

Empowering your Business with SOA Governance Tools

Find, Manage, Analyze, Reuse and Measure ROI on SOA



sensedia

SOA that makes sense

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1. Business Drivers

Now that Service-Oriented Architecture (SOA) is in the mainstream, there is a clear need to manage the assets associated with SOA projects, as well as maximize the key business drivers: agility and cost saving. Thus, the use of a well-defined and well implemented SOA governance system is critical to SOA success.

Choosing the right governance tooling requires companies to carefully consider specific attributes of the enterprise domain, including an inventory of the major SOA resources such as services, components, processes, as well as interactions and dependencies, and how all relate to the notions of policy management, service agreements, and security. Clearly, SOA governance is an absolute necessity to meet business drivers and solve IT challenges.

Service Oriented Architecture (SOA) initiatives will drive substantial stakeholder value if it focuses on:

- Improving customer experience
- Reducing time to market with current and new products
- Enhancing productivity and efficiency
- Improving quality
- Managing and controlling costs
- Enabling revenue generation

SOA, in order to be successful, needs to focus on business benefits:

- Return on investments (ROI), sales and savings
- Visibility of the existing portfolio
- Customer satisfaction



2. IT Challenges



As a consequence, IT is now measured on how quickly and cost effectively it can deliver high-quality applications that produce effective business results. Compounding the challenge for IT, the competitive landscape is causing a demand for increased business agility.

IT is turning to SOA to meet business needs and to deal with the challenges they are facing:

- Difficulty to identify the right governance tools
- New business applications take too long to be delivered
- Application integration issues
- Unable to evaluate impact changes
- Inability to access the quality of applications
- Unable to identify and leverage the existing assets portfolio
- Non existence of a systematic way to enable and promote reuse practices
- Lack of metrics to measure the return on investments and reuse cost avoidance
- Applications are not as flexible as necessary
- Lack of standards and best practices enforcement causes vendor lock-in

