

Architecture and Patterns for IT Service Management, Resource Planning, and Governance: Making Shoes for the Cobbler's Children

Charle T. Betz

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Reviewed by Glenn Assheton-Smith

How would you feel if you visited your financial planner's office and saw past-due credit card notices on his or her desk? Would you trust an auto mechanic whose car backfires and produces black smoke? A dentist with bad teeth? A banker in shabby clothes? An interior designer whose offices are in shambles?

Such is the position of IT in many large organizations today argues Charles T. Betz in his provocative book *Architecture and Patterns for Service Management, Resource Planning, and Governance: Making Shoes for the Cobbler's Children*. Betz likens the state of IT governance in many organizations today with "the barefoot cobbler's child" – that is to say, "although IT puts the shoes of automation on the feet of its business partners, it neglects to do so for its own processes."

The overarching theme of Betz's book is the importance of taking an integrated view of the entire IT Organization value chain – and integrating the organizational, business process, information, and system silos *within* the IT organization. Key benefits include:

- Improving the quality and performance of internal IT services
- Achieving an integrated view of key IT process and system data – for both operational and strategic decision-making
- Reducing the proliferation of multiple, overlapping "point" solutions or systems

Betz calls this approach to end-to-end IT integration, "ERP for IT" – basically, IT taking its own medicine to enable IT to "run like a business".

Who is the audience for this book?

Architecture and Patterns for IT is written for the following audiences:

- IT professionals working for large corporations responsible for managing or supporting complex IT environments
- Most particularly, managers and staff of internal-facing IT capabilities: IT strategic planning, service management and support, enterprise architecture, IT portfolio management, and the project management office
- Outsourcing firms, whose primary value chain *is* the provision of IT services
- Anyone concerned with IT governance or internal IT process improvement

Book Outline

Architecture and Patterns for IT consists of three parts, which break down as follows:

- Part I: The IT Value Chain
 - Chapter 1 – *Introduction: Shoes for the Cobbler’s Child*
 - Chapter 2 – *The IT Value Chain: A Process Foundation*
- Part II: Supporting the IT Value Chain
 - Chapter 3 – *A Supporting Data Architecture*
 - Chapter 4 – *A Supporting Systems Architecture*
 - Chapter 5 – *Patterns for IT Enablement*
- Part III: Conclusion
 - Chapter 6 – *Epilogue*

These sections are briefly explored below.

Chapter 1 – Introduction: Shoes for the Cobbler’s Child

In Chapter 1, Betz presents challenges that have and continue to plague large IT organizations – failures of alignment and strategy, failures of IT projects, and failures of IT operations.

In particular, IT continues to be challenged to manage and control ongoing operational costs, which can consume 80% or more of the enterprise IT budget. Drivers of high operational and maintenance costs include:

- Lack of “current state” visibility, and a resulting inability to understand cost drivers and make informed IT decisions
- Poorly managed IT portfolios
- Too many vendors and technologies
- Ineffective sharing of knowledge

The remainder of chapter 1 explores some recent solutions IT has developed to address problems in the IT organization – for example, in IT governance, Enterprise architecture, IT portfolio management, and IT service management.

Chapter 2 – The IT Value Chain: A Process Foundation

So how can IT operate more effectively, and manage its processes, knowledge, and systems to achieve more predictable and cost-effective operating outcomes that align to the goals of the business?

Chapter 2 discusses the critical role that a “value chain” based view of the IT organization plays in aligning silos of process and information.

