



THE POWER  
OF PROOF

### AbsoluteProof from Surety:

- Digitally “seals” electronic content, safeguarding IP and record integrity
- Guarantees trustworthy records and content
- Enables legally defensible proof of authenticity and ownership
- Delivers long-lasting content protection
- Enables flexible workflow processes, completely transparent to users
- Mitigates risk and provides proof of compliance.

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# AbsoluteProof® from Surety® Independently-Verifiable, Long- lasting Proof of Record Authenticity

## Value Summary

### Enable Proof of Record Authenticity



Built on ISO/IEC 18014-2 and ANSI X9.95 Trusted Time Stamp standards, the AbsoluteProof Service from Surety ensures the integrity of electronic records, files or any digital content by establishing that they were created on a specific date and have not been tampered with since. It is the only long-lived, cryptographically verifiable data integrity service in the world.

### How AbsoluteProof Works

AbsoluteProof protects the integrity of your electronic documents by cryptographically “sealing” them using an AbsoluteProof Seal. An AbsoluteProof Seal binds a “digital fingerprint” of your document to a reliable timestamp representing the current time. This fingerprint is unique to the document so that any change in the document will cause its fingerprint to change. Once you have a valid Seal, you can use it to prove that your document existed at the stated time and hasn’t changed since. This is a simple matter of recreating the fingerprint and comparing it to the fingerprint in a Seal. If they match, you have proof that your document hasn’t changed since it was sealed.

As an extra measure of security, Surety calculates a mathematical (cryptographic) summary value from all the Seals it creates in a given week, and publishes that value in *The New York Times*. This “widely-witnessed” value provides an anchor for the security of the whole system. You can think of this value as a digital fingerprint of all the Seals produced that week. Both Surety’s internal records and the individual Seals produced during that week can then be checked against this publically available value to confirm their authenticity.

**NOTICES &  
LOST AND  
FOUND**  
(5100-5102)

Universal Registry Entries:

Zone 2 -  
dS8492cgVOFAoP9kyE1XzMOrQ  
HgEwzkVbVafNylkUz99ava8/ME  
p5y9EFSG8XxzMBaIGQQ==

Zone 3 -  
JnFCg+HCmvhj8GmmUP7VZna71  
NgZup/RfuKUQNzCHWXMuqLK  
durxHQV5pSHLqBGPRIy+mg==

These base64-encoded values represent the combined fingerprints of all digital records notarized by Surety between 2009-06-03Z 2009-06-09Z.  
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## Why Use AbsoluteProof from Surety?

Establishes that your electronic records existed at a particular point in time

AbsoluteProof Seals contain a reliable time stamp proving when your document was “sealed.” These time stamps are obtained from the US National Institute of Standards and Technology (NIST)—the official provider of standard time in the United States. Furthermore, the fact that your electronic record can be mathematically linked to summary values published in *The New York Times* provides indisputable proof that your “sealed” records, documents or files existed prior to the publication date.



Provides proof that your electronic records have not been altered

The digital fingerprint in an AbsoluteProof Seal provides a reliable way to prove that a record has not been altered. If the record is altered, its digital fingerprint will necessarily change. If you calculate the fingerprint and it matches the fingerprint in a valid Seal, you know that the record has not changed since the time shown on the Seal. The security in this process depends on the security of the algorithms used to create the fingerprint—called secure hash algorithms. AbsoluteProof uses two widely-analyzed and trusted standard hash algorithms to create each fingerprint: SHA-256 and RIPEMD-160.

Preserves the sensitivity of electronic records

When an AbsoluteProof Seal is created, only the digital fingerprint of the electronic record is sent to Surety. This means that sensitive records and documents never leave your corporate network. One of the characteristics of secure hash algorithms is that they are one-way. This means that you can create a fingerprint from a document, but you cannot gain any information about the document from the fingerprint. The one-way nature of secure hash functions guarantees that the content of your “sealed” document stays secure.

Delivers long-lasting protection of electronically stored information

AbsoluteProof is based entirely on standard hash functions and widely-witnessed integrity values. Unlike other solutions, there are no cryptographic keys or certificates that can expire and ultimately limit the life of the record’s protection. Surety’s patented Seal renewal process enables you to “upgrade” your level of protection when new and stronger secure hashing technology becomes available. This means that you can have integrity protection that lasts the lifetime of your records—regardless of how long you need to maintain them.



*AbsoluteProof is integrated directly into Rescentris's CERF ELN solution.*

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## Supports independent verification of electronic record authenticity

AbsoluteProof Seals are normally validated using the AbsoluteProof Service, but that isn't the only way they can be validated. Seals can also be independently validated using only the Seal and the corresponding widely-witnessed value. These widely-witnessed values will always be available, as *The New York Times* is archived all over the world, including the Library of Congress. Independent validation removes Surety from the process of proving the integrity of your documents and records. With independent validation, the proof of the integrity of your record depends entirely on the security of underlying secure hash algorithms used to create the Seal. No other parties are required. Since these algorithms are widely-analyzed and trusted, this puts you in the strongest possible position when defending the integrity of your digital content. With independent validation you are in complete control of the validation process. That process can be done today, 150 years from now, or for however long the records or files exist.



## About AbsoluteProof Data Integrity Protection Service

With millions of electronic records and files worldwide "sealed" by its service, Surety is a leading provider of data integrity protection solutions. Surety's AbsoluteProof digital time-stamp service can mitigate risk, create significant business value, and defend the integrity and authenticity of electronic records and other valuable digital content.

AbsoluteProof ensures against content tampering by providing a "digital wax seal" for all types of electronically stored content. Backed by a legal defensibility guarantee, AbsoluteProof ensures that electronic records, files, documents and other digital content sealed using the AbsoluteProof service will withstand the toughest legal scrutiny.

To learn more about how Surety's AbsoluteProof digital time-stamp service can help you protect the integrity and legally defend the authenticity of your digital assets, visit [www.surety.com](http://www.surety.com).



*Think of us as the modern-day "Digital Wax Seal"*

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