

A dramatic photograph of a clock tower at night. The tower is illuminated from within, with the clock faces glowing yellow. The sky is dark blue, and several bright white lightning bolts are striking the tower and the surrounding area. The tower has a domed top and a balcony.

## **MANAGING MOMENTS IN TIME.**

**A NEW STRATEGY FOR PROTECTING E-BUSINESS  
PROCESSES FROM FRAUD, LOSS, AND LITIGATION.**

**H. Andrew Lawrence, Worldwide Product Marketing Manager  
Document Imaging, Eastman Kodak Company**

**"Raise your right mouse button and solemnly swear..."**

The not-so-hidden liabilities acquired by wiring the corporation can be highlighted by considering some real-life proceedings:

**Justice Department v. Microsoft.** Poorly managed email provided evidence that probably added to the duration of antitrust proceedings and the millions of legal fees incurred. One can only estimate the additional opportunity dollars lost in marketing delays.

**Prudential Insurance Company of America.<sup>1</sup>**

Cited in court for a haphazard and uncoordinated approach to document retention that denied its opponents potential evidence to establish facts in dispute. Unintentional or not, the oversight was grounds for a \$1 million fine.

**George W. Bush v. Corporate America.**

Amid fallout sparked by Enron's collapse and Arthur Andersen's fall from grace, the President has put CEOs in the hot seat. His message is "Tell the truth or else." Congress and the SEC want the whole truth.

**Fen/phen wrongful death class action suit.<sup>2</sup>**

Experts estimated that the cost to restore emails from backup tapes to satisfy the discovery process could go as high as \$1.75 million. Facing a hostile court, defendant Wyeth settled for over \$3 billion dollars.

**On-line fraud.**

An estimated 9 percent of all business-to-consumer on-line purchase transactions are challenged by consumers. With no written credit card receipt, many companies simply settle as the cheap way out.

## **EVIDENCE. INVALUABLE AND FLEETING IN A NANOSECOND WORLD.**

**LOOK AT YOUR BUSINESS. BLINK. NOW IT'S CHANGED. BLINK. CHANGED AGAIN.**

Welcome to the wired century. Where CEO, CFO, and CIO convene to manage a web of converging acronyms. ERP, B2C, B2B, and B2G. Plus CRM.

As business leverages technology the opportunities are great. So are the risks. Who has time to keep track of the flood of electronic business transactions?

**WHO DID WHAT TO WHOM? AND WHO KNEW AND WHEN?**

The real question is, who can afford not to keep track? Implied contracts. Documentation of intellectual ownership of ideas. Corroboration of regulatory compliance. Valuable legal evidence. All gone in an instant as proof goes poof.

Meanwhile, anonymous unsavory people are scouring the Web for ill-gotten gains. Jittery markets drag down share prices at the slightest rumor. Ambitious politicians and contingency lawyers are watching for vulnerabilities.

Any business can make a mistake or a poor judgment call. But it's particularly painful when a loss or failure is caused by the very technologies meant to facilitate doing business. And the consequences of nonexistent or unmanaged e-business records can bring the mightiest of enterprises to its knees. However, we should not blame technology for our shortsightedness.

**WE NEED TO "PUT IT ON THE RECORD." FOR GOOD.**

Here's the problem in a nutshell. New business models and new business processes have not been matched by new records management strategies. Dependency on digital records alone induces unnecessary risk and expense. (See "A Legal Perspective," overleaf.)

Digital files are susceptible to corruption and alteration. Hardware and software technology systems are required to access, reconstruct, and render records into human-readable form. This process is easily attacked in litigation short term. Over the long term, as technology evolves, the records will become inaccessible or unreliable due to inaccurate rendering. Thus, they will not be available when most needed.

The solution is a simple concept: reference archiving. A system based on integrated imaging technology from Kodak takes "snapshots" of electronic transactions at the moment they occur. These snapshots render the digital documents to an analog format, avoiding the pitfalls of a digital-only strategy.

The analog renderings remain human readable without compiling. They retain all of the elements of the original document. Records are stored on a digitally accessible, offline media that is sustainable at practically no cost. The records are secured from deliberate alterations, such as security breaches, and from accidental destruction, as when backup tapes are erased and reused.

The Reference Archive so created is a trustworthy way to validate transactions short-term, and provides immediate and long-term legal protection. The nanoseconds may pass, but you will know that the records of those moments will endure.

