

# INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, IT & MANAGEMENT

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**CORPORATE GOVERNANCE & INFORMATION SECURITY: AN ANALYTICAL STUDY**

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**ABSTRACT**

Corporate governance plays a very important role within corporations. We had a series of scandals that affected public companies, governance and related legislation. It is important to understand corporate governance as an information security professional, particularly to prepare for questions or audits of information technology and security resources. In fact organizations are looking at the implications of their overall Corporate Governance strategy. Examination has led to an understanding that information security as not just a technical issue. It is a **Corporate Governance** issue implemented and enforced across all levels of the organization.

**KEYWORDS**

Security, Transparency, Policies, Risk assessment, legislation.

**DEFINITIONS OF INFORMATION GOVERNANCE**

**B**ecause information governance is a relatively new concept, there is no standard definition as of yet. Gartner Inc., an information technology research and advisory firm, defines information governance as the specification of decision rights and an accountability framework to encourage desirable behavior in the valuation, creation, storage, use, archival and deletion of information. It includes the processes, roles, standards and metrics that ensure the effective and efficient use of information in enabling an organization to achieve its goals.

As defined by information governance solutions provider RSD S.A., IG enforces desirable behavior for the creation, use, archiving, and deletion of corporate information.

To technology and consulting corporation IBM, information governance is a holistic approach to managing and leveraging information for business benefits and encompasses information quality, information protection and information life cycle management.

Regardless of the exact wording, definitions of IG tend to go quite a bit further than traditional Records management in order to address all phases of the information life cycle. It incorporates privacy attributes, electronic discovery requirements, storage optimization, and metadata management. In essence, information government is the superset encompassing each of these elements.

**HISTORY**

Records Management and Information Governance Records management deals with the retention and disposition of records. A record can either be a physical, tangible object, or digital information such as a database, application data, and e-mail. The lifecycle was historically viewed as the point of creation to the eventual disposal of a record. As data generation exploded in recent decades, and regulations and compliance issues increased, traditional records management failed to keep pace. A more comprehensive platform for managing records and information became necessary to address all phases of the lifecycle, which led to the advent of information governance.

In 2003 the Department of Health in England introduced the concept of broad based information governance into the National Health Service, publishing version 1 of an online performance assessment tool with supporting guidance. The NHS IG Toolkit is now used by over 30,000 NHS and partner organizations, supported by an e-learning platform with some 650,000 users.

In 2008, ARMA International introduced the Generally Accepted Recordkeeping Principles®, or "The Principles" and the subsequent "The Principles" Information Governance Maturity Model. "The Principles" identify the critical hallmarks of information governance. As such, they apply to all sizes of organizations, in all types of industries, and in both the private and public sectors. Multi-national organizations can also use "The Principles" to establish consistent practices across a variety of business units. ARMA International recognized that a clear statement of "Generally Accepted Recordkeeping Principles" ("The Principles") would guide:

CEOs in determining how to protect their organizations in the use of information assets, Legislators in crafting legislation meant to hold organizations accountable, and Records management professionals in designing comprehensive and effective records management programs.

Information governance goes beyond retention and disposition to include privacy, access controls, and other compliance issues. In electronic discovery, or e-discovery, electronically stored information is searched for relevant data by attorneys and placed on legal hold. IG includes consideration of how this data is held and controlled for e-discovery, and also provides a platform for defensible disposition and compliance. Additionally, metadata often accompanies electronically stored data and can be of great value to the enterprise if stored and managed correctly.

In 2011, the Electronic Discovery Reference Model (EDRM) — in collaboration with ARMA International — published a white paper that describes How the Information Governance Reference Model (IGRM) Complements ARMA International's Generally Accepted Recordkeeping Principles ("The Principles"). With all of these additional considerations that go beyond traditional records management, IG emerged as a platform for organizations to define policies at the enterprise level, across multiple jurisdictions. IG then also provides for the enforcement of these policies into the various repositories of information, data, and records.

## ORGANIZATIONAL STRUCTURE

In the past, records managers owned records management, perhaps within a compliance department at an enterprise. In order to address the broader issues surrounding records management, several other key stakeholders must be involved. Legal, IT, and Compliance tend to be the departments that touch information governance the most, though certainly other departments might seek representation. Many enterprises create information governance committees to ensure that all necessary constituents are represented and that all relevant issues are addressed.

## TOOLS

To address retention and disposition, Records Management and Enterprise Content Management applications were developed. Sometimes detached search engines or homegrown policy definition tools were created. These were often employed at a departmental or divisional level; rarely were tools used across the enterprise. While these tools were used to define policies, they lacked the ability to enforce those policies. Monitoring for compliance with policies was increasingly challenging.

