CBDI-Service Architecture & Engineering (SAE) Knowledgebase for SOA

Content Overview

This document provides an overview of the content contained in the CBDI-SAE Knowledgebase for SOA (KB). It also shows the meta model that underpins the content, which may be useful to those who are considering implementing and extending the Knowledgebase in-house.

Contents

Introduction

The CBDI SAE Knowledgebase (KB) is primarily structured around the CBDI-SAE SOA Reference Framework shown in Figure 1. In turn, this is detailed via a number of other high level frameworks for specific domains.

The KB content is stored primarily in a database (using Microsoft SharePoint). A number of web pages then provide portal-like views across associated content. The benefit of this approach is that it enforces a common structure on content of the same type. Each content component is classified so that it is automatically included in views of content, for example on portal pages. This is particularly useful for anyone considering extending the KB in-house.
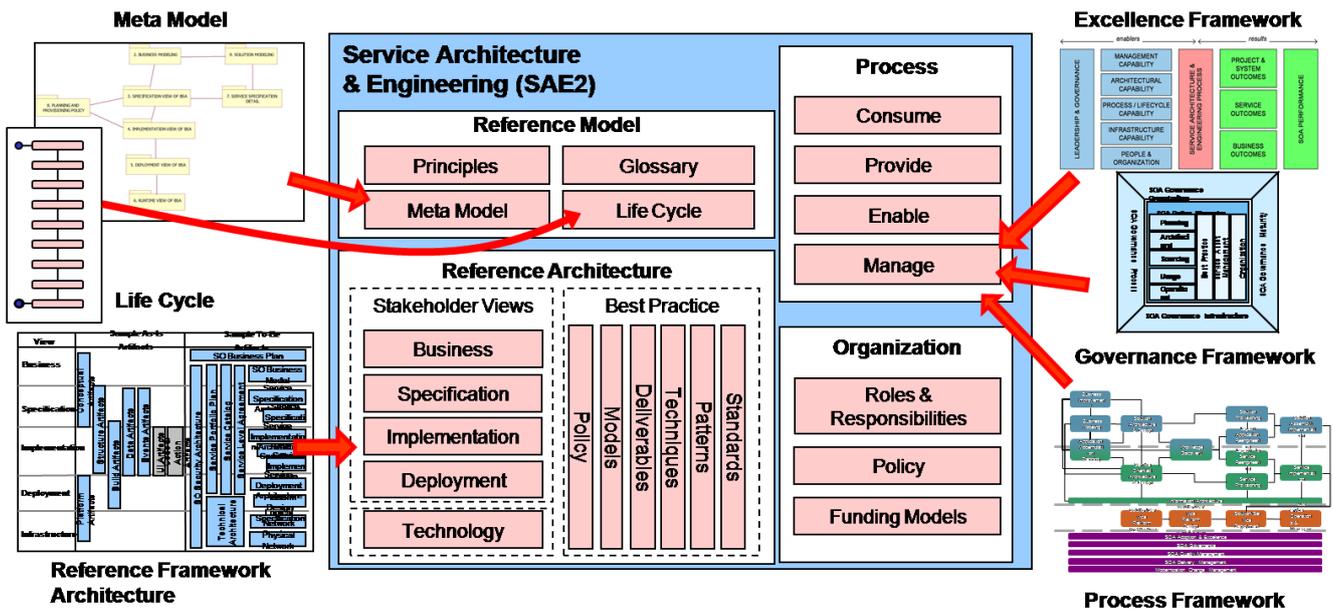
Figure 1 CBDI-SAE SOA Reference Framework

Key Topics

Whilst the KB is centred on guidance in Service Oriented Architecture (SOA) it supports a range of topics to which SOA is relevant. These include

- Application Modernization
- Business Modeling
- Cloud Computing
- Smart Ecosystems

It also covers a wide range of disciplines such as

- Architecture
- Governance
- Project and Program Management
- Specification
- Provisioning
- Quality Management and Testing

Content and Structure

Reference Model and Reference Architecture

At the core of the KB is the Reference Model. The lists shown in Figure 2 provide the common 'language' of SOA that are referenced from many other lists.

