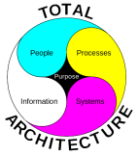

Total Architecture℠: An Executive Overview

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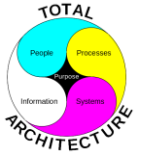
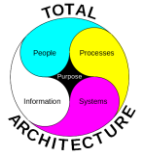
Total Architecture Rationale



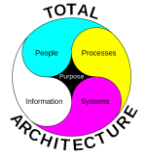
- It is risky to change something you don't understand
- Your enterprise is a complex system of systems and organizations
- Nobody understands this complex system
  - It was never designed – it is an accident of history
  - It is not documented – existing documentation is highly fragmented and incomplete
- For modernization/transformation projects, taking the time to understand your complex system will:
  - Cut development cost by 50%
  - Cut overall project duration by 25%
- Total Architecture provides this understanding

What is Total Architecture?



- A holistic model of how your enterprise works
  - People
  - Business Processes
  - Systems
  - Information
- The model captures the relationships and dependencies between all the elements of your enterprise
- Captures requirements, behavior, and structure
- Comprehensive in scope – modest in detail
  - Big-picture understanding is the goal
  - Accessible representations for all stakeholders
- Provides
  - A deep understanding of the as-is enterprise
  - A framework for efficiently evaluating what-if scenarios

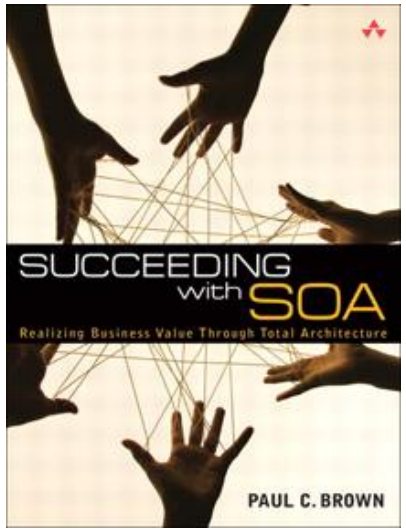
The Elements of Total Architecture

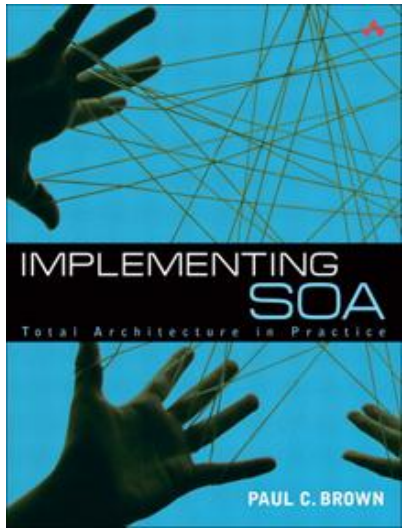


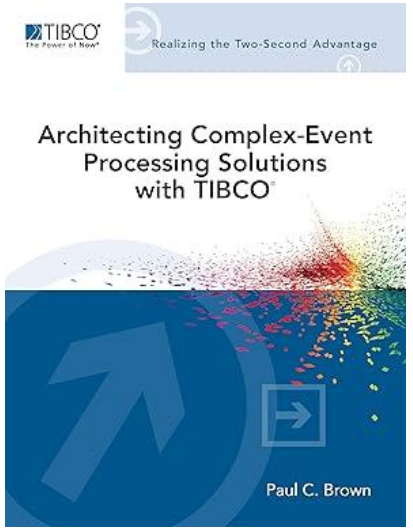
- The techniques of Model-Based System Engineering (MBSE)
  - The best-practice approach for complex technological systems: autos, computers, spacecraft
  - Industry-standard Unified Modeling Language (UML) and Systems Modeling Language (SysML)
- MBSE techniques are used to capture a comprehensive understanding of the enterprise's organization, business processes, information, and systems
- For effective communication, the model is organized into four levels of abstraction
  - **C-level**: the enterprise in relation to its ecosystem
    - External constraints on the enterprise: charter, legal requirements, parent organization goals and objectives
    - Partner organization roles and responsibilities
  - **Business Level**: How the enterprise is organized to conduct its business
    - Business processes, organizational roles and responsibilities, business artifacts
  - **Technology Level**: The systems and how they participate in the organization's business processes and manage its information
  - **Physical Level**: The physical organization of the enterprise
    - Sites occupied by the people and systems (including the cloud)
    - Machines that host the systems and data.
- Abstraction allows the same element to be represented with different levels of detail.
  - A business system (Business Level) may actually comprise a set of applications and a database (Technical Level)
  - Relationships between the levels of abstraction enable drill-down into additional levels of detail

History of Total Architecture

- In active field use for 25 years
  - Continues to evolve based on engagement experiences
- Multiple publications







- The basis for multiple courses and architect certifications