

# ByteandSwitch INSIDER

BYTE AND SWITCH'S TECHNOLOGY RESEARCH SERVICE FOR FINANCIAL PROFESSIONALS, INVESTORS, AND LEADERS IN THE STORAGE NETWORKING INDUSTRY.

## Compliance: Do No Evil *Critical Implications and Opportunities for Storage*

By Graeme Thickins

### TABLE OF CONTENTS

- I. Introduction
  - Where It Fits and What It Involves
- II. Compliance: The Good, The Bad, and The Ugly
  - Records and Records Management
  - The Laws and Regulations
  - Integrating Multiple Disciplines
- III. Process: Where It All Begins (and Ends)
  - What Compliance Means for IT/Storage Managers
  - What the IT/Storage Manager Should Do
  - The Eve of Destruction: Nuking Does Have Its Place
- IV. What Compliance Means to the Storage Industry
  - Care to Dance?
  - Great Expectations
  - Leading Storage Vendors' Compliance Offerings
    - EMC
    - IBM
    - HP
    - NetApp
  - Other Vendors and Startups
- V. Conclusion

### May Highlights

- **Compliance is affecting almost every firm.** Especially with the Sarbanes-Oxley Act taking effect this year. But more looms ahead, including HIPAA in 2005.
- **At least \$5 billion will be spent on compliance in 2004.** And analysts say that's just the beginning.
- **IT and storage professionals are hardly in this alone.** The compliance team is a multidisciplinary one.
- **Get the requirements from your business unit.** The experts say IT shouldn't do anything till it has that document.
- **People and process is where it all begins.** Develop a sound compliance program before buying products.
- **Compliance consultants and process software firms are finding success.** A new breed of vendors has emerged.
- **Partnerships are rampant.** The storage vendors are finding many new dance partners.

## I. Introduction

The late '90s brought us more than overblown IT budgets. As we all came to learn later, there was something else mighty big brewing below the surface during those unprecedented boom years: a serious bout of corporate fraud. And it wasn't long after the century turned that headlines began cropping up with shocking revelations of wrongdoings by Enron, Arthur Andersen, WorldCom, and other firms.

Not surprisingly, prosecutors soon took action, as did branches of the U.S. federal government, to restore public trust in business and the financial markets. One major outcome, in combination with the horrible events of September 11, 2001, has been a sweeping array of new laws and regulations to try to prevent occurrences like these from ever happening again. The Sarbanes-Oxley Act of 2002 (SarboX) is perhaps the most notable of these. With more than 300 points of enforceable law, some are calling it the most significant piece of financial legislation in decades – since the Securities and Exchange Act of 1933.

Of course, dealing with government regulations is nothing new for many American businesses, especially those in highly regulated sectors such as financial services and life sciences. But the sudden onslaught of new laws and regulations applying to a much broader swath of companies has brought the term "compliance" – as in regulatory compliance – into almost deafening use in the worlds of both business and IT folk these days. Type the word into a Google search box and you get more than 17,000,000 hits; into Google News, and a count of more than 11,000 items greets you. Even an advanced search in *Byte and Switch's* own content database yields more than 300 articles and newsfeed items. That's a lot of copy.

Some say the impact of corporations having to comply with this raft of new laws and regulations will be as big as Y2K, if not even more so – meaning a price tag of about \$100 billion when all is said and done. AMR Research estimates that companies spent \$2.5 billion for SarboX compliance alone in 2003. The firm says 85 percent of companies predict the law will require changes in their IT and application infrastructures. And spending on SarboX will increase significantly in 2004, AMR says.

### A. Where It Fits and What It Involves

Thus, compliance – though it may be a bit cynical to call it a growth industry – is indeed getting to be a very, very big topic. Reams of documentation and analysis are being written about it daily, trying to explain and interpret what it all means to the huge number of professionals, in a variety of disciplines, that must somehow understand its requirements and implications – both for their employers and for themselves personally.

This report is focused on the implications of compliance for IT managers and executives in general, and storage managers and administrators specifically. In particular, we approach compliance as a component of, and a major driver in, the broad vision the storage industry has put forward for companies to develop an "information lifecycle management" (ILM) strategy – which is all about organizing and prioritizing information based on its value to the organization. In the simplest of terms, compliance involves three things:

- Retention of records, for specified (generally expanding) numbers of years
- Retrieval of records, on demand or within specified (increasingly shorter) timeframes, in response to government/agency inquiries or "legal discovery" in civil/criminal litigation or government investigation
- Penalties and fines for transgressors who don't do either of the above correctly

At this point, it would be helpful to look closer at the implications and costs of that term "legal discovery." It refers to the process by which plaintiff's attorneys or "forensic records analysts" cull a defendant company's records, now mostly e-records. The trend is for courts to expect companies to produce such records in shorter and shorter timeframes. On top of that, it is the defending firm that must pay most (if not all) of the costs involved in that retrieval and/or records duplication – and those are rising significantly, according to Jack Scott, an e-records and storage expert and managing partner at The Evaluator Group. "I've personally heard of several requests to search up to 10 million emails, and one request of 30 millions emails," said Scott.

The objective of this report is to create an overview of the compliance landscape, to clarify and simplify the topic for storage professionals and executives, and to provide a summary of the vendors and offerings that are in a position to help companies address and achieve compliance.

It's clear we're still very early in the development of the art and science of compliance management in IT – just as the storage industry is only in the first stages of implementing the broader, long-term vision of ILM, of which compliance is an important subset.

## II. Compliance: The Good, The Bad, and The Ugly

What, there's some *good* here, you ask? Yes, optimists take note! But, before we get to the upside, let's take a look at the bad things that happen to those who don't comply – just to set the right tone of seriousness for the topic.

The largest fine to date was the recent one levied by the U.S. Securities and Exchange Commission (SEC) against Bank of America NA – \$10 million for failing to produce, and not meeting retrieval deadlines, for documents and email. Earlier, in December 2002, the SEC, the New York Stock Exchange (NYSE), and the National Association of Securities Dealers (NASD) fined four firms – Deutsche Bank Securities; Goldman, Sachs and Co.; Morgan Stanley and Co.; Salomon Smith Barney; and U.S. Bancorp Piper Jaffray – a total of \$8.25 million for violating regulations about retaining email.

The Sarbanes-Oxley Act specifically states that "whoever knowingly alters, destroys, mutilates, conceals, covers up, falsifies, or makes a false entry in any record, document... with intent to impede... shall be fined under this title, imprisoned not more than 20 years, or both."

Got your attention? We told you this was serious stuff.

But now for a look at the *positive* side – for those who don't intend to break any of the rules (and so aren't worried about going to jail). Essentially, you can assert that the whole phenomenon was caused by a few bad apples that are now making life miserable for everyone (hard to argue with). Or, according to the view of others, you can approach compliance as a way for good, honest organizations to further advance their businesses by:

- Improving company processes – i.e., the notion of continuous improvement
- Bringing new discipline – with policies/procedures that were needed anyway
- Lowering the cost of doing business – which effective records management has proven to do for many firms, according to industry association ARMA.

And all of the above, say business experts, collectively means *more competitive advantage* in today's challenging, global marketplace.

Another positive in the view of many is that, taken together, these recent laws and regulations can also be considered the Full Employment Act for compliance-related workers. After all, analysts say this is much more a people and process phenomenon than a technology one. Those jobs, however, may largely be additions to internal audit staffs, as well as for a new class of executive: the high-priced Compliance Officer.