Similarly, the Reference Architecture shown in Figure 3 consists of SOA Views that reference several lists that are used in other frameworks.
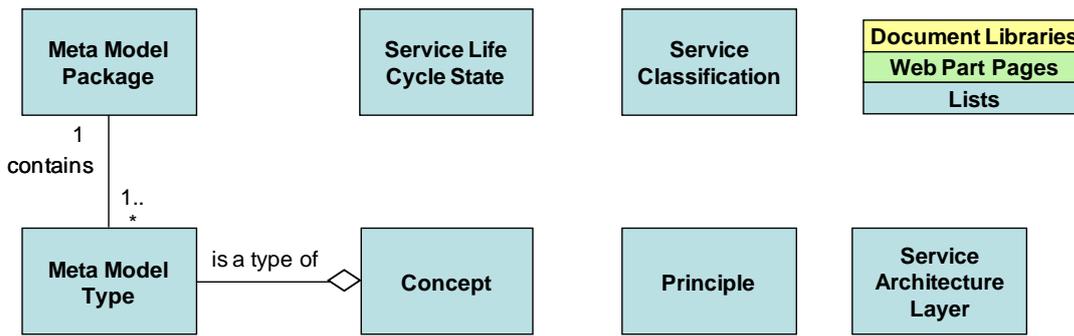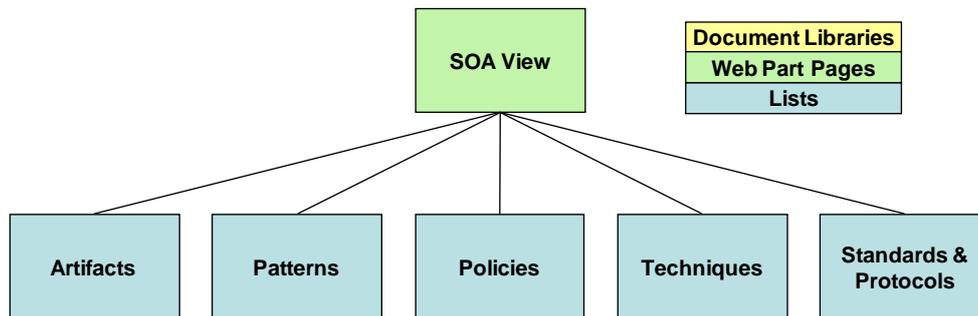
Figure 2 - Reference Model Content

Figure 3 - Reference Architecture Lists
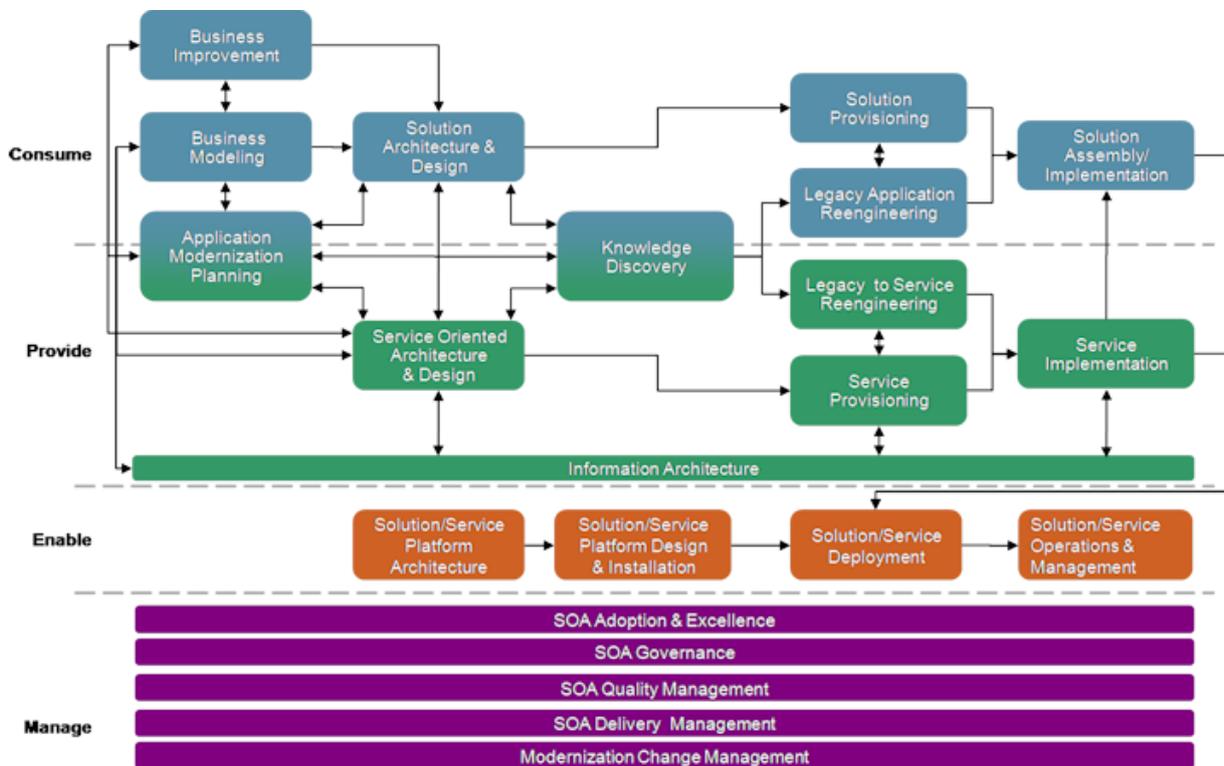
Process Framework

