Claims

1. An open freight market simulation system, which contains a hardware- software system including a hardware module and a data processing module, the hardware module contains:

- at least one central server;

- a complex of external devices of users, connected with the mentioned central server by data interchange means;

- the central server is connected with external e-mail servers by e-mail sending/receiving media;

- and the hardware unit module contains connected with the central server at least one database, which contains data on peculiarities and/or conditions of vessels' proposals as to the freight transportation, associated with a created personal account of participants of open freight market;

- the hardware unit module contains connected with the central server at least one database, which contains data on peculiarities and/or conditions of application for freight transportation, associated with a created personal account of participants of open freight market;

- the hardware unit module contains connected with the central server at least one database, which contains data on peculiarities and/or conditions of a transportation facility functioning, associated with a created personal account of transport infrastructure subjects;

- the data processing module is being adapted to provide of generation complex of the personal accounts of participants of open freight market and complex of the personal accounts of transport infrastructure subjects, ensuring the functioning of open freight market, via website and/or via software client, installed on the external device of user;

- the data processing module is being adapted to provide of receiving and storing data of the complex of the applications for freight transportation and complex of the applications on the proposals of vessels in form of electronic circular letters using e-mail service and/or using manual input and/or using data carrier through the personal account of participant of open freight market;

- the data processing module contains a module of generation of at least one internal database, containing data on the complex of the applications for freight transportation;

- the data processing module contains a module of generation of at least one internal database, containing data on the complex of the applications on the proposals of vessels;

- the data processing module is being adapted to provideof transforming the received electronic circular letters into a electronic sea shipping contract, containing data on cargo for transportation and data on vessel for transportation, as well as conditions for carriage of freight and port of departure and port of destination date using information, received from the personal accounts of participants of open freight market and complex of personal accounts of transport infrastructure subjects;

- the central server is connected with at least one database, which contains data of the generated electronic sea shipping contracts, associated with the received applications and/or the personal accounts of users;

wherein the data processing module contains an automated module of the solution generating connected with at least one database, which contains data of the application for freight transportation; and with at least with one database, containing data of the peculiarities and/or conditions of vessels' proposals as to the freight transportation, associated with the personal account of transport infrastructure subjects of open freight market;

wherein the automated module of solution generating is connected by means of API system with the software client on the external devices of users for automatic finding of submitted irrelevant applications in the system according to preliminary determined system of criteria by means of dividing the permissible set of these applications, meeting the mentioned above criteria, with further automatic binding of data on the proper applications with the data on the proper cargos and/or vessels and sending of data on the proper cargos and/or vessels onto the external device of user using the personal account of participants of open freight market and data on relevant applications onto the external device of user using personal account of transport infrastructure subjects;

wherein the data processing module contains a data recognition module, which recognizes tonnage offering, including data as follows: name and identification codes of vessels, vessel operating characteristics, position of vessels, date of opening of a vessel, requirements to cargos and essential conditions of transaction, and data on demands for tonnage, including the following data: description of cargos, qualitative and quantitative characteristics of cargos, dimensioning specifications, lay can, conditions of transport, significant conditions of transaction, submitting in electronic form prepared in any form via e-mail service and/or via physical media and/or via manual input by means of website and/or via software client;

wherein the data recognition module represents an installed on the central server a system of collective partially automatically teachable recognition of electronic circular letters, interacting through an database operations module with the mentioned above databases and at least one database of parsing rules;

wherein the data recognition module has a structure of add-in modules in chain order according to the scheme as follows: "source data"→"module 1 (processed data)+"source data"— >"module 2 (processed data)+"source data"→...—> "module N (processed data)+"source data" -→"module(N+l) (processed data)+"source data", where every further module contains the processed data from the previous module of chain and data, submitted to the input of the previous module of chain.

2. The system according to claim 1, wherein the central server is located in cloud storage.

3. The system according to claim 1, wherein the central server is connected with GEO-systems external servers and with GEO-devices of vessels via means of obtaining the vessel's geographical coordinates and cargo transported thereon.

4. The system according to claim 1, wherein the central server is connected with external servers of payment systems for purpose of financial transactions performance.

5. The system according to claim 1, wherein the central server is connected with the external devices of users for the purpose of obtaining installation data of software client onto the external device of user.

6. The system according to claim 1, wherein the data processing module contains a module of forming and visualization of data on demand for tonnage and tonnage offering and changes of the specified data.

7. The system according to claim 1, wherein the data processing module contains a module of data exchange between participants of open freight market by means of the personal accounts of participants of open freight market and of data exchange with transport infrastructure subjects.

8. The system according to claim 1, wherein the data processing module contains a module of data exchange for agreement of terms and conditions, including establishment of equitable freight rate for participants of open freight market with regard to at least one pair of the applications or complex of the relevant applications.

9. The system according to claim 1, wherein the data processing module contains a module of the contract performance monitoring, including visualization of vessel traffic with cargo or without cargo by means of data of the external servers of GEO-systems and data of the GEO-devices of vessels.

10. The system according to claim 9, wherein the module of the contract performance monitoring is implemented in the form of active chart, stimulating vessel traffic and transactions with cargo/vessel, in particular, cargo passage, ballast passage, freight handling, discharge of cargo, vessel demurrage in port/at anchorage in expectation of loading/discharging/servicing, vessel demurrage in port/at anchorage/in the vessel repairing yard because of damage, waiting for maintenance, repair of vessel.

11. The system according to claim 1, wherein the data processing module contains data search module in the mentioned above databases according to criteria, set using the personal account of participant of open freight market and/or using the personal account of transport infrastructure subject.

12. The system according to claim 1, wherein the data processing module contains located on the server a module of simulation of the equitable freight rate establishment process with regard to pair of the applications or complex of the relevant applications in open freight market under the initially set and changed conditions with further generation of the electronic sea shipping contract.

13. The system according to claim 1, which additionally contains an application server, located in the cloud storage and interacting via API system with the software client, located in cloud storage and on the external device of users.

14. The system according to claim 13, wherein the application server is is being adapted to provide of the following processes in virtual space: visualization of demand for tonnage and tonnage offering in real-time mode on the information output data displaying characteristics and conditions of vessels' proposals and applications for freight transportation and/or visualization of supply and demand change in the open freight market in real-time mode and/or visualization of function of the automated module of the solution generating and/or visualization of interaction between components of the system for displaying the chosen vessel/cargo matches and vice versa on the external device of user.

15. The system according to claim 1, wherein the data processing module contains a data transfer module, which transfers data related to the sea shipping contract as a PDF file onto the central server and for storage in the database with an opportunity to send e-mails onto the external devices of users, containing data on the changed transaction/vessel status.

16. The system according to claim 1, wherein the data processing module represents a single program block with various levels of access.

17. The system according to claim 1, wherein the data processing module contains a module of forming databases of parsing rules with individual access level.

18. The system according to claim 1, wherein the package data processing module has an architecture in the form of scalable modules, united in a single point of the system entry for all external devices of users.

19. The system according to claim 1, wherein as the external user device one used cell phone or smartphone, or desktop computer, or laptop, or netbook, or tablet computer, equipped with the central server data exchangemeans, data processing means and means for displaying data on screen of the external user device.