

SEI Architecture Techniques complementary to the RUP

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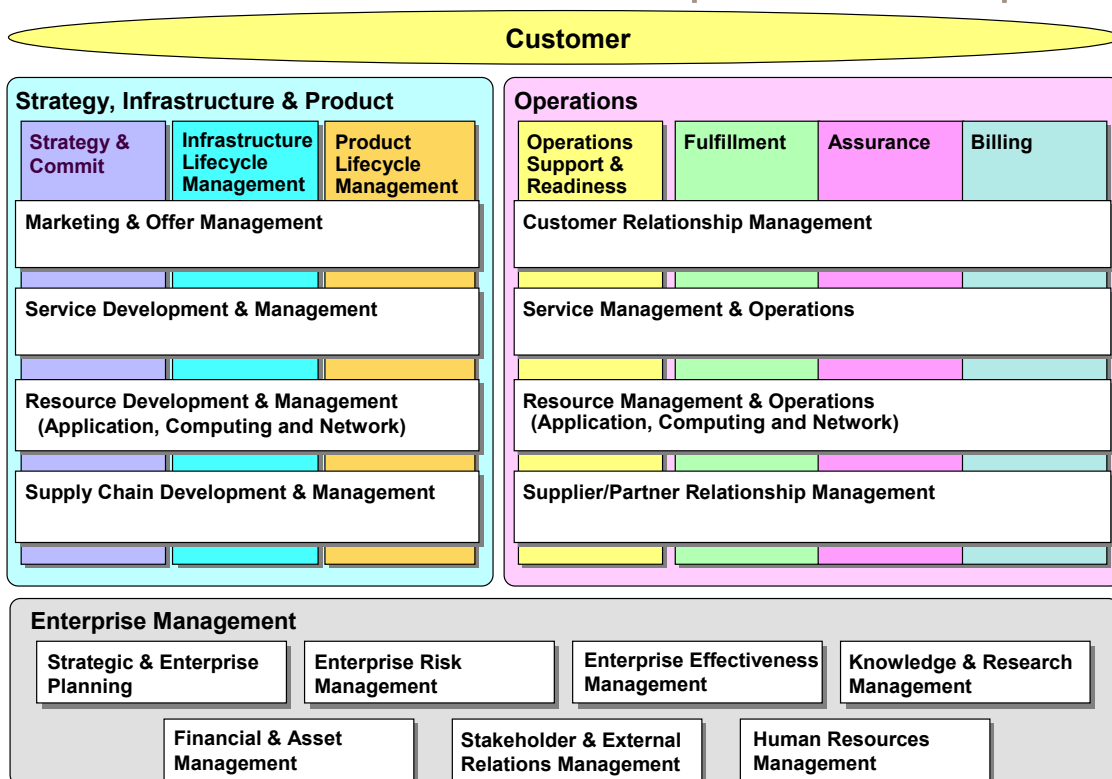
Agenda

- Setting the scene
- SEI & the RUP
- Summary
- Future Work
- Q&A

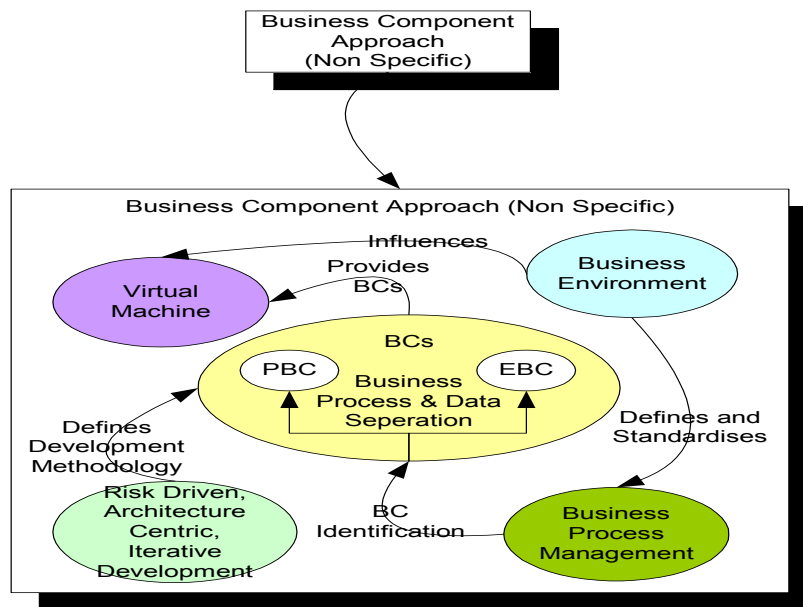
Our Business

- Telecommunication Industry
- OSS: Operations Support Systems
 - Customer Relationship Management
 - Service Management and Operations
 - Resource Management and Operations
 - Supplier/Partner Relationship Management

eTOM: Enhanced Telecom Operations Map[®]



