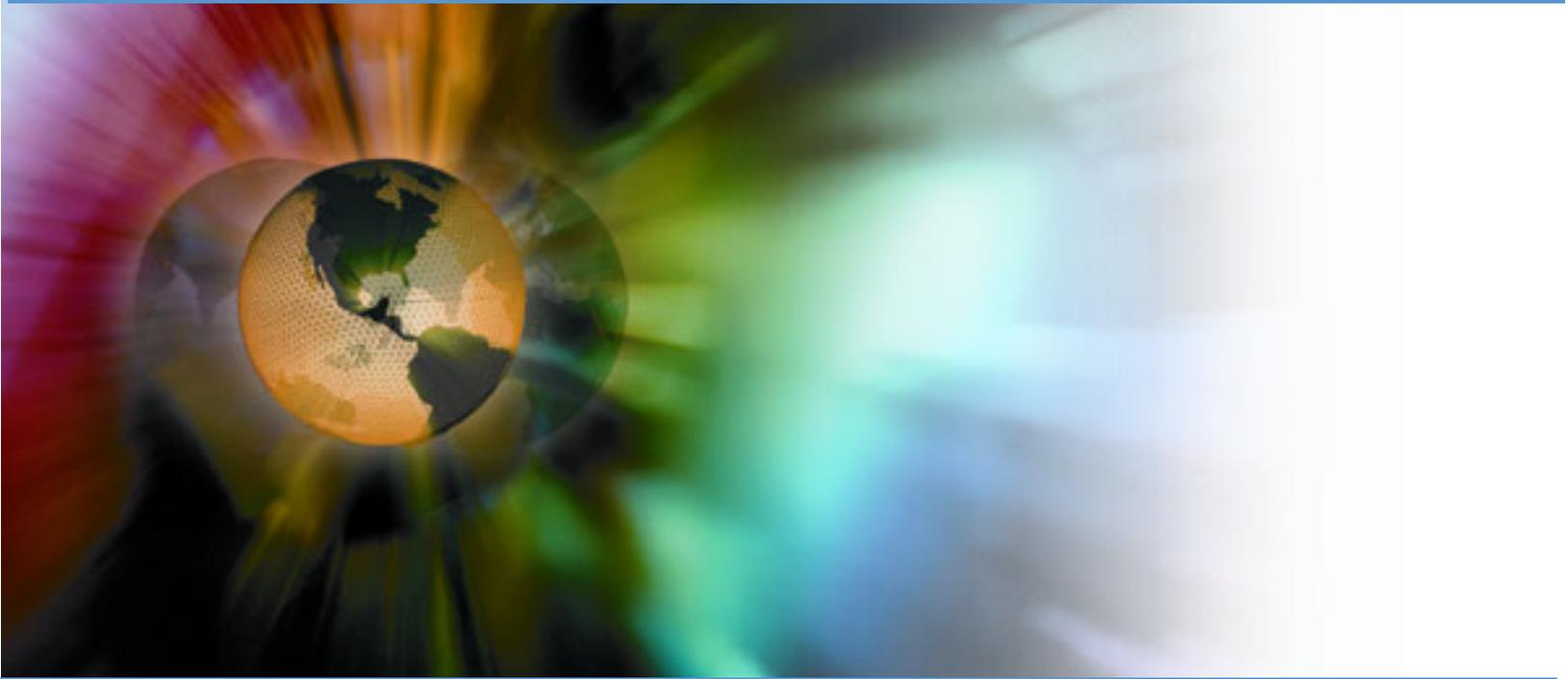


SNIA Data Management Forum



Information Convergence, Transforming the Information-Centric Enterprise

January, 2006

**By: Michael Peterson,
Program Director of SNIA's Data Management Forum**



Information Convergence, Transforming the Information-Centric Enterprise

Once upon a time, enterprise business operations and I.T. datacenters were independent islands. The enterprise generated and ‘owned’ the information of the business and its applications and the datacenter processed and ‘owned’ the data and its supporting infrastructure, generally in ignorance of the requirements of each other. “*We don’t communicate*” seemed to be the mantra of the day. Data and information were managed and retained by separate and distinct owners, each with unique languages further separating their domains.

For most companies, the time for this old-world operating model has now passed. It no longer works in the emerging new-world-order in which the drivers of regulatory compliance, legal risk, and security risk (including privacy and confidentiality) have elevated the value of, and requirements for, information.

