Guaranteeing Trustworthy Electronic Records™

"The Crisis of Trust and Electronic Record Integrity in the Corporation"

ARMA Gaithersburg – January 14, 2004

Tom Klaff, CEO, Surety

Agenda

- Crisis of Trust – The Problem
- Examples
- Limitations of Trust-based Systems?
- Surety Overview
- Electronic Record Integrity
  - Addressable Market
  - ROI Case Study
- Conclusion – Q & A

Crisis of Trust: The Problem

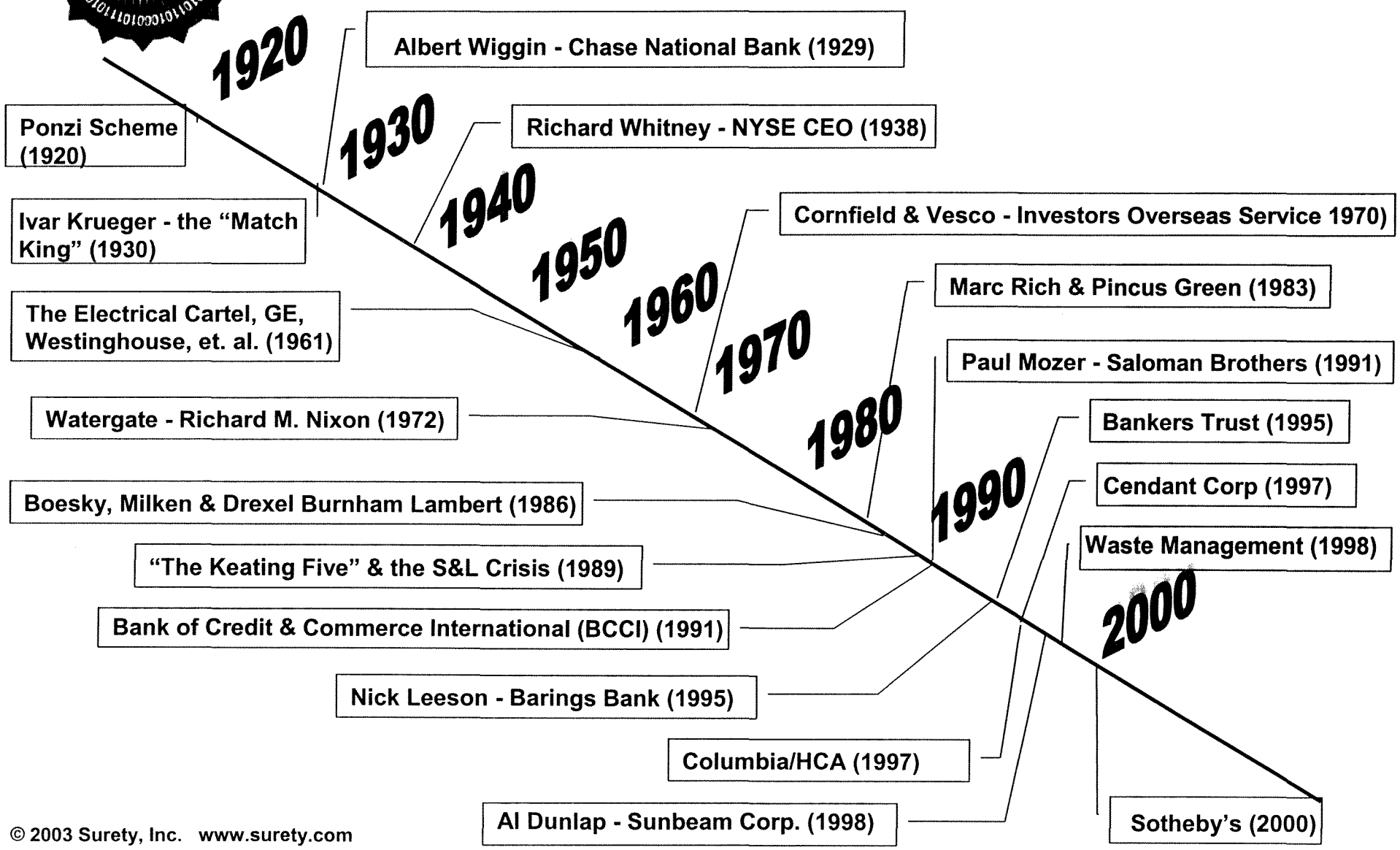
- Trust is a fundamentally human quality…and human beings are imperfect
- Systemic Influences:
  - Shareholder Value
  - Stock price
  - Analyst expectations
  - Competition
- Mortal Influences:
  - Ego
  - Greed
  - Arrogance
  - (Dis)loyalty
  - Management Culture
- ***Where trust is compromised, cover-up is inevitable***

Crisis of Trust: The Problem

- Corporate Status Quo:
  - Implement good practices and procedures
  - Hire good people
  - Enforce good policy
  - Comply with good regulations
  - Invest in technology
  - Paper filing is not going away
  - FedEx and faxes are still prevalent….though electronic records are proliferating:
    - 93% of corporate info created/stored digitally
    - 250 MB data for every person on Earth
    - 600B+ emails sent worldwide annually
    - 2.2B instant messages sent daily
  - "86% of computer crimes originate inside the network."

