The purpose of this article is to show why you should come to IBM for help with the new Service Integration Maturity Model standard. IBM's Service Integration Maturity Model (SIMM) has become an industry Standard, OSIMM, the Open Group Service Integration Maturity Model. This article will provide an overview and insights on the value, use and impact of OSIMM. It will also highlight IBM's leadership and expertise with using maturity models to help their customers be successful with services and SOA, making IBM a natural choice for helping you take advantage of this standard for your business.
Introduction

There are many definitions of SOA. Adoption scenarios for SOA also tend to vary considerably, especially when organizations lack a clear roadmap; the vision for how to proceed on their path to SOA adoption. The SOA journey does not start and end with a single project. As an increasing number of organizations continue to incorporate the use of service orientation as the foundation of their IT strategy, it will become increasingly important for them to assess their current state against several dimensions (from the business down to infrastructure) and identify ways to maximize business benefits from their SOA journey.

This article describes how the new Open Group Standard, Open Service Integration Maturity Model (OSIMM) and IBM’s submission, SIMM, has been used by IBM to both assess services, SOA adoptions and to create blueprints for increasing business flexibility as well as IT flexibility. Additionally, SIMM is being used to help organizations achieve advanced levels of business agility and IT flexibility through service integration that are specifically in line with their unique SOA migration path and business objectives.

SOA and Service adoption paths require a gradual process which is often unique to each organization. Many organizations experiment with Web services (by wrapping existing applications) as a means of exploring the world of service integration and using it as a vehicle for deciding how to proceed from that initial state of maturity. Some organizations engage in an enterprise-wide business transformation. Other organizations define their roadmaps, vision, strategy, and criteria for assessment and governance. For any of those organizations, it’s useful to have an objective standard against which to measure current Service and SOA maturity and to create a roadmap to reach the desired level of maturity not for the sake of maturity alone, but to effect different business outcomes that can result from achievement of a specific level of maturity.

OSIMM provides architects, both Business Architects and IT Architects a prescriptive and practical means for going beyond the platitude of business flexibility and making this a measurable business and IT outcome.

What is the purpose of Maturity Models?

In general, maturity models represent a scale for assessing the current state of maturity and depicting the target state of maturity. Until now, with OSIMM and SIMM, most other maturity model have not focused on providing a means for not only portraying the target state attributes but actually developing a transformation roadmap to achieve the desired target state of maturity from a given current state of maturity. Such models quantify the relative growth of certain salient aspects within various dimensions typically within, but not limited to organizational boundaries.

A maturity level is defined by a set of characteristics or capabilities which can be measured and assessed within a domain of interest. A well known maturity model is the Software Engineering Institute’s Capability Maturity Model for Integration (CMMI) (See [http://www.sei.cmu.edu/cmmi/](http://www.sei.cmu.edu/cmmi/)). OSIMM is another maturity model.
A Maturity Model is also useful to understand the current level of an organization, as measured against a standard set of definitions and to help the organization understand what they gain and what business goals are achieved by moving to a higher level of maturity.

In summary, the Service Maturity Models help you:

- Understand the value of implementing services
- Assess an organization’s level of service maturity
- Determine the desired level of service maturity needed to achieve a business goal
- Help identify a road map for achieving the desired service maturity goal state

**What is the Service Maturity Model?**

The Open Group Service Integration Maturity Model provides corporations and IT practitioners a means to assess an organization’s service maturity. It provides a process to create a roadmap for incremental adoption of services which maximizes business and IT benefits at each stage along the way. The model consists of seven levels of maturity and seven dimensions of consideration within an organization or scope defined by the project. These act as a quantitative model to provide a means for assessment of a current state and agreement on the attributes needed in a future state within any one of the dimensions (business, governance & organization, method, application, architecture, information, infrastructure & management).

By leveraging the IBM SIMM Service maturity model, a key asset in IBM’s SOA services portfolio, as a starting point for standardization, IBM is able to help customers in various industries gain a greater understanding of their current and future maturity and to facilitate moving the SOA agenda forward.

