

# PRE-TRADE RISK MANAGEMENT

## Proven, Integrated Risk Control for Marketplaces

The trading ecosystem is facing dramatic transformation. U.S. and European regulators have responded to changes in market structure by promoting new risk regulations. In addition to managing new compliance requirements, members have become highly latency sensitive and, with the advent of cross-asset class and cross-market trading, there is an urgent need for an aggregated risk overview.

**The SEC Market Access Rule in the U.S.**, which requires brokers and dealers to have cross-market risk controls in place, intensifies the need for real-time pre-trade risk management. Europe is following a similar path with the European Securities Market Authority (ESMA) guidelines for complying with MiFID, European Market Infrastructure Regulation (EMIR) and MiFID II.

These changes have also created a strong demand for risk management checks at the exchange level.

Based on the market-leading FTEN® pre-trade risk management service, NASDAQ OMX® is offering a real-time pre-trade risk management solution for marketplaces as an integrated gateway for OUCH, FIX and NASDAQ OMX proprietary protocols. Boasting world-class low latency risk checks, NASDAQ OMX's pre-trade risk management solution is truly **integrated into the marketplace**. Existing Genium INET Trading and X-stream customers can add the pre-trade risk management function without changing protocols for market access.

As an additional benefit, exchanges can extend NASDAQ OMX's pre-trade risk management solution as a new value-added offering to members. Members gain an advanced risk measurement solution and will appreciate the robust and broad functionality which enables cross-asset and cross-market risk views. Marketplaces strengthen member relations and can gain a new source of revenue.



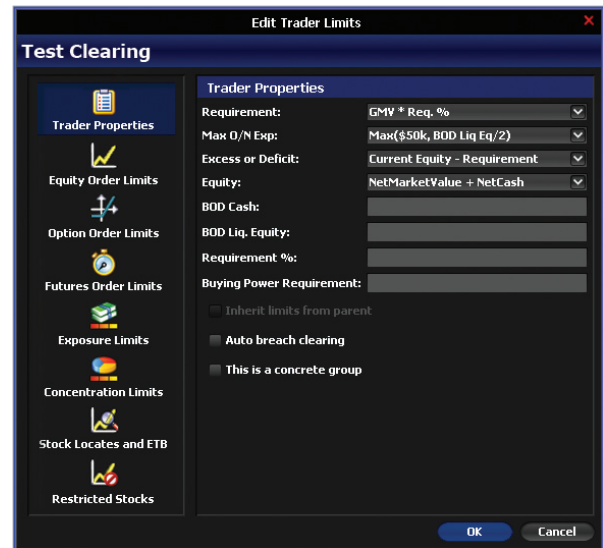
Event Type	Severity	Message	Acknowledged	Count	Latest
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CC Alert	Breach	Breach: Committed Capit...	No	1	08:16:11
CC Alert	Notice	Notice: Committed Capital...	No	1	08:16:02
CC Alert	Notice	Notice: Committed Capital...	No	1	08:16:11
CC Alert	Notice	Notice: Committed Capital...	No	1	08:16:18
CC Alert	Notice	Notice: Committed Capital...	No	1	08:16:20
Restricted Sto...	Breach	Restricted Stock Breach b...	No	2	08:16:04
CC Alert	Warning	Warning: Committed Capi...	No	1	08:16:02
CC Alert	Warning	Warning: Committed Capi...	No	1	08:16:11
CC Alert	Warning	Warning: Committed Capi...	No	1	08:16:20

## ENSURE MARKET INTEGRITY

In addition to supporting offerings such as Sponsored Access, pre-trade risk management from NASDAQ OMX provides added market protection and benefits:

- > **Protects against erroneous orders:** As trading decision-making relies more on automation, exchanges need to establish new parameters to prevent machines from pursuing bad trading decisions and protect the market from all practices that result in unintended trades.
- > **Ensures regulatory compliance:** Adds a layer of risk control to prevent excessive, inappropriate, disruptive and manipulative trading practices to ensure operations without burdensome regulatory audits and fines.

- **Manages new offerings:** Enables the business to manage new services that may have been perceived as too risky under old paradigms by ensuring that offerings are in line with the context of the regulatory structure of the market. These new offerings can bring in new revenue to the market as well as attract more order flow.
- **Maintains high speed execution service:** Provides various risk checks before orders are entered into the order book, without sacrificing speed for a successful fill rate.
- **Aggregates risk among asset classes:** Provides one collective view of risk exposure across asset classes.
- **Protects the brand:** Promotes market integrity by ensuring a safe and fair market center; maintains a level playing field for participants by removing competitive advantage through risk.



## LOW LATENCY, CROSS-ASSET

Key features include:

- **Real-time:** Patented RiskXposure® (RX®) system enables real-time calculations based on information collected across multiple data sources.
- **Flow control:** Advanced order flow control for all business scenarios, protecting against transactional risk and credit exposures generated by undesirable trading activity.
- **Cross-asset class:** Provides pre-trade cross-asset class calculations in one solution.
- **True marketplace integration:** Provides an integrated gateway for OUCH, FIX and NASDAQ OMX proprietary protocols.
- **Low latency:** Integrated with the Genium INET and X-stream trading systems, pre-trade risk checks can be added without sacrificing latency.
- **Risk control checks:** Provides risk control checks at all levels, i.e. clearing, firm, account, portfolio.

- **Low TCO:** Lower cost of ownership for a risk solution with efficient data collection, aggregation and analysis capabilities.
- **Scalable:** Built to handle extreme message volumes for any marketplace.
- **Extendable:** Can be offered as a revenue generating service to the member base.

## DEDICATED PARTNER

For more than 40 years, NASDAQ OMX has been a leader in creating electronic technology solutions for the exchange industry. We have a long history of partnering with marketplaces worldwide to provide the strategic guidance, technology tools and ongoing support to help them meet their goals. With pre-trade risk management from NASDAQ OMX, in addition to gaining an exceptional technology platform, marketplaces benefit from the unwavering commitment and dedicated support of the world's largest exchange company.

### More Information

For more information visit [www.nasdaqomx.com/whatwedo/markettechnology](http://www.nasdaqomx.com/whatwedo/markettechnology).