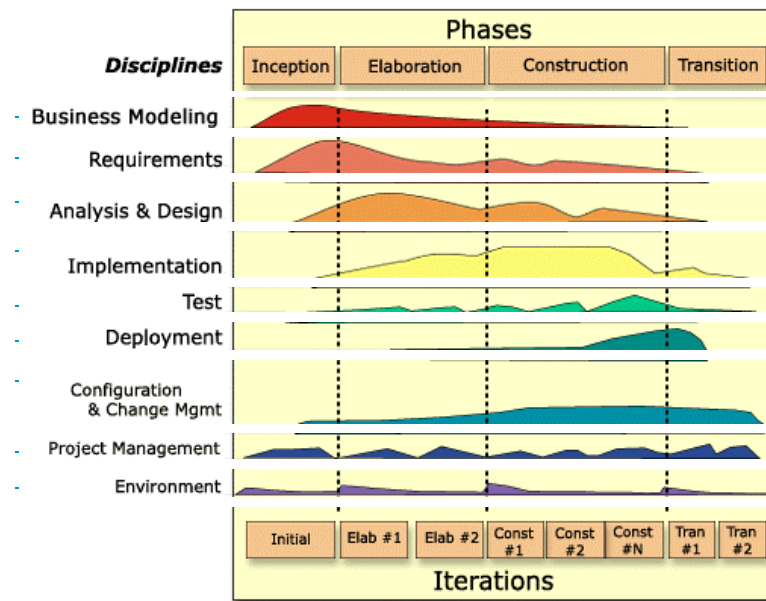
Business Component Approach



The Rational Unified Process ®

- Software development process framework that is:
 - Based on 6 best practices (Essential Principles).
 - Develop software iteratively
 - Manage requirements (Use Case driven)
 - Use component-based systems. (Architecture Centric)
 - Model software visually
 - Continuously verify software quality
 - Control changes to software
 - Risk driven planning
 - Customisable
- Process Product that provides you with a knowledge base.

RUP® Overview



SEI & the RUP

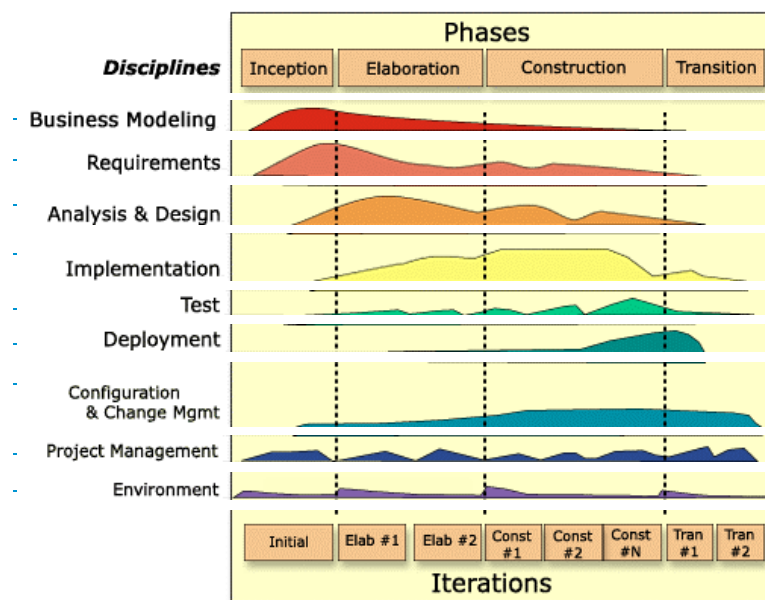
- What does it mean to be Architecture Centric?
 - Ensures that business goals are met
 - Defines constraints on implementation
 - Dictates organisational structure
 - Enables more accurate cost and schedule estimates
 - Enables reason about and management of change
 - Basis for training

Software Process and the ABC

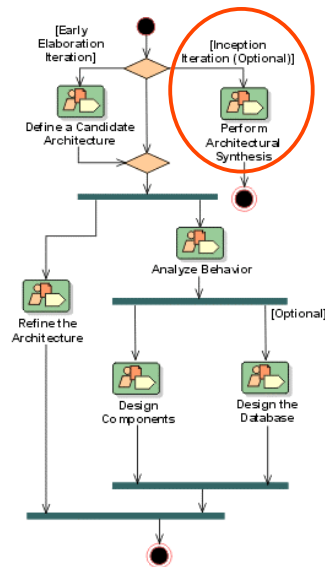
Architecture-specific activities include the following:

- Creating the business case for the system.
- Understanding the requirements.
- Creating and/or selecting the architecture.
- Documenting and communicating the architecture.
- Analysing or evaluating the architecture.
- Implementing the system based on the architecture.
- Ensuring that the implementation conforms to the architecture.

