

MiFID II 100 microsecond time sync on Windows with TimeKeeper and Mellanox

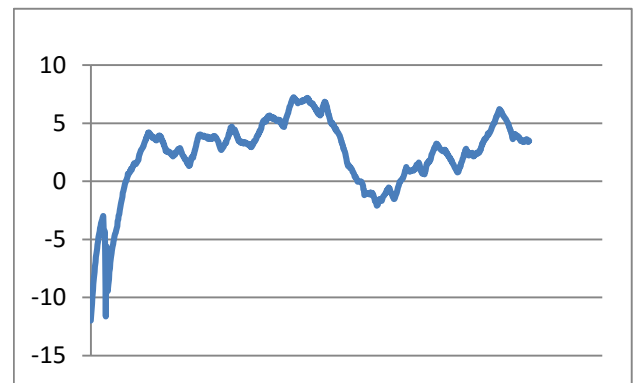
Accurate time on Microsoft Windows is easy to achieve when using TimeKeeper software and Mellanox ConnectX network adaptors. The most stringent of the MiFID II clock synchronization requirements of 100 microseconds can be met without changes in infrastructure, exotic protocols (such as PTP) or dedicated hardware.

Many TimeKeeper customers operate clocks with a better than 1 microsecond accuracy for business logic reasons. This is 100x the highest MiFID II standard and it normally involves Linux Servers and high quality network clocks. Clocks on Microsoft Windows servers are more of a challenge for several reasons, but the 100 microsecond standard is easy to meet with a solid network connection.

To the right you can see a graph of the time accuracy of a Windows Server (2012R2) running TimeKeeper software and connecting to the network via a ConnectX adaptor. The Y axis is in microseconds. TimeKeeper is using the standard NTP protocol to get time from a Velasync time server. Error is well below 100 microseconds with no special network cards, protocols or switches.

Time Offset – Validated with GPS

Over a 4 hour test time stays within +/- 10 microseconds of the correct time when checked with a GPS reference



Accuracy is easy and it is just the start

All that's needed to achieve a high level of accuracy is to install the TimeKeeper software and to provide a high quality NTP link over a high end network adaptor. Configuration takes about 30 seconds. Even lower quality NTP network clocks can be made accurate with TimeKeeper as a software stratum server (contact FSMLabs support for assistance).

How to purchase

TimeKeeper, TimeKeeper Server Software, and TimeKeeper Client Software are all available from FSMLabs and FSMLabs' resellers. For purchase information or for a live demonstration of TimeKeeper please contact FSMLabs at sales@fsmlabs.com.

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