    - Intranet Security Magazine

Examples: Famous Crises of Trust



Examples: Recent Crises of Trust

CREDIT SUISSE FIRST BOSTON

Ahold

HEALTHSOUTH

PUTNAM INVESTMENTS

Adelphia

Adelphia provides the services that enrich, empower and entertain

parmalat

CriticalPath

ENRON

tyco

ANDERSEN

ImClone

Freddie Mac

Global Crossing

MARTHA STEWART

Merrill Lynch

AllianceCapital

RITE AID

Prudential Financial

Growing and Protecting Your Wealth®

With us, it's personal.

Examples: Headlines

Forbes.com

"Cover Up? Maybe, But Not By Quattrone" – 10-08-03

"Dennis The Menace On Trial Today" – 9-29-03

"Feds Charge Scrushy With Life Of Crime" – 11-5-03

"Will Waksal Be Bunking With Rite Aid's Ex-CEO?" – 6-18-03

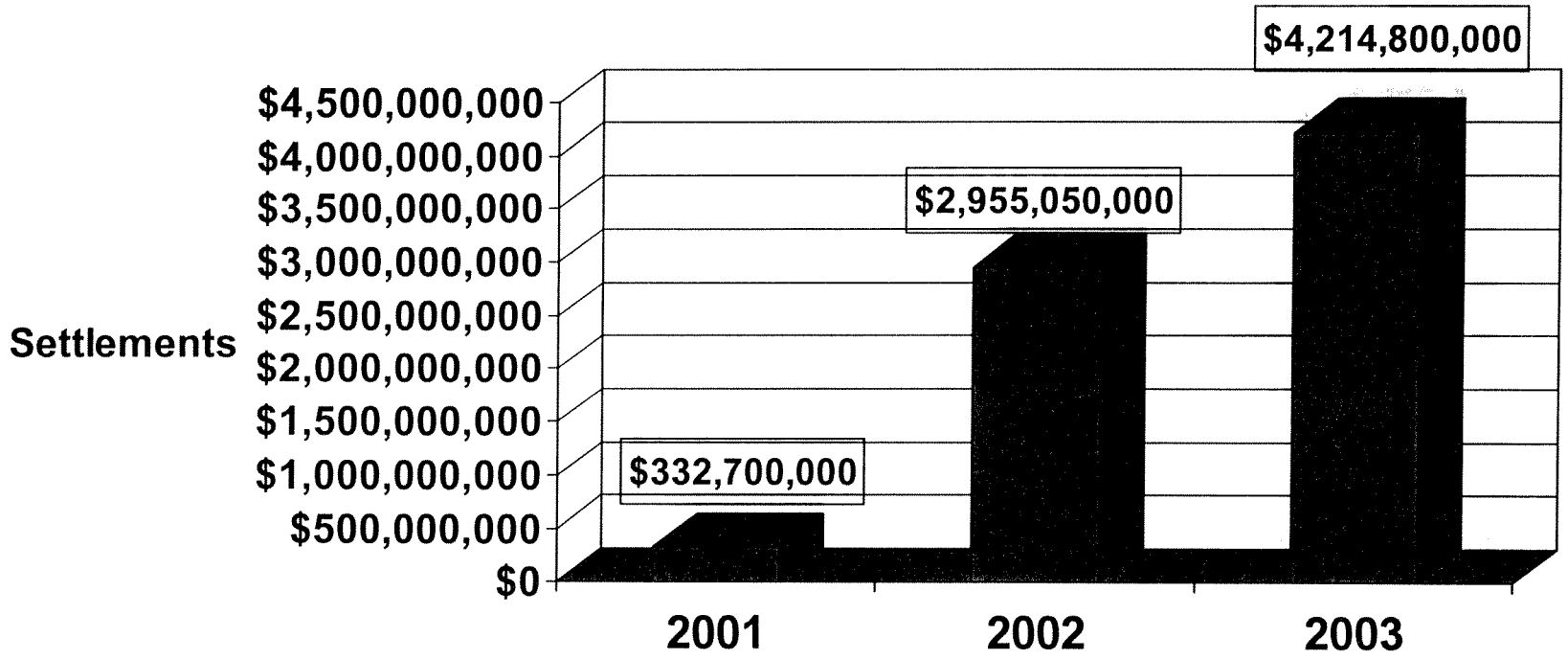
The New York Times

"Reports of Shredding Intensify Global Crossing Inquiry" – 6-25-02

"Prudential Fined $1 Million for Document Destruction" – 1-7-97

Examples: The Penalties

Wall Street Fines: Post "Bubble"