RUP® Overview

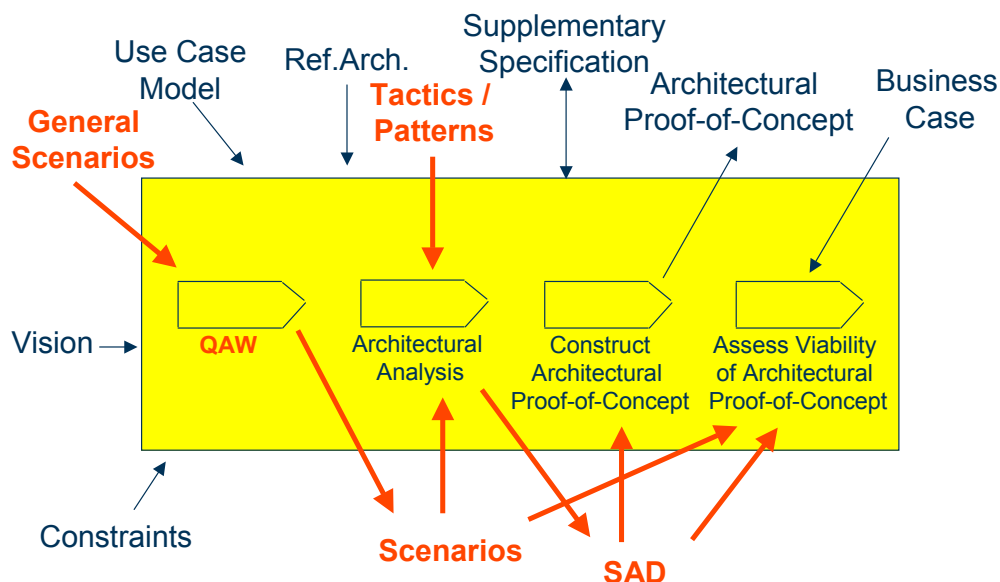


Workflow of a Software Architect

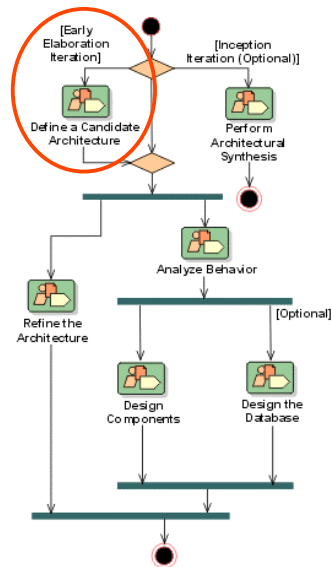


Perform Architectural Synthesis

Inception

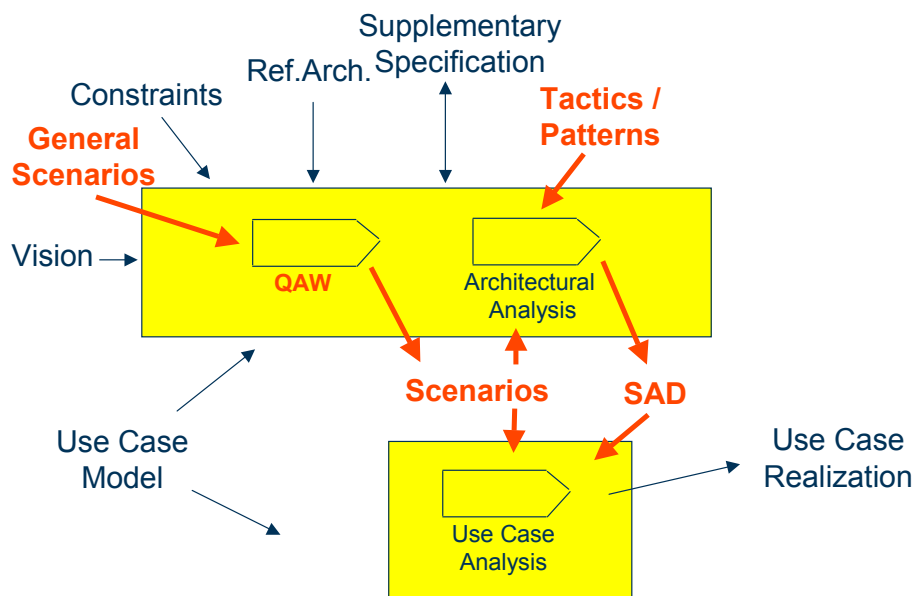


Architect Workflow

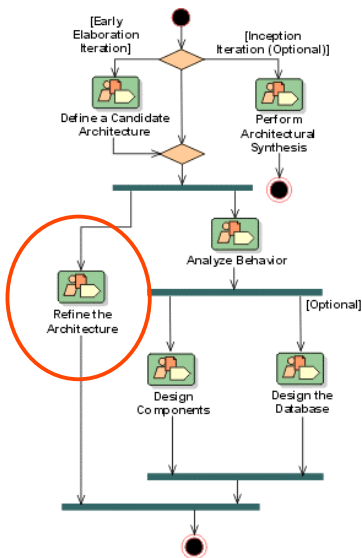


Define Candidate Architecture

Elaboration



Architect Workflow