**What is SIMM?**

IBM developed groundbreaking techniques that facilitate the SOA journey in terms of a maturity model. These techniques should be considered and utilized by any organization seeking to improve their business flexibility; making IT an accelerator rather than an inhibitor. Describing SIMM or OSIMM as an SOA Maturity model is correct but at the same time it is more than an SOA maturity model. OSIMM is a model for using services as the major structuring element for increased business flexibility, hence the term service integration maturity model. IBM has extensive experience in helping customers assess their maturity and articulate their roadmap for their SOA journey.

SIMM, the basis of OSIMM, is unique as a maturity model and different from CMMI based models because it focuses beyond just process improvements and it links the desired business outcomes to the maturity level across multiple dimensions. The differences between SIMM (and therefore also OSIMM) and other maturity models can be summarized as follows:

- SIMM addresses areas of how business and IT interact, organization and governance, methods, applications, architecture, information and infrastructure & management,
- SIMM does not produce just a single numerical result as a result of an assessment; you also get a series of action items that if implemented should improve an organization in the various domains, holistically, necessary to achieve a specific business outcome,
SIMM provides multiple results across different dimensions of assessment; as not all dimensions will score the same

SIMM does not assume that a higher maturity is necessarily better (good for your organization) for a given dimension; for example, only a subset of your application portfolio may need to move to SOA as a priority

SIMM does not advocate or require a linear movement from one maturity level to the next. It is possible and sometimes advisable to “jump” to an appropriate level; should the necessary pre-requisites be in place. This is made possible because SIMM focuses on process and results across multiple domains allowing visibility into each maturity stage (e.g., best practices) and its corresponding benefits.

One of the basic principles underlying SIMM is that assessing maturity requires a focus on people, process and technology and actual achievement of results. SIMM focuses on an organization’s transformation towards a service oriented enterprise. It focuses more on the results and benefits of achieving a level versus solely improvement of the process.

SIMM addresses the necessary business transformation that drives SOA adoption which in turn compels an organization or line of business to assess its current maturity and progress in the path to achieve the benefits of service orientation.

SIMM attributes and indicators help diagnose and baseline the current maturity level, define the future state, identify the gaps and leverage the attributes and indicators of the higher maturity level to develop the roadmap to attain the end state.

SIMM enables IBM to help clients understand their current maturity level, work with them to determine the future capabilities required, appropriate for the client based on their plans and aspiration, and then help them define a set of state transitions (or stepping stones) to get to their future state. SIMM can also addresses service orientation adoption from an enterprise architecture perspective and aid the evolution of increasing business and IT flexibility over time.

All of these things that are true for SIMM, are also true for OSIMM, since it is a direct derivative of SIMM.

**Why is a roadmap approach to SOA better than just getting it done once and for all?**

A SOA roadmap is incremental and allows a company to deploy SOA iteratively, deriving value from each step along the way. ‘Big bang’ deployments of SOA are much riskier because the SOA solution can not be adjusted during each iteration and it is much more likely that key requirements and business objectives may be been missed, leading to a SOA solution that fails to meet business objectives. Big bang deployments also incur all of the expense of deployment up front before any business benefit is realized or allow corrective actions to decrease the impact of risk on funding, resources and outcomes.

More importantly, OSIMM allows an organization to pick their desired level of maturity based on a set of attributes that align with the business goals of the organization. For example, seeking business process flexibility may be desired to improve time to market and to enable an
organization to prepare for change. This may be suitable for only some lines of businesses and for only certain types of applications. Another organization may seek simply to reduce cycle times for a set of business processes. Other organizations may have partner collaborations which require integration flexibility. In each of these three scenarios, SOA is the preferred approach, but the level of maturity required differs. Because the level of maturity differs so does the roadmap or blueprint for achieving this business outcome: business process flexibility, partner integration flexibility or reduction of cycle times of a business process. SIMM provides the detail content to both understand the differences as well as the blueprint for bringing about the business outcome.

What is the relationship between this Service Maturity Model and SOA?

OSIMM as a Service Maturity Model allows organizations; architects and business stakeholders to see SOA not as a binary choice but as a continuum of measurable outcomes, where, depending on what business benefit is sought, the organization can plan and implement a series of actions to reach the desired maturity and therefore the desired business outcome.

Is this a SOA maturity model?

Services maturity need to assess more than SOA. Services can be realized through a combination of SOA, organizational governance, enterprise architecture and cloud based operational environments. OSIMM provides a holistic approach to service adoption and integration across an organization’s business processes.

