

# SYNC-N-SCALE PERSPECTIVES

*on FINRA Proposal to Tighten Business Clock Synchronization Requirements*  
*([Regulatory Notice 14-47](#))*

February 19, 2015

TO: Marcia E. Asquith  
Senior Vice President and Corporate Secretary  
1735 K Street, NW  
Washington DC 20006-1500

## Contents

The FINRA Requirement.....	1
Sync-n-Scale Perspectives on the Requirement .....	1
Trust But Verify .....	3
A Definitive Transition Timetable.....	3
A Longer-Term Vision .....	3

# Background

## THE FINRA REQUIREMENT

The Financial Industry Regulatory Authority (“FINRA”) issued its Regulatory Notice 14-47, a proposal to reduce the synchronization tolerance for computer system clocks for purposes of recording the date and time of any event that must be recorded pursuant to the FINRA By-Laws or other FINRA rules (e.g., the time a trade was executed or the time an order was received or routed), with reference to a time source as designated by FINRA. Under the proposal, the tolerance for computer system clocks would be reduced to 50 milliseconds.

FINRA believes the current one-second tolerance is no longer appropriate for computer system clocks recording time under FINRA rules. As the Securities and Exchange Commission (SEC) has recognized, it is critical for regulators to have the capability to accurately determine the sequence in which all reportable events occur. Timestamp accuracy at the millisecond precision level is essential for the accurate sequencing of order, quote and trade events across market participants and market centers.

FINRA acknowledges there will be costs in becoming compliant with the new required computer system clock tolerance. These costs will likely vary across firms depending on their current technology systems and procedures, and other business factors. FINRA understands that some firms already synchronize their computer clocks within 50 milliseconds, and as a result, they will not incur any material costs associated with this proposal.

Therefore, while it may be more burdensome for some of its 4,000+ member firms to comply with the new required tolerance, FINRA also believes it can be achieved by the majority of firms.

## SYNC-N-SCALE PERSPECTIVES ON THE REQUIREMENT

We appreciate the opportunity to offer our perspectives and to comment on the FINRA proposed requirement. As a technology partner of the [National Institute of Standards and Technology \(NIST\) Time and Frequency Division](#) and of [Microsoft, Sync-n-Scale](#) brings significant expertise in this area to the discussion. We commend FINRA for its leadership and focus in addressing this technological issue across the financial services industry.

This proposal is timely. An industry-wide guideline for compliance is very much needed due to the complex and dynamic IT environments being employed by the financial services sector. A consistent application of this requirement will be critical in creating and maintaining fundamental transparency in the infrastructure that is often arcane and invisible to most.

This requirement is highly likely not an onerous imposition on market participants in any of the relevant dimensions: financially, technologically and operationally. State-of-the-art solutions are now commoditizing what used to be highly complex tools of the trade accessible only to those who can afford them and have the in-house sophisticated IT skills to operate them. Anxiety amongst FINRA member firms would likely be mitigated by increased awareness of these cost-effective options.

## A Shared Outlook

Our technology partners share similar outlook and perspectives. We expect others across IT and financial services industries to agree with FINRA on the needs for this requirement, and the benefits garnered from its adoption.

“Virtualization technology, processor performance and networking complexity outpace deliverable accuracy in legacy time synchronization solutions. Worldwide large-scale datacenters and cloud-based IT solutions create new challenges for operators, developers and customers to meet business and regulatory requirements for workloads demanding system clock accuracy and precision across geographic locations” said Thomas Pfenning, Partner, Director of Software Engineering, Windows Server Foundation, Enterprise Cloud Group, Microsoft Corporation.

“Microsoft welcomes Sync-n-Scale as a hardware partner who is advancing the Windows Server platform in this technology space, completing our own engineering investments to meet customer computing needs spanning on-premises and cloud spaces in a cost-effective manner” added Chris Phillips, General Manager, Partner and Customer Ecosystems and Experiences, Enterprise Cloud Group, Microsoft Corporation.

## Considerations

Sync-n-Scale respectfully submit the following topics for further consideration.

### **TRUST BUT VERIFY**

For the implementation of this requirement to be an effective tool in restoring public trust, creating a level playing field and enhancing marketplace competition, compliance must be verifiable and uniformly applied to all FINRA member firms inclusive of their operating locales across US and worldwide geographies, as well as cloud space.

The unprecedented demand for hyper-transparent business practices will undoubtedly place those in equity trading at the top of concerns. Full transparency of compliance capabilities would allow FINRA member firms to inform their customers and to meet their expectations with respect to the risk or sensitivity of the engaged financial services being offered.

FINRA member firms should be allowed to decide on an end-point of their transitional period into compliance with this requirement according to their respective business priorities while maintaining the expected transparency for their customers.

### **A DEFINITIVE TRANSITION TIMETABLE**

As a matter of policy, a time-bound transition period for FINRA member firms to become compliant with this requirement should be encouraged instead of simply allowing marketplace attrition to take its toll on those lagging behind in the technology curve.

A bifurcated distinction of mechanical time-stamping devices and computer system clocks, and different permissible drift tolerance for each would create opportunities however slight for *gaming the system*. The longer this duality is maintained the likely higher cost of enforcement and monitor will incur and be borne by the regulatory bodies.

### **A LONGER-TERM VISION**

In parallel to this discussion, it has been widely accepted that precise time is crucial to other economic activities around the world. This is about keeping the economy, literally and figuratively, ticking. Effective solutions in this space are needed by other industry segments as well. Innovations for meeting the larger needs will undoubtedly emerge from collaborations across industry, government and academia.

We further submit that continued technical oversight by the appropriate national laboratories is critical in engineering, deployment and operational activities of this effort. This would establish a consistent set of guidelines for FINRA member firms to adopt and meet this requirement. The lessons learned in doing so would benefit similar endeavors implemented by those in other industry segments.