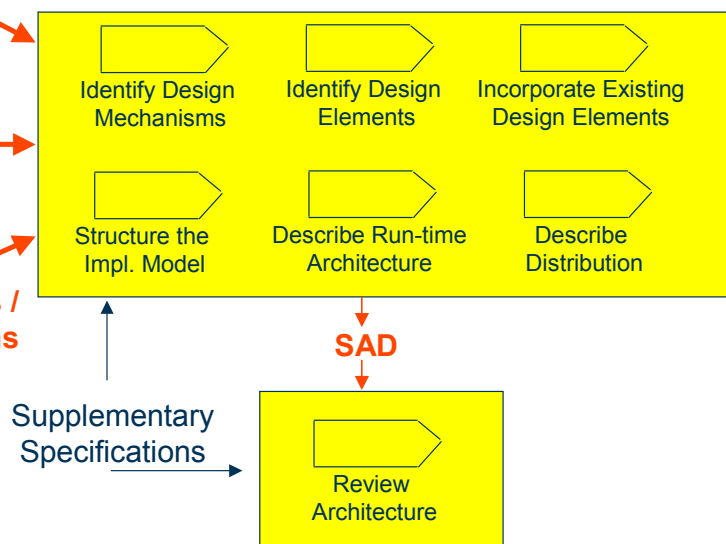
Refine Architecture

Elaboration

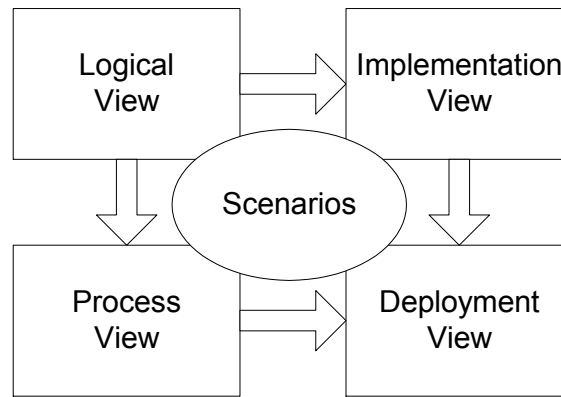
Scenarios

SAD

Tactics / Patterns

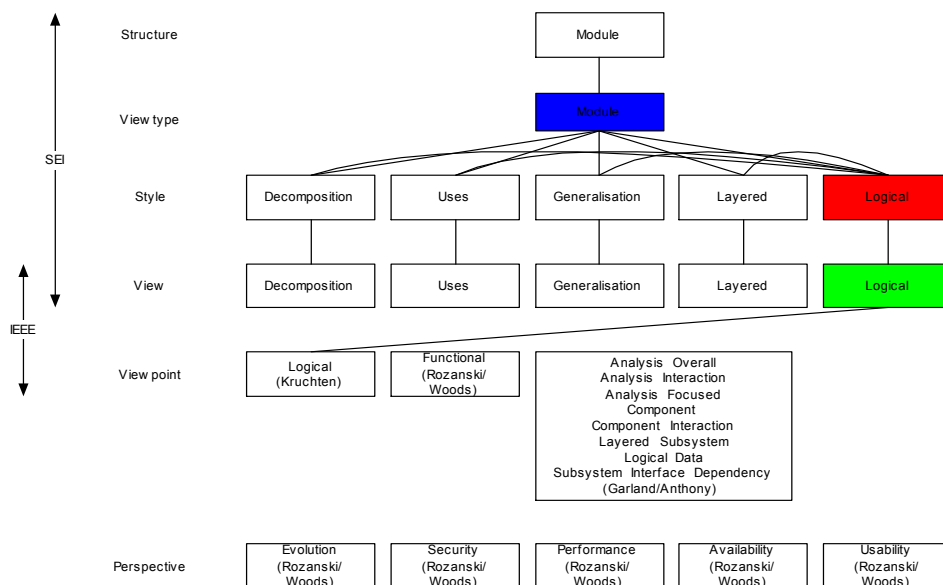


Documentation & Review

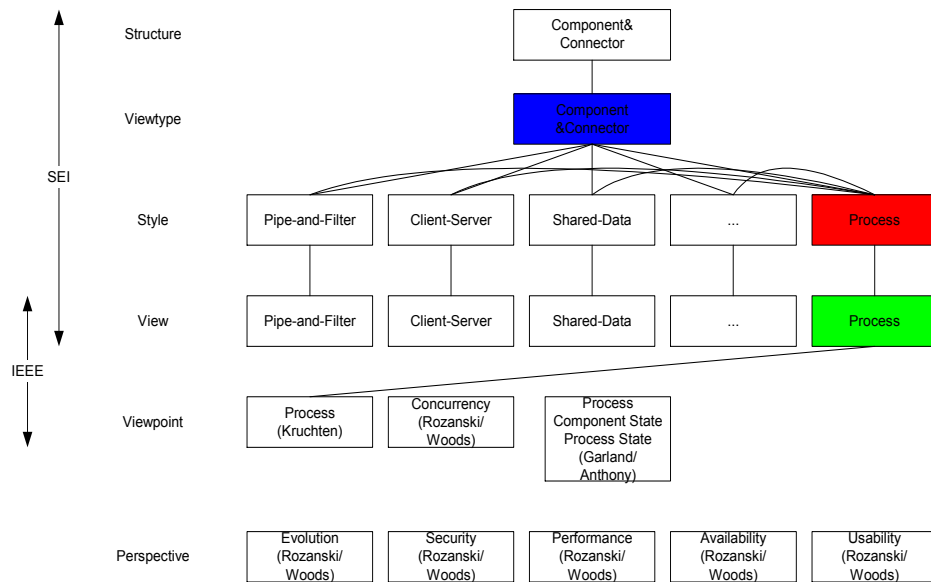


Kruchten's 4+1 View Model

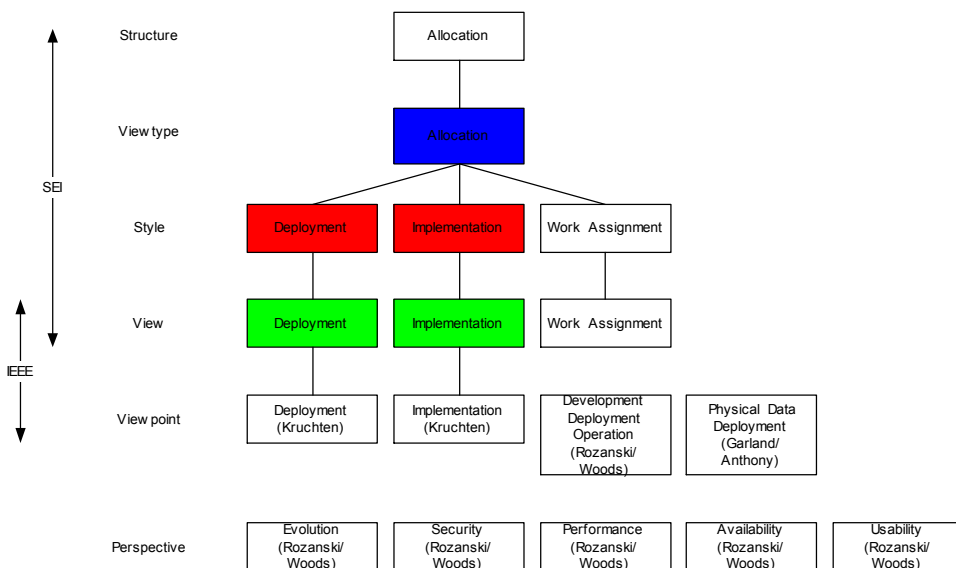
Module Viewtype



Component & Connector Viewtype



Allocation Viewtype



Summary

SEI enhances the RUP by introducing:

- Architecture Centric Definition
- Quality Attribute Workshops
- Tactics and Patterns
- Documentation

Future Work

- ATAM
- SOA & Software Product Lines

Q&A Session



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