Each server may include one or more network hardware/software/firmware based interfaces that enable the server to connect to and communicate over network 110. Network 110 may include a public and/or private network(s) and be a wired and/or wireless network based on any type of technology. Network 110 may also include a bus and/or backplane type architecture. Network 110 may include one or more elements including routers, switches, etc. Network 110 may be configured to allow at least each of servers 101-106 to communicate with the other.