The SOA Source Book

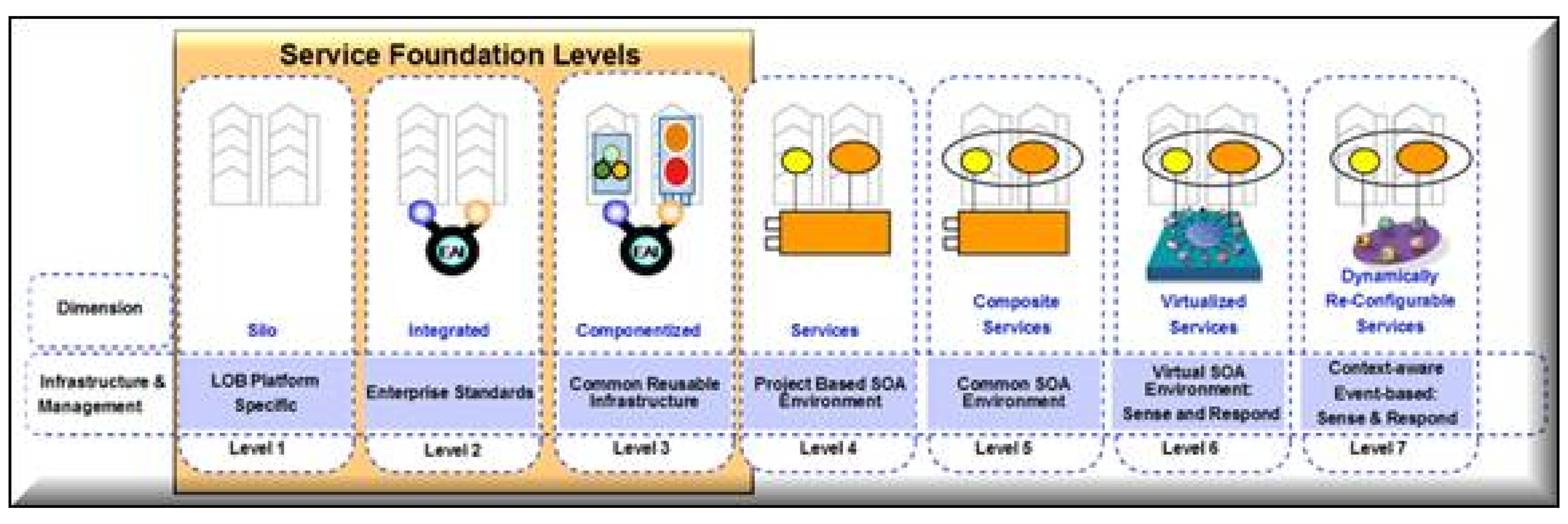
SOA Source Book
Service-Oriented Architecture
The Open Group Service Integration Maturity Model (OSIMM) Version 2
Introduction
The Model
Business Dimension: Base Model
Organization & Governance Dimension: Base Model
Method Dimension: Base Model
Application Dimension: Base Model
Architecture Dimension: Base Model
Information Dimension: Base Model
Infrastructure & Management Dimension: Base Model
The OSIMM Assessment Method
Example Assessment
Benefits of Moving to Higher Maturity Levels
Relationship to Other SOA Standards
Relationship to Other International Standards
Referenced Documents
Acknowledgements
Legal
SOA Reference Architecture
Service-Oriented Cloud Computing Infrastructure (SOCCI) Framework
Using TOGAF to Define and Govern Service-Oriented Architectures
SOA Governance Framework
Service-Oriented Architecture Ontology Version 2.0
Legacy Evolution to SOA
Microservices Architecture
SOA for Business Technology
Navigating the SOA Open Standards Landscape Around Architecture
SOA in the Digital Age

SOA Work Group
SOA Standards
Discussion Forum
SOA Work Group Members Page

The Open Group Service Integration Maturity Model (OSIMM) Version 2 – Infrastructure & Management Dimension: Base Model

This section defines the base model for the OSIMM Infrastructure & Management dimension base model. The base model defines a set of generic maturity indicators and attributes that can be used to assess an organization's SOA maturity level against the OSIMM maturity matrix. Additional maturity indicators, assessment questions, and attribute mappings can be added by vendors or user organizations to extend the base OSIMM model.

The assessment questions that follow help elicit the level of formality to which an organization has successfully applied SOA application and system design, development, and deployment principles and adopted SOA-enabling technologies such as an ESB and service registry. Maturity ranges from LOB platform-specific to context-aware event-based sense and respond.



OSIMM Infrastructure & Management Dimension

Infrastructure & Management Dimension: Base Model Maturity Indicator

The base OSIMM model provides one of many possible maturity indicators per dimension. Organizations, vendors, and consultants can provide additional maturity indicators, assessment questions, and attribute mappings to provide additional guidance necessary for the maturation of an organization's SOA.

