



# Timing and Synchronization Systems

**Timing Regulatory Issues**

November 2015

## Timing Regulatory Issues

The complexities of R&D, product trials, business transactions and ongoing communications with partners, consumers and government agencies have prompted exacting requirements for validating electronic information exchanges and transactions within and between organizations. New and existing laws and regulations put every organization's approach to managing information under increased scrutiny. Many of these regulations require strict adherence to good time keeping practices.

The following is a list of regulatory issues that either have as part of their compliance a need for good time management or that would be well served with good time management.

### FDA 21 CFR Part 11

21 CFR Part 11, the FDA guidelines for trustworthy electronic records, requires companies to employ procedures and controls designed to ensure the authenticity, integrity and when appropriate the confidentiality of electronic records, and to ensure that the signer cannot readily repudiate the signed record as not genuine.

To satisfy this requirement persons must, among other things, employ procedures and controls that include the use of computer generated time stamps.

[Download this PDF](#) to find out how Microsemi® NTP time servers and Domain Time II software can easily solve all of the time compliance requirements for 21 CFR Part 11.

### OATS

NASD Rule 6953 requires member firms that record order, transaction, or related data required by the Bylaws or other rules of NASD to synchronize all business clocks, including both computer system clocks and mechanical time stamping devices, that are used to record the date and time of any market event. In addition, the Rule requires that member firms maintain the synchronization of such business clocks.

The SyncServer S100 is currently being used by a number of firms to comply with this OATS regulation. [Learn more about this regulation.](#)

### E-SIGN

Electronic Signatures in Global and National Commerce Act ("E-SIGN") (Public Law 106-229) enacted on June 30, 2000. E-SIGN eliminates legal barriers to the use of electronic technology to form and sign contracts, collect and store documents, and send and receive notices and disclosures.

### UETA

The UETA (Uniform Electronic Transactions Act) presents legal recognition of electronic records, electronic signatures, and electronic contracts.

- A record or signature may not be denied legal effect or enforceability solely because it is in electronic form.
- A contract may not be denied legal effect or enforceability solely because an electronic record was used in its formation.
- If a law requires a record to be in writing, an electronic record satisfies the law.
- If a law requires a signature, an electronic signature satisfies the law.

[Read the latest on the Uniform Electronic Transactions Act \(UETA\),](#)

## Sarbanes-Oxley

The FDA has guidelines for establishing trustworthy electronic records. NASD has rules about how member firms record order, transaction, or related data. The Sarbanes-Oxley law legislates acceptable conduct regarding the retention of records; electronic and paper for public companies and their executives. All of these regulations, guidelines and laws have one thing in common when it comes to electronic records – the time on their systems must be accurate and auditable.

Microsemi's [Domain Time II Audit Server software](#) is specifically designed for companies that must comply with federal or industry-specific regulations. Domain Time II Audit Server is an audit collection system that reduces the potential for fraud by automatically establishing transaction validity in enterprise environments.

Audit Server is a system designed to work in conjunction with Microsemi's [Domain Time II time synchronization suite](#) to provide a secure, verifiable audit trail of the time synchronization of mission-critical networks. By automatically and routinely auditing the time synchronization accuracy of every computer on a network, Audit Server provides the clear, indisputable records needed to easily resolve any contested timestamp issue that may arise.

"Domain Time II Audit Server provides all types of organizations and their stakeholders with the needed confidence that the original time of their digital communication records can be proven accurate today and tomorrow," says Trent Henry, security analyst for the Burton Group. "Having a strong record of when an enterprise's time was synchronized and with what time source contributes to the integrity of a digital audit trail within an enterprise."

The audit records collected by Microsemi's Audit Server include complete information to allow auditors to determine precisely when a machine was last synchronized, with what time source, as well as its variance from the reference time source.

Full time audit records can be collected and maintained from any machine running Domain Time II time sync components on Microsoft Windows (Nasdaq:MSFT), Sun Solaris (Nasdaq:SUNW), FreeBSD and Redhat Linux (Nasdaq:RHAT) platforms. In addition, Audit Server can collect information from Network Time Protocol sources (such as time servers, routers, national time authorities, etc.) so that all time devices used in synchronization are tracked.

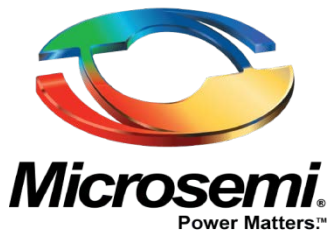
"With regard to complying with regulations, the integrity of an IT network's time source is critical," says Paul Skoog, Microsemi's IP network timing product marketing manager. "The Audit Server integrates perfectly with the Domain Time II time synchronization suite which connects securely to a trusted network time source, such as a Microsemi dedicated GPS referenced network time server. This system integration meets or exceeds regulatory requirements for time keeping, while keeping the audit process relatively painless and with very low-overhead."

Currently, Microsemi is offering a free 30 day trial of the Audit Server Software along with a 30 day free trial of the complete Domain Time II suite. Find out how you can comply with your industry's regulations, without the added burden of ever having to worry about it again

## 17 CFR 240.17a-4

17 CFR 240.17a11 requires broker-dealers to give notice when certain specified events occur.

Specifically, the rule requires a broker-dealer to give notice of a net capital deficiency on the same day that the net capital deficiency is discovered or a broker-dealer is informed by its designated examining authority or the Commission that it is, or has been, in violation of its minimum requirement under Rule 15c31.



**Microsemi Corporate Headquarters**  
One Enterprise, Aliso Viejo,  
CA 92656 USA

**Within the USA:** +1 (800) 713-4113  
**Outside the USA:** +1 (949) 380-6100  
**Sales:** +1 (949) 380-6136  
**Fax:** +1 (949) 215-4996

**E-mail:** [sales.support@microsemi.com](mailto:sales.support@microsemi.com)

© 2015 Microsemi Corporation. All rights reserved. Microsemi and the Microsemi logo are trademarks of Microsemi Corporation. All other trademarks and service marks are the property of their respective owners.

Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system solutions for communications, defense & security, aerospace and industrial markets. Products include high-performance and radiation-hardened analog mixed-signal integrated circuits, FPGAs, SoCs and ASICs; power management products; timing and synchronization devices and precise time solutions, setting the world's standard for time; voice processing devices; RF solutions; discrete components; security technologies and scalable anti-tamper products; Ethernet solutions; Power-over-Ethernet ICs and midspans; as well as custom design capabilities and services. Microsemi is headquartered in Aliso Viejo, Calif., and has approximately 3,600 employees globally. Learn more at [www.microsemi.com](http://www.microsemi.com).

Microsemi makes no warranty, representation, or guarantee regarding the information contained herein or the suitability of its products and services for any particular purpose, nor does Microsemi assume any liability whatsoever arising out of the application or use of any product or circuit. The products sold hereunder and any other products sold by Microsemi have been subject to limited testing and should not be used in conjunction with mission-critical equipment or applications. Any performance specifications are believed to be reliable but are not verified, and Buyer must conduct and complete all performance and other testing of the products, alone and together with, or installed in, any end-products. Buyer shall not rely on any data and performance specifications or parameters provided by Microsemi. It is the Buyer's responsibility to independently determine suitability of any products and to test and verify the same. The information provided by Microsemi hereunder is provided "as is, where is" and with all faults, and the entire risk associated with such information is entirely with the Buyer. Microsemi does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other IP rights, whether with regard to such information itself or anything described by such information. Information provided in this document is proprietary to Microsemi, and Microsemi reserves the right to make any changes to the information in this document or to any products and services at any time without notice.