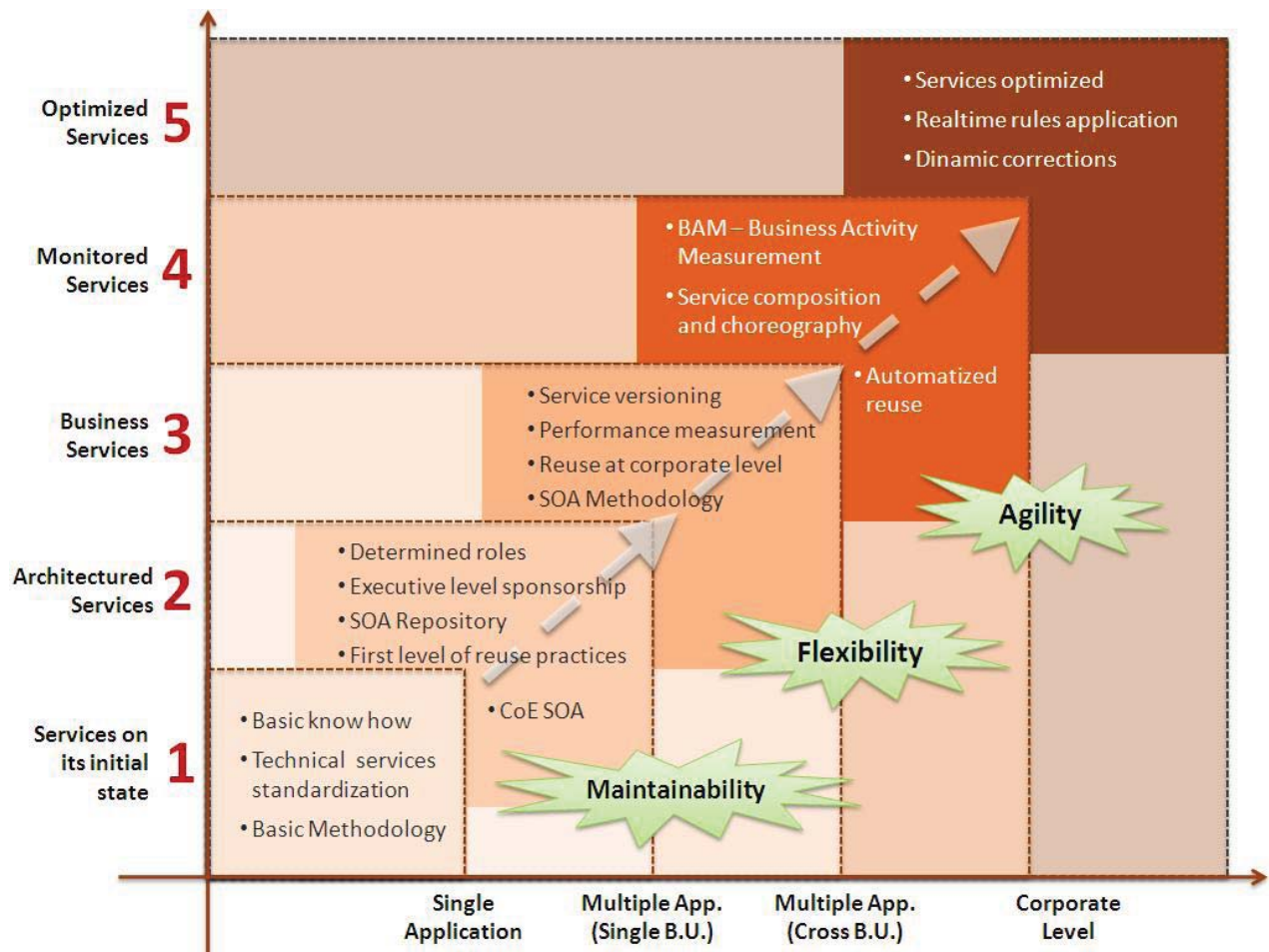
3. Empowering IT

Sensedia believes that, when done right, SOA empowers organizations to achieve rapid and cost-effective integration, business process automation and increased agility in their business by leveraging existing software resources. SOA can also enable IT to focus more resources on innovation and to rapidly deliver business services with reduced impact on changes.

Even with all these reasons, companies sometimes do not make the decision to invest in SOA because they are under the impression that SOA requires large initial investment and the results only happen in the long run. However, by implementing SOA governance initiatives with a well-planned and **incremental approach**, supported by good governance practices, companies are able to achieve success and results with SOA more quickly and efficiently.

4. Incremental Approach to Achieve SOA Maturity

One of the most important aspects of SOA is that it can be structured in an incremental approach with investment efforts distributed along the way. This is done by prioritizing the actions that will bring results more quickly, monitoring the process carefully (measuring the ROI and reuse level) and giving consistent steps towards more mature levels.



Sensedia SOA Maturity Level Model

5. Key Principles for SOA Governance

The lack of a well planned SOA Governance strategy to enable asset control causes IT to face a variety of challenges. As a consequence, IT is unable to systematically engage on the steps required for a SOA strategy to be successful.

When IT is committed to adopt and enforce these steps they are able to gain:

Assets Visibility

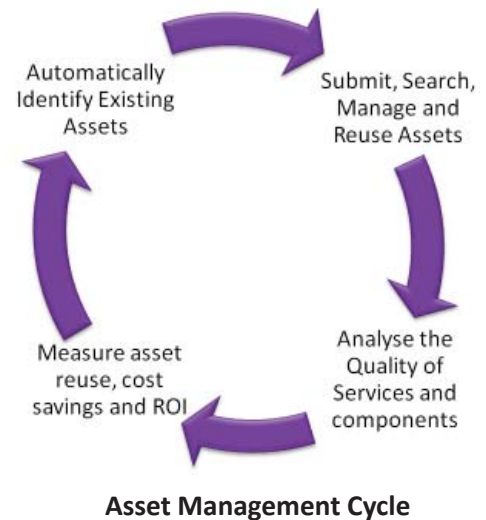
- Determine guidelines for identifying, discovering, producing and consuming assets
- Discover services spread across the enterprise
- Promote assets for future reuse

Asset Lifecycle Control and Usage

- Development teams can easily locate and trust the services
- Perform impact analysis more precisely
- Enable corporate reuse through best practices
- Enforce architectural standards and governance activities

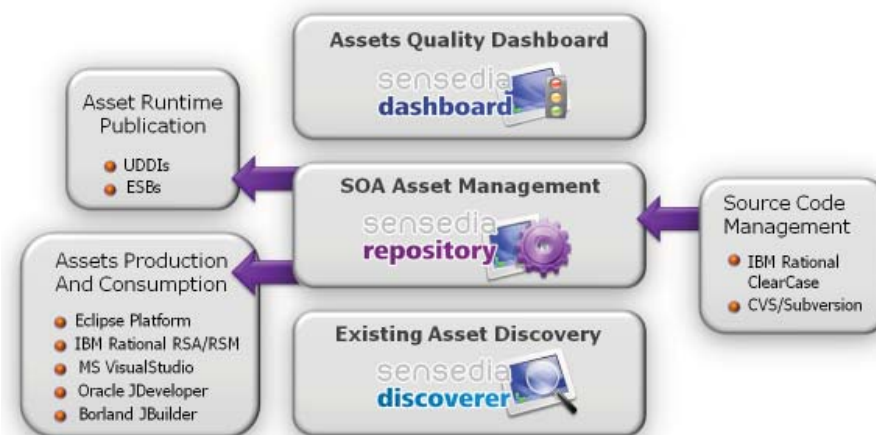
Quality Analysis and Metrics Measurement

