

# What you need to know about the SEC's Consolidated Audit Trail (CAT) Clock Synchronization Rules, and what it means for broker dealers.

## Background

As part of the National Market Plan Governing the Consolidated Audit Trail (the "CAT NMS Plan" or "CAT"), Industry Members must comply with the business clock synchronization requirements. We are sending this communication to your firm as we have identified your firm as potentially subject to these rules.

CAT Industry Member Firms are required to comply with the clock synchronization and certification requirements pursuant to CAT NMS Plan. As such your Business Clocks, other than such Business Clocks used solely for Manual Order Events or used solely for the time of allocation on Allocation Reports, must be synchronized at a minimum to within a fifty (50) millisecond tolerance of the time maintained by the atomic clock of the National Institute of Standards and Technology ("NIST"), and maintain such synchronization. For Manual Orders and Allocation Reports, its Business Clocks must be maintained and synchronized to within a one second tolerance of the NIST.

## Synchronization Procedures

As an Industry Member, you are required to:

- document and maintain your synchronization procedures
- keep a log of the times you synchronize along with the result of the synchronization process
- synchronize your Business Clocks every business day before market open
- check its synchronization at pre-determined intervals throughout the business day
- maintain a log and document whenever a Business clock fails to be within the applicable tolerance of the time maintained by the NIST.

## Certification Regarding Business Clock Synchronization

In addition to the above procedures, CAT rules require you to annually certify that your Business Clocks satisfy these synchronization requirements, by March 15<sup>th</sup> of each year. CAT requires the completion of the certification form by that date and that the certification document be maintained as part of your books and records and be made available for inspection upon request by regulators.

As part of the certification requirement, your firm must maintain your own policies and procedures to comply with the clock synchronization requirements. However, your firm, as an Introducing Broker, can include in your own written supervisory procedures the certification procedures conducted and certified by Interactive Brokers as it pertains to our business clocks. Annually, IB will provide its completed Certification form to your firm as well as to regulators upon request. The Certification will also be located on the Firm's website at: [ibkr.com/catcertification](http://ibkr.com/catcertification) along with the annual certification as required by the CAT NMS Plan.

## How We Synchronize

IB utilizes a Network Time Protocol ("NTP") UNIX client/server application to continuously synchronize the server time to the Coordinated Universal Time ("UTC") to less than 10 microseconds or 0.01

milliseconds. The UTC is maintained by the National Institute of Standards and Technology (“NIST”). Throughout the day, a process runs to identify any clock on one of our brokerage system host computers that has drifted from the synchronized UTC time. If the process detects that a clock’s time has drifted greater than a designated parameter away from the UTC, an alarm is generated and sent to the IB’s Systems Administrative Group where it is reviewed, corrected and escalated, as required. On a daily basis, the NTP Systems Administrator reviews the NTP hourly statistics log to confirm that any synchronization issues are addressed according to the supervisory procedures.