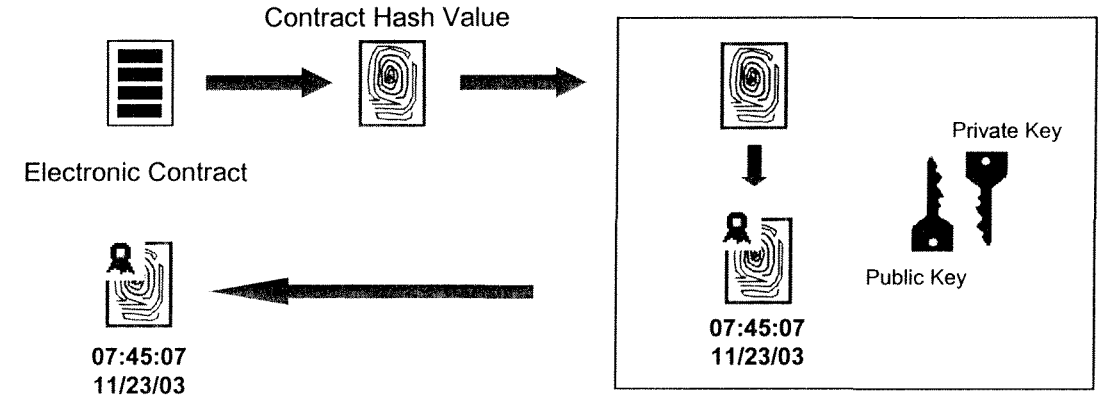
Largest Fines/Year:	**Providian Financial: $105M**	**Bank of America: $490M**	**VISA USA: $2B**
Average Fines/Year:	**$36.9M**	**$101.9M**	**$210.7M**

Limitations of a Trust-Based System

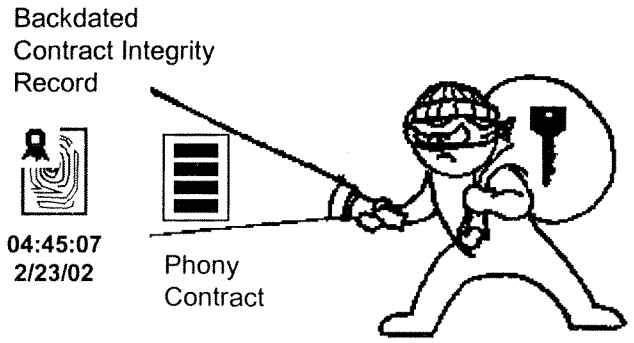
- Exceedingly easy to change:
  - Contents of a record
  - Creation date
- Nearly impossible to validate authenticity
  - Audit logs
  - Computer clocks
  - Temporal time-stamps (e.g., DocMS)
  - Digital certificates
  - People and paper
- How can you *prove* that a record is authentic?

