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Application Management
Challenges – Service Creation – Strategies
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Foreword

Two digit growth rates speak a distinct language. Application Management is gaining in meaning and importance. The information and communications technology is, for the success of today’s enterprise, important. IT applications enable the user’s access to IT systems, especially in the consumer market. Applications (so called apps) dictate the market success of telecommunications providers and are often the first to create the demand for new experiences in the internet. Applications must be easy to install and to use, thereby increasing the interest to use the technology.

It is similar in the world of enterprises. Application programs decide functionality and enables success in converging IT and business. Hereby IT is only a vehicle. It is not a purpose in itself, but serves the business. It supports and continually improves enterprise processes. Applications are expected to function friction free in the background and to be user friendly equally to the enterprise and the customer market.

Therefore demand on Application Management Services (AMS) are increased. On the one hand they must be proficient in a complex application landscape, a landscape which consists of solutions and systems of various types, and from different producers/makers, on the other AMS has to consider and be aware of the latest trends in technology e. g. Cloud Computing, Software as a Service (SaaS), Grid Computing und Mobility. In view of the short innovation cycles in the ICT (Information and Communications Technology) market the decision makers face the integral question: with all the various challenges and new approaches to an AMS business model, how to bring sustainable advantages to all participants.

A key part of the solution is, for example, the standardization and automation of AMS processes. Ultimately the differentiation in the market takes place by the efficiency with which the AMS provider solves his issues. IT providers can through the industrialization of service processes guarantee consistently high quality at competitive prices and so provide the advantages of efficiency to the customer.

The implementation of an extensive Knowledge Management System is key to realize the efficiency potential for the customer. The systematic availability of up to date knowledge and subject competencies is a differentiator for success in a highly competitive market. It becomes especially important with IT systems, which are vital for the core business processes within the enterprise.

Applications are often still based on decades old software code and programs. The developers of these codes and programs are gradually retiring from active work life. This raises a number of questions and necessitates short term innovative solutions. That is why the connection of development and maintenance of software and the integration in the application operation becomes central.
VI

Foreword

The present book shows, how application development, service management, and the running of applications over the complete application life cycle contributes to sustained success. The publishers have struck a chord between theory and practice. Exploring case studies from Europe, India and South America the aspects of the growing AMS market segment are examined- a valuable orientation guide for both those in the practical world and scientists.

Wolfsburg, December 2010

KLAUS HARDY MÜHLECK

Head of Concern IT and Concern CIO (Chief Information Officer)
Chief representative of the Volkswagen Aktiengesellschaft
**Introduction**

Application Management (often also referred to as Application Lifecycle Management) is a combination of provider services for applications and support for applications systems across their entire lifecycle. By 2015 analysts expect business models relying heavily on Application Lifecycle Management and based increasingly on cloud computing will make up half of all new enterprise IT concepts. The objective of this collection of articles is to demonstrate the close links between service creation and service management.

To present and analyze the many different aspects of application management, this volume has been subdivided into four parts.

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*Figure 1: Structure*

In the first part the article of **CHRISTIAN OECKING** and **ANDREAS DEGENHARDT** pays attention here to the organizational variant of transferring application management in the narrower sense to an external third-party provider in the form of an outsourcing solution. Against this backdrop, the standardized procedure model of **SIEMENS IT SOLUTIONS AND SERVICES** was outlined for shaping the evolution from Application Management 1.0 to Application Management 2.0. **MARKUS BÖHM, STEFANIE LEIMEISTER, CHRISTOPH RIEDL** and **HELMUT KRCMAR** focus in their article on the IT provisioning perspective of cloud computing. They examine the evolution from outsourcing to cloud computing as a new IT deployment paradigm. In doing so, they highlight the effects on the outsourcing value chain, summarize market players and their roles within a new cloud computing value network, and, finally, discuss potential business models for IT service providers.

The first paper in the second part from **BHASWAR BOSE** focuses on essential elements in quality management. The article by **PETRA ENDHOLZ** highlights the significance of the human element in the IT business, while also considering operative and cost aspects as well as strategic elements. She outlines general activities necessary to face the challenges of the market. Furthermore, the paper provides an insight into initiatives for resource management – with the focus on competence management.

Part three starts with the paper by **BENEDIKT SCHMIDT**, in which he describes the importance of knowledge management for application management. Beginning with the fundamental theories and approaches in relation to knowledge management, he goes on to talk about instruments and methods for knowledge transfer. **BENEDIKT MARTENS** and **FRANK TEUTEBERG** introduce a reference model for risk and compliance management of IT services in cloud computing environments. They also describe the implementation of this reference model by
means of the ADOit software tool. Irvathraya B. Madhukar and Florian A. Täube show the advantages of integrated service creation and service management. They study the interrelation between software application development and application management and have conducted a case study with interviews in India. Katja Wolter’s paper shows the link between cloud computing and competitive intelligence and describes the process of analyzing the market and the competitors. The article by Christian Schulmeyer and Frank Keuper highlights the potential of morphological psychology for deriving requirements for design recommendations of Web applications using examples of customer self-service applications.

Part four begins with the paper by Anjali Arya presenting a successful case study where outsourcing of application management support was deployed for a pharmaceutical industry major. The article by Laurent Cerveau and Freddie Geier aims to show that application of a software methodology requires multiple small steps in many areas across the project team. Last but not least, Maximo Romero Krause analyzes the market for global production centers for application management in Latin America.

A special thanks to our authors without whose contributions this book would not have been possible. Despite the tight schedule, the authors demonstrated extraordinary commitment in putting together their practical and theoretical contributions. As always, delivery of the final proofs to Gabler Verlag was only possible thanks to the many “helping hands” in the background. We would like to take this opportunity of expressing our thanks.

Another special thank you from the editors goes out to Katja Wolter, as research assistant within the faculty of economics, with a special focus on convergence management and strategic management, at Steinbeis-University Berlin. The editors wish to express a further special note of thanks to Barbara Roscher und Jutta Hinrichsen of Gabler Verlag for their help and cooperation in publishing this book.

Hamburg/Munich, December 2010

Prof. Dr. Frank Keuper, Andreas Degenhardt and Christian Ocking
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