Figure 4 - SAE Process Disciplines

The process framework is structured as a set of Disciplines shown in Figure 4. The current KB content is focused primarily on the Provide and Manage disciplines, together with Business Modeling and Business

Improvement.

As shown in Figure 5, each Discipline is decomposed into Process Unit and Tasks, which reference the artifacts (deliverables) produced or required, together with relevant techniques for performing the task, and
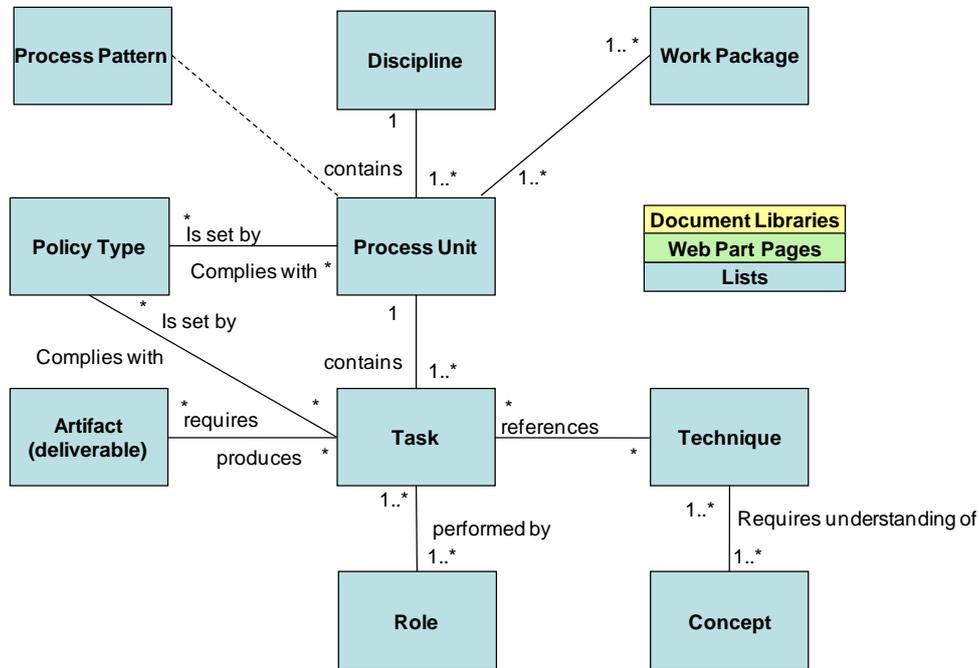
the roles that are involved.