Limitations of a Trust-Based System

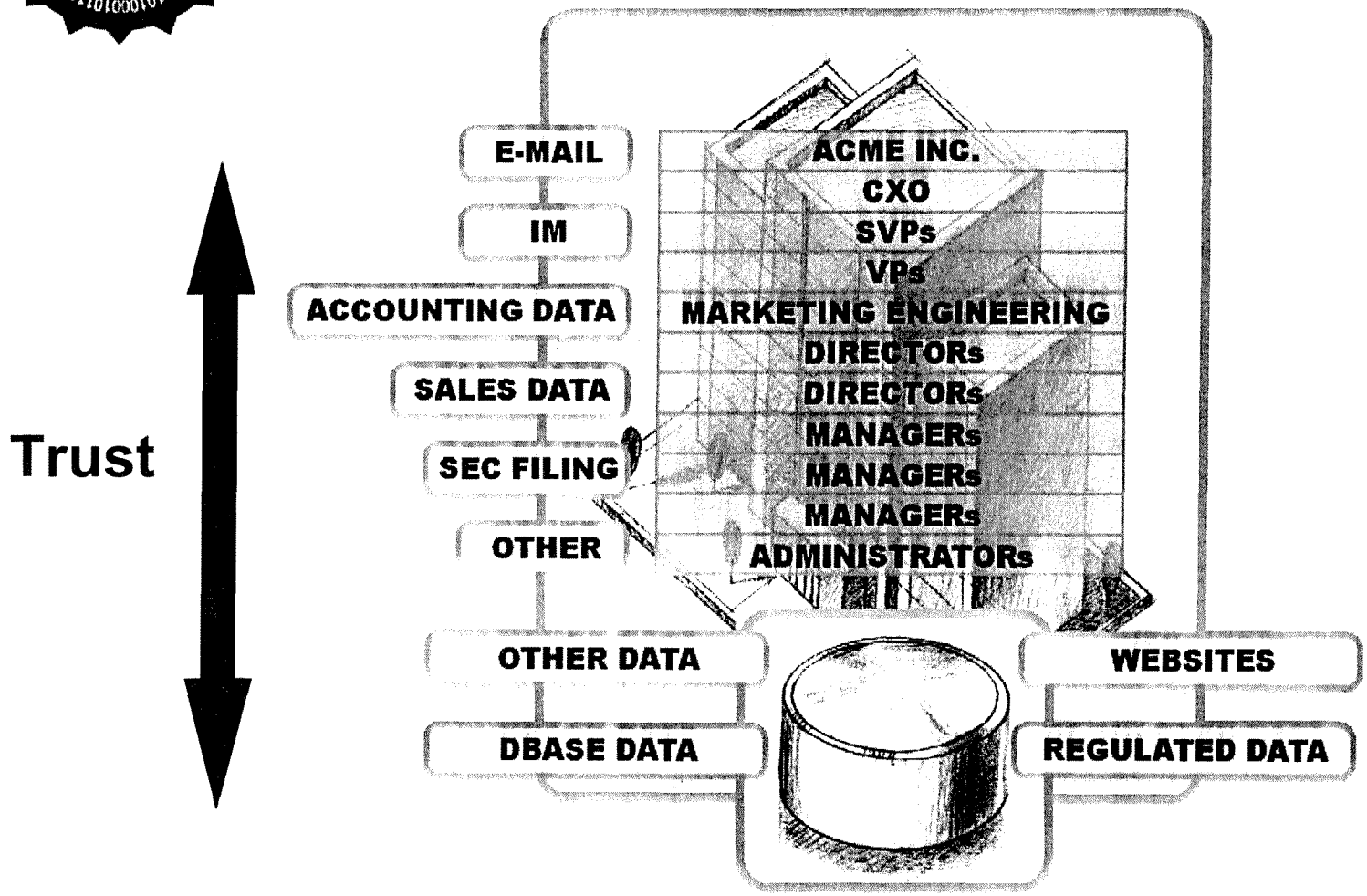
Trust-Based Time/Integrity Service



Integrity of All Records Compromised!



Can you Prove Trustworthy Records?



Guaranteeing Trustworthy Electronic Records™

Surety Overview

Surety's Mission

Surety's mission is to enable regulated industries to guarantee the trustworthiness of their electronic records… indefinitely.

Our patented AbsoluteProof Data Integrity Service generates irrefutable evidence of exactly WHAT was created…precisely WHEN.

Our Value Proposition

Protect intellectual property

Protect R&D investment

- Protect "first-to-invent" and "first-to-file" claims
- Complement LIMS, E-Lab notebooks in research settings

Defend electronic records

Reduce legal costs associated with evidence discovery

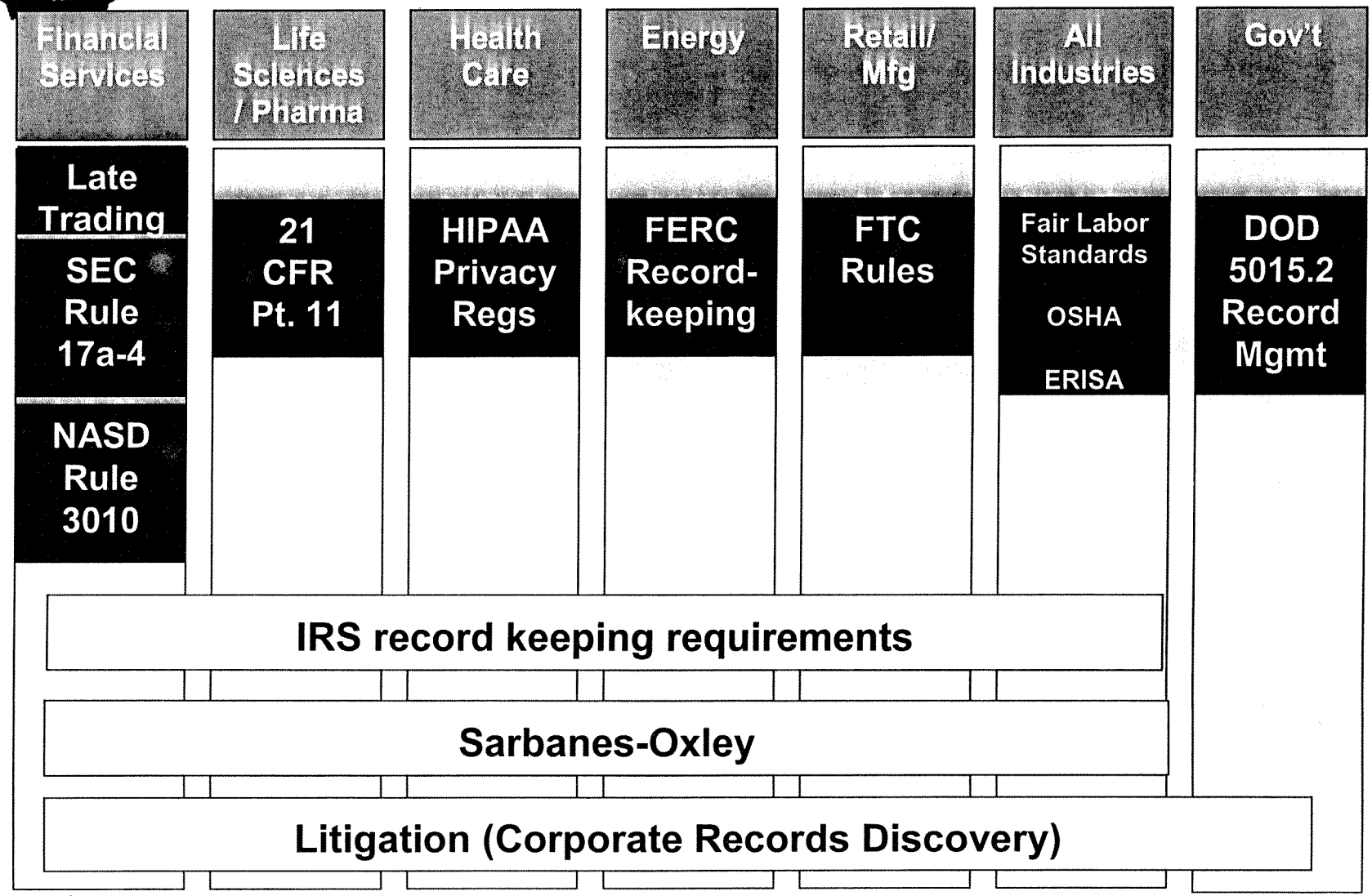
- 1M notarized records submitted to courts without challenge
- Underlying algorithms have been upheld in court

