

## MiFID II required 100 microsecond time sync on Windows is easy

Accurate time on Microsoft Windows is easy to achieve when using TimeKeeper software. 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.

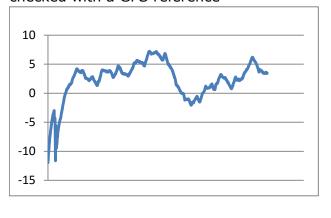
Many TimeKeeper customers operate clocks with a better than 1 microsecond accuracy for business logic reasons. This is 100x the highest MiFID II standard and it normally involves Linux Servers and high quality.

involves Linux Servers and high quality network clocks such as the VelaSync 10G/40G. Clocks on Microsoft Windows servers are more of a challenge for several reasons, but the 100 microsecond standard is easy to meet.

To the right you can see a graph of the time accuracy of a Windows Server (2012R2) running TimeKeeper software. 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

**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



microseconds with no special network cards, protocols or switches.

## Accuracy is easy and it is just the start

All that's needed to achieve this level of accuracy is to install the TimeKeeper software and to provide a high quality NTP link. Configuration takes about 30 seconds. Although many NTP network clocks are not accurate enough to meet the standard, there is a TimeKeeper solution even in this case – a software stratum server can be constructed with minimal hardware (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 <a href="mailto:sales@fsmlabs.com">sales@fsmlabs.com</a>.

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