What are the Maturity Levels?

The level of decoupling and amount of flexibility achievable at each stage of maturity are what make up the following seven levels of maturity:

1. Silo (data integration)
2. Integrated (application integration)
3. Componentized (functional integration)
4. Simple services (process integration)
5. Composite services (supply-chain integration)
6. Virtualized services (virtual infrastructure)
7. Dynamically reconfigurable services (eco-system integration)

Each level has a detailed set of characteristics and criteria for assessment, and what follows is a brief description of the highlights of each level:

**Level One:** The organization starts from proprietary and quite ad-hoc integration, rendering the architecture brittle in the face of change.

**Level Two:** The organization moves toward some form of EAI (Enterprise Application Integration), albeit with proprietary connections and integration points. The approaches it uses are tailored to use legacy systems and attempt to dissect and re-factor through data integration.

**Level Three:** At this level, the organization componentizes and modularizes major or critical parts of its application portfolio. It uses legacy transformation and renovation methods to re-factor legacy
J2EE or .NET-based systems with clear component boundaries and scope, exposing functionality in a more modular fashion. The integration between components is through their interfaces and the contracts between them.

**Level Four:** The organization embarks on the early phases of SOA by defining and exposing services for consumption internally or externally for business partners -- not quite on a large scale -- but it acts as a service provider or service consumer, nonetheless.

**Level Five:** Now the organization extends its influence into the value chain and into the service eco-system. Services form a contract among suppliers, consumers, and brokers who can build their own eco-system for on-demand interaction. Often the simple services of level four are replaced by composite services that can be choreographed. More mature service meditation infrastructure is in place.

**Level Six:** The organization now creates a virtualized infrastructure to run applications. It achieves this level after decoupling the application, its services, components, and flows. Now the infrastructure is more finely tuned, and the notions of the grid and the grid service render it more agile. It externalizes its monitoring, management, and events (common event infrastructure).

**Level Seven:** The organization now has dynamically re-configurable software architecture. It can compose services at run-time using externalized policy descriptions, management, and monitoring.

**Figure 1. Maturity levels**

**What are the Dimensions?**

An organization’s level of service maturity can be assessed across the following set of dimensions which are essential indicators for effective service and SOA adoption. The breadth of these dimensions covers the breadth that SOA and governance practices apply to an enterprise.
Business: The Business dimension is focused on the business architecture: i.e. the organization's current business practices and policies, how business processes are designed, structured, implemented and executed. The Business dimension also includes IT strategy and addresses the cost and flexibility of IT capabilities, business agility and service-level agreements.

Organization & Governance: The Organization & Governance dimension is focused on the structure and design of the organization itself and the necessary measures of organizational effectiveness as well as the means of governing that organizational structure especially in the context of an SOA.

Methods: The Methods dimension is focused on the methods and processes employed by the organization for its IT and business transformation. This includes the maturity of the software development life-cycle, software engineering practices and guidelines used for the design and development of a SOA.

Applications: The application dimension is focused on application style, structuring of the application and functionality of the underlying applications including the attributes of reusability, flexibility, reliability and extensibility of the applications.

Architecture: The Architecture dimension is focused on the structure of the architecture style which includes use of reference architectures, logical and physical topologies, integration techniques and patterns, enterprise architecture decisions, standards and policies, web services adoption level, experience in SOA implementation, SOA compliance criteria, and typical artifacts produced.

Information: The Information dimension is focused on how information is structured, maintained, cleansed and how information is modeled, the method of access to enterprise data, abstraction of the data access from the functional aspects, data characteristics, data transformation, service and process definition, handling of identifiers, security credentials, knowledge management, business information model, and content management including the mechanisms for integration of information across the enterprise.

Infrastructure: The Infrastructure dimension is focused on the organization’s infrastructure capabilities including service management, IT operations, IT management and IT administration, SLA compliance, how monitoring is performed, and what types of integration platforms are provided to support the other dimensions that rely on the infrastructure to deliver the necessary capabilities to enable the SOA as well as other legacy systems participating within the eco-system.

What’s the process for doing an Assessment?

The OSIMM standard defines a set of maturity indicators for each dimension that can be used to test maturity. Each maturity indicator is accompanied by a set of attributes for each level in the dimension. A set of questions are provided that can help understand which attributes apply for the company.