Comply with regulatory mandates

Mitigate threat of regulatory fines for non-compliance

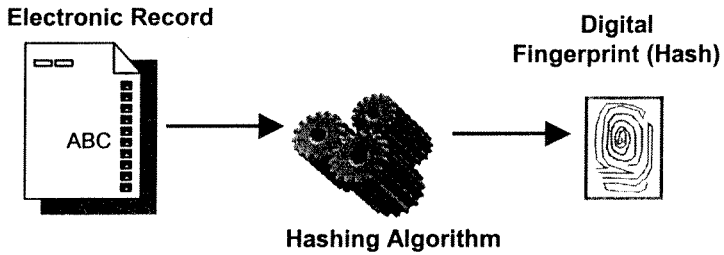
- Comply with secure audit log mandates within an enterprise
- Comply with archived electronic record integrity mandates

Regulatory Context of Electronic Records

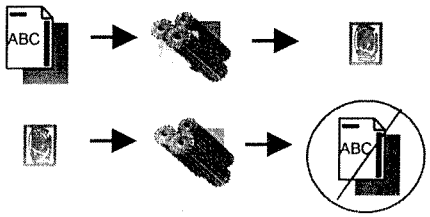


Secure Hashing Algorithms

A secure hashing algorithm is a fix sized condensed representation of a bit stream