Figure 5 - Process Disciplines

Work Packages

Work Packages provide an alternative way of navigating process guidance that is more likely to correspond to typical projects, that span multiple SAE disciplines, and include items such as ready-built workshop agendas.
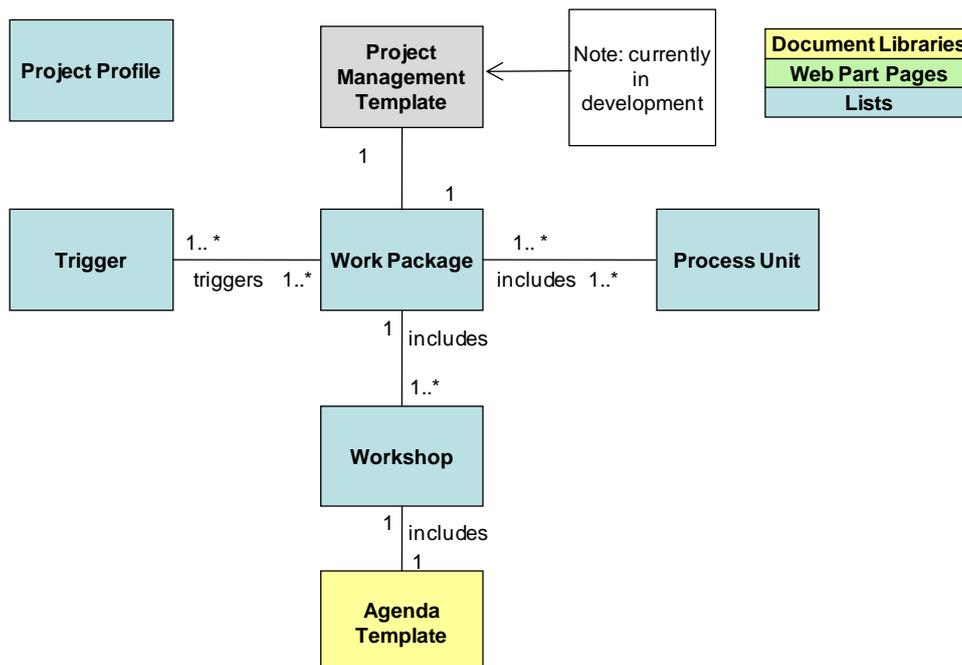
Figure 6 - Work Packages

Roles

Activities are performed by Roles. As shown in Figure 7, Roles require skills, and are classified as Primary (performing the activity) or supporting (involved in, but not responsible for).
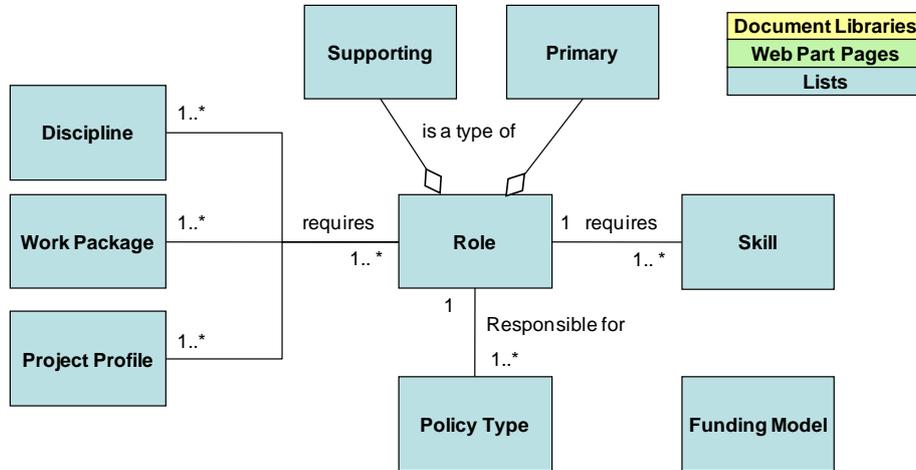

Figure 7 - Roles

Artifacts

The deliverables produced, and inputs required by processes and projects are documented as artifacts as shown in Figure 8. For a number of these, templates are also provided.
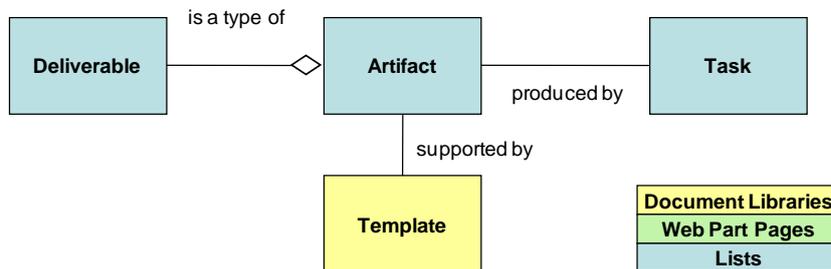

