



FSMTime™

SECURE ENTERPRISE CLOCK SYNC™

by FSMLabs

STAC Summit NYC | Oct 17, 2019

**In Production: Better than 100 Nanoseconds Accuracy,
ML-Based NTP/PTP, Fault Tolerance, and Forensic Traceability**

Victor Yodaiken | CEO | yodaiken@fsmlabs.com



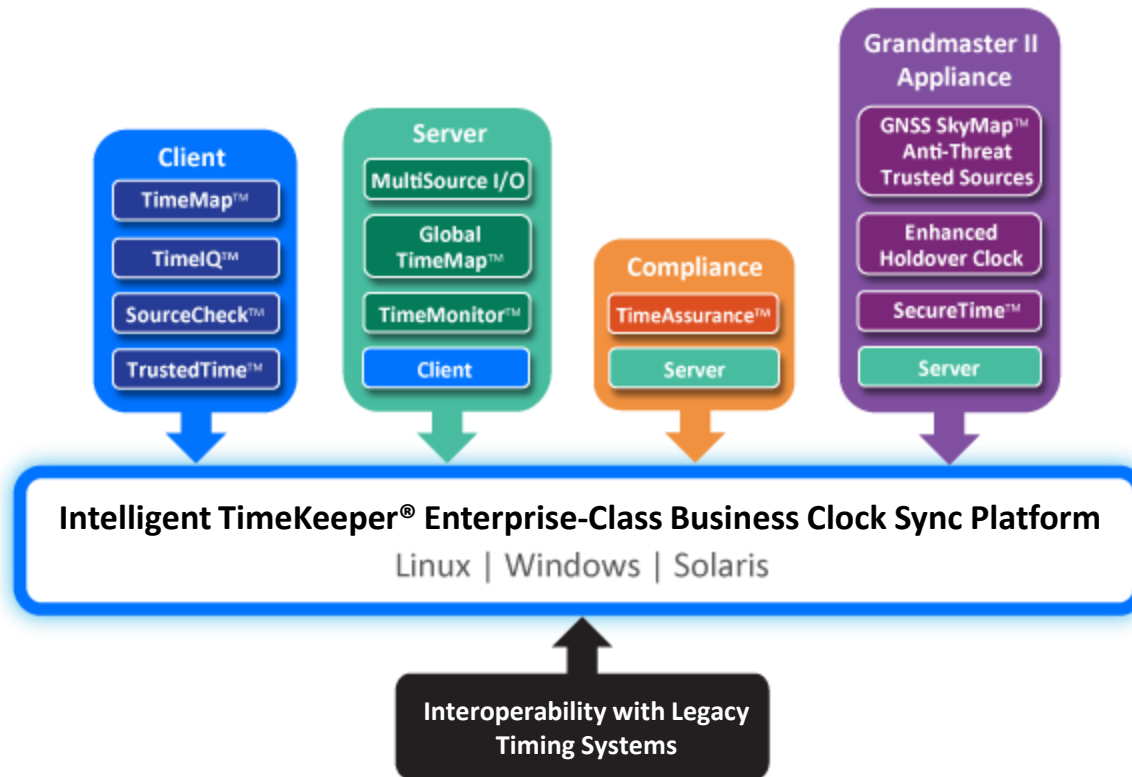
TimeKeeper Business Clock Sync

- More than 5 years of **production use** at the world largest banks, exchanges, market makers, hedge funds and many cutting-edge smaller players
- PTP and NTP **routinely** down to 50 nanoseconds accuracy
- Flexible use on cloud/VM, bare metal, shared and dedicated networks
- Built in fault tolerance/security
- No special hardware needed
- Not a simulation



