Preface

The service industry encompasses many sectors, such as finance, transportation, utilities, government, and health care. These sectors increasingly depend on information technology (IT) to provide business services. Service solutions take advantage of a wide variety of critical IT-enabled business functions, including enterprise resource planning, customer relationship management, business intelligence, and Web-based communication, such as e-mail and Web sites. In some cases, such as online auction services, the entire business depends on IT. As businesses in all sectors continue to expand their use of IT, the complexity of managing this infrastructure also increases. In addition, compliance regulations impose the burdens of tracking changes to critical applications to support financial regulations and health-care regulations.

IBM Service Management (ISM) was created to address these industry shifts and to provide technologies, products, and consulting services to guide customers through this transition. The IBM Service Management strategy offers a structured approach for delivering value, managing risk, and performing data-governance functions. In this special issue, we present a collection of papers that provides a comprehensive perspective on a variety of issues that must be satisfactorily addressed in order for a business to integrate and manage its people, processes, information, tools, and technology to deliver business services to its customers in an effective and efficient way. The papers are organized into four groups, selected to address the broad spectrum of service management.

The first group of papers provides a high-level perspective on industry trends and on the motivation for creating the IBM Service Management strategy. Ganek and Kloeckner, in "An overview of IBM Service Management," describe some of the challenges faced by companies as they respond to change and describe how the IBM Service Management strategy addresses these challenges, helping customers design, build, deploy, and manage business services. The role of IBM in fostering industry-wide standards for service management is also described. Assisting the corporate information officer (CIO) in formulating IT strategy is the focus of "Adding value to the IT organization with the Component Business Model" by Ernest and Nisavic. The business of the CIO is decomposed into a set of functional areas, each of which has service-specific considerations. Finally, a holistic perspective, establishing a common understanding of the key conceptual domains involved in delivering IT services (organization, process, tools, and technology) and their interrelation, is offered in "An integration model for organizing IT service management" by Black et al.

The second group of papers focuses on the architecture and design methodology of the service-management platform. Starting with a best-practices-driven architecture articulated by Tivoli* lead architects in "IBM Service Management architecture," Lindquist et al. provide a perspective on how to implement a service management framework that conforms to ITIL** (Information Technology Infrastructure Library**). This is reinforced though the core elements of the architecture, starting with the configuration management database (CMDB) as described in "A configuration management database architecture in support of IBM Service Management"

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by Madduri et al. and the core processes to be supported by the CMDB as described in "Integrated change and configuration management" by Ward et al. These core processes are expressed through a common set of design patterns as described by Paul in "The process of building a Process Manager: Architecture and design patterns."

The third group of papers is focused on leveraging a service-management platform to deliver IT-enabled business services. This is described from various perspectives in this collection of papers, which include the perspectives existing service providers as well as corporations making the transition to become more service-centric. Insights are offered on how to deliver IT-enabled services involving release management, service-level management, IT service continuity, and so on. In "Integration of domain-specific IT processes and tools in IBM Service Management," Joshi et al. demonstrate how the integration of IT operational management tools (such as monitoring, network management, and provisioning tools) through the use of Process Managers can lead to an increase in automation; they describe four Process Managers that have been successfully implemented. In the area of service request enablement, a model-driven approach to business services is illustrated in "Using a model-driven transformational approach and service-oriented architecture for service delivery management" by Kumaran et al. The practical use of this approach is illustrated in the paper "Catalog-based service request management," by Ludwig et al. The benefits and value proposition of IT-enabled service management is described in "From a technology-oriented to a service-oriented approach to IT management" by Keel et al., which illustrates the relationships between the architectural elements proposed in ITSM, from a customer deployment perspective.

The fourth group of papers discusses technology trends that will improve the automation of service management and provides some alternative viewpoints. One recurring theme that enterprises encounter is how to manage the environment with more flexibility and more efficiency; automation through autonomic computing holds great promise in this area. We begin with "IT service management architecture and autonomic computing" by Brittenham et al., which describes the contributions that autonomic computing offers to the definition and implementation of a service management architecture and infrastructure. However, deploying autonomic computing continues to be difficult. Opportunities for standardization in the service management arena are explored in "Evolving standards for IT service management" by Johnson et al. Does ITSM need to be complex? This question is examined in "Prospects for simplifying ITSM-based management through self-managing resources" by Chess et al., which proposes the delegation of ITSM tasks to autonomic managers and restructuring ITSM activities through process modification. In "IT Autopilot: A flexible IT service management and delivery platform for small and medium business," by Mastrianni et al., the authors examine how ITSM might be accommodated for smaller businesses using a lightweight common delivery platform.

It is our aim to provide the readers of this special issue of the *IBM Systems Journal* with an issue that is informative, that is comprehensive in its perspective of ISM, and that stimulates further discussion and development of this exciting and promising field.

The next issue of the *Journal* is devoted to IT-Enabled Business Transformation.

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