FIF CAT WG: Industry Feedback on Clock Drift and Time Stamp Issues
September 2013

At the request of the SRO members of DAG, FIF polled its membership regarding the implementation impact of a 50 millisecond clock drift requirement for electronic orders and executions. Please note FIF also made recommendations related to clock drift and timestamps in their June 2013 Response to Selected Topics of the NMS Plan.

Fifteen firms responded to the request for feedback. Responses are as follows:

- Already within tolerances – for some systems (2 firms)
- Actual system in milliseconds but logging not in milliseconds (1 firm)
- Parts of the process may be within tolerances – (3 firms)
  - Software able to handle 50 milliseconds tolerance, mainframe may not be
  - Operating system may be able to handle 50 millisecond tolerance but not applications
  - Trading systems able to handle 50 millisecond tolerance but not regulatory reporting systems
- Synching to NTP should work within 50 milliseconds. Although, network delays over WAN make 100 milliseconds preferable (2 firms)
- Need to evaluate upstream systems, vendor systems (2 firms)
- Just achieving a millisecond time stamp and the 50 millisecond tolerance is a huge challenge – (3 firms)
  - Firms would need to evaluate new technologies that most participants may not use today, which allows for tighter time-synch tolerances
  - Firms would need to evaluate using time-synch systems in more places than today. Review internal systems for where they capture the timestamps that they report, and potentially implement changes in that regime.
- The effort would be 4 – 6 months of work, no difference between a 50 and 100 millisecond tolerance – (2 firms)
- Establishing a tolerance of 50 vs. 100 millisecond does not impact implementation but it may impact operational, ongoing costs due to the number of alerts and the amount of time spent resolving those alerts
  - Extending the clock drift tolerance to 100 milliseconds would definitely help (4 firms)

At the request of the SRO members of DAG, FIF polled its membership regarding the percentage of options order flow that is handled manually. For the purposes of this estimate, firms considered orders received manually and orders manually routed the floor as manual order flow.

Fifteen firms responded to this feedback request.

- Vendors – Vendors responded that this question is not applicable to their business.
- Retail firms – Negligible manual order flow.
- Institutional firms - Less than 1% of their order flow is manual
- Full Service options market makers reported the following:
  - 20% manual order flow
  - 30% orders manual representing 66% volume;
  - 40% manual for client/firm flow outside market making (Two firms with a similar profile reported these results.)