

## FNT EXPERT PAPER

### AUTHOR



Patrick Büch  
Head of Business Line  
Service Management  
FNT GmbH



## // The IT Factory – From Myth to Reality

Why a carefully considered product portfolio is the key to success.

**The idea of industrializing IT services has been floating around the sector for a number of years. It can often be found in management presentations and conference agendas and is the subject of ongoing research. Much has been written and spoken about how the concepts and methods of industrial-scale production can be applied to the world of IT. More importantly, much has already been done to boost the efficiency and performance of IT resources.**

The transition to an IT factory model has only recently begun and faces major challenges in the years ahead. The transition process is based on the four basic principles of industrialization:

- Standardization and automation
- Continuous improvement
- Modularization
- Concentration on core competencies in order to reduce production depth

The first of these principles – the standardization of processes and technologies – has been the subject of enormous efforts in recent years, leading to substantial improvements and savings. In particular, the IT Infrastructure Library (ITIL) has proven its worth in IT service management and the streamlining of IT business processes. Unfortunately, the scope of ITIL is limited primarily to processes used in incident management, problem management, and change management. In conventional industrial-scale production, standardization is not restricted to the manufacturing processes – it also extends to the products

themselves and the wider product portfolio. It is these latter aspects, i.e., products and portfolio, that have been wholly or partially overlooked in the industrialization of IT.

still doesn't go far enough in some places. In particular, when it comes to the business/IT interface, i.e., the connection with the business process, ITIL is vague and inadequate. It is therefore

important to establish a procedural model that considers the requirements of both business and IT. Only then is it possible to achieve close and coordinated integration of the two that extends deep into the business process.

One approach that addresses this challenge, while complementing ITIL, is the "bE\_Method®." This method enables customers to introduce standardization as well as transparent design and management into their service, application, and business process environments. Key benefits include a high level of flexibility when defining and

providing IT services, making it possible to respond effectively to market needs. At the heart of the bE\_Method® is the separation of products and services.

In this context, "product" refers to an IT service at the design level. The product is broken down into its component parts, which can then be used to define other products, both existing and new. The individual components of a product are defined using attribute descriptions, with basic configuration options, costs/pricing, and service level agreements (SLAs) being established. Products are broken down over multiple layers with fundamental distinctions between the business, product, and production aspects. Once a product has been defined in

this way it can be added to the product catalog. Whenever a customer configures and orders a product, it is instantiated as an IT service (product + customer = service). Only by separating products from the instantiated, customer-specific services is it possible to develop the product portfolio and product lifecycles in a way that is entirely independent and focused on market needs.

One example of a real-life scenario where these challenges apply is the provision of IT services within an airport. In addition to its primary role as an air transport hub, the typical airport offers passengers and visitors a wide range of retail opportunities. Most airports have a broad selection of shops as well as offices used by a diverse range of businesses. All of these shops and offices need some level of IT, ranging from telephone and Internet connections to more complex service requirements. The organization responsible for IT at the airport is therefore a service provider. In order to be profitable, each service must be tailored to the market, attractively priced, and competitive. To meet these requirements, both the services themselves and the ways in which they are delivered must be precisely defined so that individual services can be provided to multiple customers. This can be achieved by using the bE\_Method® to break down each service and create a detailed list of its constituent parts.

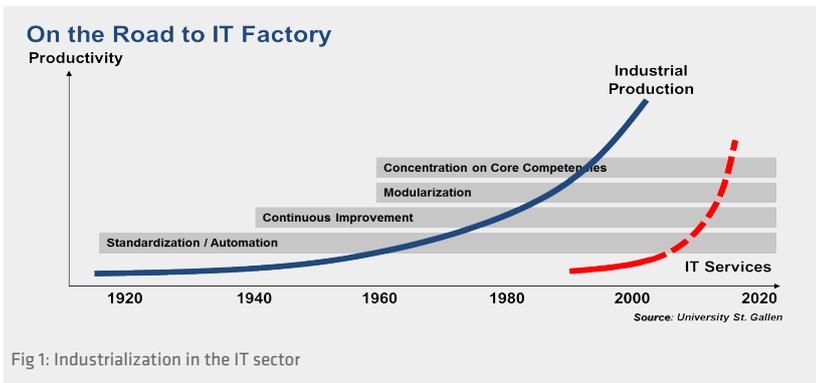


Fig 1: Industrialization in the IT sector

The core of the problem are the project-specific, build-to-order methods that are still being used by most IT organizations. What is the point of having a defined IT service if it always has to be adapted to the individual requirements of each customer? Despite all the talk about service orientation, the reality behind the scenes is still one of hand-crafting. Thousands of application silos exist, each with individually specified hardware and server configurations. In order to create a genuine basis for industrialized IT, we have to move from a project-oriented outlook to a product-oriented one. Unless we make this change, the IT factory is destined to remain a myth – a theoretical ideal confined to a bullet point in a management presentation.

"The medium of exchange for demonstrating IT effectiveness is a properly defined service catalog. Unless IT's services are defined, IT's contribution is implicit and difficult to measure."