**PRESERVE DIGITAL INSTANTS – AND POSSIBLY YOUR BUSINESS – WITH A**

There are many applications for a trustworthy record of electronic activities. Audit trails no longer rely on obsolescence-prone electronic technology. These records can enable your business to collect moneys due it, enforce contracts, counter fraudulent claims, and blunt the impact of litigation.

A Reference Archive can also enable your company to protect its rights to intellectual assets. Examples include patent development, drug trials, and copyrighted material. When necessary, a full, cogent record can be produced to document your claims to ownership quickly and economically.

The list of possible applications goes on. Documentation for SEC filings. Transaction logs. FDA compliance. Support for customer service dispute resolution. Patient charts. Evidence of regulatory proceedings. HR activities. Whatever is important to your business.

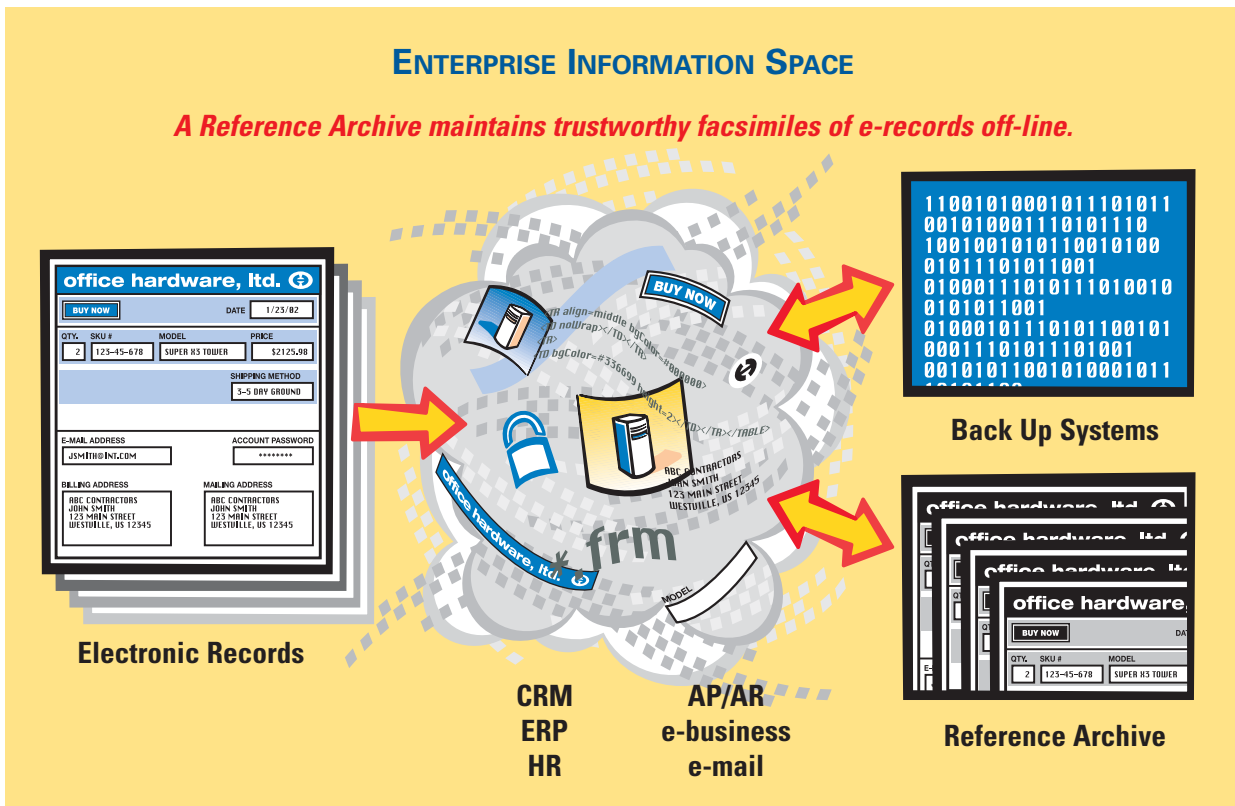
**A QUIET WATCHDOG THAT'S THERE WHEN YOU NEED HIM.**

As currently envisioned, reference archiving would take place automatically in the background. The system would “know” when and what to record according to your rules. These records would be managed according to preset indices. Such a defined, “clean” recording process would facilitate the legal admissibility of the records.

