



Formalizing Operational Governance:
Ensuring the well-managed enterprise

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Executive Summary

Governance is critical to all enterprises. In small companies it may be managed in an ad hoc way and still function properly, but in larger enterprises governance that is managed in an ad hoc manner often fails. Many enterprises identify governance as the critical area of improvement necessary to better manage the people and processes that deliver the products and services provided by the company.

Governance is a straightforward concept and is practiced by all enterprises. It is the **creation of policies** regarding various aspects of the business and then **making certain that the policies are followed**. Creating the policies is not the main issue in having good governance; all successful enterprises do a good job creating policies. The hard part of governance, and where most enterprises fail, is in monitoring the policies and in knowing that the policies have been followed; in other words achieving **control and compliance**.

Many companies have implemented formal governance solutions in order to avoid violating federal regulations and ensuing severe penalties. Examples of this sort of governance are anti-money laundering, trade settlement requirements, Sarbanes-Oxley, Basel II, HIPAA, OSHA and many other state and federal regulations. A failure of governance in these cases could be costly or fatal to the enterprise, as well as damaging to the individual.

However, where the penalty for non-compliance with policies is not as severe, governance is most often not managed in a formal way. There are still numerous policies that have been developed by the enterprise, but they are not formally monitored. Failure to monitor and enforce these policies will not be fatal to the enterprise, but the efficiency and effectiveness of the enterprise will decrease. Some examples of this sort of governance are project governance, data governance, IT governance, asset governance, and collaboration governance. In fact almost every aspect of the enterprise is governed in some way.

A new class of governance capability is available that will let you dynamically manage all governance efforts in a formal and efficient way, thereby delivering significant ROI to the business in terms of lower operating expenses and improved efficiency. In this paper, the concept of defining and formalizing Operational Governance is discussed, as well as the inherent benefits of implementing an Operational Governance solution.

Key Benefits of Operational Governance:

- Governance policies execute in existing IT infrastructure
- Policies can not be misinterpreted
- Policies cannot be contradictory
- Policies can be monitored and analyzed in real-time
- Self-managing compliance

Formalizing Operational Governance

Operational Governance allows you to state your policies as business processes, and ensures that established business policies are followed throughout all operations of the enterprise. Policies established by the COO, and by the heads of business units must be related to and consistent with policies executed deep in the operational infrastructure. With Operational Governance, policies are aligned from the business to the operational aspects of the enterprise, thus allowing you to control and run your business better.

The crux of the issue regarding governance is that most policies are expressed only as text in a document. This simple fact makes it impossible to use your existing IT infrastructure to monitor and enforce compliance with the policies. So policies are created, but cannot be monitored automatically and may in fact conflict with other policies. The solution to this problem is simple: define the policies formally so that they may be automatically executed, and provide comprehensive analysis to managers who need to monitor and enforce them.

A governance process can formally be expressed as a hierarchy of policies that are grouped together. At the top of the hierarchy are business policies that are expressed as business processes. There may be several levels of business policies. At a more granular level each step in the business processes may have a policy associated with it, usually expressed as a set of rules (see figure 1). This structure can be used to express the governance of any activity concerning the enterprise in a formal and automated way.