Because information governance addresses so much more than traditional records management, several software solutions have emerged to include the vast array of issues facing records managers. Some of these vendors include Collibra, Open Text Corporation, RSD, HP's Autonomy, EMC Corporation, and IBM. One of the most widely used tools is the NHS Information Governance Toolkit used by over 30,000 organizations in England.

## LAWS AND REGULATIONS

Key to IG is the regulations and laws that help to define corporate policies. Some of these regulations include: The Foreign Account Tax Compliance Act, or FATCA, Payment Card Industry Data Security Standard, or PCI Compliance.

This explanation of the governance term draws attention to the outcome, or results, of oversight operations. The result of company operations are that, if a strategic decision is made one way or another,

In addition to inferring these questions, the definition addresses the issue at hand for information security professionals; how can the information within a corporation be maintained and trusted and how can wrongdoing be prevented or detected. A key goal for information security professionals involves the protection of corporate information from improper access or modification. This is similar to the goal of the financial reporting process and, in fact, a part of the financial reporting process includes a role played by the information security function.

Topics of governance are chiefly concerned with the operation of the board of directors of a corporation. The board is responsible for the following

- o Fiduciary Oversight – ensures that the corporation has the appropriate processes and controls in place, selects and works with the external auditing firm, generally monitors the corporation as it attempts to meet financial goals.
- o CEO Selection and Succession Planning – The board of directors hires the CEO, not the other way around. As such, the board must monitor the CEO and ensure that his/her actions and intentions are in the best interests of shareholders.
- o Strategic Planning – Although a constant process, the official strategic plan for the corporation should be reviewed by the board at least annually. Throughout the year the board should revisit the plan to ensure that the corporation is headed in the right direction.
- o Equity Policy – Plan for the distribution of stock equity among executives as well as to line employees, if applicable. Ensure that equity plans are in line and related to overall corporate financial performance.

The board of directors is led by the chairman, normally numbers from eight to twelve total members, and each member is assigned to one or more committees that are divided up among the entire board. The audit, compensation, and corporate governance committee must be made up of board members who are independent of the firm (non-employees). Understanding the makeup of a firm's board can help in dealing with requests that arise from board discussions.

Generally, governance deals with the core aspects of the business and how their context can be made transparent for stakeholders of the corporation. The term "transparent" is continually referred to within governance discussions and refers to the ability of the company board, investors and stakeholders to understand the key drivers, metrics and risks that exist for a corporation as well as how the corporation is fairing in meeting key metrics over time.

## INFORMATION SECURITY AND ASSURANCE

Corporations must put safeguards in place through policies, procedures and technology so that the "proverbial zero" isn't erased. However, information security is not a simple topic and certainly doesn't make for interesting cocktail party discussion for most people. This partly explains the disinterest from boards of directors and corporate executives in the past. Explanation for the remainder of disinterest is grounded in a revenue-side focus and an ignorance of the costs associated with aggregated risk and actual loss. Financial scandals have changed the situation, whereby executives and boards are now very interested in the controls and procedures that are in place to prevent fraud, control loss and keep operations continuing. The focus is again on corporations to explain how they organize and implement internal controls for all systems related to financial reporting, and there are those that call for the controls to go much further than just financial reporting.

Preparation for Participation in the Governance Process a CIO, CISO or other professional involved with the management of information security must be prepared to play a part in the corporate governance process. The initial step in preparing for a part in the governance process is refreshing knowledge and understanding of corporate governance. Being able to provide a definition and participate in general discussions regarding governance will help to foster further inquisition into the related issues. In addition to the corporate governance definition, it helps to consider all the players involved in corporate governance scenarios. Everyone involved with the company plays a part, but in particular are auditors, the board of directors, investment banks, and the corporate executive management. Once familiar with the general issues and practices of overall governance, the next task is to make sure that information security management and practices are in line with the expectations of good governance. Just as the overall corporation is to be transparent, with processes and checks to ensure good financial reporting, so should the information security organization exercise similar Transparency.

Transparency in information security and information technology comes down to having good processes, knowing how and why they work, documenting them thoroughly, and reporting on the result. That's transparency. It allows other groups, those who aren't systems administrators, to understand how the program is working. The audit committee, the CFO, the Board of Directors may someday ask to understand the status of backups; with the metrics in place you'll have the answers. Document retention is also an area that is at the top of the list for audit committees and the corporate legal team. A recent CIO article notes "enforcing document destruction policies could be a different way of thinking to a CIO whose mantra is backup, backup, backup." However, just as backups are to be run with precision processes, so is document retention. This means having the process and technology in place to identify date by type, and properly determine its content and age. Then, according to the corporate document retention plan, data no longer within the policy should be properly destroyed. A bit of a misnomer, to an IT worker, a retention policy has more to do with destruction than retention, since that's the part that is new. If there isn't an official document retention policy in place, it's time to get the corporate counsel together and create one. A good explanation of the factors involved and the process for creating such a policy is described in a paper by Jay G. Martin entitled "Developing an Effective Document Retention Policy" This document leads an information security professional through the process, including working with corporate legal and executive management in getting the policy approved, an absolutely critical step.