While no notable predictions have yet been made for widespread boosts in IT or storage staffs, a recent study by AMR Research did offer some indication that more IT jobs may be part of the picture. The firm found 77 percent of the companies in their survey will spend more on IT, business process change, corporate governance, and/or consulting this year as a direct result of Sarbanes-Oxley compliance. AMR expects a growing part of the SarbOx spending – which will be up significantly in 2004 – to be IT-related. Key focuses this year, all drawing on IT resources, will be documentation and records management; storage; business process management; risk management and business intelligence; and security and business continuity, says AMR.

### A. Records and Records Management

The terms "data" and "records" may sound like the same thing, but they're only close. "Data becomes a record when it is placed into a structure that has context and value," says The Evaluator Group's Scott. He notes there's also a quasi-legal definition that cites form, content, context, and metadata.

Records are often called the "corporate memory" – things such as contracts and agreements, invoices, purchase orders, letters, internal communications, drawings, presentations, videos, and the like – documenting daily business actions and decisions about product development, strategy, marketing, servicing customers, and generating revenues. "They are recognized as the most trustworthy evidence of an organization's volu-

minous transactions and processes," says records management consulting firm Cohasset Associates in its summary of an annual survey it conducts with industry associations AIIM and ARMA.

So, compliance is about much more than simply "files" and "blocks" of data – it's about *records*. And even an individual email is a record (witness the smoking gun in more than one recent high-profile court case). That explains why email management is becoming a significant new focus in the world of compliance, all by itself.

Records industry association ARMA International takes this view of records: "Like cash, investments, real estate, equipment, and other resources that help produce income, business records are strategic, operational assets." Yet, too many companies, it says, lack effective policies and procedures for controlling and managing them. They keep some too long, spend too much storing them, waste time looking for them, and risk penalties for non-compliance with the record-keeping laws and regulations.

Think in terms of two broad types of records: those with (1) legal or (2) operational value – and many have both. Of course, corporate legal departments are heavily involved in records retention policies. But many decisions about keeping business records are based on operational, or business, needs. So, according to records-management experts, for each type of record in your company, both legal and operational requirements must be defined – and the retention period for that record should be the longer of those two requirements.

*How fast is the growth of records proceeding?* Well, the growth of data in general is at a near-vertical trajectory of 80 percent to 100 percent per year, according to analysts. But Evaluator Group's Scott thinks it's a safe bet that records are growing *even faster*. Here's why: (1) with all the hype about compliance, companies are becoming more sensitive to the liabilities for mismanaging records, (2) they're finding out they have more records buried in their data than they thought, and (3) IT management is slowly realizing that records must be managed differently than data. Another critical point: although most laws and regulations on the books come from a time when records were analog – ink on paper – it's generally thought that some 90 percent of business records are now electronic, and a large percentage of those are never printed (e.g. airline tickets).

*Who manages records?* It's a team approach in almost all companies – with records managers, IT, and legal personnel all involved. But, in its most recent annual survey, compliance consulting firm Cohasset Associates makes a startling revelation: "Legal, IT, and records management often operate as 'silos' and do not communicate effectively with each other and with the records creators/users in the business areas." The result, they say, is that "most organizations have significant problems in how they manage their electronic records."

Where does the responsibility lie for compliance in today's exploding corporate e-records environment? Arguably, the buck stops squarely at the top, with senior management. "Compliance is expensive," says analyst Scott, "and C-level management needs to be given the cost-benefit argument and decide how far it wants to go." But the expense of the potential penalties is daunting.

When all is said and done, however, doing the things that ensure a company stays compliant is the day-to-day job of individual employees. Though the storage administrator and records manager in a given company are seen as the "custodians" of a company's records, in reality each and every employee has to understand and ensure the viability of his or her own records, according to the experts. "End users will continue to be responsible for compliance," says Mike Casey, principal analyst at Contoural Inc.

## **B. The Laws and Regulations**

Just how many government regulations *are* there relating to the retention and retrieval of corporate records? *A mighty big number!* Cohasset Associates counts some 15,000. But take heart: it says "only" 4,000 involve e-records. Even so, to say that keeping up on all that is a daunting task wouldn't do it justice. Never fear, however, as the number of consulting and publishing firms who will do it for you is booming – that is, help you identify specifically which ones apply to your industry or unique business situation. (More on that later.)

Our nominations for the top ten key laws and regulations for the purposes of this report are summarized in Figure 1. This compilation is based on the regulations that most affect IT today, or will in the immediate future, and that specifically relate to the growing requirement for electronic storage. The first six reflect the top choices of The Evaluator Group, which has studied the compliance and records management landscape for

more than ten years, with the specific vantage point of how these compliance requirements affect the storage-management function of IT.

**Figure 1: Selected Laws & Regulations IT Managers Should Know<sup>†</sup>**

Law or Regulation	What It Covers	Effective Date	Who It Affects	URL for More Information
<b>Sarbanes-Oxley Act</b>	Internal control structure and procedures for financial reporting; requires management and outside auditor to attest to effectiveness of controls	11/04 for firms with \$75 million market cap or more; 7/05 for smaller and foreign firms.	All public companies (also firms that may go public or be acquired by a public firm); plus all public accounting firms	<a href="http://www.sarbanes-oxley-forum.com">www.sarbanes-oxley-forum.com</a>
<b>SEC 17a-4 (and related NASD, NYSE regs)</b>	Retention of all materials, correspondence, emails, IMs associated with securities trades (up to seven years)	1997 (updated 5/03)	Broker-dealers	<a href="http://www.ziplip.com/docs/support/ZipLipSECRulesOverview.pdf">www.ziplip.com/docs/support/ZipLipSECRulesOverview.pdf</a>
<b>HIPAA</b>	Portability and security of patient data	April 2003 (compliance by 4/05; small health plans by 4/06)	Healthcare providers	<a href="http://www.hhs.gov/ocr/hipaa/">www.hhs.gov/ocr/hipaa/</a>
<b>USA Patriot Act</b>	Anti-terrorism and anti-money laundering measures; defines due diligence process for signing up new customers and data storage retention (Section 326)	October 2001	Banks & other financial firms, insurance companies	<a href="http://thomas.loc.gov/cgi-bin/bdquery/z?d107:h.r.0316">thomas.loc.gov/cgi-bin/bdquery/z?d107:h.r.0316</a>
<b>Interagency White Paper (U.S. Financial System)</b>	Defines sound practices to protect system in light of new risks posed by "9/11" – including same-day recovery, geographic dispersal, recovery testing requirements	Core firms by 12/04; others by 4/05	Large banks; other firms that clear/settle a minimum of 5% of transactions in critical markets	<a href="http://www.sec.gov/news/studies/34-47638.htm">www.sec.gov/news/studies/34-47638.htm</a>
<b>California Security Breach Disclosure Law</b>	Requires disclosure of security breaches involving personal data of any state resident (to combat identity theft)	July 2003	Any firm with computerized data doing business in CA, and/or their service bureaus	<a href="http://info.sen.ca.gov/pub/01-02/bill/sen/sb_1351-1400/sb_1386_bill_20020926_chaptered.html">info.sen.ca.gov/pub/01-02/bill/sen/sb_1351-1400/sb_1386_bill_20020926_chaptered.html</a>

<sup>†</sup> This table is only a summary of some of the most recent and broadly applicable U.S. laws and regulations. Since there are more than 4,000 at both the state and federal levels that deal with the retention and retrieval of e-records, and many rules in other countries that also apply for firms doing business in those jurisdictions, companies should become familiar with all those affecting their business or industry.