The maturity model can be customized and extended by adding maturity indicators and attributes appropriate for the industry or organization.
How are SOA Roadmaps defined?
First you do an assessment of your current environment, and then envision the environment you would like to have and is necessary to be put in place to accomplish your business objectives.

Analysis consists of the following three activities:

1. Assessment of the current maturity levels of the business, organization and IT.
2. Determine the goal state maturity levels by considering the required 'level of service and SOA maturity necessary to achieve the stated business goals.
3. Compare the current and target level maturity indicators to identify gaps and determine the organization’s transformation roadmap from current maturity to desired target maturity level.

In fact you can also define interim levels of maturity: what is the next major maturity goal, defining roadmaps to attain each of these goals with clear business value. This allows the company to see progress and enjoy some of the business values along the way.

Figure 2. Sample Maturity Assessment

Are Assessments difficult?
Assessments are often a subjective art and a developed skill. The first assessment of the current environment can be time consuming as stakeholders and information is identified and gathered for the first to support the assessment and ask the questions. Maturity models are a complex topic and you may need interpretation of OSIMM in context of your environment. Scoring of an assessment can be an art and should be done based on an unbiased understanding of your organization in comparison with other similar organizations. The recommendation for increasing objectivity is to include a number of participants who provide input from different vantage points within the organization. This will decrease bias through wider inclusion and provide more accurate results.

IBM developed a Capability Assessment Tool (CAT) at IBM Research. CAT is an end to end framework to create and exploit IBM's intellectual expertise through the development and use
of capability model assessment assets as client deliverables to assess and understand our customer’s needs. IBM has several capability and maturity models for which CAT provides tool support. CAT has several differentiating features which include:

- Automated analysis and roadmaps
- Separation between model design and analysis artifacts
- Role based facility for governance and access control
- Common repository enabling benchmarking and connecting results across offerings
- Ability to do time based analysis to show measure growth or success

SIMM is a maturity model that has been set-up in the CAT tool and used by hundreds of clients all over the world. IBM uses the CAT tool to perform quick surveys to understand both current and desired state of SOA adoption. Engagements can be set-up to allow client based surveys with IBM hosting the tool and providing access ids.

With all of the client responses stored in the database, the engagement lead can now use the CAT analysis tool to load the collective set of client’s results, view basic statistical results, analyze the data, and export diagrams and data for deliverable creation.

Since all the data gets stored in the single repository, the results from a given engagement can be used again, either as a time sequence when the assessment is performed again at that same client, or as part of a benchmarking exercise. Subsequent assessments may be less resource intensive because the assessor and the organization understand the process and information needed to conduct an assessment.

You can test drive this using a preliminary SOA self assessments available to help you determine your readiness to start your SOA journey and your opportunities for improvement. Answer a short set of questions based on our standardized services maturity model (OSIMM) to assess your SOA capabilities and take stock of where you are and where you would like to go with SOA at [http://www-01.ibm.com/software/solutions/soa/soaassessment/index.html](http://www-01.ibm.com/software/solutions/soa/soaassessment/index.html).

The instant online results will also provide you with:

- Your company’s current state and next steps toward improving your SOA level of adoption described in clear, straight-forward terms.
- The benefits and advantages you can access right now with your existing integration infrastructure.
- Recommendations for moving to the next level of service and SOA maturity to achieve greater business flexibility through greater adoption of service oriented approaches.

The IBM SOA assessment tool can help you unlock the full value of SOA. Keep in mind this is not the full SIMM or OSIMM assessment but an abbreviated self-assessment based on OSIMM and SIMM content.

**IBM Services for SOA Assessment**

You have already started your SOA transformation but want an evaluation of how you are doing. Maybe you are experiencing performance issues and would like an assessment of the
IBM Services can help assess your plans and recommended improvements for greater business value. The SOA Diagnostic looks at the overall SOA strategy, governance (including security), infrastructure readiness, and ongoing SOA development projects. In addition we focus on capacity and performance evaluations to ensure your SOA will meet all your business and IT requirements. See http://www-935.ibm.com/services/us/index.wss/offerfamily/gbs/a1028751.

IBM Products for Progressing on your SOA Roadmap

IBM has the broadest scope of products in the industry to implement the right SOA solution for you. At every step along your roadmap, in every layer of your architecture, you can use IBM products to provide you the right tools and infrastructure for SOA at any stage in its lifecycle – plan, develop, deploy, manage.