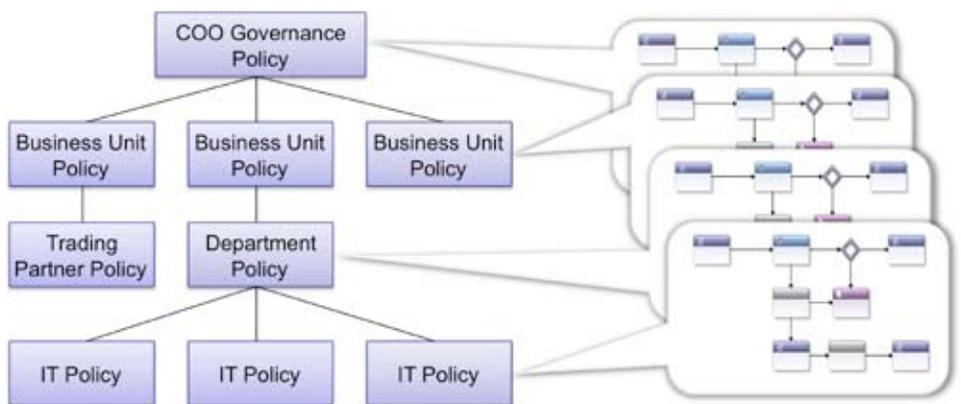


Figure 1: Hierarchical policy structure

Many of the policies that are written in documents are actually business processes and can be expressed using standard process modeling techniques, such as Business Process Modeling Notation (BPMN). In other cases the policies associated with steps in the process can be expressed as a set of rules. Significant benefits to expressing governance policies as processes and events are:

- Processes can be monitored by providing dashboards to executives.
- Process models can be executed within your IT infrastructure to determine that policies are being followed.
- The policy cannot be misinterpreted.
- Policies expressed as processes can not be in conflict. Conflicts would be detected and resolved.
- Self-managing compliance is achieved. Violations of policies are detected automatically and used to initiate a resolution process that ensures compliance.

The result of this formal approach is self-managing governance yielding a well-managed enterprise.

Defining Policies as Business Processes

Many policies are a combination of a sequence or hierarchy of approvals and one or more sets of thresholds or metrics. For instance, in the execution of a large project there will be many steps over a period of months or years, and costs associated with each step. Also, each stage of the project will have time-lines and dependencies on other steps in the project. A governance policy for such a project must be implemented to provide confidence that the project will be delivered on time and within budget. Some of the many policies associated with the governance of a project are:

1. Obtain approval from the manager to begin a project
2. Obtain approval from the finance committee to be certain that budget has been allocated
3. Create a project plan
4. Obtain signoff from other project managers that have dependencies on each part of the project
5. Resolve conflicts
6. Ensure compliance (e.g., get OSHA approval for work conditions)
7. Begin project
8. Complete project within allotted time

Each of these steps can easily be encoded in a process model using BPMN. Once encoded, the model is a formal declaration of the policies that have been defined to provide the governance for the project and can be executed in the existing IT infrastructure.

Another example may be the governance of collaboration. A consensus is required for the collaboration to succeed, and voting is the clearest way to know if a consensus has been achieved. The process model shown in figure 2 is representative of a formal governance policy for collaboration. This particular policy requires that the process model be connected to a wiki via RSS feeds where the collaboration is occurring, and a document repository is required to store and edit documents.