Law or Regulation	What It Covers	Effective Date	Who It Affects	URL for More Information
<b>DOD 5015.2 STD</b>	Defines destruction/shredding rules for e-media; considered now as industry best practices	1997 (updated 6/02)	Firms with government business; but rules now widely accepted	<a href="http://jtc.fhu.disa.mil/recmg/register.htm">jtc.fhu.disa.mil/recmg/register.htm</a>
<b>FDA 21 CFR Part 11</b>	Assurance that e-records and e-signatures are trustworthy; requires that clinical trial data be archived in unalterable form for life of drug/product or longer	1997	Pharmaceutical, medical devices, life sciences	<a href="http://www.fda.gov/ora/compliance_ref/part11">www.fda.gov/ora/compliance_ref/part11</a>
<b>Gramm/Leach/Bliley Act</b>	Use of private customer data in marketing campaigns	1999	Banks, securities firms, insurance companies, all firms that sell financial products and services to consumers	<a href="http://banking.senate.gov/conf">banking.senate.gov/conf</a>
<b>Check Truncation Act (or "Check 21")</b>	Allows option of storing checks as e-images (passed after 9/11 caused loss of many paper checks)	October 2004	Banks (any depository institution)	<a href="http://www.federalreserve.gov/paymentsystems/truncation/default.htm">www.federalreserve.gov/paymentsystems/truncation/default.htm</a>

How can you get help keeping up with the ever-changing world of compliance? There is no simple answer. Government Websites are required to make all this information available, but many are clumsy and difficult to use. [Author's note: Try finding a summary of SEC Rule 17a-4 on that agency's Website! I finally gave up and included a link in the table to a very nice summary from a compliance software vendor.] In addition, there is an increasing number of database publishing firms and consultants who can provide ready access to all the laws and regulations, and recommend which ones your company should be paying attention to – for a price, of course. There's even a new, for-profit compliance institute for IT professionals (see Bibliography).

### C. Integrating Multiple Disciplines

As noted earlier, a distinct challenge in compliance is integrating the various players that are involved in a given corporation: senior management (especially the CEO and CFO offices), legal staff, the compliance officer and staff, internal audit staff, outside auditors, any existing records management staff, and finally, of course, IT. Thus, storage, as a subset of the latter, is just a piece of the larger puzzle.

Communication between all these functions is critical, as is leadership from the top. And, though the legal department plays a major role, practitioners and vendors in the following related technologies or specialties are a big part of the picture in today's compliance world:

- Records management (RM), which is related to document management (DM) or image management (IM), and also has a subset known as digital asset management (DAM)
- Enterprise content management (ECM)
- Web content management (WCM)

There are two long-standing, very active industry associations covering the above disciplines, and there's a wealth of information at their Websites:

- AIIM (Association for Information and Image Management): <http://www.aiim.org>
- ARMA (now referred to, in an acronym-challenged fashion, as the Association for Information Management Professionals): <http://www.arma.org>

*Interesting fact:* The records-management industry has a history counted in decades. It began espousing the notion of ILM in 1993. A decade later, the storage industry – specifically, the storage networking industry, a relative newcomer – decided to adopt the concept as its own. Perhaps the combination of forces can soon make the benefits of this vision a reality.

As for the leading industry group in the latter camp, the Storage Networking Industry Association (SNIA), it is just beginning to address compliance in a formal manner. A subset of its Data Management Forum called the "Regulatory Compliance Storage Solutions Initiative" is set to be announced this month. (The Data Management Forum is headed by SNIA pioneer Michael Peterson of Strategic Research Corp., who served as the SNIA's first president.)

But a more immediate sign that the SNIA recognizes the storage industry needs to reach out to the records-management community is an educational conference its Data Management Forum is hosting in October 2004 in Long Beach, Calif. The event is co-located with the annual conference of the 10,000-member ARMA organization. Called *ILM Solutions 2004*, it's being billed as "the first authoritative conference on best practices and solutions for ILM." And, since compliance is a key subset of ILM, it will of course be a focus. (For details, see: [http://www.snia.org/tech\\_activities/dmf/ILM\\_Solutions\\_Conference](http://www.snia.org/tech_activities/dmf/ILM_Solutions_Conference).)

Another key discipline that is sorely needed in the growing world of compliance is *training*. As in any new, high-profile, rapidly changing environment, education is a major need. And in this case that need applies to the entire business world, as well as to individual companies – that is, educating the users (the ones who, after all, provide the compliance). The above-named industry associations are doing a commendable job of trying to accomplish the former, but it falls to corporate management to fund their own internal training and education efforts. No compliance expert will argue the need for that.

### III. Process: Where It All Begins (and Ends)

Those professionals experienced in compliance will tell you that, most of all, it is about defining, documenting, and/or improving *processes* in a given company. In addition, it requires a specific, dedicated compliance staff and the right integrated team within that organization – especially for the one-time, front-end work of establishing a compliance program.

Outside auditors come into play as well, of course, particularly for public companies. A company's accounting firm plays a key role in compliance work involving financial reports, such as for the Sarbanes-Oxley Act – in fact, all public accounting firms are covered by that law as well.

Building a compliance program is, first and foremost, about people (previously discussed) and about understanding a company's processes – specifically in regard to internal controls and financial reporting, as is the case with SarbOx (which is being called the biggest single compliance issue of 2004).

The importance of understanding process cannot be overstated, since the work is so cross-departmental or interdisciplinary within any organization – and grows in complexity the larger the organization becomes. And the ongoing *compliance management process* itself is a part of the picture.

"The ability to track and, at a moment's notice, understand where you are in the compliance process will become increasingly important," say two senior EDS consultants in a report the firm recently published, "Building a Compliance Platform," which is written for IT professionals. And that means things like timelines as well. "The deadlines to complete certain activities within SarbOx grow more aggressive over time," the EDS authors say. "Staying on top of compliance activities and ensuring improvement plans are on track also will grow in importance."

Establishing a plan for dealing with compliance issues begins by understanding which laws and regulations apply to your firm, of course. To get started developing a compliance program, many companies will get outside consulting assistance from their accounting firm – particularly if it's one of the Big Four firms, all of which already have significant practices devoted to compliance.

Another alternative is seeking the help of a consulting organization dedicated specifically to compliance. In the climate of recent years, such consultants have been cropping up all over, but two of the most-frequently mentioned names with experience in this area are Cohasset Associates and Kahn Consulting.

The important thing to remember, say IT consultants, is that no product, by itself, will solve your compliance issues, no matter what the claims may be. A more complete, realistic solution includes consulting or services.

Some firms have developed sophisticated process-oriented software to manage compliance, especially related to the broadly applicable Sarbanes-Oxley Act. One such company is a relative newcomer that's already making a name for itself: Open Pages Inc. The firm already claims some 30 corporations as customers for its software. Of particular note, it recently acquired compliance software from PricewaterhouseCoopers to add to its SOX Express product, and will continue to work closely with PwC in its compliance consulting engagements. So, its solutions are a combination of software and services.

How much effort will go into compliance in a typical public corporation this year? FileNet, a leading enterprise content management software firm (which is partnered with more than one of the big storage vendors), predicts that organizations will spend an *average* of 6,000 person-hours during 2004 to comply with just Section 404 of the Sarbanes-Oxley Act alone. No matter your company's specific hourly cost, that's a big number.

