

INTRODUCTION

SEE LINK is a project started by Bulgaria, Macedonia and Zagreb stock exchanges with the objective of creating a regional infrastructure for enhancing the cross border trading of the securities listed on those three markets. The goals of this project is to develop an order routing vehicle that has the potential to build sufficient critical mass by increasing trading volumes and improving liquidity in the regional stock exchanges.

The idea behind this initiative is to integrate regional equities markets without merger or corporate integration using only technology that will enable participating stock exchanges to remain independent yet complementing each other and that will allow investors an easier and more efficient access to those markets through a local broker. The project has the potential to increase turnover in individual exchanges and their economic value.

In order to give the whole project a formal framework necessary for successful realization, Bulgaria, Macedonia and Zagreb stock exchanges have established the SEE LINK in May 2104 as a joint stock company seated in Macedonia with three exchanges holding an equal share of ownership.

SEE LINK project is supported by EBRD providing a €540,000 grant to establish electronic system for order-routing. In parallel, participating stock exchanges extended €80,000 each in capital strengthening of the SEE LINK.

The overall objective of the Project is to provide a TC Framework of umbrella contracts to SEE LINK for a creation of an IT platform that would facilitate order-routing and straight through processing of trades that would integrate the involved exchanges. The platform will be provided by an independent firm that will aggregate order flow from multiple sources and route it to relevant exchange using their own connections and straight through trades' processing environment.

FUNCTIONAL DESCRIPTION

Order routing

SEE LINK's system will provide a single point of entry functionality for routing messages between investment firms from different countries in connection with buying and selling of financial instruments on the Macedonian, Bulgarian and Croatian Stock Exchanges. The System will allow for other exchanges to join it at a later stage.

The System will act as recipient for all submitted messages and re-route each message (after verification and processing) to its designated end-recipient investment intermediary who will further be responsible for placing the orders into the respective exchange's order-book. The System shall not provide direct connection between the brokerage firms and the stock exchanges for direct submission of orders.

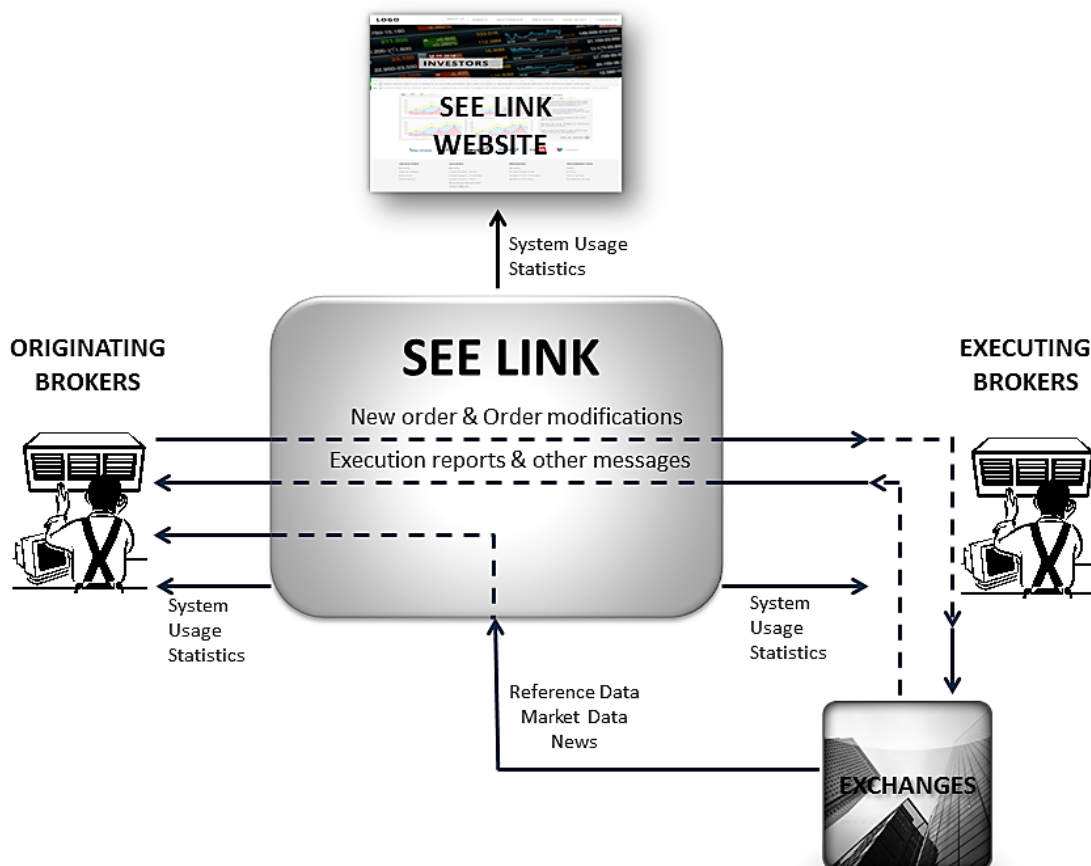
In this way the System will allow investment firms to establish one connection to the SEE LINK's System to place orders for buying and selling securities on multiple markets.

The System will also re-route the subsequent execution reports (connected with these orders).