- Systematic ways to analyze the quality of assets
- Measure services creation investments
- Track cost savings through reuse
- Get statistics about the assets portfolio



6. Sensedia SOA Infrastructure

SOA governance, both at design time and run time, is a recognized requirement for all SOA initiatives. Choosing the right governance tooling requires careful consideration of specific attributes of the enterprise domain, including an inventory of the major SOA resources such as services, components, and processes, as well as interactions and dependencies, and how all relate to the notions of policy management, service agreements, and security.



Sensedia's Products Integration for SOA Infrastructure

Sensedia understands the critical value brought by an effective SOA Repository tool. Years of R&D combined with extensive field experience enabled Sensedia to design a mature SOA Repository tailored to meet specific clients' needs.

Sensedia Repository enables interactions starting from the development phase through deployment phase, and after deployment through multiple reuse, creating measured results to meet the needs of different roles within the company:



User roles and the Sensedia Repository

Main features:

- Promotes reuse through assets portfolio management
- Delivers unique ROI data, based on the relationships between assets in the Repository
- Centralizes the information and documentation of reusable software components
- Engages stakeholders through powerful collaboration, indexing and searching features
- Enables fast and flexible SOA Governance lifecycle definition with out-of-the-box workflows
- Enhances the visibility of existing assets and captures new services/components and their features
- Allows developers to use the repository from within IDEs (Eclipse, Visual Studio, etc)
- Integration with most used source code management tools to enable consumption of the latest version

An important part of the SOA infrastructure for enabling SOA governance is the registry/repository. It is important to consider SOA governance as one of the initial steps, and a registry/repository is often the most important, first piece of SOA infrastructure to put in place.

Jason Bloomberg



8. Sensedia Repository aligning IT with Business

Sensedia Repository helps the alignment between business and IT areas because it enables:

- SOA Governance
- Reduced duplicated development
- Cost savings through reuse practices
- Effective ways to measure ROI

The image displays three screenshots of the Sensedia Repository web application. The 'Main Screen' shows a dashboard with news, available categories, and components. The 'Relationship Chart' is a diagram showing dependencies between services like 'Opening of Bank Account - 1.0' and 'Create Account Service - 1.0'. The 'Asset Registration' view shows a detailed form for registering a new asset, including fields for name, version, description, and metadata.

Measure the Return on Investments

It is important to objectively measure how many development hours and dollars the company has saved by using what it already has. ROI metrics offer a way to successfully manage and control software reuse and realized savings. This can be achieved by using tools that provide quantitative and qualitative metrics to measure reuse level and calculate ROI for the enterprise services and components portfolio.

The Sensedia Repository enables companies to measure effectiveness through:

- Return on Investment (ROI) tracking and measurement
- Capture and calculation of key metadata metrics surrounding service and component creation
- Customizable reports

Sensedia Repository ROI Screens

RCA - Project-Level View

Project:

Search:

BIRT Report Viewer

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Project	Creation Date	Reused Assets	Asset Creation Date	Asset Cost (H)	Cost Of Reuse (H)	Reuse Savings (H)
Account Number Reserve-1.0	05/17/2008	Order Entry-1.0	01/17/2008	2800	4	2656
		Order Entry Service-1.0	07/01/2008	1240	8	1170
		Total	2	12	3826	
Animas Weather.com Weather-1.0	11/13/2008	Animas Website Flash Header-1.0	07/17/2008	50	4	46
		Forbes.com: Breaking News-1.0	11/13/2008	310	4	197.5
		Working Days Calculator-1.0	06/17/2008	180	8	136
		Total	3	16	379.5	
Address Distance Calculator-2.0.0	10/01/2007	Encryption (128 bits)-1.0	06/17/2008	380	8	334
		Purchase Bill Generator-1.0	01/17/2008	140	10	102
		Total	2	18	436	
Animas Website Flash Header-1.0	07/17/2008	Ultimate website translator-1.0	11/13/2008	400	4	316
		Your Planet Today-1.0	01/13/2008	280	4	192
Total	2	8	508			
Audit Manager-2.0	06/17/2008	JSTL-1.1	03/11/2008	200	16	84
		Total	1	16	84	
Azureus-3.1.1.0	06/24/2003	Address Distance Calculator-2.0.0	10/01/2007	300	40	230
		Commons Logging-1.0.x	04/15/2008	240	100	80
		Login-1.1	02/11/2008	100	20	960
		SW Test Automation Framework-3.3.2	10/06/2008	3000	12	2858
Total	4	172	4108			

The first step in the SOA governance process is to map the assets' portfolio. Sensedia Discoverer uses sophisticated mechanisms based on reusability indicators and code qualification to harvest the legacy application. This approach highlights the investments previously made in software development for future reuse helping companies to anticipate ROI and improve impact analysis.