(Gartner, Benchmarks Can Guide Cost-Optimization Initiatives, Michael Smith, June 5, 2009)

A powerful method for creating a market- and customer-oriented portfolio of all IT services is thus essential. And like in industry, it is vital to make the best possible use of resources and address cost reduction targets, while simultaneously taking into account the need for customer-specific adaptation (modularization principle). The ideal method should enable providers to break down IT services into their constituent parts, creating a "bill of materials" as in regular manufacturing. The associated reduction in the number of variants and the utilization of common parts deliver the desired IT economies of scale. As an attractive by-product, susceptibility to faults is also reduced.

The closest thing in ITIL is service portfolio management, which addresses some of the basic issues outlined above. Even so, it

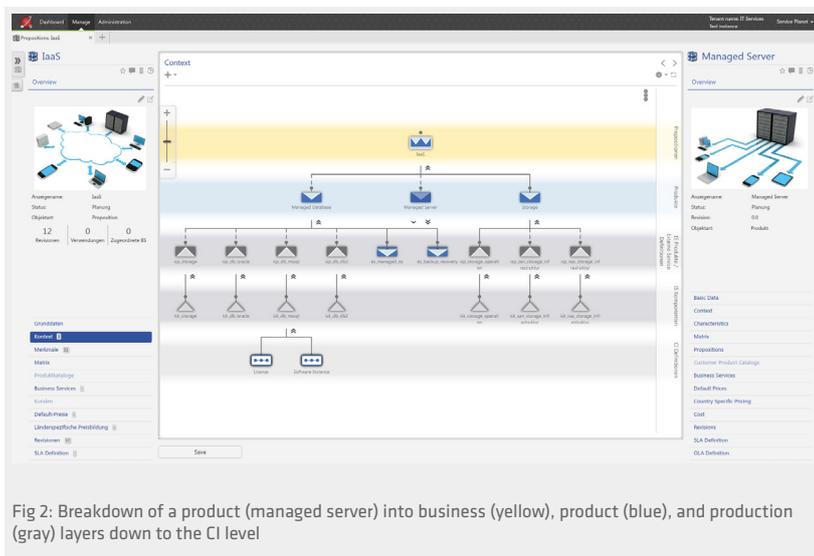


Fig 2: Breakdown of a product (managed server) into business (yellow), product (blue), and production (gray) layers down to the CI level

The third stage in the implementation process is the deployment of the appropriate tool. The type of software used for this purpose is known as a service management database (SMDb). It acts as a control center for the IT service organization and a central hub between IT, business activities, and service operations. One software package designed specifically for this role is FNT ServicePlanet. Based entirely on the bE\_Method®, FNT ServicePlanet is an innovative solution for defining, administering, and managing an IT product and service portfolio. IT services are broken down into their individual components and the individual modules are reassembled into new products using a special modeling interface. Services can then be instantiated, offered, and managed in conjunction with customer and

contract data. FNT ServicePlanet is an integrative system with open connectivity to CMDBs, ITSM tools, ERP systems, and monitoring systems.

Imagine, for example, that a travel agency within the airport wants to use a travel information system that is offered as a service. The nature of the service is clear enough: It enables the customer to access an information system at the airport that contains flight information and other data. In addition, the customer has certain quality requirements, e.g., availability, technical support, and value for money. The obligations for the airport's IT organization are not only to provide the necessary application and access to the relevant data, but also server capacity, database storage, access rights, system connections, and so on. This is where the bE\_Method® comes in. Firstly, the service (travel information system) is precisely defined, identifying which components from the existing IT infrastructure are required, to what extent, and at what cost.

It is also important to note that the traditional build-to-order method of achieving maximum customization often results in unjustifiable and unsustainable production costs. Added to that are the potential quality issues and lengthy time to market. The only way to face these challenges with confidence is through standardization of production processes together with a market-oriented product portfolio that is capable of offering the customized services required. This applies both to external service providers and internal IT departments. In short: Without a clearly structured and carefully considered product portfolio, the IT factory will remain a myth.

Next, the bE\_Method® is used to calculate exactly how much to charge for the service in order to achieve a certain profit margin based on availability of eight hours per day, five days a week, with a downtime of four hours per annum.

By converting all IT services into a product catalog, the IT provider can respond more quickly and flexibly to changing customer needs. It is also possible to identify dependencies and thus enable reuse and economies of scale. Other benefits include a reduction in faults and extensive cost savings.

Many major companies are already using the bE\_Method® in a targeted manner to achieve these results. However, this is still only the first of the three stages required for effective service management modeled on industrial-scale production. The second stage is the establishment of an appropriate means of governance, an effective organizational structure, and the necessary roles within the IT organization, e.g., product manager. Without this realignment of the organization and the relevant processes, no methodology can succeed.

© Copyright (C) FNT GmbH, 2014. All rights reserved. The contents of this document is subject to copyright law. Changes, abridgments, extensions and supplements require the prior written consent from FNT GmbH, Ellwangen, Germany. Reproduction is only permitted provided that this copyright notice is retained on the reproduced document. Each publication or translation requires the prior written consent from FNT GmbH, Ellwangen, Germany.