

## ZAPTHINK ZAPNOTE™

### METALLECT REUSE GOVERNANCE FOR SERVICE-ORIENTED ARCHITECTURE

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#### Abstract

Building a governance framework is an essential step in any Service-Oriented Architecture (SOA) implementation. Proper governance involves the creation and communication of policies, tools for policy compliance, and visibility and enforcement of policies. SOA governance not only applies the rigors of governance to SOA, but also leverages the benefits of SOA for overall IT governance.

One of the key benefits of SOA that governance must address is how to control the reuse of Service assets, and the ability for different consumers to share Services, leading to reduced redundancy and greater flexibility. While there are an increasing number of SOA governance products on the market, few specifically address reuse governance. One notable exception is the Metallect IQ Server, an Enterprise Application Visibility tool that provides reuse governance capabilities as part of a SOA governance framework.

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## SOA Governance: IT Governance in the Context of SOA

Service Oriented Architecture (SOA) is a powerful approach to organizing the resources within an enterprise, including people, process, and technology, by representing IT functionality as Services that business users can compose into business processes in a flexible, agile manner. In other words, the vision of SOA is a vision of IT responding to the needs of the business, as opposed to the rigid, complex IT environments that limit business agility today. SOA, therefore, puts greater power into the hands of both business and IT—and with greater power comes greater responsibility. In fact, SOA introduces a new kind of risk: with greater flexibility over business processes, there is also a greater chance that people will take actions that are contrary to the goals of the business. In other words, people can really muck things up if they have the power to do so.

In general, the approach companies should take to prevent their employees from mucking everything up is to implement a *governance framework*, which provides an infrastructure for creating, communicating, and enforcing corporate policies across the organization. IT governance in particular is a hotbed of activity today, not only because it's vitally important for companies to govern their IT operations, but also because the business calls upon IT to provide governance tools to the business at large. As companies implement SOA, it's no surprise that Service-oriented approaches to IT governance increasingly receive the focus of attention.

There are two faces to SOA governance, however. On the one hand, SOA governance simply means governing a SOA implementation initiative—for example, communicating corporate policies to developers implementing Services, and giving them the tools they need to follow those policies as they assemble the various elements of the SOA implementation. On the other hand, there's a broader, more strategic definition of SOA governance: IT governance *in the context of SOA*. After all, SOA isn't a single application that you can stick in a corner somewhere; instead, it's important to implement SOA as Enterprise Architecture, applying Service-oriented principles across the entire scope of interaction between the business and IT.

SOA, therefore, provides two management concerns to business executives: first, how to provide for governance of SOA initiatives within the context of IT, and second, how the transition to Service-oriented approaches affects the broader area of corporate IT governance. After all, most individuals within the organization use IT capabilities as a part of their day-to-day work. As the IT resources these users require become more flexible and generally better able to meet an increasingly broad range of business needs, IT becomes inextricably intertwined in the daily operations of the business. In such a situation, enterprise architecture becomes a critical link between corporate and IT governance, and as companies adopt SOA as enterprise architecture, SOA governance becomes the primary way that companies can establish principles for the control of their organizations.

## Reuse Governance: Essential Aspect of SOA Governance

One of the critical areas of SOA governance concerns the area of *reuse*. Software reuse is one of the holy grails of software development, and it's one of the critical value propositions of SOA. Yet it's mostly been out of reach, primarily because developers prefer not to reuse existing capabilities if they have other options.

To address this issue, SOA improves reuse by moving reuse to the runtime. Rather than focusing solely on governing developers when they are designing code at the beginning of the application development lifecycle, SOA calls for the reuse (or more broadly, the sharing) of Services at runtime as well. However, sharing remains a significant challenge for many companies. As a result, companies who are looking to be successful with their SOA initiatives require a strong reuse governance component of their SOA governance story. Reuse policies

are every bit as important as, say, security or Service level policies to the success of the SOA project.

Reuse governance as part of an overall SOA governance framework consists of the following elements:

- Creating and communicating policies about how individuals within an organization must find and leverage both existing code assets as well as existing Service functionality
- Giving developers, business analysts, architects, and others the tools they need to follow corporate reuse policies
- Providing management the required level of visibility into how well people within the organization are conforming to reuse policies
- Enforcing reuse governance policies and mitigating the effects of any violations of those policies.

### Metallelect IQ Server: Enterprise Application Visibility Tool that Provides Reuse Governance for SOA

One company looking to solve the challenges around reuse governance is Plano, Texas-based Metallelect Corp. The company offers the *IQ Server*, which is a comprehensive Enterprise Application Visibility solution. The *IQ Server* automatically scans source code, APIs, schemas, and other information and identifies components of various applications, including functions, variables, procedures, database tables, and Service interfaces. The *IQ Server* then organizes these metadata in a centralized, standards-based catalog. *IQ Server* then analyzes each metadata component to map dependencies within applications, between applications and their underlying databases, and across multiple applications. *IQ Server* leverages advanced semantic inference capabilities to uncover dependencies and relationships that are difficult and time consuming to find manually.

*IQ Server* provides value early in a SOA initiative by assisting to identify common or duplicate functionality that would make a good candidate for a Service. Once such a Service is in place, *IQ Server* can assist with the retirement and deprecation process of the duplicate code. At that point, Reuse Governance takes over to ensure the reuse of the Service as appropriate.