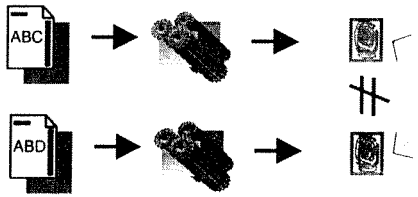


with the following key attributes……

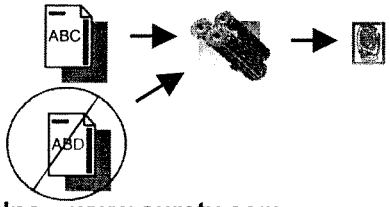


One-way

Function of all input bits

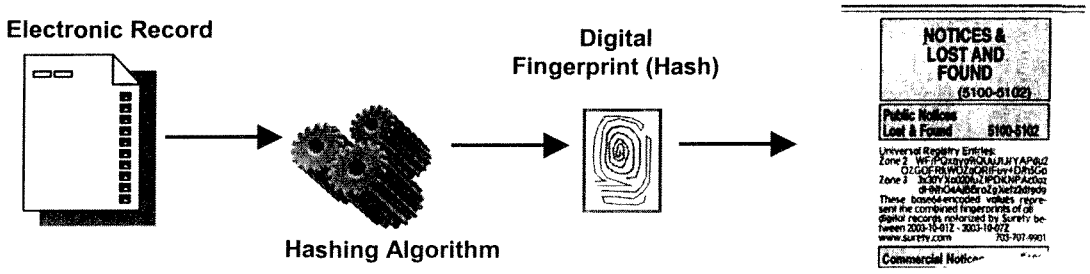


Hash Values are Different



Collision Free

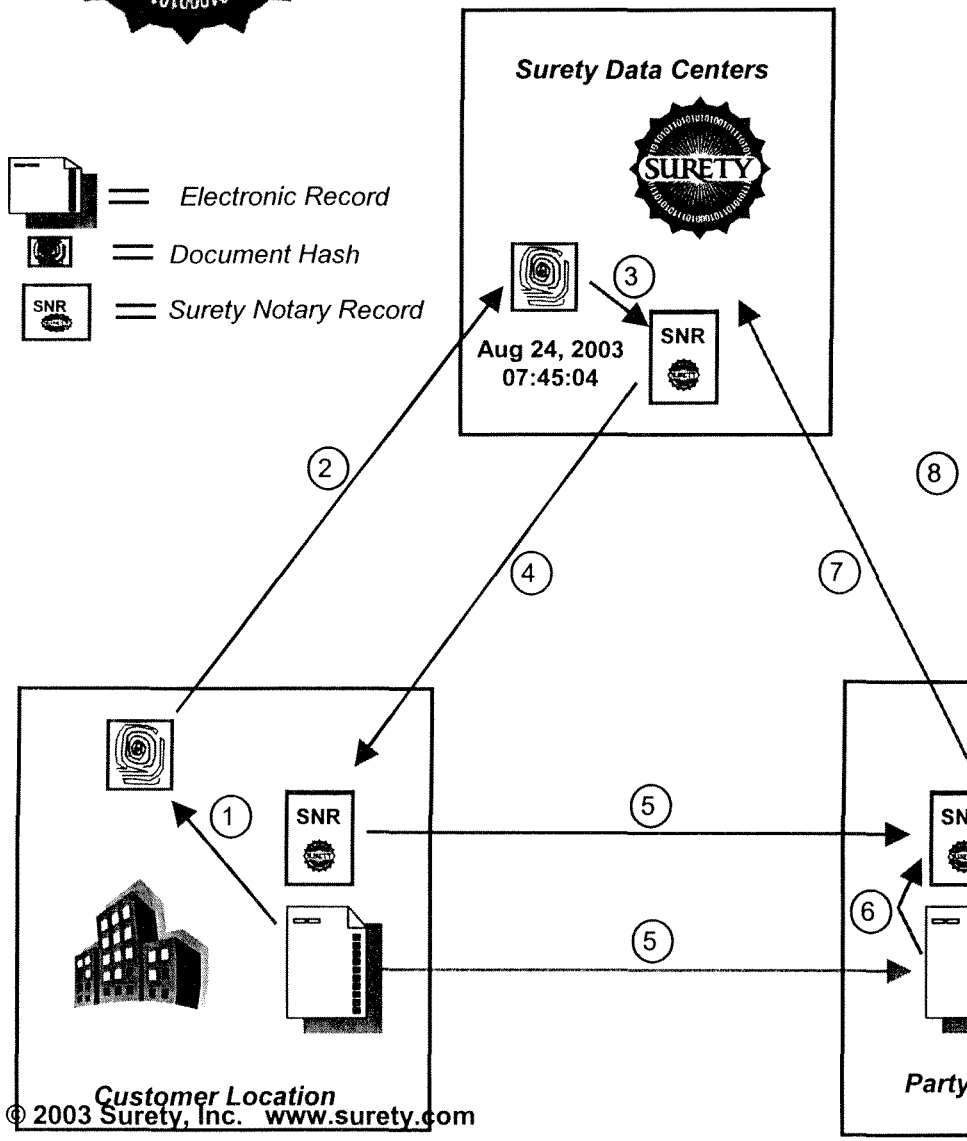
The Basic Idea



AbsoluteProof utilizes an elegant, simple and cryptographically verifiable process

...with no reliance on keys or certificates.

