



Market Surveillance for the future
CFTC Technology Advisory Committee

June 3, 2014



Agenda

- Surveillance shortcomings
- Institutional resistance
- Tech-centric regulation
- Next generation Surveillance
- Next steps

Surveillance Shortcomings

The way surveillance is done today presents the industry with challenges

- Technological shortcomings:
 - No timestamp synchronization, low resolution
 - Lack of advanced analytics / machine learning
- Conflicts-of-interest inherent across for-profit, publicly-traded SRO model leads to poor enforcement across biggest / best customers
- Complete lack of cross-asset class data
- Lack of coordination / cooperation across the industry
 - Regulators / SRO's don't work with practitioners
 - Some practices make it difficult for brokers to properly watch their customer

Institutional Resistance

What prevents regulators from moving forward?

- The size of the problem and where to start
- Shortage of the right technology skills and knowledge
- Cultural resistance to tech-centric approach
- Political frictions within / across agencies
- Mindset that focuses on “fiefdoms”
- Conflicts inherent in publicly traded SRO structure

Why we need a new Market Surveillance program

- Technology is a tool but it is more important; an enabler for change and innovation
- Technology has become part of the culture across this industry
- Technology accelerates existing processes, delivers new and smarter ones
- Staffing at regulators must fundamentally change
- Never has the need for expertise been greater, or the resource gap wider.

Next-Generation Surveillance

- Next-generation surveillance platform
 - Full cross-asset class coverage
 - High-performance, real-time analysis
 - Strategy registration and ID system
 - Best-of-breed analytics
 - Machine learning / parameter optimization
 - SRO's can leverage to reduce / eliminate duplication
 - Platform to engage academics and public
 - Private firms could have this operational by 2014

Next-Generation Surveillance

Market Centers



Futures Exchanges



Equities Exchanges



Equities ATS's



Options Exchanges

Regulators

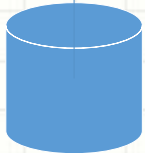
Algorithmic Analytics

Machine Learning and Analytics Optimization

Alerting, Reporting, Data Visualization

Market Quality Analysis and Metrics

SRO Access and Surveillance



Distributed DB

External / Public



Public Gateway



Public Access



Registration



Traders



Next steps

- Phase 1 – start today
 - Adopt technology-centric approach
 - Engage industry in a serious and meaningful way
 - Form surveillance/manipulation committee
 - Make definitive dataset available
 - Examine currently available data
- Phase 2 – over time
 - Regulators become primary surveillance group
 - Build next-generation surveillance platform

Next steps

- Regulators can catch up with the industry:
 - Technology-centric approach means tech is integrated in every decision. It is not just an IT group in the basement
 - Engaging the public, academics, industry experts is the only way to maintain pace and differentiation
 - Regulators must become co-/counter-evolvers, need to be involved and flexible