Current estimates of the annual total cost of ownership for online storage run as high as \$2,302 per gigabyte.<sup>3</sup> A Reference Archive allows your IT department to cut expenses by reducing the amount of data “under head” in servers. Instead of keeping everything for an indefinite period of time, IT can purge data systematically without fear of losing any important records.

Operationally, the Reference Archive removes barriers to e-commerce by providing transaction backup that’s otherwise unavailable. When questions came up or transactions were challenged, they could be met quickly and settled with a minimum of financial impact. Programmed destruction could be included as part of a defined records management strategy to limit exposure.

Safe and s



## REFERENCE ARCHIVE.

### A PRACTICAL STRATEGY WHOSE TIME HAS COME.

Reference archiving solutions for e-business will be available soon. Most of the pieces required are in use already, including hardware, software, and media from Kodak. Many document imaging applications are rendering analog copies of the images to Reference Archive media. When needed, the records are redigitized and managed electronically.

Various software developers are hard at work on front ends to serve this analog rendering system. Proof-of-concept e-commerce and e-mail solutions are not far off. Trusted third-party ASPs are available to manage reference archiving for you. You can leverage your existing infrastructure without capital investment.

Analog rendering makes the records in the Reference Archive technology independent. No software is required to interpret them, freeing you from expensive migration schemes. The media is certified for 500 years; no refreshes required. There's no requirement to maintain or emulate the current technology platform — soon to be a legacy system — that created the moment in time. You get a lower total cost of ownership and a chance to invest in forward-looking opportunities.

### A LEGAL PERSPECTIVE ON E-RECORD KEEPING

**In his capacities as writer and consultant, Attorney Randy Kahn specializes in legal issues pertaining to e-commerce. Here are some of his observations on the subject:**

E-records usually consist of multiple packets of data that are rarely stored in one physical location. Quite often in cyberspace, the content is the only part of the record that is retained. That's the equivalent of taking a paper business letter, cutting off the date and salutation and putting it in one file, cutting off the signature and putting it in another file, and placing the body of the letter in yet another file. Separately, the units of those documents are rather useless for record-keeping purposes.<sup>4</sup>

The Enron/Andersen story is a stark reminder that managing company records requires directives for normal operations and altogether different rules when litigation, audits, or investigation strike. Intentional destruction of evidence has devastated reputations, slashed stock prices, and raised the ire of regulators. The monetary — and perhaps even criminal — exposure a company may face as a result of the destruction of records can be mitigated by implementing policies that dictate employee conduct... Indeed, when a court recently imposed a seven-figure penalty on a financial services company in a high-profile lawsuit, it noted that it was not the destruction of the records which prompted the penalty, but rather, the company's failure to have a policy in place to ensure that records were not destroyed.<sup>5</sup>

Trustworthy  
and complete

# HOW DO YOU MANAGE SOMETHING WITH A VIRTUAL EXISTENCE?

SEEING IS PERCEIVING — AND BELIEVING.

Data base view

				1/23/02
2	123-45-678	SUPER H3 TOWER	\$2125.98	
				3-5 DAY GROUND
JSMITH@INT.COM				*****

Desktop view

**office hardware, Ltd.**

DATE: 1/23/02

QTY.	SKU #	MODEL	PRICE
2	123-45-678	SUPER H3 TOWER	\$2125.98

SHIPPING METHOD: 3-5 DAY GROUND

E-MAIL ADDRESS: JSMITH@INT.COM      ACCOUNT PASSWORD: \*\*\*\*\*

*Which presents the most complete record?*

The challenge is that the e-document we're chasing is the embodiment of the word "ephemeral." The container is an image on a display screen. The information presented in that container is pulled from many sources. Many of those sources are themselves dynamic — e.g., pricing, specifications, account balances, inventory, and so on.

If you later try to recreate that page, any change or lack of completeness triggers the suspicion that the proxy is not identical to the original. The trustworthiness of the entire event and underlying process becomes suspect.

## CUT BY THE DUAL-EDGED SWORD OF CONTENT MANAGEMENT.

Paper documents nicely merge content with context. Everything relevant to a transaction appeared on the face of the page — date of execution, parties involved, subject, and signature. All collected in one place, clearly visible in context relative to the other components.

But paper is static. Business benefits from being able to manage content in a much more fluid, distributed fashion. The power of ERP, CRM, and other

systems is the ability to customize how we view the data to our heart's content. Combine this dynamism with networked communications, and the transitory e-document is born.

