

Clock Synchronization

SEC Approves Rule Change to Reduce the Clock Synchronization Tolerance for Computer Clocks Used To Record Events in NMS Securities and OTC Equity Securities

Effective Date: August 15, 2016

Phase 1 Implementation Date (systems that capture in milliseconds): February 20, 2017

Phase 2 Implementation Date (systems that do not capture in milliseconds): February 19, 2018

Summary

The Securities and Exchange Commission (SEC) approved a new clock synchronization standard of 50 milliseconds applicable to computer clocks that are used to record certain events in NMS securities or OTC equity securities. Firms have six months from the effective date, until February 20, 2017, to apply the new 50 millisecond standard to impacted system clocks that capture time in milliseconds. Firms have eighteen months from the effective date, until February 19, 2018, to apply the new standard to impacted system clocks that do not capture time in milliseconds.

The new rule text is available on FINRA's website.

Questions regarding this *Notice* should be directed to:

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Notice Type

- ▶ Rule Amendment

Suggested Routing

- ▶ Compliance
- ▶ Legal
- ▶ Operations
- ▶ Systems
- ▶ Trade Reporting
- ▶ Trading
- ▶ Training

Key Topics

- ▶ Books, Records and Reports
- ▶ Business Clocks
- ▶ Clock Drift
- ▶ OATS Reporting
- ▶ Recording of Order, Quotation, and Trade Information
- ▶ Time Stamping
- ▶ Trade Reporting

Referenced Rules and Regulatory Notices

- ▶ FINRA Rule 4590
- ▶ FINRA Rule 7430
- ▶ Regulatory Notice 14-47
- ▶ SEC Rule 613

Background and Discussion

On April 8, 2016, the SEC approved FINRA's proposed rule change to reduce the synchronization tolerance for computer clocks that are used to record events in NMS securities and OTC equity securities from one second to 50 milliseconds.¹ Current FINRA rules require that firms synchronize any business clock that is used for the purpose of recording the date and time of any event that must be recorded pursuant to the FINRA By-Laws or other FINRA rules. Business clocks subject to the current requirement must be synchronized to within one second of the National Institute of Standards and Technology (NIST) atomic clock.

Under the rule change, computer clocks that are used to record events in NMS securities and OTC equity securities must be synchronized to within a 50 millisecond drift tolerance of the NIST atomic clock. The tolerance includes:

- ▶ the difference between the NIST standard and a time provider's clock;
- ▶ transmission delay from the source; and
- ▶ the amount of drift in the member's clock.

Firms will have six months from the effective date, until February 20, 2017, to meet the new synchronization standard for clock systems that capture time in milliseconds. Firms will have 18 months from the effective date, until February 19, 2018, to meet the new synchronization standard for clock systems that do not capture time in milliseconds.² Based on this implementation schedule, a firm may have some systems subject to the rule by February 20, 2017, and other systems subject to the rule by February 19, 2018.

FINRA notes that the approved rule change only tightens the clock synchronization requirements already applicable to business clocks used to record events in NMS securities and OTC equity securities. FINRA is not making any other substantive changes to the scope or application of its existing synchronization requirement. For technical clarity, the approved change relocates FINRA's clock synchronization rule from the OATS rule set to the generally applicable rule set for firm operations.³ However, the scope and application of the rule have not changed except for the adoption of the 50 millisecond standard described above.

The relocated rule—new FINRA Rule 4590—continues to require synchronization of business clocks that are used for the purpose of recording the date and time of any event that must be recorded pursuant to the FINRA By-Laws or other FINRA rules.⁴ Rule 4590 would continue to apply a one-second synchronization standard to clocks not subject to the new 50 millisecond standard, such as mechanical time stamping devices or computer clocks that are used to record events for securities other than NMS securities or OTC equity securities. Finally, Rule 4590 also continues to provide the same guidance in supplementary material on recordkeeping for purposes of demonstrating clock synchronization compliance.

Endnotes

1. See Securities Exchange Act Release No. 77565 (April 8, 2016), 81 FR 22136 (April 14, 2016) (Order Approving SR-FINRA-2016-005).
2. FINRA notes that since the SEC approved this rule change, the SEC published notice of the NMS Plan to create a Consolidated Audit Trail that was submitted by the exchanges and FINRA pursuant to SEC Rule 613 (CAT NMS Plan). The CAT NMS Plan, as required by Rule 613, proposes its own clock synchronization requirements. The CAT NMS Plan may require FINRA to re-evaluate its clock synchronization standard or implementation timeline.
3. As FINRA explained when it filed the rule change with the SEC, the existing clock synchronization rule was located in the OATS rule set, although it applied more broadly to any clocks used to record the date and time of any event that must be recorded under FINRA By-Laws or rules. See Securities Exchange Act Release No. 77196 (February 19, 2016), 81 FR 9550 (February 25, 2016) (Notice of Filing of SR-FINRA-2016-005). As part of the rule relocation, FINRA will move its existing FAQs on clock synchronization from the OATS FAQ set to its own page.
4. To the extent a firm maintains a system that records information solely for events that do not need to be recorded under FINRA By-Laws or rules, the system would not be subject to FINRA synchronization requirements. See, e.g., Securities Exchange Act Release No. 77724 (April 27, 2016), 81 FR 30614, 30659-30674 (May 17, 2016) (publishing notice of the CAT NMS Plan and describing the current state of trade and order data recording and reporting).