Figure 8 – Artifacts

Adoption & Excellence Framework

Adoption roadmap planning activities are supported by the lists shown in Figure 9 that structure Roadmap Planning activity into a set of phases and streams (capabilities).
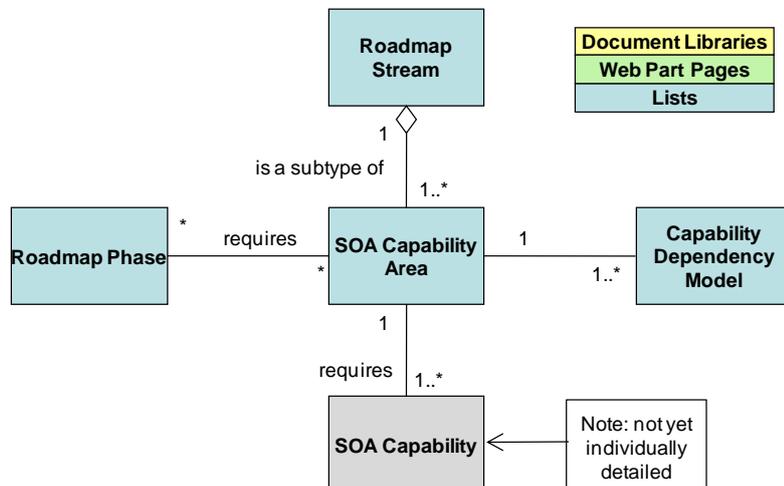
Figure 9 - Adoption Planning

Governance Framework

Governance is supported by a rich model shown in Figure 10 that is designed to allow governance requirements, such as the various policies required to be documented in a rigorous way.
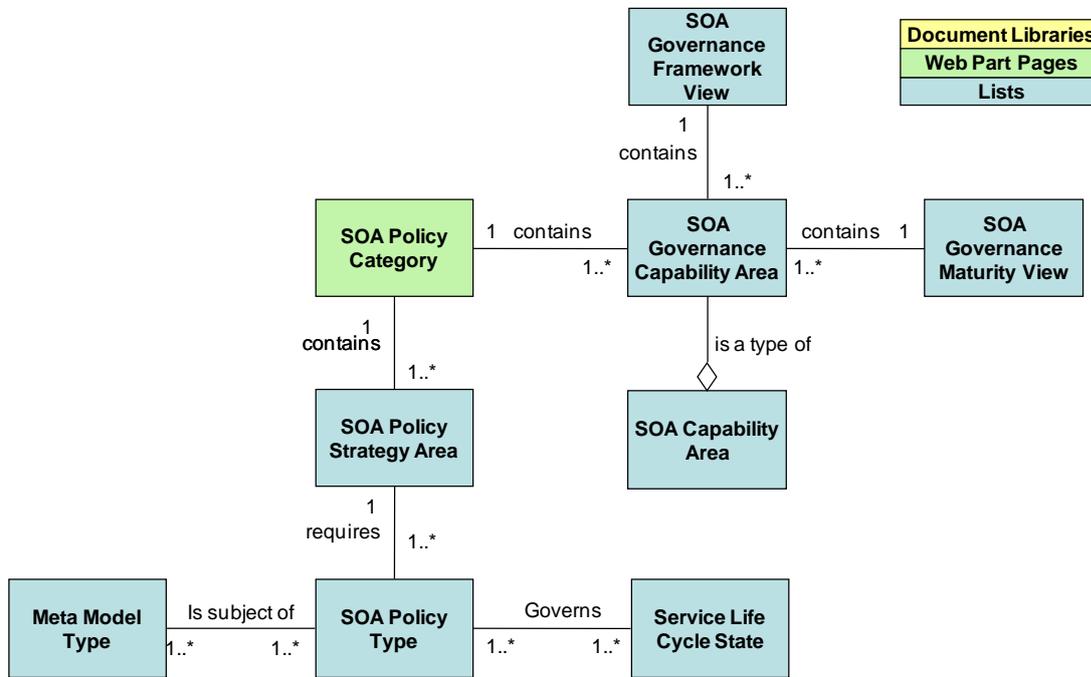

Figure 10 - Governance Framework

Other Lists

Various other lists are also provided that don't fall specifically into one of the other domains, but may be referenced from them.
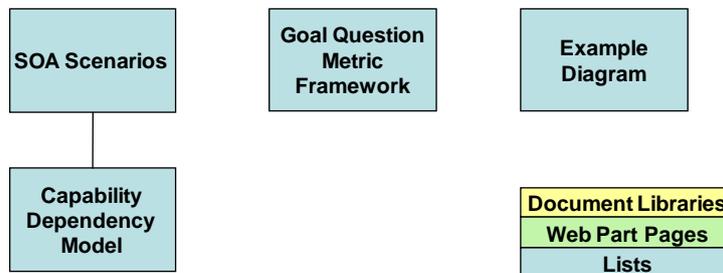

