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

Policy and Planning Process

Customer-Oriented Process

Product Creation Process

People, Process, and Technology Management Process

Customer

- Sales
- Logistics
- Production
- Service
- Presales

Product Needs and Feedback

Information

Order

Product

Support

Material

Technical Product Documentation

Product-related processes

People, Technology, Process, and People roadmaps

Budgets

Product roadmap

Budget, plan

Technology, Process, and People roadmaps

Needs and Feedback

People Technology Process

People Technology Process

Customer Roadmap

Business Drivers

Product roadmap

Product Needs and Feedback

Technology, Process, and People roadmaps

Needs and Feedback

People Technology Process
Financial Characterization of Decomposition

Customer Oriented Process

Product Creation Process

Policy and Planning Process

People and Technology Management Process

Business Drivers

Customer Roadmap

Budgets

Product roadmap

Budget, plan

Product Needs and feedback

Needs and Feedback

Technical Product Documentation

Product-related processes

Customer Needs and Feedback

Material

Technical Product Documentation

Product-related processes

People Technology Process

Support

Product roadmap

Presales sales logistics production service

Information

Order

Product

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Support

 Tomorrow's Cashflow

Assets

People Technology Process

Technology, Process, and People roadmaps

Budget, plan

Budgets

People Technology Process

Technology, Process, and People roadmaps

Management

Cashflow Generation

Customer

Tomorrow's Cashflow

version: 1.1

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PDBprocessDecompositionByValue
Multiple Instances per Process

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

Policy and Planning Process

Customer-Oriented Process

Product Creation Process

People, Process, and Technology Management Process
Decomposition of the Customer Oriented Process
Extended with Generic Developments

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

Inputs:
- Customer Roadmap
- Business Drivers
- Product Creation Roadmap
- Budget, Plan
- Product Generics
- Technology, Process, and People Roadmaps
- Technology, Process, and People Processes
- Product-related Processes
- Customer Feedback
- Technical Product Documentation
- Product Feedback
- Support

Outputs:
- Customer
- Presales
- Sales
- Logistics
- Production
- Service
- Material
- Information
- Order
- Product
- Support
- $55
- Business Drivers
- Customer Roadmap
- Technology, Process, and People Roadmaps
- Technology, Process, and People Processes
- Product-related Processes
- Product generics
- Technical Product Documentation
- Product Feedback
- Support