

LUMINA STRAIGHT TO MARKET



What is it and what is it for

Lumina Straight to Market (LSM) is a software product designed for the electronic processing of high volumes of equities orders flowing to the Stock Exchanges, through the use of the FIX protocol under the DMA (Direct Market Access) modality with very low latency.

The DMA business model requires fast messages processing through the FIX protocol with minimum latencies in order to get the best offers available at the Exchanges.

LSM also allows to establish and monitor risk limits per counterparty and deltas versus the market price to avoid disruptions and detect errors.

LSM has an SOR (Smart Order Routing) capabilities that provides multiple strategies to best execute any order in the Exchanges.

CC	Connected	Enabled	Session Id	Buy Amount	Sell Amount	Net Amount	Total Amount	Net Limit	Total Limit	In Seq	Out Seq	Connected
A_A	■	■	LSM-A_A-20110106	0.00	0.00	0.00	0.00	10000.00	100000.00	1	1	-
B_B	■	■	LSM-B_B-20110106	0.00	0.00	0.00	0.00	10000.00	100000.00	1	1	-
C_C	■	■	LSM-C_C-20110106	0.00	0.00	0.00	0.00	Unlimited	100000.00	1	1	-
D_D	■	■	LSM-D_D-20110106	0.00	0.00	0.00	0.00	Unlimited	100000.00	1	1	-
E_E	■	■	LSM-E_E-20110106	0.00	0.00	0.00	0.00	10000.00	Unlimited	1	1	-
F_F	■	■	LSM-F_F-20110106	0.00	0.00	0.00	0.00	10000.00	Unlimited	1	1	-
G_G	■	■	LSM-G_G-20110106	0.00	0.00	0.00	0.00	Unlimited	Unlimited	1	1	-
H_H	■	■	LSM-H_H-20110106	0.00	0.00	0.00	0.00	Unlimited	Unlimited	1	1	-
I_I	■	■	LSM-I_I-20110106	0.00	0.00	0.00	0.00	Unlimited	Unlimited	1	1	-
J_J	■	■	LSM-J_J-20110106	0.00	0.00	0.00	0.00	Unlimited	Unlimited	1	1	-
K_K	■	■	LSM-K_K-20110106	0.00	0.00	0.00	0.00	Unlimited	Unlimited	1	1	-
L_L	■	■	LSM-L_L-20110106	0.00	0.00	0.00	0.00	Unlimited	Unlimited	1	1	-
M_M	■	■	LSM-M_M-20110106	0.00	0.00	0.00	0.00	Unlimited	Unlimited	1	1	-
N_N	■	■	LSM-N_N-20110106	16000.00	0.00	16000.00	16000.00	Unlimited	Unlimited	4	3	-
O_O	■	■	LSM-O_O-20110106	38100.00	0.00	38100.00	38100.00	Unlimited	Unlimited	6	4	-
P_P	■	■	LSM-P_P-20110106	3200.00	0.00	3200.00	3200.00	3200.00	3200.00	7	6	15:49:48

LSM Console - Connections Monitor

Functional characteristics

- New DMA Orders, Amends and Cancels are processed with very low latency .
- Real-time reporting of the execution status of the orders to the clients / counterpart.
- Complete coverage of current regulatory requirements such as:
 - Monitoring and control of counterparty risk by establishing limits to the operation according to different criteria.
 - Regulatory requirements.
 - Validation of price ranges limits against the market price.
- Automatic limit of market orders, based on market conditions (Optional).
- Enabling and disabling FIX sessions manually.
- Central management , configuration and monitoring Console.
- SOR: Smart Order Routing ability across multiple markets for achieving best execution in terms of price and liquidity.