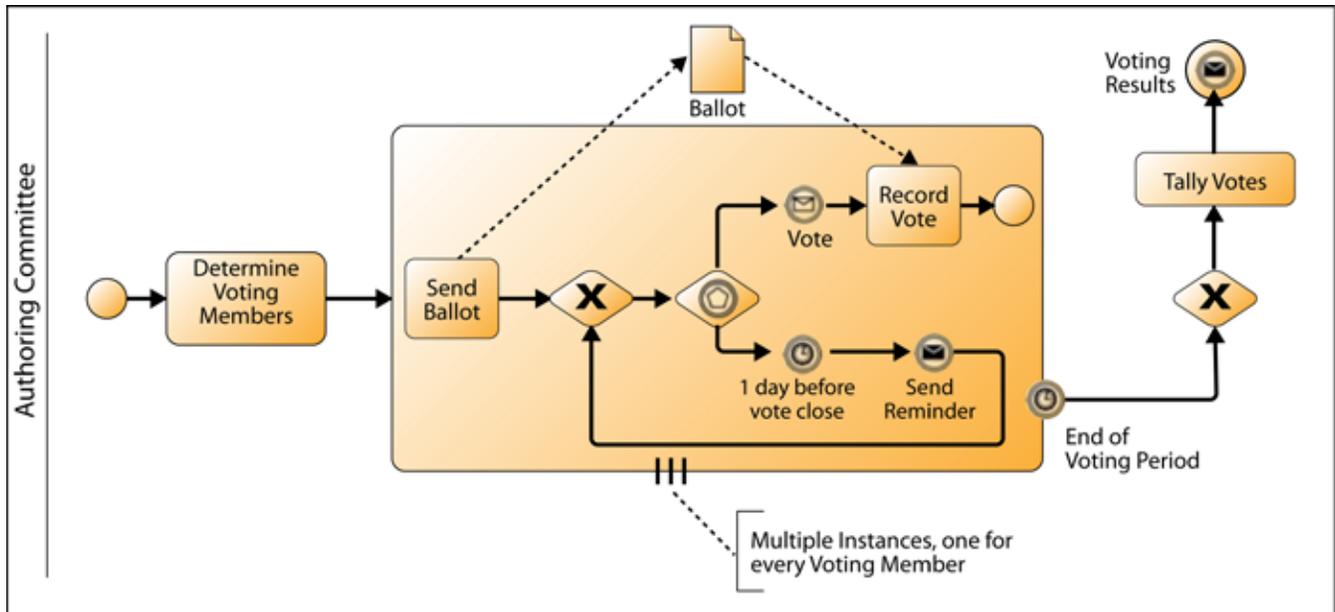


Figure 2: Collaborative voting policy expressed as an executable process

Collaborative Policy Development

Governance policies are hardly ever defined by one or two people. They are usually defined by teams of people. In some cases the team can be large and geographically distributed. Operational Governance solutions include extensive web-based collaboration capabilities so that teams of any size and location can participate in the definition of the governance policies.

An Operational Governance solution provides Web 2.0 collaboration features utilizing a repository-based modeling environment to enhance productivity. Business and IT analysts are enabled to work collaboratively with role-based views and access to data and workspaces. A shareable model and knowledge repository stores policy models, schemas, and other metadata. This common repository enables a unified design and runtime environment where runtime is dynamically adjusted based on policy changes.

The capability to develop governance policies as formal models, and then to manage the lifecycle of these policies from design to runtime, facilitates collaborations of any size and scope to assure the governance meets the needs of all stakeholders—from business to IT.

The ability to collaborate over the development of governance policies is critical to the successful implementation of Operational Governance at all levels of the enterprise.

Business Event Management

Operational Governance provides the ability to detect failures in policies in real-time and execute remedial actions. Detecting and correcting policy failures is the essence of good Operational Governance.

Once governance policies are defined as business processes, each step in the process can be thought of as a **business event**. Each of these events can have one or more associated policies. The creation and management of the policies associated with business events that have been defined as steps in a business process is called **Business Event Management**.

It is important to understand that event-based policies are distinct from policies defined as processes, but are just as important to the successful implementation of Operational Governance. It is the event-based policies that most often detect a failure in the governance policies. The ability to monitor the status of Operational Governance policies via Business Event Management is one of the critical technologies required for an Operational Governance solution.

Policy-based Event Classification and Response

Events can have two kinds of policies: rules and processes. Most policies associated with events are modeled as a set of rules. These policies are distinctly different and more granular than higher level policies modeled as processes. You can also define policies that classify incoming events and invoke a full range of responses (see figure 3). These policies may range from simple notifications to long-running business process. Policies can be re-used for different events and be linked to other models and related definitions.

Business users can create event policies to mediate the interaction between event detection and response. The editable and reusable policies are based on business rules, and users can build and organize a library of these policies that are aligned with business objectives. These policies have the capability to support complex expressions.



Figure 3: Event-based policy management

A Complete Operational Governance Solution

As previously discussed, in order to achieve a complete Operational Governance solution you need to collaboratively define policies as business processes, and monitor the policies through Business Event Management. With that in mind, Vitria Technology introduced the first solution to formalize Operational Governance across the enterprise. As governance permeates throughout an organization, you need a solution that has the capability to connect to any information source. Vitria's Operational Governance Solution supports open standards, providing the ability to leverage existing IT and service-oriented architecture (SOA) investments.

Vitria's Operational Governance Solution also provides you with the capability to define and formalize policies as combinations of business processes and event-based rules. Policies, rules, and processes are stored in a shared repository to facilitate collaboration. Workflow is incorporated to ensure the right personnel are involved at the right stage of the process. Thus, you now have the capability to track, modify and manage policies, rules and processes systematically, consistently, and efficiently.