The dynamic driving this change I call “Information Convergence”. The point this term illuminates is that the world is converging around the value of information, not that information is converging around or into something else. Instead, information is the new central actor, defining the enterprise organization and its business. On one hand, information is power and a competitive weapon. In this sense, information is the chief asset of the business. Yet, on the other hand, information is also the chief risk. It is a legal and security liability and we’re required to keep it exposed for what seems like forever. In the end, it is this paradox that is the catalyst for change; change which is transforming the Information-Centric Enterprise.

Information Convergence

“Describes the trend in which operations, practices, applications, and roles are converging around information and its value to the organization, transforming the enterprise into an “Information-Centric Enterprise”

With “Information Convergence” as the driver, the appropriate response is to transform the enterprise from independent islands into a unified information-centric organization. Information, not applications, is the new ‘requirements setter’ for operations and management. The impact and burden of compliance, legal, and security risk have changed the world forever and become global issues for all information users, owners, managers, and providers.

Information Convergence Drivers

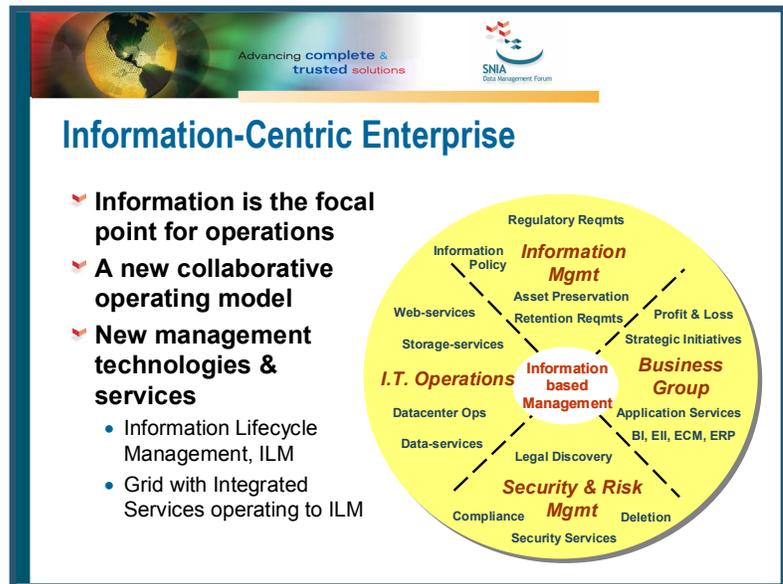
- ✓ Expanding Business Requirements
- ✓ Growing Cost of Operations
- ✓ Staffing limitations
- ✓ Complexity and information overload
- ✓ Compliance Risk & Reqmts
- ✓ Risk management -- Litigation, audit, discovery, privacy & confidentiality
- ✓ Information Security Threats
- ✓ Global business, global datacenters, global information sharing and access to information
- ✓ Real-time information integration requirements
- ✓ Long-term archiving requirements for extremely large amounts of data

Information, to an organization, is now the filter through which enterprise-wide, cross-disciplinary management and operations decisions can be made. It is the common denominator that bridges and enables convergence of Information Management, Information Technology, and Information Security practices, allowing each area of responsibility to communicate and collaborate together in a business context. This collaboration starts to shift the organization into becoming an Information-Centric Enterprise.

Information-Centric Enterprise

An Information-centric Enterprise is an organization in which the value of, and requirements for, information are used as the basis for collaborative management, administration, and security of information systems and operations, thereby orchestrating a cooperative relationship between the “information users”, “information owners”, and “information systems operators and administrators”

An Information-Centric Enterprise aligns its operations and responsibilities to best address the needs of the business. You might recognize that this transformation has already begun. Fifty-percent to sixty-percent of Enterprise-CIOs in the United States now have responsibility for information management, information technology, and security.¹ Here is initial evidence that responsibility for corporate information assets will unify in all organizations when compliance, legal, and security risk dictate it. *Collaboration* is the new mantra of the Information-Centric Enterprise. It is the new standard of excellence.²



“The principle of “information convergence” stems from the idea that has finally dawned on many in the corporation: that successfully managing electronic information requires a collaborative, enterprise-class approach as opposed to a departmental approach focused on point solutions and islands of responsibility.”

– Julie Gable, ARMA 2005

¹ Source: Strategic Research Corp. - 2005

² ARMA & SNIA are publishing a new document on this subject: “Collaboration, the New Standard of Excellence”

Beyond Convergence?

