SOA governance: not your mother’s IT governance.

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Introduction
Lately, SOA governance has been a hot topic. As a matter of fact, it has been a hot topic for the past year, and it will likely continue to be so for the foreseeable future.

The approach to SOA governance has been to try and retrofit existing governance models to support the lifecycle of services. This includes using IT Infrastructure Library® (ITIL®), Control Objectives for Information and related Technology (COBIT) or—the usual approach—the roll-your-own brand of governance.

There are many issues that negate this approach, too many to address in this short article. We will, however, mention some glaring issues that come along with using these approaches.

What’s wrong with the ITIL approach?
The ITIL model, which is defined by Wikipedia as “a framework of best practice approaches intended to facilitate the delivery of high quality information technology (IT) services. ITIL outlines an extensive set of management procedures that are intended to support businesses in achieving both high financial quality and value in IT operations. These procedures are supplier-independent and have been developed to provide guidance across the breadth of IT infrastructure, development, and operations.”

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Key to this definition is the phrase “information technology (IT) services” and the use and meaning of the word “services.” In this context, services do not describe business processes articulated and implemented in functional components—as we would describe services in a service-orientated architecture (SOA)—rather, in this context, services describe the activities that areas in IT supply to their customers in the form of:

- **Equipment (hardware)**
- **Processes (testing, configuration, change assistance, installation)**
- **Physical facilities (buildings, parking, waiting rooms)**

The other key part of the Wikipedia definition is the last three words in the second sentence: “in IT operations.” The ITIL model is primarily concerned with providing processes for IT operations management, and with IT infrastructure. It is very light on application development and makes no mention of services or SOA whatsoever. So ITIL is a good choice for implementing processes for:

- **Availability management**
- **Capacity management**
- **Configuration management**
- **Change management**
- **Infrastructure management**
- **Problem management**
- **Release management**
But ITIL will not support the unique needs of governing and managing an SOA environment and the lifecycle of services.

What’s wrong with the COBIT approach?

Wikipedia defines COBIT as “a set of best practices (framework) for information technology (IT) management created by the Information Systems Audit and Control Association (ISACA), and the IT Governance Institute (ITGI) in 1992. COBIT provides managers, auditors, and IT users with a set of generally accepted measures, indicators, processes and best practices to assist them in maximizing the benefits derived through the use of information technology and developing appropriate IT governance and control in a company.”

COBIT has 34 high-level objectives that cover 215 control objectives categorized in 4 domains:

- Plan and organize
- Acquire and implement
- Deliver and support
- Monitor and evaluate

Again, the Wikipedia definition makes no mention of SOA or services. It is clearly focused on IT governance and compliance from a corporate perspective to satisfy regulatory burdens such as the Sarbanes-Oxley Act. So COBIT also will not support the job of governing and managing an SOA environment and the lifecycle of services.
What’s wrong with rolling your own IT governance approach?
The roll-your-own approach to IT governance usually incorporates a pinch of ITIL, a dash of COBIT and other company-unique processes mashed up, stirred lightly and implemented sparingly. As we have seen in a good number of implementations, this approach is inadequate to governing and managing the existing IT environment—which is mostly the result of poor implementation and a lack of commitment to the governance model—and is full of workarounds, bypasses and “old boy network” agreements. So if the approach can’t completely satisfy the needs of the existing SOA environment, how can it be expected to address SOA and services?

What approach are other companies using?
Most companies use one of the above approaches, depending on the type of company each is (i.e., product vendor or services vendor).

If a company is a product vendor, the approach and solution it touts as SOA governance is proprietary to that company’s product, and it usually only addresses a small set of run-time SOA governance needs. In effect, that company says to its customers, “Install my product. Place it in the middle of your data center floor, add a little of this and that, and governance will spring forth like magic beans.” The company doesn’t mention what happens in the processes leading up to run time, and it doesn’t tell customers how to integrate the solution with existing IT governance models and processes. It leaves customers hanging,
scratching their heads, trying to figure out how to govern service identification, service development and service management activities. Wondering, How do I understand and capture the value services provide to my business? How do I make decisions about the right people and skill set needed to implement the governance model?

Service vendors or integrators usually offer a composite of the ITIL, COBIT and roll-your-own approaches. And they typically end up redoing their customers’ existing governance model from top to bottom—or implementing the “big bang” approach. For the most part, this is unsustainable and extremely costly, and customers quickly lose their appetite for this kind of engagement. And although it may be a great one-time approach for service vendors, it only provides one shot at customers and often leads to failure in the SOA governance category and bad—very bad—customer satisfaction.

What’s needed is a governance model that is designed around and focused on addressing the unique aspects and issues of an SOA environment and the lifecycle of services. This is where IBM differentiates itself.

The IBM approach
IBM’s approach is not tool based—but it’s supported by tools (IBM and non-IBM)—and it’s not a rework of ITIL or COBIT—but it uses the appropriate elements of these two standards to augment the SOA governance approach. The IBM approach doesn’t seek to replace the investments made by customers in their existing IT governance model, but it leverages what is in place today to create a sustainable, prescriptive, interactive and adjustable SOA governance model that can support the complete lifecycle of services.
Key to this approach is a set of SOA-specific processes, or more appropriately, processes to be governed. At the present time, IBM has identified several such processes:

- **Service focus and funding**
- **Service identification, specification and realization**
- **Service design, assembly, testing and deployment**
- **Management of service levels, changes and security**

This list of processes to be governed is not exhaustive, and it doesn’t include everything that must be addressed in order to deliver an SOA governance model. In fact, when implementing an SOA governance model, it’s likely that the number of processes to be governed will vary (grow, shrink) depending on the customer and his or her needs at the time of implementation.

These processes to be governed are themselves governed by foundational governance processes, which can be found in any governance model worth its salt. They are:

- **Compliance**
- **Communication**
- **Exceptions and appeals**
- **Vitality**
Definitions of the processes to be governed and the foundational governance processes can be found in the *Introduction to SOA governance* white paper developed by IBM, but a graphical representation is shown in figure 1.
The IBM SOA Governance and Management Method defines some of the specific governance needs of an SOA. And IBM continues to refine the method to make it more robust. For example, IBM is looking to include additional material harvested from customer engagements and experiences, and we may provide linkage to enterprise architecture best practices and governance approaches. We may also be enhancing details on the processes to be governed during their implementations relative to the roles and mechanisms that execute the processes. And work is being done to include additions to the processes to be governed, mapping the relationships between the SOA Governance and Management Method, the SOA Foundation, IBM WebSphere® Service Registry and Repository software and the IBM Global Technology Services IT governance model (IBM Process Reference Model for IT [PMR-IT]). All this work can potentially bring the SOA Governance and Management Method in line with existing standard practices, and can potentially provide an integrated governance model that can be implemented by IBM lines of business.
A preview of the new processes to be governed and the next iteration of the SOA Governance and Management Method is illustrated in figure 2.
Conclusion
SOA governance, just like SOA itself, will likely continue to grow and mature. And we can see that the needs of SOA governance in the SOA architectural style are different today than just last year, and they’ll probably be different again next year and the year after.

To address SOA governance needs as they change, IBM continues to take an innovative and forward-looking approach to our assets. Our assets for SOA governance are built to grow and mature with the SOA architectural style. It takes a flexible, iterative and repeatable approach to deliver SOA governance to our customers, and to grow and mature their capabilities.

IBM recognizes and is responding to the call to action: to stay current with our assets and the changing needs of the marketplace, and to apply the appropriate tools for the job.

For more information
To learn more about the IBM SOA Governance and Management Method and other IBM solutions for SOA governance, visit:

ibm.com/soa/gov