With the plan in place, just as with backups, the key metrics and the methods for monitoring them need to be established and implemented. Here again, when the day comes when you're asked for the status of the document retention plan, the necessary data, and maybe even some pretty graphs. Backups and document retention are just two examples of key areas that are within sights of the corporate audit committee, the board of directors, and definitely executive IT management. The same philosophy applies to all parts of information security and technology. Even if the day never comes when a board member tests the waters by asking for status on a specific information security or technology program, your overall performance in the areas will be all the better for the added process review and tracking. Preparing for taking part in the governance process comes down to two key items. First, be familiar with governance, the people



involved, the issues at hand, and the goals for all involved. Next, get your house in shape and apply the same “transparency” to information security and technology as is applied to the corporation as a whole. Finally, have the processes and metrics of the organization reviewed by an outside party. In many cases this means an outside security review by an independent auditor. However, don’t just settle for the standard set of scripts and questions that an IT/IS auditor brings along, have them audit your specific set of processes and metrics that have been devised. Ask that they review and provide information about the format, content, and implementation of the processes that are already in place. Having a third party review the plans and their overall implementation is a perfect way to get new ideas as well as determine the efficacy of the changes.

### FRAMEWORK FOR INFORMATION SECURITY & TECHNOLOGY TRANSPARENCY

As noted above, one of the most significant outcomes of recent governance events was the introduction of the Sarbanes-Oxley legislation, and in particular, section 404 of the legislation which covers internal controls. The section on internal control requires that systems storing or processing corporate financial information have appropriate controls in place to safeguard such information. What is appropriate and what the controls should cover has been argued and debated for much of the past two years. Without arguing the points here, there is still much to be gained from the resources put in place as a result of the legislation. The requirement has been most recently defined as “appropriate controls for systems and processes used in the financial reporting process”, a much tighter definition. Even so, a lot of the resources that were put together to fit a much broader requirement provide a very useful framework to be applied in a variety of situations. Most notably for IT environments is the Control Objectives for Information and related Technology from the IT Governance Institute, otherwise referred to as the “CobiT”. These resources provide a starting point of control objectives in the COSO framework. The COSO framework was developed as a method for identifying risk and documenting controls for corporate processes, both manual and automated. CobiT takes the COSO framework and begins to fill in control information that would be appropriate for most organizations. The framework is a useful resource as an implementation of full COSO is a rather intense undertaking. The CobiT guidelines run through a step-by-step process outlined as follows:

1. **Plan and Scope** – Establish a team to coordinate and guide the process. Learn about the financial reporting processes, as well as other key business processes. Define which business processes are critical, and will be included, in at least the first run of the project.
2. **Risk Assessment** – Identify the areas that exhibit potential for problem. Assess and rate each with a “likelihood” and “impact” rating.
3. **Accounts & Control Review** – Inventory existing controls and accounts within systems and processes that are the target of the project.
4. **Documentation Design** – Although there is not specific guidance as part of most frameworks, the CobiT provides a base to work from.
5. **Control Design** – Critical to the success of a control program, this step evaluates the ability of the organization and its processes to enforce a particular control. Key issues are what other controls any given control will be dependent on, or what personnel or processes must be involved for the control to succeed.
6. **Current Operations Audit** – For each control, identify what state the control is currently in. Some will be “non-existent”, others may be “Managed and Measurable”.
7. **Identify Weaknesses** – Considerable professional judgment comes to play in this step where shortcomings should be defined as either “deficiencies” or “weaknesses”, based on whether the issue is likely to subvert the control, or in a financial environment, result in the misstatement of an organization’s financial records.
8. **Document Results** – It’s just as important to document the test results as it is to document the tests. Having documentation of the outcome of tests will provide the records required for auditors, or to go into further detail with others.
9. **Build Sustainability** – Review the full program at this point and ensure that it is sustainable into the future. Controls are not a onetime event, but a continuous process.

In addition to the process guidelines, the CobiT materials go into additional detail, making it much easier to create an effective program without having to re-invent the wheel. The CobiT materials are extremely informative, yet there are other materials available, and more are likely to become available in the future.

### CONCLUSION

Corporate governance is again a key for legislation, investment, and execution. Information security professional should be responsible in dealing with the issues and should be aware in providing the related information. Recent experiences have revealed that there is much to be done to bring back investor’s confidence in current corporation world. The situation continues to change; even recently key regulations were further relaxed from their initial “knee-jerk” reaction. However, as a manager responsible for information security it is important to be prepared by being familiar with corporate governance concepts, setting up transparency in operations, and adopting a structured framework for analysis and documentation.

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