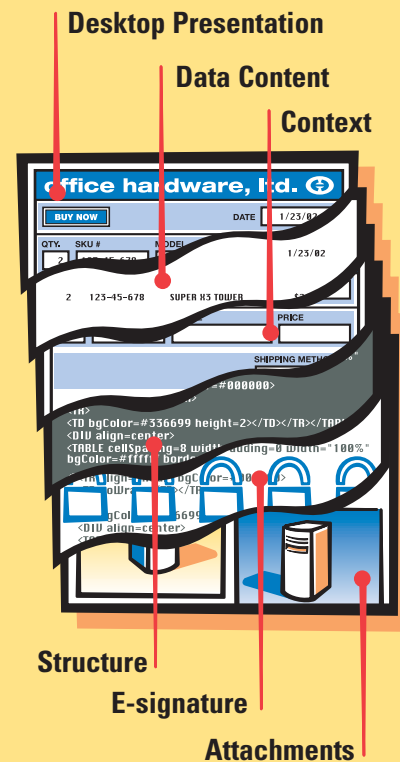
An e-document's components may be pulled from multiple physical storage locations and mapped into a structure. The email, order form, or Web page you interact with is a layered construct. It includes data content, and its context. Metadata defines the relationship between the parts, structure, and attachments, such as e-signatures at a moment in time.

But this delicate structure is easily undermined. Viruses scramble hard drives. Backup tapes get mislaid. Relentless hackers penetrate firewalls. Lose or alter any component or interconnection and the e-document is changed. When a question arises, you can no longer prove agreement, acceptance, or authenticity.

## CAPTURE THE MOMENT. KEEP IT INTACT.

The Reference Archive negates any questions about the validity of an event in cyberspace. You simply look up the record of any transaction in question. You are presented with all of the layers of data in context. You can see and comprehend all four corners of the activity immediately. And there's no delay or uncertainty caused by reconstruction from source data.

## AN E-RECORD IS A MULTI-LAYERED THING



## COMPLETE THE CYCLE OF INFORMATION MANAGEMENT WITH A REFERENCE ARCHIVE.

# On the record

Recent history has underlined the value of disaster recovery plans. With back up systems and secure data stores, you can get business processes back on line. Your revenue stream continues.

Now it's time to invest in a Reference Archive to protect the continuity of business activities and transactions. When you need it, you'll have proof — of ownership, of contract, and of compliance. You'll be able to refer to the original content, presented completely and in context.

Reference archiving can be much more than a defensive strategy. It also gives managers another window into their business via records that would otherwise be unavailable or burdensome to recreate. Processes can be analyzed to uncover best practices. Decisions can be made

based on definitive information rather than guesses. Which should feed back into revenue growth and better profitability for your business.

1. *169 F.R.D. 598; 1997 U.S. Dist. Lexis 80; 36 Fed. R. Serv. 3d767.*
2. *No. 97-2307, Massachusetts Superior Court, Thomas F. LINNEN, et als, Plaintiffs, v. A.H. ROBINS COMPANY, INC., et als, Defendants.*
3. *September 2000 Gartner Group study, includes hardware, software, and human resources.*
4. *Building Good Electronic Evidence, Published in Digital Discovery & e-Evidence, Vol. 1, No. 9, October 2001, Randolph Kahn, ESQ., Kahn Consulting, Inc.*
5. *Two Faces of Records Destruction: Records Management Has Never Been More Important and More Challenging, Randolph Kahn, ESQ., Kahn Consulting, Inc.*

### Choose your link to reference archiving.

[www.AMIBusiness.com](http://www.AMIBusiness.com)  
AMI Document Accessibility  
and Security

[www.arma.org](http://www.arma.org)  
Association of Record  
Managers and Administrators

[www.cohasset.com](http://www.cohasset.com)  
Cohasset Associates, Inc.,  
IT management consulting

[www.Datawitness.net](http://www.Datawitness.net)  
Data Witness, online registration  
of secure documents

[www.digitalpreservation.org](http://www.digitalpreservation.org)  
Digital Preservation issues

[www.eistream.com](http://www.eistream.com)  
eiStream, Inc., document  
management solutions and  
services

[www.kahnconsultinginc.com](http://www.kahnconsultinginc.com)  
Kahn Consulting, e-business  
legal consulting

[www.kodak.com/go/docimaging](http://www.kodak.com/go/docimaging)  
Kodak site for document imaging

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solutions



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DOCUMENT  
IMAGING