Betz provides a high-level view of the enterprise IT value chain that serves as the core analytical foundation for his book:

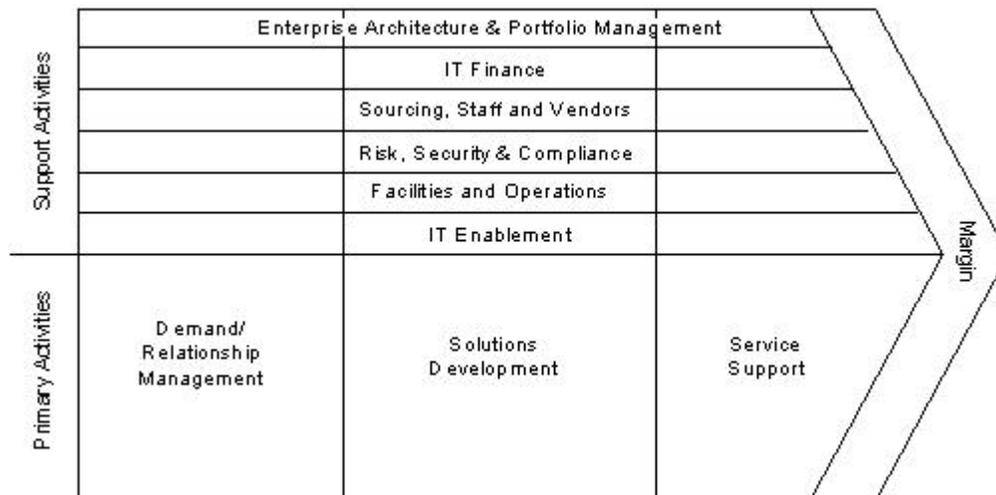


Figure 1 IT Value Chain

Regular readers of BPTrends will be familiar with the value chain concept, which provides a high-level framework of an enterprise's business process architecture.

Betz reviews other IT process frameworks – COBIT, ITIL, and CMMI – and finds them lacking in the ability to properly distinguish between “primary” and “secondary” value chain activities. This results in a lack of focus on the really “core” value-added activities within the IT value chain.

In keeping with BPM best practices, Betz emphasizes the importance of capturing key operational data and metadata as early as possible in primary value chain activities, and then making this information available for analysis to secondary value chain activities.

The remainder of Chapter 2 provides a detailed analysis of the key activities within the primary and secondary value chains presented in Figure 1 above. For anyone interested in viewing the IT service organization as an end-to-end value chain, I encourage readers of this review to pick up the book.

Chapter 3 – A Supporting Data Architecture

Process integration is only one piece of the IT integration challenge. Another is the integration and consolidation of IT data and metadata, which is then exposed to enable integrated operations and decisions around IT governance, program management, and IT investment decisions.

Chapter 3 draws heavily from the ITIL framework, and its concept of a Configuration item (or CI). Basically, if IT is going to have an integrated view into the critical elements within its domain – services, applications, hardware and software, business processes, etc. – then dependencies amongst these elements must be well-defined and managed. This is the role of configuration management, and the configuration items it defines.

Betz defines a configuration item as “*any managed “thing” in the environment*”. A configuration item has two key properties:

- It is a managed, specific object or element in the IT environment
- It is under change control of some form (that is to say, it has a lifetime that must be managed)

The rest of chapter 3 explores key issues around the semantics of key managed elements within the IT domain, and how these elements map onto the configuration item concept. Figure 2 below provides a conceptual model of how these key IT domain concepts relate to one another, and to the notion of a configuration item.