#### A. What Compliance Means for IT/Storage Managers

The downside for IT is that there's a lot of uncertainty and concern, due to the perception of increased responsibility and workload – not to speak of the pressure of keeping your bosses' rear ends out of jail.

But some analysts point out that compliance also *benefits* IT and storage professionals. That, they say, is because:

- Compliance gives the IT and storage functions a more strategic role in the company.
- It's another opportunity to emphasize the need for centralized management (i.e., to stop the proliferation of storage islands).
- It can be a key driver for many firms to implement an overall ILM strategy.
- Finally, it's another step on the path to automated, policy-based management.

But don't be alarmed if you have no formal compliance program yet. The Gartner Group says most Fortune 500 firms haven't figured it out, either! In fact, even the aforementioned cash-rich, almost \$1-billion Google – the new golden boy of public-company hopefuls – cited in its recent IPO filing that its auditor urged the company to bolster internal controls, and to automate its financial processes. The lax controls could hurt the company's ability to report its financial data as a public company, the filing warned. The company also said it spent "significant resources" in 2003 to improve its internal controls. So, buck up – your company is not alone.

If you're in one of the long-regulated industries such as pharmaceuticals, medical devices, or financial services, compliance is nothing new to you – so you have a leg up on the other guys.

A key thing for any company to determine before buying new solutions is what software you may already have that you could use in your compliance efforts. In a December 2003 survey by Aberdeen Group, two-thirds of the firms responding said they will make do with what they already have.

This seems to be a familiar refrain. "A compliance architecture doesn't necessarily require new software investments and does not need to be implemented across the enterprise in a single step," said Gartner's Brian Wood at his firm's symposium event in March. "Most organizations will find that they already have many of the software tools they need." He said that firms with good systems for security and business continuity planning, document management, and business process management may already have the right foundation.

Four specific ways that compliance affects the storage administrator were pointed out by The Evaluator Group's Jack Scott:

1. *It involves "event-driven" retention rather than cyclical retention* – You must have a procedure to retain a record when it falls off the son-father-grandfather backup file, to keep it until the retention date. "And provision must be made, at the application or system level," Scott said, "to freeze or defer a retention date in the case of a court-ordered 'hold' for discovery or the expectation of one."
2. *You need "chain-of-custody" logs of who has had "write access" to a file* – And this log must be stored with the data file. "Ask Martha," notes Scott.
3. *Indexing is required, which must also be stored with the data record* – And very granular indexes are frequently larger than the data to which they point.
4. *Files must be organized for rapid audit and search capability* – Courts decide how long you have to produce results, and are increasingly less patient. And if you wait too long or plead that you cannot make the material available, you're exposed to "obstructing justice" charges.

## **B. What IT/Storage Managers Should Do**

One analyst recommends that IT do a "gap analysis" in preparation for developing a compliance program during the time gained with the recent SarbOx deadline extension.

Lane Leskela, a research director at Gartner, says IT managers should do a study of where their systems are now, compared to where they need to be to get compliant. And before buying additional software, companies should determine whether they already have applications in place that can do the job, such as operational risk and records management software.

IT in general, and the storage administrator in particular, has long been seen as the professional custodian of a company's information – often in conjunction with the records manager, who usually reports to a different

function, such as operations, finance, or even legal. The Evaluator Group's Scott began writing more than six years ago about the need to consolidate accountability for records management with the CIO or IT department. "The records repository must be part of the overall enterprise storage strategy," he says, "and involve the storage administrator. We don't need more storage islands."

The Evaluator Group recently published its recommendation for how the storage function should be dealing with compliance today, and it's really quite simple. The firm says to get a "Compliance Requirements Statement" from your business unit(s), and *have it refreshed annually*. "If the business unit and its lawyers don't know how to do one, then suggest they hire a reputable, experienced consulting firm, such as Cohasset Associates, Kahn Consulting, or a Big Four accounting firm," says Scott. Be careful amidst all the hype from the newcomer, opportunistic consultants out there, he warns.

Until such a Requirements Statement exists, The Evaluator Group maintains, the IT or storage manager cannot and should not be defining storage retention policies or putting new storage solutions in place.

But one exception is cited by some experts and advisors – a tactical solution they admit many companies must deal with right now: *email archiving*. It is this type of "record" that seems to be growing faster than any other – almost exponentially – and it's the one of most concern to get under control, based on the requirements of recently enacted laws.

That is, whether your "big plan" to deal with compliance overall has been developed yet or not, email archiving and management is a very specific pain-point that many firms are finding they have no choice but to deal with right away.

An alternative is not buying an email management and compliance solution at all, but *outsourcing* it – which can be a particularly attractive option in relation to speed of implementation and to keeping up-front costs to a minimum. In the financial services industry, for example – perhaps the most mature in the ways of email retention requirements – there are several firms that will handle the entire process for such highly regulated firms as brokerages. One such firm is Five Points Compliance ([www.fivepoints.net](http://www.fivepoints.net)). An outsourced email archiving service it began offering six months ago to small and medium financial services firms includes hosted Exchange mailboxes, hosted messaging compliance (including surveillance and archiving), and hosted IM capture and compliance. The firm says a full solution for a 50-user company is priced at \$35 per user per month, which is \$1,750 monthly or \$21,000 annually. Setup costs are additional.

Yet another, even lower-cost approach comes from Intradyn, which will soon announce an all-in-one "compliance appliance" targeted especially at financial firms smaller than 100 employees and priced at less than \$10,000. (See [www.intradyn.com](http://www.intradyn.com).) The firm says this email archiving device, called the ComplianceVault™, captures all of a user company's emails, with an unlimited number of mailboxes and messages. It is available now with up to .8TB of raw disk space, and the company says it will release multi-terabyte units later this year. According to Intradyn, the ComplianceVault can be put into use immediately, requires no integration, and can search a million emails in a matter of seconds. There are no ongoing monthly charges, and the appliance uses a Sony AIT tape drive for archiving to Sony AIT WORM tape cartridges, each of which has a capacity of up to 130GB compressed, with a transfer rate of 6MB per second compressed. Sony claims its AIT WORM media has an archival life of up to 30 years. It is identified with a bright red cover and a special design and logo stamped onto the cartridge. (See <http://www.storagebysony.com>.)

Understand that a common theme in compliance technologies is "WORM" – write once, read many storage systems and media – and that there are three ways to do it:

- WORM disk, such as EMC™ Compliance Edition and NetApp NearStor™ with SnapLock™
- WORM tape, such as Sony AIT/SAIT tape drives and media, for which there are several library vendors, and the just-introduced IBM 3592 tape drives and WORM media
- WORM optical (an older technology), such as Plasmon optical disks, drives, and jukeboxes (including the recently introduced generation called "UDO")

### **C. The Eve of Destruction: Nuking Does Have Its Place**

A major part of the job of developing an overall compliance program is defining the "records-retention policy," which in part defines when records are to be destroyed. With the increased emphasis on corporate compliance and the continuing decline in the price of disk storage, many people assume the process is becoming about saving all records, all the time, forever. But that should not be the case, according to some records-management advisors. A carefully established, formal policy of when to destroy records at pre-determined intervals – and holding to that policy systematically – is a critical part of any records-management program.