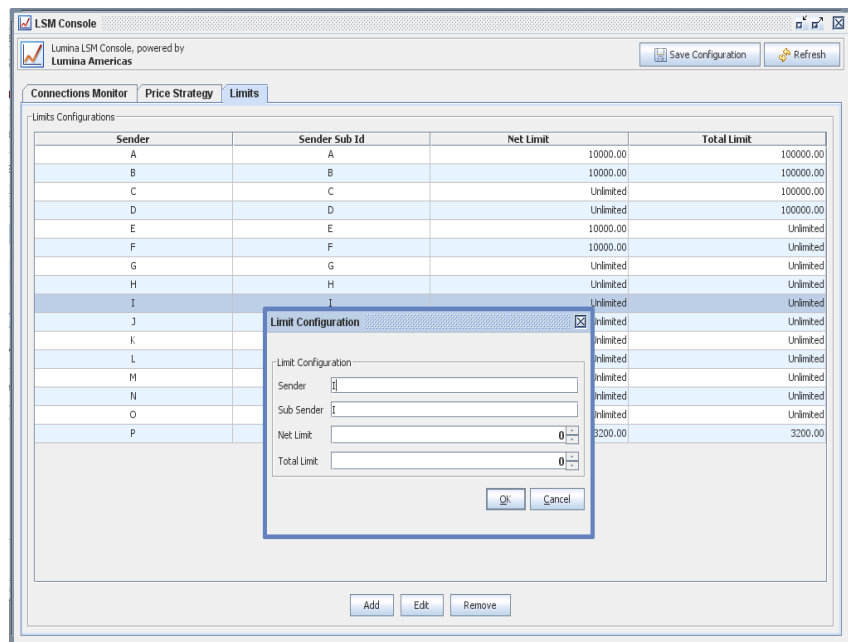
Design principles

The LSM was designed following the following principles:

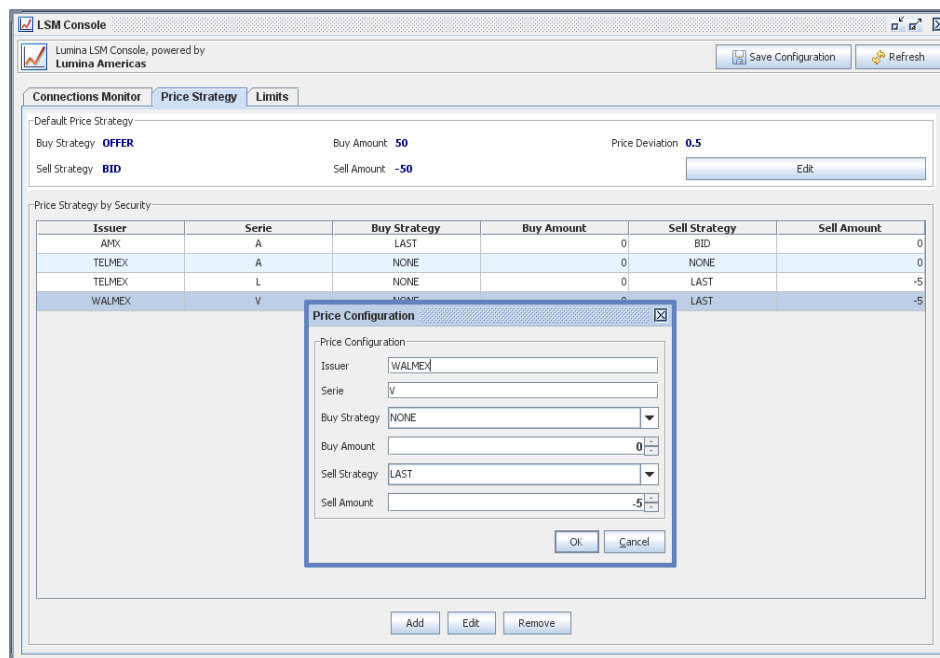
- Minimum latency.
- Simple architecture and lousy coupling, which means that the application can eventually be installed in “colocation” using a small and low-cost infrastructure.
- Linear scalability.

Technical aspects

- 100% Java application, that can be installed on multiple platforms: Windows, Linux, Unix.
- Does not require additional software for its execution, such as databases or applications servers.
- In-Memory processing to increase throughput.
- High availability capabilities, if required.



LSM Console - Limits Configuration



LSM Console - Price Strategy

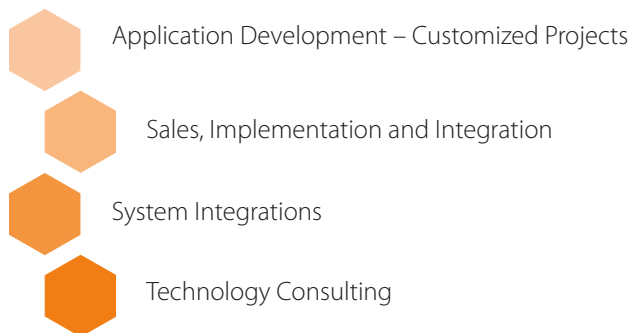
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With more than 14 years of experience developing solutions for the Financial Services Industry in Latin America, we develop mission critical software solutions to help our clients build and support their high-performance businesses.

Lumina was formed as a spin-off of regional application development team of JPMorgan Chase Bank (April 2001)

- More than 100 professionals with extensive technical and financial experience
- Strong team-work and collaboration culture with more than 10 years working together
- Owned and existing solutions for serving the financial market
- Software Components and Frameworks
- Advance CMM practices
- Combination of resources for the whole life-cycle of software projects
- Top 40 Argentinean Companies in quality of labor environment

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