The concepts expressed by *Information Convergence* and the transformation to the Information-Centric Enterprise are not new. They parallel other 'convergence' trends identified by many industry and business communities who are experiencing similar issues. Here are several examples in which you'll note a common theme, "Meet the service requirements of the business."

- **Enterprise Convergence**³: The goal of enterprise convergence is to share IP network resources and services among different applications. The challenge for enterprises is not just to enable the infrastructure to support one specific application but to enable it to meet the specific service requirements of all deployed applications. (Telecommunications community)
- **Security Convergence**⁴: The identification of security risks and interdependencies between business functions and processes within the enterprise and the development of managed business process solutions to address those risks and interdependencies. (Security community)
- **Content Convergence**⁵: Databases, Business Intelligence, ERP, and Enterprise Content Management applications are working to integrate unstructured data into business processes and provide structured management. (Information Management community)

The model of 'convergence' merely speaks to the drivers; to the dynamics and nature of change. What matters most is the outcome of a convergence trend. And, here is where the real values emerge. "Information Convergence" stands out when compared to these other models because underlying its more strategic and high profile business drivers are two fundamental organizational and operational shifts.

- The first step in the transformation to the "Information-Centric Enterprise" is achieved through organizational collaboration of the five to six "information owning and managing" disciplines: the business group, finance, legal, records & information management, information technology, and information security. This group's first job is to cooperatively classify information and define requirements.
- Second, long term change will be achieved through a new, standards-based management practice being brought forward by the Storage Networking Industry Association called Information Lifecycle Management, ILM. ILM is not just about best practices or better storage or application infrastructure. It represents a new, business-centered way of operating the datacenter based on information. ILM's unique value is its ability to reduce complexity and operating costs far more than any other emerging management practice. ILM promises to become the cornerstone management practice of the Information-Centric Enterprise.⁶ Combined, these two factors are core to the future of datacenter operations.

³ Sources: Enterprise Convergence: Enterasys Paper "A Strategy for Delivering Convergence..." 2003

⁴ Security Convergence: ASIS and ISACA Paper "Convergence of Enterprise Security Organizations" 2005

⁵ Content Convergence: Intelligent Enterprise, "Convergence up Close" Doug Henschen, IBM 2005

⁶ For more on ILM, go to the SNIA Data Management Forum's website: www.snia-dmf.org

The Role of SNIA

How is the Storage Networking Industry Association, SNIA, involved with Information Convergence and the transformation to the information-centric enterprise? Two ways stand out:

- First, SNIA is developing standards for the new operations management practice called Information Lifecycle Management, ILM. The principle behind ILM can simply be stated as information-based management. The standards currently in development will first instrument the management of storage and data services, allowing policy engines that utilize rules set by information-classification processes to operate services automatically across the lifecycle of the information. With time and collaboration with other associations, the plan is for the standards to extend into security and information services as well.
- Second, SNIA is also collaborating with other industry associations to conduct educational programs around information convergence and the information-centric enterprise because these trends underpin and are precursors for the adoption of ILM as a management practice. Foremost among these efforts by SNIA is the new *Enterprise Information World Conference* developed to teach collaboration and information-based management practices. (www.enterpriseinformationworld.com)

What can you do?

Whether or not your organization is already caught up in the information convergence cycle, begin preparing and educating your organization to transform itself into an Information-Centric Enterprise. The lessons and experiences of your peers in this process are invaluable. You will find a community of them working these problems and able to help you within the SNIA's "End-User Council" (http://www.snia.org/tech_activities/euc/). Here is a taste of some lessons offered by two of your peers on this topic and you'll find more examples of detailed case-studies presented at all of our conferences:

- *"It is scary to look in the mirror (at what we have done historically in managing I.T.) now that we know about ILM"* - Ericsson
- *"We're discovering how the old, data-centered approach to I.T. really isn't working. The difference between data and Information-Based Management is profound."* – Large Nordic Company

Information Convergence is a global trend and the transformation into an Information-Centric Enterprise a necessary process to survive the challenges of compliance, legal, and security risk. Everything pivots off information and its value to the business now, making ILM a necessary practice to implement. Your community of peers is moving down this path. Are you?

You can get help in understanding these issues further from the SNIA's End-User Council and the Data Management Forum at www.snia-dmf.org and at our upcoming conferences, Storage Networking World and Enterprise Information World.

By: Michael Peterson
Program Director, SNIA Data Management Forum
President, Strategic Research Corp.