

Enterprise Architecture A To Z Frameworks Business Process Modeling Soa And Infrastructure Technology Second Edition

Enterprise Architecture A to Z Frameworks, Business Process Modeling, SOA, and Infrastructure Technology CRC Press

An enterprise architecture tries to describe and control an organisation's structure, processes, applications, systems and techniques in an integrated way. The unambiguous specification and description of components and their relationships in such an architecture requires a coherent architecture modelling language. Lankhorst and his co-authors present such an enterprise modelling language that captures the complexity of architectural domains and their relations and allows the construction of integrated enterprise architecture models. They provide architects with concrete instruments that improve their architectural practice. As this is not enough, they additionally present techniques and heuristics for communicating with all relevant stakeholders about these architectures. Since an architecture model is useful not only for providing insight into the current or future situation but can also be used to evaluate the transition from 'as-is' to 'to-be', the authors also describe analysis methods for assessing both the qualitative impact of changes to an architecture and the quantitative aspects of architectures, such as performance and cost issues. The modelling language presented has been proven in practice in many real-life case studies and has been adopted by The Open Group as an international standard. So this book is an ideal companion for enterprise IT or business architects in industry as well as for computer or management science students studying the field of enterprise architecture.

Modeling Enterprise Architecture with TOGAF explains everything you need to know to effectively model enterprise architecture with The Open Group Architecture Framework (TOGAF), the leading EA standard. This solution-focused reference presents key techniques and illustrative examples to help you model enterprise architecture. This book describes the TOGAF standard and its structure, from the architecture transformation method to governance, and presents enterprise architecture modeling practices with plenty of examples of TOGAF deliverables in the context of a case study. Although widespread and growing quickly, enterprise architecture is delicate to manage across all its dimensions. Focusing on the architecture transformation method, TOGAF provides a wide framework, which covers the repository, governance, and a set of recognized best practices. The examples featured in this book were realized using the open source Modelio tool, which includes extensions for TOGAF. Includes intuitive summaries of the complex TOGAF standard to let you effectively model enterprise architecture Uses practical examples to illustrate ways to adapt TOGAF to the needs of your enterprise Provides model examples with Modelio, a free modeling tool, letting you exercise TOGAF modeling immediately using a dedicated tool Combines existing modeling standards with TOGAF

This important text provides a single point of reference for state-of-the-art cloud computing design and implementation techniques. The book examines cloud computing from the perspective of enterprise architecture, asking the question; how do we realize new business potential with our existing enterprises? Topics and features: with a Foreword by Thomas Erl; contains contributions from an international selection of preeminent experts; presents the state-of-the-art in enterprise architecture approaches with respect to cloud computing models, frameworks, technologies, and applications; discusses potential research directions, and technologies to facilitate the realization of emerging business models through enterprise architecture approaches; provides relevant theoretical frameworks, and the latest empirical research findings.

In practice, many different people with backgrounds in many different disciplines contribute to the design of an enterprise. Anyone who makes decisions to change the current enterprise to achieve some preferred structure is considered a designer. What is problematic is how to use the knowledge of separate aspects of the enterprise to achieve a glob