For one, the previously mentioned records-industry association ARMA specifically points out the risks of the "save everything forever" approach. In its recommendations about compliance and developing what it terms a "records information management," or RIM, program, ARMA rightfully points out that compliance is not the only legal consideration in retaining records. Keeping them as possible evidence in litigation is the other major reason. However, although some attorneys have traditionally advised keeping everything, "records can prove harmful rather than helpful," ARMA says. Keeping records solely for their possible use in litigation poses risks for pre-trial discovery, wherein the opposing party can subpoena your company's records. And the cost for such legal discovery is going nowhere but up, with the defending party increasingly paying the majority of those costs.

The standard to look to for best practices in "e-record shredding," according to wide agreement in the industry, is DOD 5015.2 STD. (Refer to Figure 1 for a URL reference.) Though it began as a standard for firms doing business with the federal government, applying to both classified and non-classified information, its regulations have since become widely recognized as best practices for all businesses regarding proper destruction of e-records. Another point of note about DOD 5015.2: It is the only major regulation for which the sponsoring organization openly certifies vendor solutions that meet its criteria, even listing them on its Website.

## IV. What Compliance Means to the Storage Industry

First of all, there will be vast new amounts of data for IT departments to store and retain systematically for varying lengths of time. With analysts now largely in agreement that, thanks to compliance, data growth is back into at least the range of 80 percent to 100 percent annually – and perhaps going higher – the need for more storage capacity marches on unabated.

But, in addition to these longer-term growth implications of compliance on the storage industry, we are witnessing, here and now in mid 2004, a bona fide, hot new industry category all its own that is quickly coming into the spotlight: *email archiving*. This category includes not only software and turnkey systems, but outsourced services offerings as well.

Email archiving is driving a lot of the immediate spending for compliance. But overall, a large number of new product and services offerings relating to all flavors of compliance have emerged, in a relatively short period of time. The recently heightened activity related to Sarbanes-Oxley, going into effect this year, and HIPAA, going into effect in 2005, will obviously drive significant new business for compliance vendors. And there's no sign yet that this activity will be slowing in the immediate future.

In our snapshot of the landscape today, we already count some 59 firms with specific compliance offerings that relate to IT and storage managers, including several firms offering consulting and process-oriented software and services.

**Figure 2: Selected Vendors With Compliance-Related Product or Services Offerings<sup>‡</sup>**

Vendor	Type of Compliance Offering	URL
Archivas	Fixed-content archive mgmt. system	<a href="http://www.archivas.com">www.archivas.com</a>
Arkivio	ILM software	<a href="http://www.arkivio.com">www.arkivio.com</a>
Breece Hill	Tape autoloaders/libraries/ILM appliances	<a href="http://www.breecehill.com">www.breecehill.com</a>
BT Syntegra	Email/messaging management platform	<a href="http://www.btsyntegra.com/mmp">www.btsyntegra.com/mmp</a>
Caminosoft	ILM/HSM software	<a href="http://www.caminosoft.com">www.caminosoft.com</a>
Cap Gemini (E&Y)	ILM consulting services (with HP)	<a href="http://www.capgemini.com">www.capgemini.com</a>
Cohasset Associates	Compliance consulting services	<a href="http://www.cohasset.com">www.cohasset.com</a>
CommVault	ILM/HSM/archiving software	<a href="http://www.commvault.com">www.commvault.com</a>
Computer Associates	Email archiving and security solutions	<a href="http://www.ca.com">www.ca.com</a>
Connected	Email archiving solution	<a href="http://www.connected.com">www.connected.com</a>
Copan Systems	Disk-based midline storage	<a href="http://www.copansys.com">www.copansys.com</a>
Data Center Technologies	Content archiving/migration solution	<a href="http://www.datacentertechnologies.com">www.datacentertechnologies.com</a>
Decru	Security/file-shredding solution	<a href="http://www.decru.com">www.decru.com</a>
Doculabs	Compliance consulting services	<a href="http://www.doculabs.com">www.doculabs.com</a>
Documentum (EMC)	Content mgmt. platform & applications	<a href="http://www.documentum.com">www.documentum.com</a>

<sup>‡</sup> This table is not intended to be an all-inclusive list of vendors. It include those firms that have been cited in Byte & Switch editorial content over the past year as having offerings related to compliance, plus other firms we identified for this report that offer compliance consulting services, specialized process-oriented software or services for compliance, and/or products and services from the interrelated specialties that are increasingly aligning with the storage function: ECM (enterprise content management) and RM (records management). Finally, certain companies were included because they were named in recent compliance-related product announcements and/or partnerships announced by storage vendors, as part of the latter's integrated compliance solution offerings.

<b>Vendor</b>	<b>Type of Compliance Offering</b>	<b>URL</b>
EDS	Compliance consulting/solutions	<a href="http://www.eds.com">www.eds.com</a>
EMC	Fixed-content storage (WORM disk)	<a href="http://www.emc.com/compliance">www.emc.com/compliance</a>
FileNet	ILM/records management solutions	<a href="http://www.filenet.com">www.filenet.com</a>
FivePoints	Hosted email-compliance service	<a href="http://www.fivepoints.net">www.fivepoints.net</a>
GST	Tape & disk systems/solutions	<a href="http://www.gstinc.com">www.gstinc.com</a>
HP	Archive/ILM solutions (via Persist buy)	<a href="http://www.persistcorp.com">www.persistcorp.com</a>
IBM	Various, incl. services, 3592 WORM tape	<a href="http://www.ibm.com">www.ibm.com</a>
iLumin	Email/messaging management solutions	<a href="http://www.ilumin.com">www.ilumin.com</a>
IMLogic	Instant messaging archive solution	<a href="http://www.imlogic.com">www.imlogic.com</a>
INS	Email management services (with EMC)	<a href="http://www.ins.com">www.ins.com</a>
Intradyn	SMB compliance solution (appliance)	<a href="http://www.intradyn.com">www.intradyn.com</a>
Invio Software	Storage process automation/workflow	<a href="http://www.inviosoftware.com">www.inviosoftware.com</a>
Iron Mountain	Archiving/records services	<a href="http://www.ironmountain.com">www.ironmountain.com</a>
IXOS (unit of OpenText)	Enterprise content management/ILM	<a href="http://www.ixos.com">www.ixos.com</a>
Kahn Consulting	Compliance consulting services	<a href="http://www.kahnconsultinginc.com">www.kahnconsultinginc.com</a>
KOM Networks	ILM/archiving solution for DVD-R	<a href="http://www.komnetworks.com">www.komnetworks.com</a>
KVS	Email and content archiving	<a href="http://www.kvsinc.com">www.kvsinc.com</a>
Legato (EMC)	Data protection/email management	<a href="http://www.legato.com">www.legato.com</a>
LSI Logic	Email management solution	<a href="http://www.lsilogicstorage.com">www.lsilogicstorage.com</a>
Lumigent	Security, compliance, auditing software	<a href="http://www.lumigent.com">www.lumigent.com</a>
Microsoft	Various, incl. software tool for SarbOx	<a href="http://www.microsoft.com">www.microsoft.com</a>
Movaris	SarbOx compliance software	<a href="http://www.movaris.com">www.movaris.com</a>
NetApp	Various, incl. near-line storage systems	<a href="http://www.netapp.com">www.netapp.com</a>
Nth Orbit	Compliance software platform	<a href="http://www.nthorbit.com">www.nthorbit.com</a>
Open Pages	Compliance process management platform	<a href="http://www.openpages.com">www.openpages.com</a>
Pegasus Disk Technologies	Archive file system	<a href="http://www.pegasus-ofs.com">www.pegasus-ofs.com</a>
Permabit	Software for fixed-content/WORM disk	<a href="http://www.permabit.com">www.permabit.com</a>
Plasmon	WORM optical subsystems & media	<a href="http://www.plasmon.com">www.plasmon.com</a>
PricewaterhouseCoopers	Compliance consulting services	<a href="http://www.pwc.com">www.pwc.com</a>
Princeton Softech	Archiving/ILM solutions	<a href="http://www.princetonsoftech.com">www.princetonsoftech.com</a>
Qumas	Compliance management for SQL Server	<a href="http://www.qumas.com">www.qumas.com</a>
SAIC	Storage security solutions (esp. gov't)	<a href="http://www.saic.com">www.saic.com</a>
SANZ	Comprehensive compliance services	<a href="http://www.sanz.com/compliance.asp">www.sanz.com/compliance.asp</a>
Seven Ten Storage	ILM solution	<a href="http://www.seventenstorage.com">www.seventenstorage.com</a>
Sony	WORM tape systems & media	<a href="http://www.storagebysony.com">www.storagebysony.com</a>
StorageTek	WORM disk subsystems	<a href="http://www.storageitek.com">www.storageitek.com</a>
Thunderhead	Content platform for regulated docs	<a href="http://www.thunderhead.com">www.thunderhead.com</a>