IBM uses the following diagram as an architectural reference model to illustrate the aspects of implementing SOA:

Figure 3. IBM SOA Reference Architecture

IBM brands support the Model/Assemble/Deploy/Manage lifecycle of your SOA solution:

- **Rational** supports Model and Assemble by providing tools to model your SOA solution and business processes. It also provides products to support development services.
- **WebSphere** supports Deploy by providing runtime for services implementations, service clients, and business processes. It also provides products to support the operational services needed to deploy your SOA solution.
- **Tivoli** supports Manage by providing monitoring and operational management of your services, solution, and infrastructure. It also provides products to support Management services.
• **Lotus** provides tools to integrate access to people and collaboration to your business processes. It provides support of the Interaction services.

Looking at the IBM SOA reference architecture above here is a sampling of the vast array of IBM products available for each of the aspects of SOA:

• **Strategy and Planning Services** are provided by Global Business Service's Component Business Modeling (CBM) services which helps you methodically examine your business and identify the right set of business components and services for you. **Service Oriented Modeling and Architecture (SOMA)** services and tools help you identify the right services for our needs. **Rational Unified Process (RUP)** for SOMA provides best practice offering accelerates this process, especially for modernizing legacy systems. In addition, IBM Rational sells **Rational Systems Architect** and **Rational Focal Point** as tools for enterprise architects which provide decision support system for market-driven product and portfolio management. **Rational RequisitePro** traces business requirements to goals and steps in the service development lifecycle.

• **Business Services and Events** are supported by **WebSphere Business Modeler** to help business analysts capture your business design for documentation, compliance, simulation, and optimization. Then **WebSphere Business Monitor** helps you create dashboards for visualizing performance of your business which helps you understand how your business design achieves your business objectives and recommends optimizations. **Cognos 8 Business Intelligence** provides business reporting, analysis and dashboards on your SOA. **WebSphere Business Events** enhances BPM and SOA infrastructures with business insight and awareness around event driven business conditions. IBM provides models specific to your industry with **WebSphere Business Services Fabric** which enables agile, dynamic SOA based business processes and pre-built **Industry Content Packs** which are SOA accelerators fully optimized for use with the industry's ecosystem. IBM offers **Industry Solution Offerings** with Industry specific frameworks, best practices, and expertise. **InfoSphere Business Glossary** manages and categorizes a controlled vocabulary of business terms to remove friction in SOA solutions.

• **Development Services** are provided by Rational via **Rational Software Architect**, **Rational Application Developer**, and **Rational Developer** which provide you a development environment for your business services on Windows, linux, i, and z systems. **Rational Team Concert** enables collaborative development in these environments. **Rational ClearCase** and **ClearQuest** automate and enforce development processes for better insight, predictability, management, and control of the software development lifecycle. Finally, **Rational Tester for SOA Quality** provides you an automated SOA testing tool for performance and quality and **Rational AppScan** scans for Web and security vulnerabilities. To complement this, **WebSphere Integration Developer** helps you create business process flows, state machines, and business rules.

• **Asset and Registry Services** are provided by **Rational Asset Manager** which helps create, modify, govern, find and reuse any type of development assets including those for your SOA solution. **WebSphere Service Registry and Repository** provides the tools to provide registration and location of services to support late binding to services **WebSphere Studio**
Asset Analyzer discovers existing programming assets that may contain business functions that be leveraged in your business design.

- **Enterprise Service Bus** capability is supported by the WebSphere Enterprise Service Bus which provides a basic fabric for transparent interconnection of services across an enterprise distributed network. It is extended by WebSphere Message Broker which provides message transformations for non-XML data types and provides message based integration. WebSphere Message Queue enables scalable, reliable information exchange across different platforms. WebSphere Transformation Extender is a universal data transformation and validation engine enabling integration with a codeless, graphical approach to development.

WebSphere DataPower SOA appliances augment and accelerate your SOA application, specifically, WebSphere DataPower Integration Appliance XI50 and WebSphere DataPower XML Accelerator XA35 Appliance off loads Web service processing and XML processing respectively.

