

Claims

What is claimed is:

1. A method of reducing data processing and transmission load for a distributed trading platform comprising:
 - controlling, by at least one processor:
 - receiving, over a communication network in real time, real time market data from a remote computing device;
 - monitoring, over a communication network in real time, trading activity information indicating real time trading activities of respective second participants, in which the second participants are liquidity takers and in which the real time market data includes the trading activity information;
 - determining, in real time, toxicity ratings respectively for the second participants, based on the real time market data;
 - receiving, over the communication network from a first participant system of a liquidity provider, a first order;
 - automatically in response to receiving the first order, prior to receiving a request to execute a trade fulfilling at least a part of the first order, and in real time:
 - determining toxicity augments for the first order from the toxicity ratings respectively of the second participants,
 - selectively transmitting, over the communication network, first order display information simultaneously to second participant systems respectively of selected second participants from among the second participants less than an entirety of the second participants, based on respective toxicity ratings of the selected second participants, so as to reduce a total quantity of data processed and transmitted to execute trades for the first order, wherein reception of the first order display information causes simultaneous display on a graphical user interface (GUI) of a display of each second participant system of the second participant systems of an indication of a price of the first order and, separate from the indication of the price of the first order, an indication of an amount of a price change as the toxicity augment corresponding respectively to the selected second participant,
 - automatically, continually and dynamically adjusting the indications of the amount of the price changes as the toxicity augments to updated amounts of price changes as updated toxicity augments respectively for the selected second participants, according to the

real time market data including the trading activity information indicating the real time trading activities of the respective selected second participants, and

automatically responsive to determining the updated amounts of price changes as the updated toxicity augments, refreshing, over the communication network, the GUIs of the second participant systems to display, separately from the indication of the price of the first order, indications of the updated amount of the price changes as the updated toxicity augments in place of the indications of the amount of the price change as the toxicity augments respectively corresponding to the selected second participants;

receiving, over the communication network from a given second participant system of the second participant systems, a contra order;

in response to receiving the contra order, transmitting the contra order, over the communication network, to the first participant system;

receiving, over the communication network from the first participant system, an indication that a quantity of a financial instrument indicated in the first order is reserved; and

in response to receiving the indication that the quantity of the financial instrument is reserved, facilitating execution of an exchange that fulfills at least a part of each of the contra order and the first order.

2. The method of claim 1, in which a given toxicity augment for a given second participant of the second participants is determined as a function of a given toxicity level corresponding to the given second participant.

3. The method of claim 1, in which a given toxicity augment for a given second participant of the second participants is determined from a look-up table indicating given toxicity augments for respective toxicity levels.

4. The method of claim 1, in which a given toxicity augment of a given second participant of the second participants is transmitted over the communication network as part of given display information to a given second participant system of the given second participant.

5. The method of claim 1, in which an amount equal to a sum of a given toxicity augment of a given second participant of the second participants and a price of the first

order is transmitted over the communication network as part of given display information to a given second participant system of the given second participant.

6. The method of claim 1, in which the transmitting, over the communication network, the first order display information to the second participant systems causes simultaneously displaying different indications of amounts of price changes as the toxicity augments with, and separately from, the price of the first order on the displays respectively of the second participant systems.

7. The method of claim 1, further comprising controlling, by at least one processor: causing, over the communication network, display of respective shot clocks on the GUI of the displays of the selected second participant systems to indicate different countdowns of available time remaining for the selected second participants to react to the first order.

8. The method of claim 7, further comprising controlling, by at least one processor: automatically responsive to a determination that there is no time remaining for a given selected second participant to react to the first order, causing, over the communication network, refreshing of the display on the GUI of the second participant system of the given selected second participant such that (i) the shot clock indicates the available time is expired and (ii) an indication operable to request to execute a trade fulfilling the first order displayed on the GUI is replaced by an indication operable to request to refresh of the first order.

9. The method of claim 8, further comprising controlling, by at least one processor: automatically responsive to a determination the indication to request to refresh the first order is operated and receiving an indication that a second quantity of the financial instrument indicated in the first order is reserved, facilitating execution of an exchange that fulfills at least a part of each of the contra order and the first order.