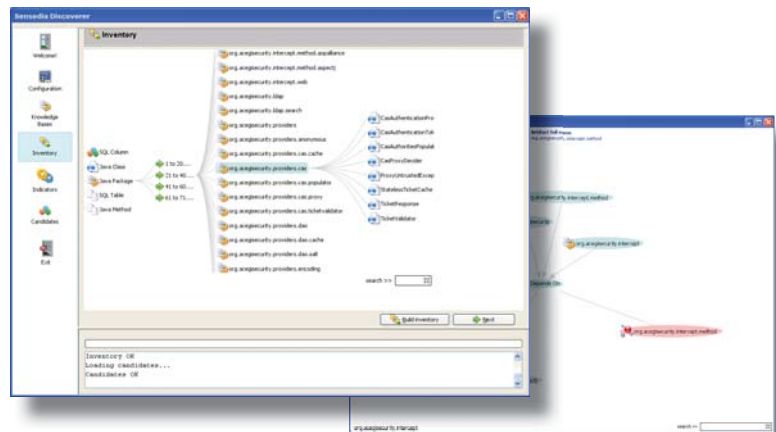
Main Features:

- Automatically identifies and categorizes the asset portfolio (Java Code Only)
- Harvests legacy application metadata based on reusability indicators and code qualification metrics
- Enables architects to manually enhance and change asset information using a central interface to store all uncovered artifacts and assets
- Supports assets review before deciding to accept asset submission
- Architects can automatically capture assets directly from the source tree, interrogate those projects for possible services, then harvest and review those assets for approval into the SOA Repository

The tool enables the user to:

- Harvest existing assets
- Anticipate ROI
- Improve impact analysis

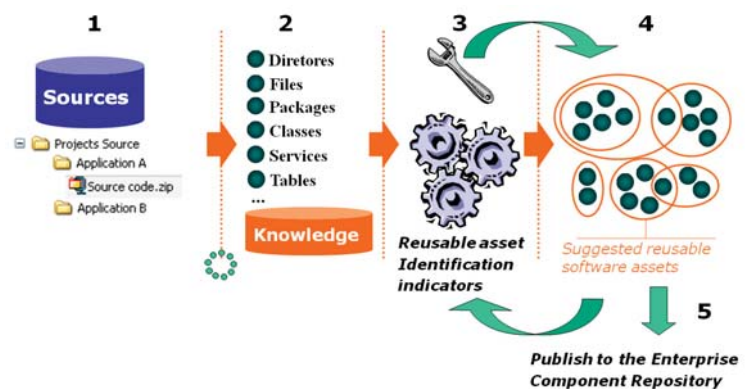
Sensedia Discoverer has a user-friendly interface to execute all of the stages (scanning the existing applications through the configuration of the indicators up to harvesting potentially reusable assets).



Sensedia Discoverer asset and relationship views

The Methodology

1. Scanning: existing applications
2. Knowledge base creation: starting from the analysis of the scanned source-code
3. Identification of reuse candidates: this stage can be done repeatedly considering the reconfiguration of the indicators in each interaction and aiming for an optimized result
4. Harvesting: the tool presents a group of artifacts suggested as reusable assets, and the architect decides which components will be exported to the repository



Methodology representation of the Sensedia Discoverer

Sensedia Dashboard analyses architectural quality indicators in services and software components. It uses an extensive group of quality indicators that are broadly accepted in the industry as best practices.