Not STAC Benchmarks

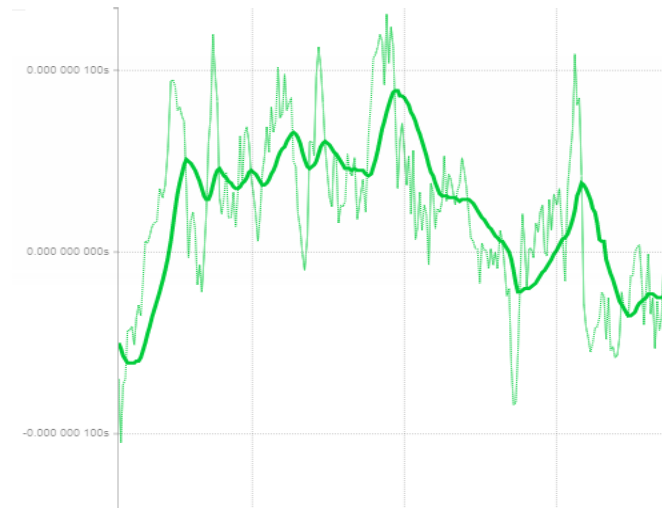
End to End Complete Solution





Flexibility and Interoperability

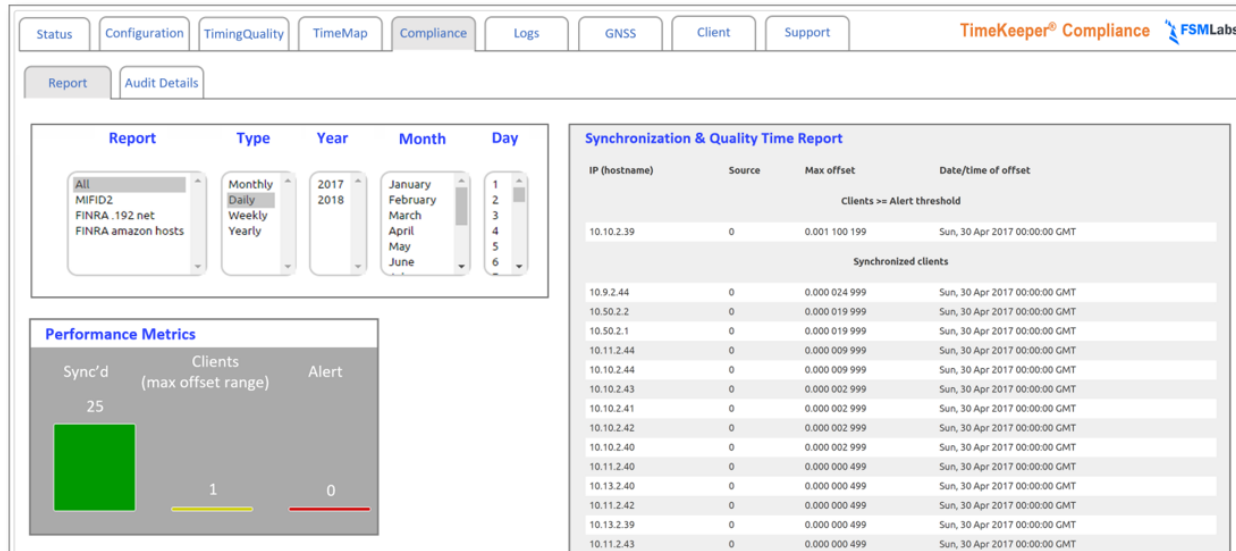
- **Best performance on:**
 - Bare metal/10G+ networks
 - HW timestamps, fast switches
 - TK GNSS, TK Server, TK Client, TK Compliance full platform
- **ML-optimized** no matter what:
 - WANS,
 - VMs, Cloud,
 - Older networking hardware
 - Even Solaris! (and both Linux and Windows)
 - PTP and NTP
 - mix and match interoperable clock sync technology





TimeKeeper Compliance

- Builds a comprehensive searchable database of aggregated clock records or logs
- **Purposes:** data integrity support/monitoring; network forensics; and regulatory audit reporting (MiFID II, CAT NSM, UTC/NIST/GPS traceability, etc.), all in real time





The TimeKeeper Competitive Difference

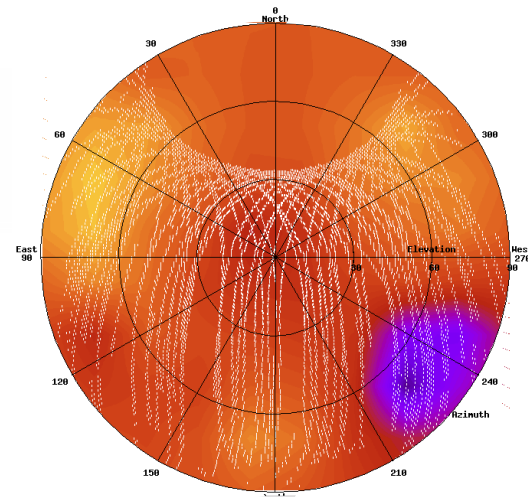
- Cost effective
- Lowest total cost of ownership
- Secure, resilient clock sync
- Fault tolerant
- Best assured business clock accuracy & precision

Not sure? Get a **TimeAuditSM**



Integrated GPS/GNSS SkyMap™

**Anti-Spammed/Spoofed
Business Clock**



Assured UTC / NIST traceability