Abstract

This article positions the system architecture process in a wider business scope. This positioning is intended to help understanding the processes in which the system architect (or team of system architects) is involved. It focuses on an organization that creates and builds systems consisting of hardware and software. Although other product areas such as solution providers, services, courseware, et cetera also need system architects, the process structure will deviate from the structure as presented here.
Simplified Decomposition of the Business

Customer-Oriented Process

Product Creation Process

Policy and Planning Process

People, Process, and Technology Management Process
Financial Characterization of Decomposition

- Management
- Cashflow Generation
- Tomorrow's Cashflow
- Assets

Customer

- Policy and Planning Process
- People and Technology Management Process
- Business Drivers
- Customer Roadmap
- Budgets
- Technology, Process, and People roadmaps
- Product roadmap
- Order
- Technical Product Documentation
- Product-related processes
- People Technology Process
- People and Technology Management Process
- Information
- Material
- Customer Needs and Feedback
- Product Needs and Feedback
- Sales Logistics Production Service Presales
- Support

Customer Oriented Process

Budget, plan

Product roadmap

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Process Decomposition of a Business

PDBprocessDecompositionByValue
Customer Oriented Process: Depends on geography, customer base, and supply chain.

Product Creation Process: One per entity to be developed, where such an entity can be a product family, a product, or a subsystem.

People and Technology Management Process: One per “competence”, where a competence is a cohesive set of technologies and methods.

Policy and Planning Process: One per business. This is the pro-active integrating process.
The Value Chain and the Opposite Feedback Flow

- Customer-Oriented Process
- Policy and Planning Process
- Product Creation Process
- People, Process, and Technology Management Process

**Value Chain Components:**
- Customer
- Product
- Budget
- Technology, Process, and People roadmaps
- People, Technology

**Opposite Feedback Flow Components:**
- Customer Feedback
- Value
- Support
- Product Needs and feedback
- Information
- Material

**Additional Elements:**
- Process Decomposition of a Business
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- ESI
Decomposition of the Customer Oriented Process

Order
Acquisition

Order
Realization

Service
Support

Material
Order
Product
Order
Product
Support
Information

Customer-Oriented Process

Order

Product

Support

Information

Order

Material

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Extended with Generic Developments