Learn how to institute and implement enterprise architecture in your organization. You can make a quick start and establish a baseline for your enterprise architecture within ten weeks, then grow and stabilize the architecture over time using the proven Ready, Set, Go Approach. Reading this book will: 1. Give you directions on how to institute and implement enterprise architecture in your organization. You will be able to build close relationships with stakeholders and delivery teams, but you will not need to micromanage the architecture's operations. 2. Increase your awareness that enterprise architecture is about business, not information technology. 3. Enable you to initiate and facilitate dramatic business development. The architecture of an enterprise must be tolerant of currently unknown business initiatives. 4. Show you how to get a holistic view of the process of implementing enterprise architecture. 5. Make you aware that information is a key business asset and that information architecture is a key part of the enterprise architecture. 6. Allow you to learn from our experiences. This book is based on our 30 years of work in the enterprise architecture field, colleagues in Europe, customer cases, and students. We do not pretend to cover all you need to know about enterprise architecture within these pages. Rather, we give you the information that is most important for effective and successful guidance. Sometimes, less is more. If your company is about to make a major change and you are looking for a way to reduce the changes into manageable pieces—and still retain control of how they fit together—this is your handbook. Maybe you are already acting as an enterprise architect and using a formal method, but you need practical hints. Or maybe you are about to set up an enterprise architect network or group of specialists and need input on how to organize your work. The Ready-Set-Go method for introducing enterprise architecture provides you, the enterprise architect, with an immediate understanding of the basic steps for starting, organizing, and operating the entirety of your organization's architecture. Chapter 1: Ready shows how to model and analyze your business operations, assess their current status, construct a future scenario, compare it to the current structure, analyze what you see, and show the result in a city plan. Chapter 2: Set deals with preparing for the implementation of the architecture with governance, enterprise architecture organization, staffing, etc. This is the organizing step before beginning the actual work. Chapter 3: Go establishes how to implement a city plan in practice. It deals with the practicalities of working as an enterprise architect and is called the "running" step. The common thread through all aspects of the enterprise architect's work is the architect's mastery of a number of tools, such as business models, process models, information models, and matrices. We address how to initiate the architecture process within the organization in such a way that the overarching enterprise architecture and architecture-driven approach can be applied methodically and gradually improved.

This book introduces ongoing reflections within the research community on established information systems development topics and emerging concepts, approaches and ideas in the field of healthcare information systems. By promoting research on theoretical and methodological issues related to both information systems development in general and healthcare information systems in particular, it presents current research in order to promote improved practice. It comprises a selection of the best papers presented at the 24th International Conference on Information Systems Development (ISD) held in Harbin, China, August 25 – 27, 2015.

"This book is a valuable addition to the reading list of executives, managers, and staff in business, government, and other sectors who seek to keep their enterprises agile and efficient as they manage change, implement new business processes and supporting technologies, and

pursue important strategic goals"--Provided by publisher.

Knowledge Architectures reviews traditional approaches to managing information and explains why they need to adapt to support 21st-century information management and discovery. Exploring the rapidly changing environment in which information is being managed and accessed, the book considers how to use knowledge architectures, the basic structures and designs that underlie all of the parts of an effective information system, to best advantage. Drawing on 40 years of work with a variety of organizations, Bedford explains that failure to understand the structure behind any given system can be the difference between an effective solution and a significant and costly failure. Demonstrating that the information user environment has shifted significantly in the past 20 years, the book explains that end users now expect designs and behaviors that are much closer to the way they think, work, and act. Acknowledging how important it is that those responsible for developing an information or knowledge management system understand knowledge structures, the book goes beyond a traditional library science perspective and uses case studies to help translate the abstract and theoretical to the practical and concrete. Explaining the structures in a simple and intuitive way and providing examples that clearly illustrate the challenges faced by a range of different organizations, Knowledge Architectures is essential reading for those studying and working in library and information science, data science, systems development, database design, and search system architecture and engineering.

This book introduces a new approach for modeling large enterprise systems: the software fortress model. In the software fortress model, an enterprise architecture is viewed as a series of self-contained, mutually suspicious, marginally cooperating software fortresses interacting with each other through carefully crafted and meticulously managed treaty relationships. The software fortress model is an intuitive, simple, expressive approach that maps readily to existing technologies such as .NET and Java 2 Enterprise Edition (J2EE). This book is designed to meet an immediate need to define, clarify, and explain the basics of this new modeling methodology for large enterprise software architectures.

"Software Fortresses is your essential roadmap to all aspects of software fortresses. Key topics include: The fundamental concepts and terminology of software fortresses Documentation techniques, including Fortress Ally Responsibility Cards (based on Class Responsibility Cards) and Sequence Ally Diagrams (based on UML's Class Sequence Diagrams) The proper use of drawbridges to provide fortress interoperability The innovative software fortress model for enterprise security Correct design approaches to fortress walls, which keep intruders out, and to guards, which let allies in. The role of loosely coupled and tightly coupled transactions in a software fortress architecture Design and technology issues associated with the six major software fortress types This book is a must-read for all enterprise software professionals, whether you are a manager seeking to rein in run-away enterprise system complexity, an architect

seeking to design interoperable, scalable, and highly secure systems, a consultant expected to give advice on how .NET and J2EE fit into the enterprise space, an implementer wanting to understand how your system relates to a larger enterprise architecture, or a business analyst needing to know that your system requirements will be translated into a successful software implementation. 0321166086B12202002