Figure 11 - Other Lists

Guidance

There are over 200 pieces of additional guidance that are cross referenced to the other lists. These comprise reports that have been published in the CBDI Journal, or other reports authored specifically for the KB. Many original CBDI Journal reports have been refactored to align them with the evolving SAE methodology and make them current.

eLearning and Education

There is a growing inventory of over 30 eLearning modules (Adobe Flash format) provided, as well as a number of 'start here' introductory pages. The modules include fundamentals and practitioner level materials and are designed to be used in a structured certification process, available from Everware-CBDI.

Topic Portals

A number of portal-like pages draw together the relevant content of the various lists to support a particular topic. Users are not expected to navigate the KB using just the 'raw' lists, but instead via these portals such as the example below.

Figure 12 - Adoption and Excellence Portal

Resources

In addition, there are a number of resource types provided in document libraries. Resources are designed to be downloaded and used (often after some level of customization to support specific customer requirements). Resources include:

- Deliverable Templates (in Microsoft Word format)

- UML Profiles for use in UML Modeling Tools

- Tools such as Microsoft Excel Spreadsheets used to collect and sort information in projects for example or for Estimating guidelines

- Microsoft Project Templates for project management

- Presentations, Worked Examples and Diagrams (in Microsoft PowerPoint). Note, all diagrams found in the KB are available in PowerPoint format.

- Workshop Agendas

Example Process Unit Definition

Title	Evolve SOA Governance Framework
Definition	This process unit establishes and maintains the SOA Governance Framework and policy type hierarchy which is used by other SO Disciplines to set policy instances
Objective	To help ensure that business, IT and SOA outcomes are acheived by establishing appropriate policy types, that provide the basis for consistent SOA policies across the organization
Triggering Event	The raising of an SOA Governance Framework Requirement, probably resulting from an SOA Governance Maturity Assessment. Alternatively the raising of an SOA Governance Review Requirement as a result of a periodic need to assess how the framework might need to be adjusted in the face of compliance feedback.
Inputs (required artifacts)	Business Outcome Model; IT and Business Governance Framework Alignment Assessment; IT Governance Framework; IT Outcome Plan; SOA Adoption Plan; SOA Maturity Assessment; Compliance Feedback; SOA Governance Framework; SOA Governance Maturity Assessment
Deliverables (Produced Artifact)	SOA Governance Framework; SOA Policy Type (detailed); SOA Policy Type Template; SOA Policy Instance Template; Service Life Cycle ; SOA Governance Adjustment Requirements; SOA Governance Plan
Artifact Template	SOA Policy Type Template V1.0; SOA Policy Instance Template V1.0
Activity Diagram	
Task List	Evolve SOA Governance Infrastructure; Evolve SOA Governance Organization; Evolve SOA Governance Policy; Evolve SOA Governance Process; Produce SOA Governance Plan; Review SOA Governance Compliance

Summary of KB libraries and lists

Name	Description	Items
Document Libraries		
CBDI Journal	PDF Copies of the CBDI Journal	91
Guidance	Provides a collection of guidance on various topics presented in a more narrative style, and in portal-style pages. Use the views and column filters to discover different types of content.	200
Package Portals	[R] Portal pages for activity packages	5
Presentation Materials	Knowledgebase content provided in PowerPoint format	98
SAE Resources	Various resources useful in following SAE	81
SOA Policy Categories	Page for each category in the SOA Policy Hierarchy	8
SOA View Pages	Web pages allowing information from the knowledgebase to be collated for each of the SOA Views	5
Lists		
Artifacts	A work product produced by, or referenced in a project – e.g. a model or document or file or software unit. Task inputs and outputs are artifacts. Models and Deliverable are special types of Artifact.	282
Capability Dependency Models	A set of Capability Dependency Models used in SOA Excellence	9
Concepts including Meta Model Types	Key SAE Concepts, including types defined in the SAE SOA Meta Model	166
Disciplines	A significant SAE™ competency which has the ability to perform one or more process units. The discipline is performed by roles which have the ability to perform the process units defined for that discipline. While some companies might establish a team that corresponds to a discipline, others organizations might design more fluid organization structures.	19
eLearning Modules	eLearning materials covering various SOA topics	38
Example Diagrams	Examples of Models, Design Schemas and other diagrams used in SAE.	38
Funding Models	An economic model which delivers the resources to run an SOA initiative or project, and/or which devises a charging scheme for a service or other project outcomes.	4
Goal Question Metric Framework	Candidate performance measures for SOA adoption and delivery.	15
Governance Framework View	A view of the SOA Governance Framework	5