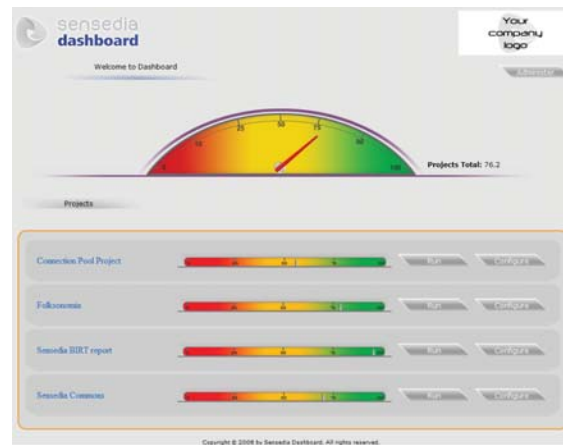
Main Features:

- Automatically analyzes architectural quality indicators in SOA projects and software components
- Extensive indicators list: styles rules, unit tests, code duplication, dependency violations, test coverage, etc
- Enables early evaluation of non-qualified assets and increases software quality

The tool enables the user to:

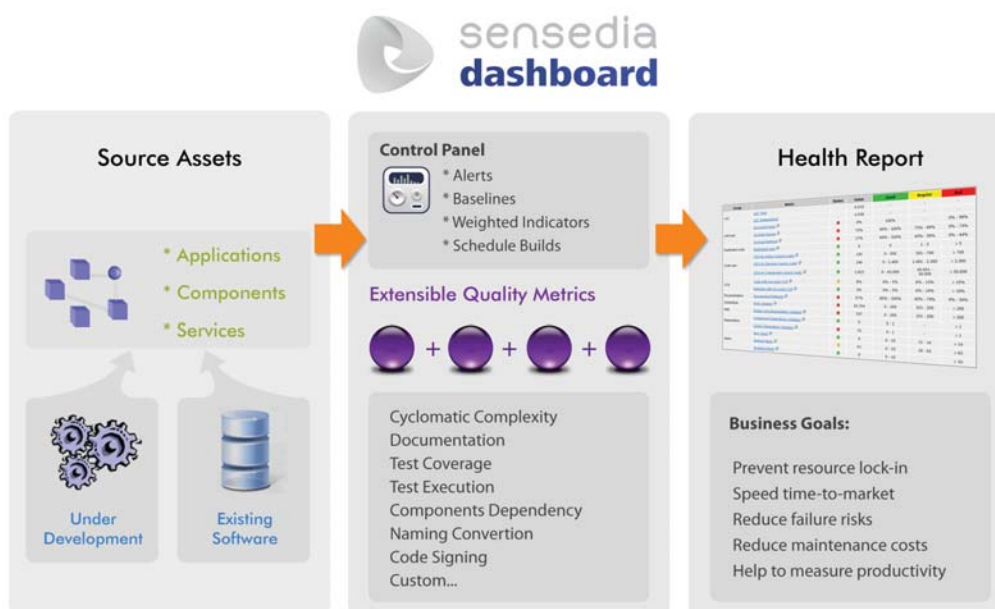
- Systematically monitor projects
- Evaluate services and components harvested
- Gain a critical architectural visibility
- Comply with quality standards
- Improve services quality
- Manage outsourcer deliverables quality

Sensedia Dashboard has a user-friendly interface in a configurable traffic light panel. The dashboard enables the visualization of single assets and indicators as well as consolidated data related to the health of the project.



Home

Solution Architecture



- Web Application: management of information related to assets, indicators and results
- Analysis Engine: module where selected indicators are executed (through the control panel)
- Repository plug-ins for popular IDEs such as Eclipse, Visual Studio and JBuilder

11. Focused solutions for effective SOA Governance

Sensedia believes that SOA projects can deliver remarkable business benefits, but only if the projects are closely mapped back to the companies' business objectives. Sensedia understands the need for a solution that:

- Helps companies preserve their invested capital on projects
- Increases the agility and quality of service implementations
- Reduces costs and time to market

Sensedia focuses on helping clients overcome challenges by providing the right tools to ensure the proper oversight of SOA projects:

- Sensedia Repository: management and metrics
- Sensedia Discoverer: automatic identification
- Sensedia Dashboard: quality analysis

Sensedia offers a focused solution because it enables an incremental SOA adoption approach. This way the company can distribute investment efforts along the way. This is done by:

- Prioritizing the actions that will bring results more quickly
- Monitoring the process carefully (measuring the ROI and reuse level)
- Giving consistent steps towards more mature levels

Sensedia's goal is to help companies improve their overall ability to thrive through today's economic challenges.

Why Sensedia

Sensedia's solutions allow companies to start where they feel pain and are designed to fit each client's specific deployment and business needs.

"Any organization who doesn't feel the big vendors' SOA governance offerings are a good fit should take a good look at what Sensedia has to offer." Jason Bloomberg



Visionary in the Gartner Magic Quadrant for Integrated SOA Governance Technology Sets



- Success implementations at large clients
- Mature SOA Repository - differentiated and more complete features
- Maximize asset reuse and measure ROI
- Multiplatform solution
- Integration with IDEs
- Open interface to easily integrate with other tools
- Incremental approach and faster return
- Best cost benefit in the market