- **Business Application Services** are hosted in WebSphere Application Server, a highly available hosting environment for basic SOA business services and a platform for WebSphere Portal, Process Server, and ESB. Standards based programming models for SOA, SCA, SDO, SIP, Web 2.0, and JPA are supported. WebSphere Application Server is augmented for scale with WebSphere eXtended Deployment (XD) and WebSphere Network Deployment expands the programming model for common high end computing requirements. WebSphere eXtended Deployment Compute Grid enables sharing business logic across transaction and batch paradigms. WebSphere eXtremeScale provides distributed caching essential for elastic scalability and next-generation SOA and cloud environments. Business applications are enabled by performant data management systems: CICS, an application and transaction server, and IMS, a transaction and hierarchical database management system. Both CICS and IMS have been enabled for SOA exploitation.

- **Process Services** are supported fully by WebSphere Process Server which is a primary hosting environment for business processing – both flows and business state machines. To add to this, WebSphere Business Services Fabric which enables agile, dynamic SOA based business processes. iLog JRules and Rules Solutions delivers a business rules management system to control and manage business policy and processes. Complementing business processes is the FileNet 8 Platform, a unified enterprise content management platform with built in business process management and compliance capabilities.

- **Interaction Services** are supported by WebSphere Portal which is a hosting environment for the user interaction logic for your SOA application and allows interfaces to be aggregated into a single user page. The counter point is the client environments supported by Lotus Expeditor which extends portals with desktop client integration for laptops, kiosks, and mobile devices using SOA and standards based OSGi programming model. Lotus Sametime, a unified communications platform, enables invocation of services and engagement of people in business processes. IBM Mashup Center enables you to use dynamic situational applications to connect users with business services.

- **Information Services** are provided by data warehousing and information integration products. InfoSphere Warehouse integrates data warehousing and archiving capabilities. InfoSphere Master Data Manager centrally manages business critical master data across
customer, product and account domains in contrast to IBM Information Server which is a data integration platform for complex, heterogeneous, distributed information.

- **Partner Services** are supported through WebSphere Partner Gateway which enables business to business integration with trading partners via a centralized and consolidated trading partner and transaction management platform for process and data integration.

- **Access Services** are supported via WebSphere Adapters which provides adapters to a variety of legacy information systems.

- **Infrastructure Services** are supported by WebSphere Virtual Enterprise provides application virtualization to lower cost and increase flexibility, agility, availability and reliability. Virtualization software manages the utilization of middleware and hardware from IBM and other vendors. IBM is a trusted provider of systems, servers and storage for your business, this includes leading edge Power Systems running AIX or Linux, and BladeCenter integrated platforms with built in scalability and manageability. IBM is famous for the unmatched processing power and high availability of our System z Series.

- **Management Services** include both security and runtime management. Security is provided by Tivoli Identity Manager, Tivoli Federated Identity Manager, Tivoli Security Policy Manager and Tivoli Access Manager provides a uniform point of administration of users, federation of user information, and privilege management Tivoli Compliance Insight Manager provides a automated user monitoring for security compliance. WebSphere DataPower XML Security Gateway XS40 integrates Tivoli’s federated identity, security, and directory services into your SOA network processing. Monitoring, provisioning, and automation are supported by Tivoli Composite Application Manager (ITCAM) which enables IT services management when using SOA, Tivoli Intelligent Orchestrator (TIO) which provides support managing and automating your administrative and management workflows, and initiating the workflows in response to events in the information system, and Tivoli Provisioning Manager which extends TIO with workflows for automating the deployment environment for provisioning hardware and software.

- **Lifecycle Services** are supported by Rational Method Composer is a flexible software development process platform with a best practice library that will help you deliver customized yet consistent process guidance to your project team. Rational Requirements Composer provides visual and textual techniques for capture of business objectives and elaboration of requirements in a collaborative environment. Rational Build Forge automates and accelerates the build and release process.
Conclusion: Why IBM for SOA and Service Maturity

You should come to IBM for your SOA needs because we have the experience needed for your success. This is supported by the fact that we are the leader in the SOA software market share and in 7 Gartner SOA Magic Quadrants and 3 Forrester SOA Waves. IBM also has the largest community of SOA Business Partners.