The following Infrastructure & Management dimension maturity indicator is provided as part of the base OSIMM specification:

- An SOA maturity assessment of the OSIMM Infrastructure & Management dimension can be conducted by identifying the IT infrastructure that supports the non-functional and operational requirements and SLAs needed to operate an SOA environment.

Infrastructure & Management Dimension: Assessment Questions

By gathering information using these assessment questions, an assessor can map a maturity indicator to the associated maturity attributes, thereby determining the Infrastructure & Management dimension maturity level.

1. What are your current infrastructure usage guidelines?
2. How are your IT SLAs derived from the business SLAs?
3. Have you defined SLAs around quality-of-service? How is this monitored and measured?
4. Have you defined any SLAs around security and privacy? How is this measured and monitored?
5. What level of monitoring is in place today? What management tools are in place today?
6. What platforms are currently in use for integration?
7. Which assets are placed under version control?
8. What is your current change management process?
9. What tools are used for configuration management?
10. What are considered as your organization's IT assets (excluding human resource)? How are these assets managed?
11. What does your current operational architecture look like?
12. How does your operational architecture support the non-functional requirements for applications and services?

Infrastructure & Management Dimension: Maturity Indicator-to-Attribute Mapping

The following are the base set of maturity indicators for the OSIMM Infrastructure & Management dimension. Each maturity indicator is associated with a set of maturity attributes. Maturity attributes are those observed characteristics of a maturity indicator for each maturity level. The assessment questions are used to survey an organization's Infrastructure & Management dimension. Survey data obtained through the Infrastructure & Management dimension assessment questions is used to determine the maturity level by assessing the data and matching to the maturity attributes that best fit the information obtained. The maturity weighting is used to determine an average maturity score across multiple maturity indicators. The model can be extended by adding additional maturity indicators and assigning weighting to the indicator by maturity level according to the value placed on the maturity indicator by the assessing organization.

Maturity Indicators for the Infrastructure & Management Dimension

Maturity Level ***Cell Name***	**Maturity Indicator**	**Maturity Attributes**	**Maturity Weighting**	**Assessment Question Mapping**
Silo (Level 1) *LOB Platform-specific*	The IT infrastructure supports the non-functional and operational requirements and SLAs needed to operate an SOA environment.	Low or nonexistent Little or nonexistent operating support for the deployment of services.	10	1, 5, 6, 7, 8, 9, 11
Integrated (Level 2) *Platform-specific*	The IT infrastructure supports the non-functional and operational requirements and SLAs needed to operate an SOA environment.	Limited Messaging solutions exist to integrate applications and support the migration to an ESB. Service management and service security are partially implemented.	20	1, 6 3, 4, 5, 12
Componentized (Level 3) *Common Re-usable Infrastructure*	The IT infrastructure supports the non-functional and operational requirements and SLAs needed to operate an SOA environment.	Cross-organizational Processes for service management and security have been published and are in use for the business unit or enterprise.	30	1, 3, 4, 5, 12
Services (Level 4) *Project-based SOA Environment*	The IT infrastructure supports the non-functional and operational requirements and SLAs needed to operate an SOA environment.	Enterprise-wide Operating environment supports enterprise-wide service deployment. Identities of distributed users across departmental, organizational, and enterprise boundaries can be administered and managed.	40	3, 4, 5, 6, 11, 12
Composite Services (Level 5) *Common SOA Environment*	The IT infrastructure supports the non-functional and operational requirements and SLAs needed to operate an SOA environment.	Integrated Enterprise-wide Service management supports quality-of-service and composite applications. Security policies are managed and enforced.	50	2, 3, 5, 11, 12 4
Virtualized Services (Level 6) *SOA Environment Sense and Respond*	The IT infrastructure supports the non-functional and operational requirements and SLAs needed to operate an SOA environment.	Integrated across the enterprise and externally between business partners. Services as resources can be virtualized such that an instance may be deployed across multiple runtime environments. Service monitoring and performance management supports deployment of new services.	60	1, 2, 3, 5, 6, 7 5, 7, 8, 9
Dynamically Re-Configurable Services (Level 7) *Context-aware Event-based Sense and Respond*	The IT infrastructure supports the non-functional and operational requirements and SLAs needed to operate an SOA environment.	Adaptive Enterprise Service management tracks and predicts changes to services necessary to optimize service quality. Services can be re-used in new and dynamic ways without negatively impacting the quality-of-service of existing services. Service security policies are dynamic and managed in real time.	70	2, 3, 8, 9 3, 4, 11, 12 4

⇒ *The OSIMM Assessment Method*