<b>Vendor</b>	<b>Type of Compliance Offering</b>	<b>URL</b>
Tivoli (IBM)	Compliance/security management solution	<a href="http://www.ibm.com/tivoli">www.ibm.com/tivoli</a>
Tumbleweed	Secure email solution	<a href="http://www.tumbleweed.com">www.tumbleweed.com</a>
Veritas	Data lifecycle management solution	<a href="http://www.veritas.com">www.veritas.com</a>
Zantaz	Email archiving solution	<a href="http://www.zantaz.com">www.zantaz.com</a>
ZipLip	Email archiving/secure messaging	<a href="http://www.ziplip.com">www.ziplip.com</a>

To attempt to compile a complete list of compliance vendors for IT and storage professionals in such a dynamic environment is a somewhat futile exercise. The reason is that virtually all storage vendors could be said to be in the compliance business, whether they have made announcements specific to the topic yet or not – especially those with products or services for data protection, disaster recovery, and/or business continuity. It's no secret that we'll see vendors increasingly slapping the "compliance" tag on a wide array of products, old and new.

## A. Care to Dance?

Another thing the phenomenon we call compliance is bringing to the industry is a whole new wave of *partnerships*. Many alliances initiated by the storage vendors are already in place, and the pace has quickened over recent months. For example, a new multi-partner announcement by IBM just made it onto our list at deadline.

As IT and storage industry veterans will note, many of these alliances, whether of the OEM, reseller, or marketing type, involve a new class of partner for storage vendors – including several firms from the worlds of content management, document management, and records management.

**Figure 3: Major Storage Vendors – Selected Partnerships for Compliance Offerings**

Vendor	Partnerships Announced
Computer Associates	Sony Tape
EMC – Documentum	Thunderhead
EMC – Legato	HP, IBM, Iron Mountain
EMC – Other	AXS-One, Caminosoft, FileNet, iLumin, INS, KVS, Microsoft, Princeton Softech, Tumbleweed
Hitachi Data Systems	IXOS (a unit of OpenText)
HP	Cap Gemini, KVS, Legato, Plasmon
IBM	Abreon Group, Acumen Technologies, Blue World Information Technology, Decru/HP, iLumin, iRise, GlobalVision IT, GlobalValue, Hyperion, Informatica, Legato, QuickCompliance, SkillSoft, ZipLip
NetApp	AXS-One, CommVault, Decru, iLumin, IXOS, Princeton Softech
StorageTek	IXOS
Veritas	Akonix, Autonomy, Excivity, Facetime, IM Logic, NetApp, Plasmon, Princeton Softech, Sherpa Software, StorageTek

## B. Great Expectations

Much has already been written about how compliance will be a boon to many stripes of IT vendors – whether software, systems, or services. And a lot of those high hopes have been for storage-related vendors, as well as for those that are specifically focused on the Sarbanes-Oxley Act, as corporations rush to meet the first deadline in November.

A recent survey by Meta Group found a not-so-surprising 97 percent of compliance software vendors think sales will be driven by the regulations. General expectations are high – maybe even sky-high. Yet, in an opposing viewpoint, another study this past December by Aberdeen Group found fully two-thirds of corporations – the hoped-for buyers – expect to be able to deal with compliance using systems they *already have*, or to try to extend those systems somehow. So, it's apparent that one could reasonably question whether compliance will cause the big boost to IT and storage sales that all the hype of recent months has suggested.

For 2004 alone, estimates of spending on all aspects of compliance, from the Enterprise Storage Group and other analyst firms, range as high as \$5 billion. But realize that such figures include internal staff, outside consultants, and auditors, as well as new software and storage systems.

How is compliance different from all the Y2K hoopla of the late 90s? The major reason, of course, is that *it doesn't end* – compliance goes on and on (unfortunately, many would say). Thus, the \$100 billion that was spent on Y2K between 1995 and 2000, according to the official U.S. Department of Commerce estimate, may ultimately look small when compared to the total market for compliance over time (if, in fact, it can really be called a single market).

### **C. Leading Storage Vendors' Compliance Offerings**

We asked some of the leading firms in the industry to comment on (1) who some of their customers are for their compliance solutions, (2) how they handle the services component, (3) how their solution is different, and (4) who some of their key partners are.

#### ***EMC***

With an industry focus in financial services, healthcare, life sciences, and government, EMC cites several customers using its ILM and compliance solutions: the SEC, Scott Trade, Raymond James, Commerzbank, North Bronx Healthcare Network, OSF Healthcare, and CareGroup Healthcare. The company helps its customers with the services necessary to develop a compliance program – both via its own professional services staff, and through outside consulting firms. Its own EMC Services unit helps customers "by evaluating and aligning infrastructure to address current compliance requirements," according to the company. EMC's approach analyzes applications, business processes, service levels, and infrastructure to provide solutions that deliver benefits to lines of business as well as IT, says the firm. Outside services partners include Accenture (ISC) and Cohasset Associates.

How is EMC's offering unique or different? First of all, "newly acquired Documentum and Legato extend our leadership position in compliance," says the company. In addition, EMC claims to have more partners, customers, and integrated solutions for compliance than any other vendor. It says its solutions for compliance "provide authentication, information integrity, retention, and confidentiality in a scalable and flexible information infrastructure." EMC claims to have more than 100 integrated partner solutions, having named BMC Software the 100th such partner, in March.

#### ***IBM***

Though it admits it is still early in the sales cycle for some of its compliance products, IBM says the customers expressing the most interest are those in data-intensive industries in which enterprises commonly have complex, heterogeneous environments and growing compliance demands – such as financial services and healthcare. It specifically named Huntington National Bank, Penn State University Hershey Medical Center, and AXA Financial as customers of note.

IBM says its industry-specific software and hardware, combined with the industry expertise of its consultants, provides "the best time-to-value for helping businesses make their operations more efficient, anticipate their customers' needs, and address regulatory obligations." IBM's Business Consulting Services (BCS) serves as the conduit for providing customers with practical business solutions tailored to meet the specific challenges of their industry.

The IBM vision for a total compliance solution, says the company, goes beyond managing the lifecycle of the data to the integration of business processes with IT. IBM says it has comprehensive solutions and services that help customers build an IT infrastructure that is flexible enough to change as quickly as business requirements. It says it delivers solutions that address the need to manage the lifecycle of data while addressing information's value to the business.