Using an event-driven architecture that can sense, analyze, and respond, Vitria's Operational Governance Solution provides self-managing governance (see figure 4). Vitria's Operational Governance Solution also supports a comprehensive array of business-friendly rules. These rules include constraints, pattern matching, hierarchical rule sequencing, rule nesting, time/event space organization, and Service Level Agreement (SLA) enforcement. Using these rules, users are enabled to identify and extract events from sources, filter events of interests, correlate and aggregate events, and identify and relate events to reusable, actionable processes.

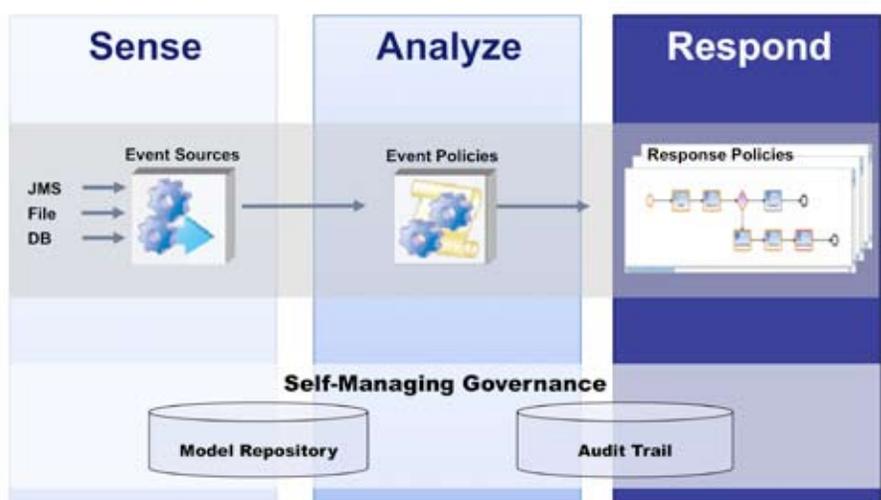


Figure 4: Self-managing governance with Business Event Management

Visualizing and Analyzing Operational Governance:

- Visualize or be alerted to key business events based on configurable SLAs modeled in the process
- Identify process bottlenecks for optimization
- Configurable Web 2.0 dashboards driven directly from the executing process models
- Drill down into individual events and related processes
- View the running process model and current disposition
- View associated documents, process variables, and logs

Visualization

Of course the end result of all of this effort to formally define policies is to achieve compliance. Vitria's Operational Governance Solution visualization and analysis capabilities are designed to offer simple web-based dashboards so that business users can see the current state of any governance process. The analytic capabilities are extensive, providing insight into the root causes of failures (see figure 5). Executives at any level of the organization can easily monitor governance activities and ensure compliance.



Figure 5: Visibility and Analysis of Operational Governance Policies

Conclusion

Ensuring Compliance in Your Business

Operational Governance poses a significant challenge for businesses today, one that has considerable direct and indirect costs and potentially serious impacts on profitability and competitiveness. In the past, managers seeking to address the problem of Operational Governance have been required to integrate several approaches that each solved a portion of the problem, but that did not support a true end-to-end enterprise wide solution.

With the advent of Vitria's Operational Governance Solution, a new class of governance capability is available. By stating your policies as business processes, you will govern your business more successfully. Managers seeking to improve the performance of their businesses should add this capability to their portfolio. It will deliver significant ROI to the business in terms of lower operating expenses and improved efficiency and customer satisfaction. Vitria solves the hard part of governance by allowing you to monitor the policies and know that the policies have been followed; in other words Vitria's Operational Governance Solution allows you to achieve control and compliance.

For more information please contact Vitria at Governance@Vitria.com, or (877) 365-5935.

About Vitria

Vitria Technology, Inc. is the industry's leading privately-held BPMS and integration technology company. The company has a rich heritage as a pioneer of BPM that spans more than a decade. Vitria's award winning process integration solutions provide the backbone for many Global 2000 companies' mission-critical business processes. Vitria has customers in North America, South America, Europe, Asia, and Australia.



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