The System Architecture Process

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Abstract

The System Architecture Process is positioned in the business context. This process bridges the gap between the Policy and Planning Process and the Product Creation Process.

The purpose of the System Architecture Process is to provide the Integral Technical overview and consistency, and to maintain the integrity over time. Subjective characteristics as elegance and simplicity are key elements of a good architecture.

The scope of the system architecture process is illustrated by showing 5 views used in a reference architecture, ranging from Customer Business to Realization.
System Architecting Process in Business Context

1. **Customer-Oriented Process**
   - Customer Roadmap
   - Sales
   - Logistics
   - Production
   - Service
   - Presales

2. **Product Creation Process**
   - People
   - Process
   - Technology Management Process

3. **Business Drivers**
   - Customer Roadmap
   - Technology, Process, and People Roadmaps
   - Budgets
   - Plans
   - Vision
   - Policy and Planning Process

4. **Reality Check**
   - Needs and Feedback
   - Technical Product Documentation
   - Product Related Processes

5. **Customer-Oriented Process**
   - Customer

6. **Systems Architecting Process**
   - Context, Vision
   - People, Technology, and Process

7. **People, Process, and Technology Management Process**

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SAPprocessSimplified
Map of System Architecting Process and Neighborhood

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SAPprocessMap
System Architecting Relation between PPP and PCP

Context: Product Portfolio, Time

Vision, Policy, Intention

Practical Knowledge

Feedback from Reality

Policy and Planning Process

Product Creation Process
System Architecting Key Issues

**key words**
- balance
- consistency
- integrity
- simplicity
- elegance
- stakeholder satisfaction

**balancing acts**
- External ↔ internal requirements
- Short term needs ↔ long term interests
- Efforts ↔ risks from requirements to verification
- Mutual influence of detailed designs
- Value ↔ costs

**example trade-offs**
- performance ↔ synergy
  - functionality ↔ specific solution
  - qualities