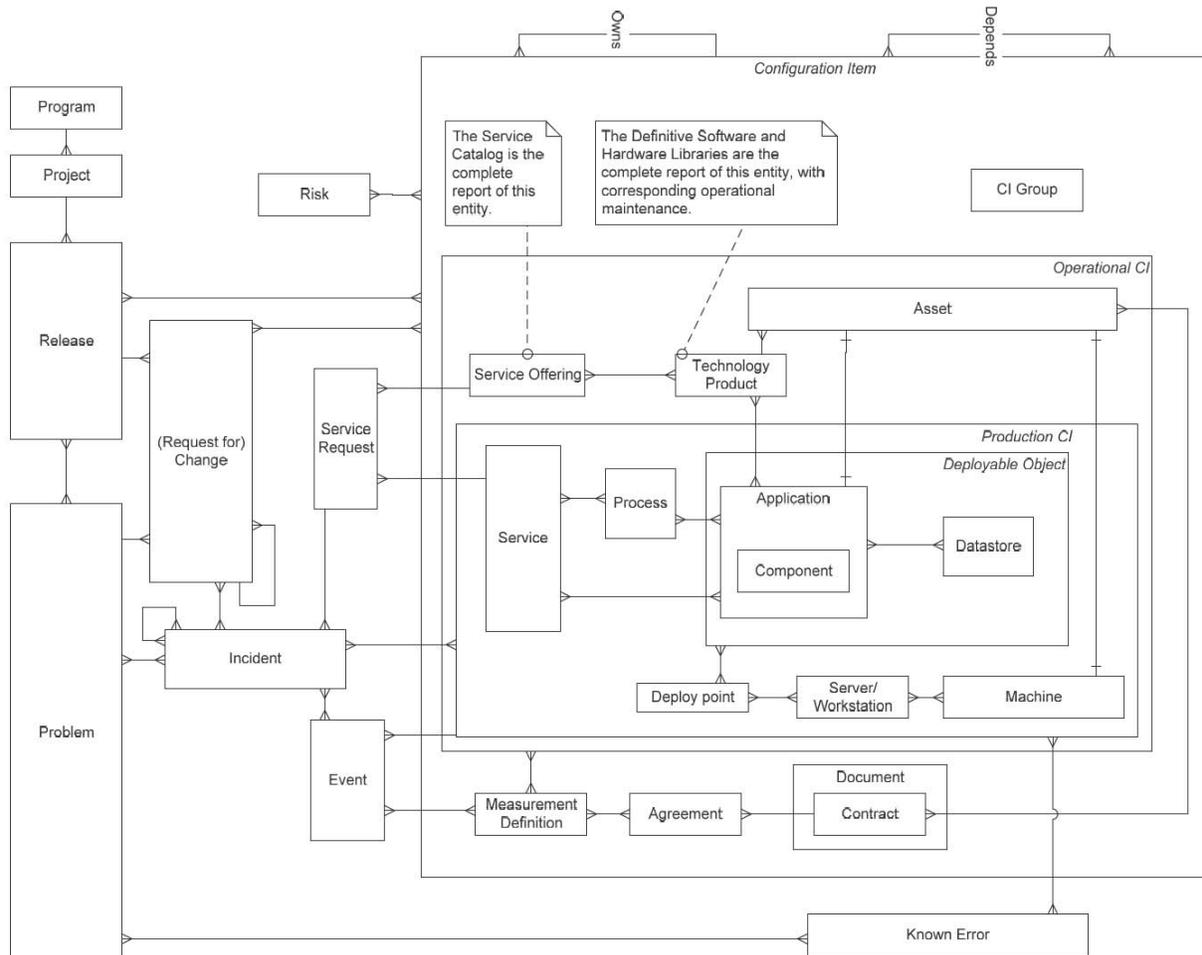


Figure 2: IT enablement conceptual model

While the visual above may appear a bit overwhelming, it's a noble attempt at defining a semantic model, a *pattern language* if you will, to well-specify the meaning and dependencies of key elements within the IT domain. For this alone, IMO, Betz's book is money well-spent.

Chapter 4 – A Supporting Systems Architecture

Having explored issues around end-to-end IT process integration and proposed a standard semantic model of key managed elements within the IT domain, Betz then proceeds to address the topic of consolidating “point” systems around a standard IT management “systems” reference architecture. It's a very tidy progression really – from business process integration, to a consistent semantic model of managed IT elements, to a standard IT systems operating platform.