IBM’s SOA strategy is built on open standards – for interoperability and standardization. IBM’s leadership in standardization of OSIMM, The SOA Reference Architecture, and SOA Governance Framework in The Open Group are examples of our commitment to standards for SOA architects. In addition we are leading standards for developers in our leadership in the development of Soa ML in OMG. IBM is able to lead in the development of these standards from a position of knowledge and experience with customers.

On IBM’s site http://www.ibm/com/soa, we state that IBM's SOA vision is an advantage to you because:

- "IBM SOA is designed to help clients extend the value of the applications and business processes that are already running the business today. It is not a replacement for existing infrastructure or investments.
- IBM SOA is interoperable and fully modular allowing you to select components on a build-as-you-go basis adding components as new requirements are addressed over time.
- IBM SOA is scalable, allowing you to start small and grow as fast as the business requires. There’s no reason to think of SOA as a "big bang."
- IBM SOA provides extensive support for business and IT standards; facilitating greater interoperability & portability between applications."
Obviously, the approach of using SOA roadmaps based on a standardized Service Maturity Model has tremendous value. IBM's thought leadership in creating SIMM the genesis and cornerstone of OSIMM, along with the abundance of assets we bring to bear, is IBM's value to you.
Resources

- More detail on IBM's SOA architecture and product support can be found in the "SOA Foundation Architecture Whitepaper" (developerWorks, Dec 2005).
- Assess your SOA capabilities and take stock of where you are and where you would like to go with SOA.
- Learn more about OSIMM standards.
- "Increase flexibility with the Service Integration Maturity Model (SIMM)" (developerWorks, Sept 2005).
- Learn more about our Service-oriented architecture professional services.
- IBM has a long history of helping customers be successful, read their success stories.
- More information on these products can be found on the SOA offerings pages.
- Explore the online trials in the IBM SOA Sandbox and get your hands on application development tools and middleware products from DB2®, Lotus®, Rational®, Tivoli®, and WebSphere®.
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Heather Kreger is IBM's lead architect for SOA Standards in Software Group with 15 years of standards experience. She has led the development of standards for Web services, Management and Java in W3C, OASIS, DMTF, and The Open Group. Heather is the author of numerous articles, specifications, "Java and JMX, Building Manageable Systems" book, and most recently, editor of 'Navigating the SOA Open Standards Landscape Around Architecture'.

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Ali Arsanjani

Dr. Ali Arsanjani is CTO of SOA Emerging Technologies within IBM Global Services. He leads a team responsible for developing worldwide competency in SOA and increasing delivery excellence of SOA solutions using IBM and non-IBM tools and SOA offerings, most of which he has co-developed. He is responsible for IBM vision, strategy and execution of that strategy in the SOA space of emerging technologies and SOA offerings. He is a hands-on, sought-after architect around the world on IBM's largest accounts. To accomplish this Dr. Arsanjani works with IBM Software Group, Research as well as other parts of IBM Global Business Services to delivery SOA Solutions for clients using IBM tools, technologies and latest SOA offerings. In his role as Chief Architect for the SOA and Web Services Center of Excellence within IBM Global Services, he and his team specialize in harvesting and developing best-practices for the modeling, analysis, design and implementation of SOA and Web Services. He leads the internal IBM worldwide SOA and Web Services Community of Practice (6000+ members) and is the principal author of the (Service-oriented Modeling and Architecture) SOMA method for SOA as well as other assets, offerings and tools around SOA. He has been focusing on SOA Tooling with an extension and plug-in to Rational Software Architect called SOMA Modeling environment (SOMA-ME) which provide tooling support for IBM's SOA Methods and assets for SOA.
Solution development. This has been described in the August 2008 edition of the IBM Systems Journal. Dr. Arsanjani is engaged in developing SOA competency around the world in multiple industries and countries, working not only to develop teams to support the deployment of IBM tools and assets in the SOA space, but also to engage on a day to day basis with IBM's largest clients. Dr. Arsanjani not only works in executing a global strategy for GBS but also works to assess and develop tools to support IBM's offerings. He represents IBM in standards bodies such as The Open Group and is responsible for co-leading the SOA Reference Architecture and SOA Maturity Model standards within that body. Inside of IBM he leads research efforts in emerging technologies, tools and consulting offerings that combine services with the software required to successfully deliver those services, effectively, in a scalable and repeatable fashion across the world to more than 6000 practitioners.

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