In addition to comprehensive data management, content management, and storage management software, IBM also offers a broad range of storage server capabilities with cost variability. The IBM TotalStorage™ hardware infrastructure solutions provide specialized storage servers to accommodate the changing value of

information. These range from the IBM TotalStorage Enterprise Storage Server to the midrange FAStT Storage Server, with a choice of high-performance Fibre Channel or low-cost Serial ATA (SATA) disk expansion.

Of note, IBM just introduced Write Once Read Many (WORM) media technology for its 3592 tape drive – so that, once written, data on the cartridges can't be overwritten. This capability is of particular interest to customers that need to store large quantities of electronic records to meet regulatory and internal audit requirements. Additionally, IBM plans to introduce a family of cartridge capacities to provide multiple price/performance points. The IBM Enterprise Tape Drive 3592 is compatible with eServer, zSeries, UNIX, Microsoft Windows, and Linux solutions. The drive is generally available for AIX, Linux, and Microsoft Windows platforms.

IBM says it now has more than 20 business partners that are supporting IBM's compliance software offerings and helping clients address regulatory mandates. Some of these partners that were just announced at our publication deadline include Abreon Group, Acumen Technologies, Blue World Information Technology, iLumin, iRise, GlobalVision IT, GlobalValue, Hyperion, Informatica, QuickCompliance, SkillSoft, and ZipLip.

## **HP**

In early May, HP introduced its StorageWorks™ Reference Information Storage System (RISS), a compliance solution that integrates all the storage, servers, management software, and application-specific connecting software, as well as search and retrieval capabilities, into a single pluggable appliance. HP says it is unable to name specific customers at this time, other than saying that one is "a very large financial organization on Wall Street." The system is based on technology from Persist Technologies, which HP acquired in late 2003.

According to Calvin Zito, HP's ILM strategic marketing manager, RISS is a complete, active archiving solution. "Most competitive offerings are not," he says. You can buy RISS from a single vendor, boasts Zito. "But to buy an email archiving and retrieval solution based on an EMC Centera or on a Network Appliance SnapLock, for example, the customer needs to deal with the storage vendor and probably a minimum of four other vendors." These other vendors would include those for email platform integration (middleware) software, search engine, database, and additional servers and storage.

The RISS solution comes bundled with professional services for the design and implementation of the RISS solution, says Zito, as well as with support services.

"No storage solution is, in and of itself, 'compliant.' Customers should be cautious of a vendor claiming to have a compliant storage product," says HP's Zito. "Compliance is a legal issue, and we believe that RISS can assist customers to address legal requirements – but no technology can by itself address legal compliance. Customers should always consult with their legal counsel when addressing compliance regulations."

HP positions RISS as a complete active archiving solution. It says most competitive offerings are not. A key difference with RISS, says HP, is that the entire solution is "non-tamperable" – which it says is a key legal requirement. With an EMC Centera or NetApp-based solution, only the data actually stored on the disk drives is within the 'non-tamperable boundary,' according to Zito. "Everything else is tamperable," he says, "including, for example, the content addresses stored outside of Centera that are required by the third-party applications that actually retrieve the Centera document."

## **NetApp**

Some of the customers currently using the NetApp SnapLock™ compliance solution are Bronson Healthcare, JP Financial, NCSU, BC Cancer Center, and others in the healthcare, financial, education, manufacturing, government, and energy sectors.

NetApp partners with both large and small consulting firms to provide compliance services, such as determining to which regulations customers are subject, how those regulations apply to the retention and disposal of information, and what IT solutions are required to meet those implications.

"In our experience, most large enterprises already have a staff that focuses on how to meet regulations and how to deploy their IT infrastructure in order to abide by and meet regulations," says Krish Padmanabhan, director of data protection and compliance solutions. "It's just too important for customers to rely on outside companies to determine how to meet these regulations. We've found most customers need assistance on determining how our storage solutions can be deployed to meet regulation requirements."

NetApp's customers "expect and demand a regulated data storage solution that is fast, flexible, robust, and based on open standards," says Padmanabhan. "We're delivering a comprehensive set of storage solutions that is flexible enough to meet the needs for high-performance storage, reference data, disk-to-disk backup, data archival, and regulated data. This gives us a huge advantage over our competition in this space."

NetApp SnapLock supports open, industry-standard protocols such as NFS and CIFS, so it offers easy data access and application integration – as opposed to other regulated data solutions that require each application vendor to write to a closed, proprietary API to store, retrieve, and search data. "Consolidating storage on unified, rapidly scalable NetApp NearStore or FAS systems enables increased flexibility in preserving important data using archival and records-management applications," Padmanabhan notes.

Storing and accessing massive amounts of information on economical, high-capacity, and easily expandable NetApp unified storage solutions ensures the maximum return on a customer's IT infrastructure investment, says Padmanabhan: "The same NearStore or FAS system that provides fast access to unalterable data using SnapLock can simultaneously be used for multiple purposes such as disk-to-disk backup, cross-platform replication, and primary storage, something other solutions can not achieve."

Compliance technology partners that support NetApp SnapLock include AXS-One, CYA Technologies, CommVault Systems, Documentum, Decru, Educom Ts, Enigma Data Systems, FileNet, FileTek, iLumin, KVS, Legato, OpenText-IXOS, Optika, Princeton Softech, Veritas Software, Vignette, and Zantaz.

## D. Other Vendors and Startups

Activity is not limited to the major storage vendors. Many smaller and/or startup vendors have made major compliance-related announcements in the past year. Our count identified more than 30 such companies, some of which are new to the storage field, and most of them being software firms. (See Figure 2.)

Venture capital funding was fairly strong over the past year for firms seeking to enter the compliance market. Four companies focused specifically in compliance received significant funding: Zantaz (\$20 million), KVS (a \$17 million round, for a total of \$37 million), Lumigent (\$7 million), and PSS Systems (undisclosed, though the firm names several VCs). Another firm, PowerFile, is said to have recently received funding from a major Silicon Valley VC, but had not yet officially announced at press time. In addition, one compliance software firm that was venture-backed, Persist Technologies, was acquired by HP for an undisclosed amount in late 2003. The firm had raised \$11 million in venture capital in 2002.

Several of these newer firms have also been actively forming OEM and marketing partnerships as well, as can be seen in the accompanying table – which is just a sampling of the known public announcements to date by this group.

**Figure 4: Other or Startup Vendors – Selected Partnerships for Compliance Offerings**

Vendor	Partnerships Announced
Breece Hill	XenData, Sony Tape
CommVault	XIOtech
Decru	SAIC
Five Points Compliance	EMC, IM Logic, KVS, Microsoft, Omniva
GST	Sony Tape
iLumin	IBM, NetApp, Tumbleweed

Vendor	Partnerships Announced
IM Logic	Veritas
Intradyn	Sony Tape, PowerFile
KOM	Optika
KVS	EMC, HP, MDY Advanced Technologies
Open Pages	CSC, PricewaterhouseCoopers
Pegasus Disk Technologies	Veritas
Permabit	CommVault
Plasmon	HP, Veritas
SpectraLogic	Sony Tape
Seven Ten	NewWave

## V. Conclusion

There's no doubt that 2004 is one big year for compliance, especially with the first deadline for the sweeping Sarbanes-Oxley Act looming in November. However, 2005 will have a huge impact all its own, when the first deadline for HIPAA regulations goes into force.