Here Betz categorizes IT enablement applications into five basic categories: (i) systems for planning and control, (ii) systems for solution delivery, (iii) cross-boundary build-run systems, (iv)

systems for service support, and (v) information-centric systems. Figure 3 below provides a reference model for key IT enablement application capabilities

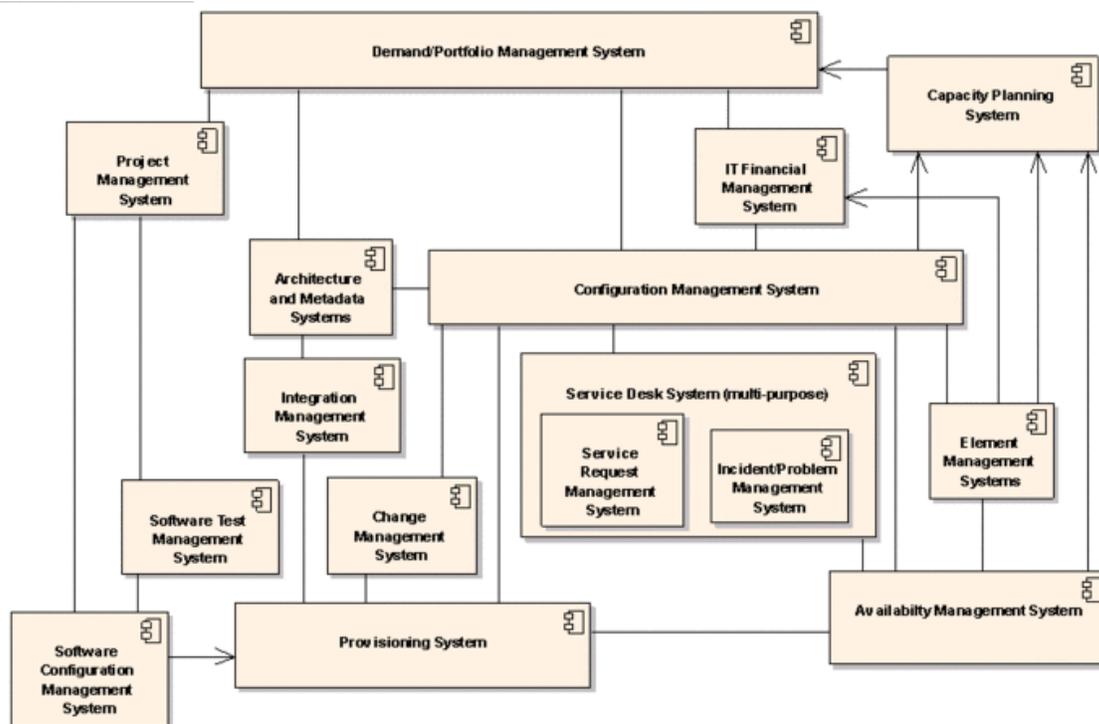


Figure 3: Simplified IT system integration model.

Again, while the above may seem a bit visually “rich” at first glance, it provides a well-considered reference architecture for an integrated IT operating platform to enable end-to-end IT processes, and visibility into inter-element dependencies within the IT domain.

Chapter 5 – Patterns for IT Enablement

Chapter 5 codifies key best practices into a collection of “patterns” that one can follow when making decisions around developing an integrated IT operating platform. Betz discusses three categories of IT enablement patterns: IT value chain, Configuration management, and Supporting processes.

Chapter 6 concludes the book and summarizes key insights and recommendations.

In Summary ...

I really liked this book. As someone who straddles the disciplines of business architecture and enterprise architecture, I appreciate the need for integrated business processes, semantic reference models that reveal dependencies among key elements within the IT domain, and the benefits of standardizing on standard operating platforms.

Coming from a business process background, I appreciate Betz’s decomposition of key IT service areas and business processes. Not being as familiar with ITIL concepts around configuration management, I found Betz’s discussion of Configuration Items and IT element metadata to be very insightful.

Be prepared to put on your thinking cap however – there's a lot of information to absorb. But for those willing to put in the effort, it will likely be time well spent.

Glenn Assheton-Smith is an Architect for a large media company in Canada, whose business and IT organization are faced with many of the challenges addressed in Betz's book.