Users and institutions connected to the System

The SEE LINK's order routing system will connect:

- **Members** - brokerage firms (investment firms) that have signed contracts with SEE LINK to use the System.
 - **Originating Brokers (OrBr)** - brokerage firms that will use the System for placing orders (for buying or selling securities) to their contracted Executing Brokers partners.
 - **Executing Brokers (ExBr)** – brokerage firms that will use the System to receive orders (for buying or selling securities) from their contracted Originating Broker partners and place these to the respective exchange.
- **Participating Exchanges** – exchanges that will use the System to disseminate market data and other information. Initially those exchanges will be the tree main shareholders of SEE LINK, Skopje doo
- **SEE LINK's administrative staff** – employees of SEE LINK, Skopje doo that will be administering and monitoring the System
- **SEE LINK-Web's Site** – System Usage Statistics will be uploaded daily on SEE LINK's website.



1. Figure: The model of the System

Instruments

The primary set of instruments the System will support is common and preferred shares, subscription rights and government bonds.

Initially the System will allow market, limit and iceberg of orders. As for the execution conditions – initially Immediate or Cancel Orders (IOC Orders) and Fill-or-Kill orders (FOK Orders) will be allowed. The System will also allow the use of the following validity constrains: good-for-day, good-till-date and good-till-cancelled.

For each of the order parameters the System will take into consideration the specific characteristics of the trading systems of the participating exchanges.

Market data routing

SEE LINK's system will provide as additional functional specification the distribution of reference and real-time market data, news and other messages from the participating exchanges to the System's users. The dissemination will be based on specific rights, rules and requirements and will ensure equal treatment of the users and will provide them with sufficient information for the effective use of the System's functionalities.

Front-end application (FEA)

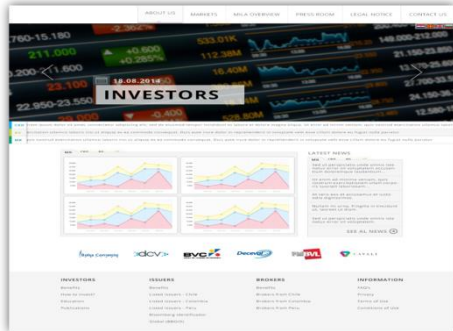
SEE LINK's system will be equipped with a web-based or desktop application which will provide the originating brokers that do not have own API interface with the means to connect to the SEE LINK's system. The concept, rules and logic of operation of the FEA will be the same as those when the users use their own order management systems to connect via API interface to the System (allowed order types, verifications and workflow). It will facilitate sending various orders and requests to their contracted execution brokers and receiving confirmations and reports. The application will be able to receive (from the System) and visualize reference and market data from several markets (participating exchanges) according to the user's profile. The application will also provide the investment firms with monitoring and communication functionalities to track their use of the System and to retrieve historical information for all their activities.

Monitoring and administration

The System will also have comprehensive administration and management functionalities that will allow real-time control and maintenance of the System including user management, system health monitoring, order status and diagnostics, stock exchanges market data feed status, performance monitoring, system usage monitoring and report generation.

SEE LINK website

The purpose of establishing the SEE LINK website will be to have a central point not only for the promotion of this regional integration initiative but to have a central point where the investors in general, will be able to track the performance of indices and individual instruments and other information relevant for making an investment decision.



The website will be highly dynamic, with various types of trading data and statistics received intra daily and at the end of the day from a data source(s). The ITP implementation will be performed in parallel with the Website.

SEE LINK will maintain a web-site with high level information about the System, market and statistical data from the participating exchanges and other information. On its website SEE LINK will provide daily statistical information about the usage of the System for the investors and the investment public in general. Available would be information about the movement of prices, indexes, and other information relevant for making an investment decision.

Billing

During the first two years after the launch the System will be provided at no additional cost to the investment firms.

TECHNICAL DETAILS

The System will be implemented using FIX (Financial Information eXchange) standard protocol, version v4.4.

It will support two types of connection with the investment firms: automatic - using API interface (mandatory for the execution brokers and applicable for the originating brokers) and manually by using SEE LINK's front-end application (applicable only for the originating brokers).

The connectivity will be provided by means of site-to-site VPN secure connections over public Internet in hub-and-spoke topology with SEE LINK ITP location being the hub and each participating broker, exchange, SEE LINK administrative location and SEE LINK website a spoke.

The System will be hosted on a most progressive virtualization platform with advance DR features and will provide 99.99% annual availability (where downtime is defined as total or significant unavailability of the system or the occurrence of a critical error within working hours of the SEE LINK Company)

Developer's documentation regarding the implementation of the interfaces will be available.

TIMING

It is expected that the System will launch in the second half of 2015. Before the official start of the System there will be a certain testing period with investment firms from Bulgaria, Macedonia and Croatia.

ENVISAGED INVOLVEMENT OF THE VARIOUS MARKET PARTICIPANTS

Before the launch of the SEE LINK'S system it is planned that there will be an extensive testing period. During the period it will be important that several investment firms, members of each of the participating exchanges, assist in the final tuning of the system. This may require some modifications of their order management systems (OMS) so that their full integration with the FIX v.4.4 specifications of the system is achieved. The testing period will be also the time for the investment firms to set their network connection so that the required site-to-site VNP connection via internet between their systems and the SEE LINK's platform is assured. During the testing period the investment firms will obtain additional assistance from the participating exchanges in establishing and testing the connections between their OMSs and the exchanges trading platforms (if necessary).

Since the System is dependent on the availability of the brokers, it cannot provide a substantive testing environment by itself. Therefore, the cooperative testing will be in very important and will benefit the respective investment firms assuring them with the opportunity to be the first that will effectively connect to and use the System.

The investment firms that do not own an OMS would be able to can test placing orders using SEE LINK's specially designed FEA.