10. The method of claim 1, further comprising controlling, by at least one processor:

prior to receiving a request to execute a trade fulfilling at least a part of the first order from given second participants of the second participants, in real time:

automatically, continually and dynamically determining for the given second participants of the second participants updated amounts of price changes as updated toxicity augments from the toxicity ratings respectively of the given second participants.

11. The method of claim 1, further comprising controlling, by at least one processor:
determining whether the second participants are qualified to view the first order.
12. The method of claim 1, further comprising controlling, by at least one processor:
transmitting the first order display information, over the communication network, to cause display, on the GUI of each of the second participant systems, of indicia as a button operable to accept the first order at an amount equal to a sum of the amount of the price change as the toxicity augment and the price of the first order.
13. The method of claim 1, further comprising controlling, by at least one processor:
securely storing, in a database, trading intentions of the liquidity provider received over the communication network from the first participant system.
14. The method of claim 13, in which the trading intentions are encrypted as received over the communication network, and in which the at least one processor controls:
decrypting the trading intentions; and
storing the trading intentions in decrypted form in the database.
15. The method of claim 1, in which the first order display information is transmitted encrypted respectively to the second participant systems.
16. A distributed trading system having reduced processing and transmission load, comprising:
a first participant system of a liquidity provider, in which the first participant system includes a first computing device configured to control:
identifying a first order for distributed order matching entered at a trader interface of the first participant system, and

transmitting, over a communication network, the first order to a central system of the distributed trading system; and

the central system comprising a second computing device configured to control:

receiving, over the communication network in real time, real time market data from a remote computing device;

monitoring, over the communication network in real time, trading activity information indicating real time trading activities of respective second participants, in which the second participants are liquidity takers and in which the real time market data includes the trading activity information;

determining in real time toxicity ratings respectively for the second participants, based on the real time market data;

receiving, over the communication network from the first participant system, the first order; and

automatically in response to receiving the first order, prior to receiving a request to execute a trade fulfilling at least a part of the first order and in real time:

determining toxicity augments for the first order from the toxicity ratings respectively of the second participants,

selectively transmitting, over the communication network, first order display information to simultaneously second participant systems respectively of selected second participants from among the second participants less than an entirety of the second participants, based on respective toxicity ratings of the selected second participants, so as to reduce a total quantity of data processed and transmitted to execute trades for the first order, wherein reception of the first order display information causes simultaneous display on a graphical user interface (GUI) of a display of each second participant system of the selected second participants of an indication of a price of the first order and, separate from the indication of the price of the first order, an indication of an amount of a price change as the toxicity augment corresponding respectively to the selected second participant,

automatically, continually and dynamically adjusting the indications of the amount of the price changes as the toxicity augments to updated amounts of price changes as updated toxicity augments respectively for the selected second participants, according to the real time market data including the trading activity information indicating the real time trading activities of the respective selected second participants, and

automatically responsive to determining the updated amounts of price changes as the updated toxicity augments, refreshing, over the communication network, the GUIs of the

second participant systems to display, separately from the indication of the price of the first order, indications of the updated amount of the price changes as the updated toxicity augments in place of the indications of the amount of the price change as the toxicity augments respectively corresponding to the selected second participants;

receiving, over the communication network from a given second participant system of the second participant systems, a contra order;

in response to receiving the contra order, transmitting the contra order, over the communication network, to the first participant system;

receiving, over the communication network from the first participant system, an indication that a quantity of a financial instrument indicated in the first order is reserved; and

in response to receiving the indication that the quantity of the financial instrument is reserved, facilitating execution of an exchange that fulfills at least a part of each of the contra order and the first order,

in which the first computing device is configured to control:

receiving, over the communication network, the contra order; and

transmitting, over the communication network, the indication that the quantity of the financial instrument indicated in the first order is reserved.

17. The distributed trading system of claim 16, further comprising the second participant systems,

in which each of the second participant systems includes a third computing device configured to control:

receiving, over the communication network, the first order display information;

rendering on the graphical user interface the indication of the price of the first order with, and separately from the indication, the amount of the price change as the toxicity augment corresponding to the second participant; and

transmitting, over the communication network, a given contra order.