Governance Maturity Views	Links to lists showing governance capabilities required at each maturity level	6
Meta Model Packages	Detail of the packages contained in the SAE Meta Model for SOA V2	9
Package Triggers	Signs that help to select appropriate work packages	51
Patterns	A structured description of generic problem and a recommended solution, thus representing reusable best practice knowledge.	74
Policy Types	A definition of, and guidance on a policy type. A policy is a strategy or directive defined independently from how it is carried out. Policies may be strategies, rules or guidelines that govern a range of SAE related concerns, from service oriented business modeling to SOA technology infrastructure.	50
Principles	A fundamental tenet of SOA according to SAE.	41
Process Patterns	A pathway that a project might take through a number of SAE disciplines; typically performs one or more Process Units	4
Process Units	A set of (one or more) tasks that can be performed by a SAE discipline. Each Process Unit forms a discipline "service" with a clear objective and set of possible inputs and outputs. A process unit provides a way of chunking a discipline into reusable pieces; typically used in process patterns.	108
Project Profiles	A type of project relevant to SOA. For example Service Provisioning, Service Assembly, Solution Delivery. The project profile references a process pattern relevant to (adoption level) capabilities. A classification that facilitates planning and management of different types of projects.	7
Roadmap Phases	A broad level of SOA adoption and excellence, indicating the overall readiness and maturity of the organization in delivering SOA outcomes.	8
Roadmap Streams and SOA Capability Areas	A broad category of SOA adoption and excellence, allowing each stream to be managed independently.	79
Roles	A set of related skills and responsibilities, which a participant in the process may offer. A worker may typically offer several roles, and several participants will be able to perform the same role.	41
Service Architecture Layers	List of layers used in service architecture	9
Service Classifications	A mechanism to order Services into categories of the same Type. Services may be classified by Function, Architecture Layer, Commodity level, Industry code, technology, etc	6
Service Life Cycle States	A definition of a state within the Service Life Cycle in which a Service may exist.	41
Skills	Skills required to perform SOA activities	32
SOA Policy Strategy	Areas in which governance strategies should be determined, and then	22

Areas	enforced through policies	
SOA Scenarios	Scenarios for the adoption and/or exploitation of SOA	16
SOA views	An abstraction level of SOA that promotes continuity and traceability of services from business requirements to run-time service execution and enabling technology	5
Standards and Protocols	A structured description of a generally approved "concept" (such as a principle, guideline, rule or language). Of particular importance for concepts that need to be commonly understood and consistently applied across the organization or ecosystem; for example a service definition language. List includes de facto, de jure and proposed standards and protocols.	71
Tasks	The finest-grained work unit that appears in a project schedule, to which resources are assigned.	208
Techniques	A special procedure for performing a task, or group of tasks	53
Work Packages	Work Packages	21
Workshops	Standard workshops designed to support one or more work packages.	11

About CBDI

CBDI Forum is the Everware-CBDI research capability and portal providing independent guidance on best practice in service oriented architecture and application modernization.

Working with F5000 enterprises and governments the CBDI Research Team is progressively developing structured methodology and reference architecture for all aspects of SOA.

CBDI Products

The CBDI Journal is freely available to registered members. Published quarterly, it provides in-depth treatment of key practice issues for all roles and disciplines involved in planning, architecting, managing and delivering business solutions.

Visit www.cbdiforum.com **to register.**

Platinum subscription – A CBDI Forum subscription provides an enterprise or individual with access to the CBDI-SAE Knowledgebase for SOA delivering ongoing practice research, guidance materials, eLearning, tools, templates and other resources.

Everware-CBDI Services

At Everware-CBDI we enable large enterprises and governments to become more agile by modernizing their business systems. We have repeatable processes, resources, tools and knowledge-based products that enable enterprises to transform their current applications in an efficient, low risk manner, into an optimized service-based solutions portfolio that supports continuous, rapid and low cost evolution. Our consulting services range from providing practices and independent governance to architecture development, solution delivery and service engineering.

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