Independent Validation



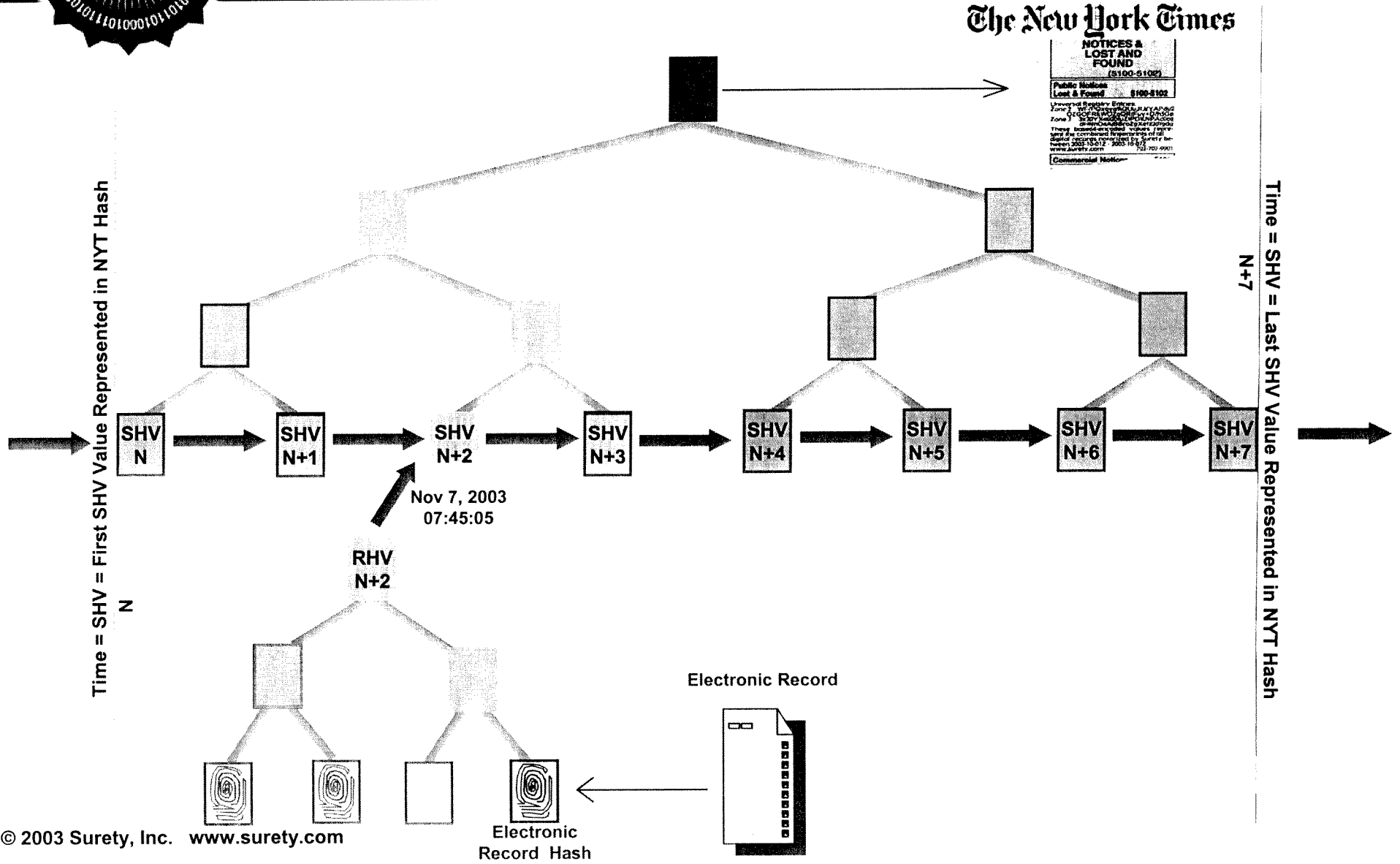
1. *Customer hashes electronic content locally*
2. *Customer sends Notary Request to Surety over encrypted Internet session*
3. *Surety applies Time Stamp to document hash and creates SNR*
4. *Surety sends SNR back to Customer over encrypted Internet Session.*
5. *Customer sends electronic record and SNR to party requiring validation over whatever agreed secure electronic platform.*
6. *Using the Document Hash contained in the SNR, Party Requiring Validation verifies locally that Hash corresponds to Electronic Document*
7. *Party Requiring Validation sends SNR to Surety over encrypted Internet session*
8. *Surety sends back response of either :*