*IQ Server* also provides users with a powerful search interface to find application components, enabling them to perform rapid impact analysis, dependency mapping and system audits. In fact, *IQ Server* works like a typical search engine, in that it constantly gathers and updates information to create a living, searchable map of the complex inner workings of applications and databases, providing flexible application visibility even as the underlying applications and data change.

There are two core areas where *IQ Server* helps companies who are implementing SOA: the discovery of legacy business logic during the Service design phase, and an ongoing SOA

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governance value proposition once the SOA implementation is up and running. IQ Server helps companies understand their existing environment to better plan for SOA, helps them prioritize the Services they should build by identifying greatest areas of redundancy, and assists with the application modernization goals of SOA by clarifying when an older system is offering functionality redundant with a newer one. In addition, IQ Server can help Service developers understand what functionality individual Services should offer, and assist architects in crafting appropriate reuse policies. In fact, IQ Server is a key reuse planning tool for the broader SOA initiative.

Within the context of SOA governance, IQ Server provides tools to developers to help them conform to policies regarding reuse. IQ Server basically offers reuse audit capabilities as well as reuse enforcement capabilities. As a result, IQ Server covers all of the core reuse governance capabilities companies require to leverage SOA successfully within their organizations.

## The ZapThink Take

No SOA initiative is complete without governance, and no SOA governance plan is complete without reuse governance. Metallet differentiates itself from the other SOA governance vendors with their focus on reuse planning, tooling, visibility, and enforcement, while the other vendors generally focus on either security and service-level policies or Service development policies.

In many ways, however, reuse governance is the more difficult problem, because companies must have visibility into the core capabilities of diverse, heterogeneous applications and data in order to plan for reuse appropriately, as well as to enforce reuse policies once the SOA is in place. It is human nature to build something fresh rather than hunt down an existing capability that will meet the current requirement. A reuse governance solution like IQ Server can address this issue, not just through enforcement, but also through better visibility into reusable capabilities as well as the level of reuse within the organization.

## Metallet IQ Server Features

### Metallet IQ Server

#### Overview:

The Metallet IQ Server is a comprehensive solution for Enterprise Application Visibility and reuse governance.

#### Features:

- **Application Change Management:** Reduces the risk, time, and cost of enhancements and fixes to both applications and databases
- **Application Compliance:** Simplifies system audits and analyzes the impact of regulations on existing applications
- **Application Modernization:** Leverages and extends legacy applications to build a strategic foundation for SOA implementations
- **Reuse Governance:** Provides tools for discovering where duplicate functionality exists, identifying areas of reuse, implementing reuse in practice and enforcing reuse policies as part of a comprehensive SOA governance framework.

**Value Proposition:**

- IQ Server delivers a level of insight into the inner workings of applications, leading to increased reuse, lower maintenance costs, reduced risk, and lower total cost of ownership for applications.

**Profile: Metallelect**

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**Funding:**

Apex Ventures, Nationwide Mutual Capital, SAP Ventures, and TL Ventures

**President and CEO:**

Guy Hoffman

**Employees:**

24

**Product:**

IQ Server

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**Related Research**

- *Metadata: The Lifeblood of the SOA* White Paper (WP-0126)
- *SOA Governance: IT Governance in the Context of Service Orientation* White Paper (WP-0134)
- *LogicLibrary* ZapNote (ZTZN-1185)
- *Mindreef* ZapNote (ZTZN-1183)
- *WebLayers* ZapNote (ZTZN-1176)
- *Infravio* ZapNote (ZTZN-1157)
- *Systinet* ZapNote (ZTZN-1096)



## About ZapThink, LLC

ZapThink is an IT advisory and analysis firm that provides trusted advice and critical insight into the architectural and organizational changes brought about by the movement to XML, Web Services, and Service Orientation. We provide our three target audiences of IT vendors, service providers and end-users a clear roadmap for standards-based, loosely coupled distributed computing – a vision of IT meeting the needs of the agile business.

ZapThink helps its customers in three ways: by helping companies understand IT products and services in the context of Service-Oriented Architecture (SOA) and the vision of Service Orientation, by providing guidance into emerging best practices for Web Services and SOA adoption, and by bringing together all our audiences into a network that provides business value and expertise to each member of the network.

ZapThink provides market intelligence to IT vendors and professional services firms that offer XML and Web Services-based products and services in order to help them understand their competitive landscape, plan their product roadmaps, and communicate their value proposition to their customers within the context of Service Orientation.

ZapThink provides guidance and expertise to professional services firms to help them grow and innovate their services as well as promote their capabilities to end-users and vendors looking to grow their businesses.

ZapThink also provides implementation intelligence to IT users who are seeking guidance and clarity into the best practices for planning and implementing SOA, including how to assemble the available products and services into a coherent plan.

ZapThink's senior analysts are widely regarded as the "go to analysts" for XML, Web Services, and SOA by vendors, end-users, and the press. Respected for their candid, insightful opinions, they are in great demand as speakers, and have presented at conferences and industry events around the world. They are among the most quoted industry analysts in the IT industry, and their recent book, *Service Orient or Be Doomed!*, is the leading book on the business concept of Service Orientation.

ZapThink was founded in October 2000 and is headquartered in Baltimore, Maryland. Its customers include Global 1000 firms and government organizations, as well as many emerging businesses. Its analysts have worked at such firms as IDC, marchFIRST, and ChannelWave, and have sat on the working group committees for standards bodies such as RosettaNet, UDDI, and ebXML.

Call, email, or visit the ZapThink Web site to learn more about how ZapThink can help you to better understand how SOA will impact your business or organization.

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