In the meantime, almost rising up out of nowhere is the new growth industry of email and instant messaging archiving – already a very active market segment in 2004, and promising to heat up even further.

Industry partnerships among IT and storage vendors are proliferating, and many of these partners are firms that storage vendors have never been allied with before – specifically enterprise content management and records management companies.

The impact of compliance is large indeed, with an estimated \$5 billion or more to be spent on Sarbanes-Oxley compliance alone in 2004. And the penalties for non-compliance to these and other regulations are becoming all too well-known to managers everywhere, as we all read about the high-profile court cases that have been recently resolved or are still underway.

Nonetheless, there is the underlying notion that something useful will come out of all this compliance activity – meaning the productivity improvements that better business processes can create.

How the compliance phenomenon affects you personally may depend on which perspective you take. Some think it's a good thing – a necessary by-product of ridding the business world of a bunch of scoundrels, and now a way to keep the honest companies honest. Others lament the huge additional cost and productivity burden it places on the rest of the business world, which did nothing wrong.

But there is no option – compliance is here to stay. The best advice seems to be to continue to get educated, simply accept compliance as part of the expanding role of IT and storage in today's business world, and try to turn it into an advantage for your organization.

The good thing is, once the initial pain of establishing a compliance program is over, keeping the program humming along in subsequent years will surely be much easier, not to speak of less costly. The software tools now beginning to appear will help greatly in automating that ongoing compliance process.

We can only hope that the corporate transgressions of the late '90s have just about run their course, and that we'll see the onslaught of new regulations slow down soon. But the best outcome may be that achieving compliance can be viewed as another step toward automated, policy-based management – the ultimate storage vision of them all.

---

**Research Analyst and Writer** Graeme Thickins ([graeme@thickins.com](mailto:graeme@thickins.com)) is a storage and IT industry veteran who writes often on storage networking, utility computing, and other IT trends. He's co-based in Minneapolis and Southern California.

**Editor** Gabriel Brown ([brown@unstrung.com](mailto:brown@unstrung.com))

# Bibliography

## Books

- Kahn, Randolph A. and Barclay T. Blair. *Information Nation: Seven Keys to Information Management Compliance*. AIIM International, March 2004.
- Kahn, Randolph A. and Nancy Flynn. *E-Mail Rules: A Business Guide to Managing Policies, Security, and Legal Issues for E-Mail and Digital Communication*. Amacom Press, May 2003.
- Cohen, Adam I. and David J. Lender. *Electronic Discovery: Law and Practice*, January 2004.

## White Papers

- "Building a Compliance Platform: A Structured Approach to Facilitating Regulatory Compliance" (a positioning paper on Sarbanes-Oxley Act compliance). EDS, October 2003.
- "Compliance: Is Today's Pain Tomorrow's Profit?" CommVault Systems, 2003.
- "Information Management: A Business Imperative – FAQs for Corporate Executives and Decision-Makers." ARMA International, 2003.
- Peterson, Michael. "Information Lifecycle management: A Vision for the Future." Strategic Research Corp., 2004.
- "Realizing the Need and Putting the Key Components in Place to Get It Right in Records Management." AIIM International and Cohasset Associates, 2002.
- Scott, Jack. "Consolidate Accountability for Data and Records." The Evaluator Group, October 1998.

## Other Resources

- AIIM E-Doc Magazine*, a monthly publication of AIIM
- AIIM International: [www.aiim.org](http://www.aiim.org)
- ARMA International: [www.arma.org](http://www.arma.org)
- Compliance, Governance & Oversight Council: [www.cgocouncil.com](http://www.cgocouncil.com)
- IT Compliance Institute: [www.itcinstitute.com](http://www.itcinstitute.com)
- "Managing Electronic Records," an annual conference sponsored by Cohasset Associates: [www.MERconference.com](http://www.MERconference.com)
- Webinars at [www.aiim.org/webinars](http://www.aiim.org/webinars) including: "Managing Email in the New Business Reality"

### **SUBSCRIBER LICENSE AGREEMENT**

Any Byte and Switch Insider report ("Report") and the information therein are the property of or licensed to Light Reading Inc. ("Light Reading") and permission to use the same is granted to annual or single-report subscribers ("Subscribers") under the terms of this Subscriber License Agreement ("Agreement") which may be amended from time to time without notice. When requesting a Report, Subscriber acknowledges that it is bound by the terms and conditions of this Agreement and any amendments thereto. Light Reading therefore recommends that you review this page for amendments to this Agreement prior to requesting any additional Reports.

### **OWNERSHIP RIGHTS**

All Reports are owned by Light Reading and protected by United States Copyright and international copyright/intellectual property laws under applicable treaties and/or conventions. Subscriber agrees not to export any Report into a country that does not have copyright/intellectual property laws that will protect Light Reading's rights therein.

### **GRANT OF LICENSE RIGHTS**

Light Reading hereby grants Subscriber a personal, non-exclusive, non-refundable, non-transferable license to use the Report for research purposes only pursuant to the terms and conditions of this Agreement. Light Reading retains exclusive and sole ownership of each Report disseminated under this Agreement. Subscriber agrees not to permit any unauthorized use, reproduction, distribution, publication or electronic transmission of any Report or the information/forecasts therein without the express written permission of Light Reading. Multi-user Subscribers purchasing between five and forty-nine subscriptions may make a Report available to other persons as long as the distribution of any single Report does not exceed the number of subscriptions purchased. Enterprise Level Subscribers, however, may make a Report available for access on computer intranets or closed computer systems for internal use under their service agreements with Light Reading.

### **DISCLAIMER OF WARRANTY AND LIABILITY**

Light Reading has used its best efforts in collecting and preparing each Report.

LIGHT READING, ITS EMPLOYEES, AFFILIATES, AGENTS, AND LICENSORS DO NOT WARRANT THE ACCURACY, COMPLETENESS, CURRENTNESS, NONINFRINGEMENT, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OF ANY REPORTS COVERED BY THIS AGREEMENT. LIGHT READING, ITS EMPLOYEES, AFFILIATES, AGENTS, OR LICENSORS SHALL NOT BE LIABLE TO SUBSCRIBER OR ANY THIRD PARTY FOR LOSSES OR INJURY CAUSED IN WHOLE OR PART BY OUR NEGLIGENCE OR CONTINGENCIES BEYOND LIGHT READING'S CONTROL IN COMPILING, PREPARING OR DISSEMINATING ANY REPORT OR FOR ANY DECISION MADE OR ACTION TAKEN BY SUBSCRIBER OR ANY THIRD PARTY IN RELIANCE ON SUCH INFORMATION OR FOR ANY CONSEQUENTIAL, SPECIAL, INDIRECT OR SIMILAR DAMAGES, EVEN IF LIGHT READING WAS ADVISED OF THE POSSIBILITY OF THE SAME. SUBSCRIBER AGREES THAT THE LIABILITY OF LIGHT READING, ITS EMPLOYEES, AFFILIATES, AGENTS AND LICENSORS, IF ANY, ARISING OUT OF ANY KIND OF LEGAL CLAIM (WHETHER IN CONTRACT, TORT OR OTHERWISE) IN CONNECTION WITH ITS GOODS/SERVICES UNDER THIS AGREEMENT SHALL NOT EXCEED THE AMOUNT YOU PAID TO LIGHT READING FOR USE OF THE REPORT IN QUESTION.