✓ = *contents and time of electronic document are valid*

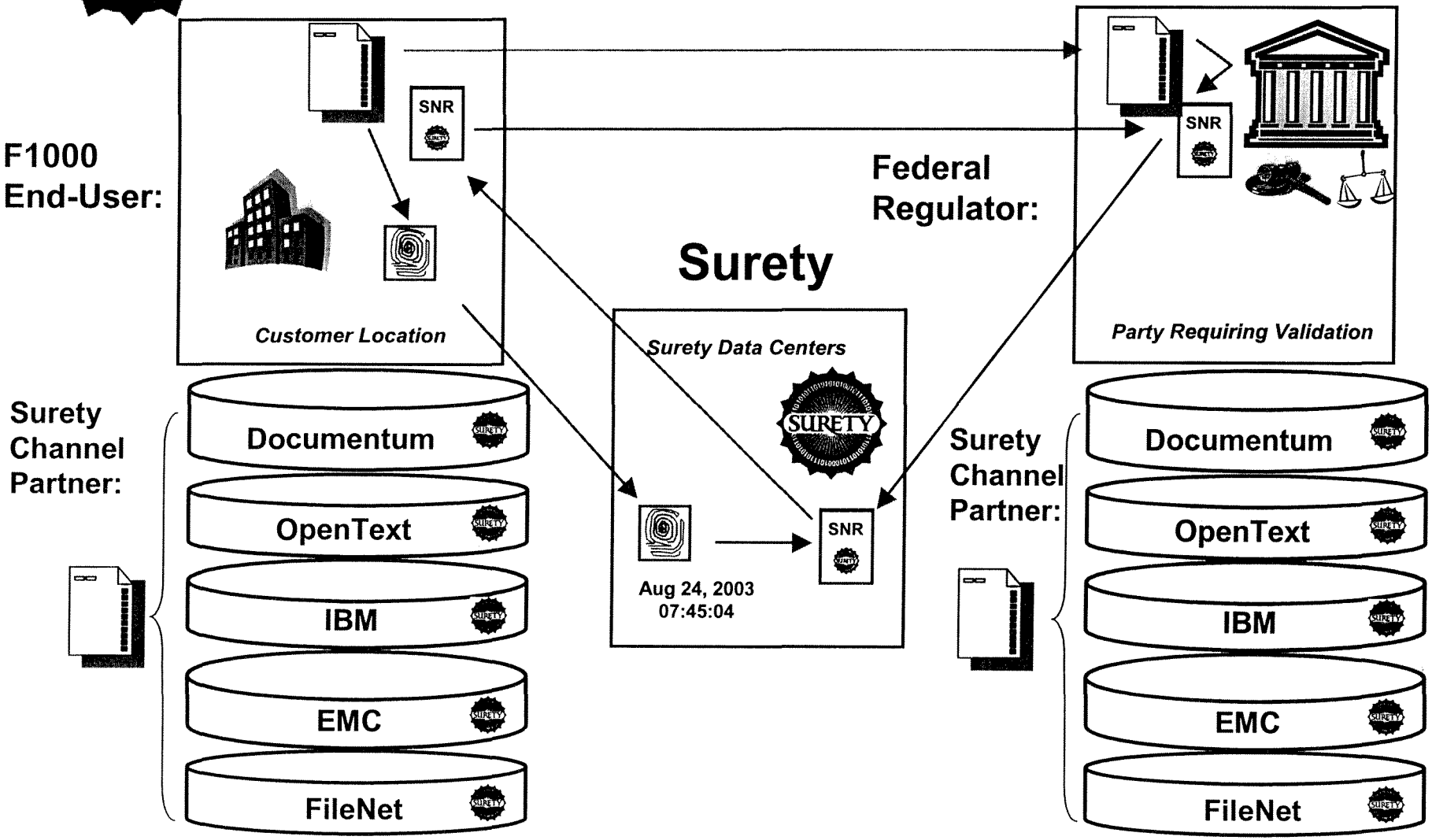
OR

✗ = *Contents and/or time of electronic document have been altered*

NYT Hash Represents every ER!



Surety Overview
"Our Marketecture"



Electronic Record Integrity
Addressable Market – F1000

F1000 Revenues:	$7,400,000,000,000	
F1000 Legal Budget (2% of Rev):	$ 148,000,000,000	
F1000 Litigation Cost (50% of Legal):	$ 74,000,000,000	
F1000 Evidence Discovery (50% of Litigation):	$ 37,000,000,000	= 0.5% of Revenues
F1000 Harvest Cost (50% of Discovery):	$ 18,500,000,000	
F1000 E-Record Integrity Costs (8% of Harvest):	$ 1,480,000,000	= 1.0% of Legal

Reference: 2002 Economic Data for Fortune 1000, (EMC/Legato)

Electronic Record Integrity
ROI Case Study – Big 3 Automaker

I. Company Background

Revenues:	$186.7B
Employees:	340,000
Market Cap:	$27.1B
Price-to-Revenue:	0.145
Shares Outstanding:	560.7M
Current Stock Price:	$48.39
E-Records per Employee:	1,000
Total E-Records/Year:	340M

II. Record Integrity Cost/Yr.

Legal Budget (2% Rev):	$3.7B
Litigation Costs (50% Leg):	$1.86B
Evidence Discovery (50% Lit.):	$0.933B
Harvest Cost (50% Disc):	$0.466B

Record Integrity (8% Harvest): $37.4M

III. Risk Calculation/Yr.

(1) Record Integrity Cost:		$37.4M
Infractions/Yr:	2	
Sarbanes-Oxley	1	
ERISA – 1974	1	
Damages/Infraction:	$2.7M	
(2) Damages/Infraction Cost:		$ 5.4M
(3) Fine (Avg.)		$100.0M
Patent Infringement Claims:	4	
1st-to-Invent	4	
Cost of Losing Patent:	$40M	
Cost to Litigate/Claim:	$2M	
(5) Total Patent Infringement Cost:		$168M
Loss of Market Cap (25%):	($12.10/Share)	
(6) Lost Market Cap:		$6.73B
(7) Cost of Insurance Premium Hike:		$5.5M

Total E-Record Integrity Risk/Yr: $7.15B

Sources: CSI/FBI Study; P&G; "Patent Litigation Costs", by Bruce Berman

Electronic Record Integrity
ROI Case Study – Big 3 Automaker

IV. ROI Calculations

Total Electronic Record Integrity Risk: $7.15B
Surety's Total Impact (%): 20%
Surety's Total Impact ($): $1.43B

Electronic Record Integrity Solutions	Cost/Yr	Cost ROI	Risk ROI
Status Quo	$37,400,000	_____	_____
Surety AbsoluteProof	$ 750,000	4,880%	190,440%

In Summary

- The Crisis of Trust is not a sudden phenomenon
- Record integrity is hard to prove and has been for a long time
- Good processes/procedures do not equate to trustworthy electronic records…but the ability to *prove* they are trustworthy is invaluable
- Any electronic record may be used as evidence in a court of law
- Inability to prove electronic record integrity is a "bet-the-business" issue with quantifiably huge costs
- Regulators require that regulated records have integrity
- Surety eliminates trust from the record integrity equation

Electronic Record Integrity is a Black-and-White Issue

"Guaranteeing Trustworthy Electronic Records™"

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