

The Surety Integrity Advantage[®]

Trusted Time-stamping: Legally Defensible Data Integrity Assurance

Virtually all information generated today originates as digital data; leading analyst firms estimate that approximately 90 percent of business documents are generated, managed and stored in electronic format. They also confirm that more than 80 percent of all security breaches and electronic record tampering occur inside an organization's perimeter.

How can you prove that the electronic records that support your ethical business processes have never been altered?

You build internal controls, deploy technology and hire trustworthy employees to ensure that your business processes have integrity. But, even excellent business processes cannot bear witness to the integrity of the electronic records that are managed inside and transmitted outside of your organization each day.

In the analog world, tampering with paper documents, dubbing audio-tape or splicing videotape, is fairly difficult to do yet very easy to detect. In the digital world, the reverse is true - with easy-to-use desktop publishing tools and easy-to-change computer clocks, it is simple to alter a document, change metadata, forge a picture or alter a surveillance video, but nearly impossible to detect.

Bad information due to internal or external misuse can lead to poor decision making, lost reputation and lost customers. You need the power to prove that your trade secrets, legal documents and accounting records have not been altered at any time during their useful lives.

Ask yourself one simple question:

What's on your computer that you need to protect? If you have an answer, you need The Surety Integrity Advantage.

The Surety Integrity Advantage simply put is applying a legally defensible, secure time-stamp to your most crucial asset, your intellectual property.

Your organization's intellectual property encompasses legal documents, financial records, trade secrets and contracts; it is more valuable than your fleet of trucks, your factory buildings, your airplanes, and your inventory. Information drives your

business processes; it drives new drug discoveries and inventions; it supports your patents, trademarks and copyrights; it spurs management decisions; and it defends you in litigation.

Secure time-stamping unquestionably proves that the contents of your work existed at a point-in-time and that the contents have not changed since that time. Legally defensible proof.

"HOPE, LUCK OR IGNORANCE OF A PROBLEM CANNOT BE USED AS STRATEGIES FOR MANAGING INFORMATION BREACHES."

- Going Beyond ECM Security: Dynamic Information Access Control
Carl Frappaolo, The Delphi Group

What are you doing today to protect your organization's most precious asset?

Data integrity assurance is a senior management and corporate board responsibility; failure to adopt effective policies, processes, and technologies will expose your organization to strategic risks. These risks include:

- ▶ Statutory violation and regulatory non-compliance
- ▶ Board, management and employee liability
- ▶ Legal sanctions and criminal penalties
- ▶ Damage to reputation, brand, and shareholder value
- ▶ Undermine market and investor confidence

You protect your people, property and inventory by purchasing insurance; assurance of the integrity and authenticity of your vital electronic assets from creation to permanent preservation should be paramount to your organization.

Mitigate your risk and liability against any possible crisis that could affect your goodwill, trade secrets or compliance efforts.

Surety is a trusted third-party timestamp authority. We deliver the Surety Integrity Advantage via our flagship secure time-stamping solution, AbsoluteProof[®]. AbsoluteProof is ideally suited for organizations that rely on electronic records for legal, regulatory and other critical business processes.

AbsoluteProof enables organizations to detect tampering or inadvertent altering of electronic data and maintain verifiable evidence of data authenticity from creation to permanent preservation.

Surety uses proven, secure hash algorithms in its AbsoluteProof ASP service. Secure hashing algorithms are used in many

applications today to prove the integrity of data. Surety uses two hashing algorithms in its process to provide added security and protection to your electronic records.

When you time-stamp a document using AbsoluteProof, your computer creates a unique "fingerprint" of the file, which we term a Surety Integrity Seal™ (Seal). The Seal is a unique number calculated from the file's contents - based on SHA-256 plus RIPEMD-160 hashing algorithms. If the file's contents were to change by even one character, a different number would be calculated.

ABSOLUTEPROOF IS BASED SOLELY ON INDEPENDENTLY VERIFIABLE SECURE CRYPTOGRAPHIC HASHING ALGORITHMS RATHER THAN TRUST-BASED CRYPTOGRAPHIC KEYS THAT ARE SUSCEPTIBLE TO COMPROMISE AND KEY LIFE ISSUES.

Key attributes of a trusted time-stamping solution:

- ▶ *Independent* from your people, processes and systems
- ▶ Portable and can travel with your electronic document and be verified by external parties
- ▶ *Persistent* and provides indefinite data integrity, free from the dependency on any underlying hardware or software
- ▶ *Transparent* and "widely-witnessed" enabling validation autonomously from the provider's own people, processes and systems

Trusted time-stamping: the cornerstone of data integrity

The rapid obsolescence of hardware and software, vulnerability of digital storage media and ease with which electronic records can be altered is driving the demand for secure time-stamping technology. Life sciences, healthcare, R&D, engineering, legal, financial, academia, e-commerce, creative and any organizations that require trustworthy electronic documents that maintain their evidentiary value over time will benefit from The Surety Integrity Advantage: trusted time-stamping. Without it, you have a situation where you cannot trust anything generated by any computer.

It is mathematically infeasible to find two electronic documents with the same hash - since SHA-256 produces a 256-bit hash value and RIPEMD-160 produces a 160 hash value, the difficulty of finding a document that produces the same hash value is on the order of 2^{416} . To put it into perspective, this number is larger than the estimated number of atoms in the universe.

Use AbsoluteProof to provide an external witness to the existence and authenticity of your data.

An external or third-party time-stamp proves that people within your organization and outside of your corporate perimeter did not alter nor backdate your electronic data. For example, your system administrators under duress from a corrupt corporate executive cannot tamper with our secure time-stamp; nor can an external auditor persuaded by a corrupt corporate executive tamper with our secure time-stamp.

"UNLESS WE HAVE TOOLS TO TEST THE AUTHENTICITY OF DIGITAL INFORMATION, THE SEARCH FOR TRUTH SIMPLY FALLS APART."

- The Authenticity Crisis
George Paul, Lewis and Roca LLP

Your data remains private throughout our Sealing process. AbsoluteProof is designed so that Surety never sees or handles your electronic record; this alleviates any concern regarding the release of sensitive data to an outside party. Throughout the Sealing process, only the Seal (or fingerprint) is transmitted to Surety. None of the content of your electronic document can be determined from the Seal, so reverse engineering of the Seal into the original document is not possible.

The result is *independent, portable, persistent* and *transparent* proof of electronic record integrity.

About Surety, LLC

Founded in 1994, by two prominent Bellcore Scientists, Surety is recognized as a premiere trusted third-party time-stamping authority. The Company's flagship product AbsoluteProof® enables organizations to meet the legal, fiduciary and regulatory responsibilities associated with creating, managing and archiving electronic data by providing verifiable evidence of data authenticity. Their client base is made up of legal and financial services firms, research and development laboratories and copyright protection agencies that are ensuring record integrity with AbsoluteProof. For more information, visit www.surety.com.