This volume constitutes the proceedings of the 4th Working Conference on Practice-Driven Research on Enterprise Transformation (PRET), held in Gdansk, Poland, on June 27, 2012, as the industrial track of the 24th International Conference on Advanced Information Systems Engineering (CAiSE 2012). Restructuring, divesting, improving performance, and merging are among the usual transformation activities that enterprises conduct to provide answers to the challenging demands put on them. To foster the much-needed debate between researchers and practitioners on these topics, the number of papers accepted for PRET is kept low, providing the authors and the audience with ample time to engage in discussions about both the practical implications of results and the theoretical underpinnings of phenomena observed in industrial practice. This year, five papers were selected after careful review, and each paper is between 20 and 25 pages long, to allow for the presentation of details. The topics covered include enterprise architecture, business and IT alignment, and business process management and evaluation.

ArchiMate®, an Open Group Standard, is an open and independent modelling language for Enterprise Architecture that is supported by different tool vendors and consulting firms. ArchiMate provides instruments to enable enterprise architects to describe, analyze, and visualize the relationships among business domains in an unambiguous way. This book provides the official specification of ArchiMate 2.1 from The Open Group. ArchiMate 2.1 is a maintenance update to ArchiMate 2.0, addressing comments raised since the introduction of ArchiMate 2.0 in 2012. The ArchiMate 2.1 Standard supports modelling throughout the TOGAF® Architecture Development Method (ADM). The intended audience is threefold:

- Enterprise Architecture practitioners, such as architects (e.g. application, information, process, infrastructure, and, obviously, enterprise architects), senior and operational management, project leaders, and anyone committed to work within the reference framework defined by the Enterprise Architecture.
- Those who intend to implement ArchiMate in a software tool; they will find a complete and detailed description of the language in this book.
- The academic community, on which we rely for amending and improving the language, based on state-of-the-art research results in the enterprise architecture field.

"This book addresses the gap in current literature in terms of linking and understanding the relationship between e-government and government enterprise architecture"--Provided by publisher.

As the service sector expands into the global economy, a new science of service

is emerging, one that is dedicated to encouraging service innovation by applying scientific understanding, engineering discipline, and management practice to designing, improving, and scaling service systems. Handbook of Service Science takes the first major steps to clarifying the definition, role, and future of this nascent field. Incorporating work by scholars from across the spectrum of service research, the volume presents multidisciplinary perspectives on the nature and theory of service, on current research and practice in design, operations, delivery, and innovation of service, and on future opportunities and potential of service research. Handbook of Service Science provides a comprehensive reference suitable for a wide-reaching audience including researchers, practitioners, managers, and students who aspire to learn about or to create a deeper scientific foundation for service design and engineering, service experience and marketing, and service management and innovation.

Dismantle the overwhelming complexity in your IT projects with strategies and real-world examples from a leading expert on enterprise architecture. This guide describes best practices for creating an efficient IT organization that consistently delivers on time, on budget, and in line with business needs. IT systems have become too complex—and too expensive. Complexity can create delays, cost overruns, and outcomes that do not meet business requirements. The resulting losses can impact your entire company. This guide demonstrates that, contrary to popular belief, complex problems demand simple solutions. The author believes that 50 percent of the complexity of a typical IT project can and should be eliminated—and he shows you how to do it. You'll learn a model for understanding complexity, the three tenets of complexity control, and how to apply specific techniques such as checking architectures for validity. Find out how the author's methodology could have saved a real-world IT project that went off track, and ways to implement his solutions in a variety of situations.

Based on an extensive study of the actual industry best practices, this book provides a systematic conceptual description of an EA practice and offers practically actionable answers to the key questions related to enterprise architecture.

SAP is a market leader in enterprise business application software. SAP solutions provide a rich set of composable application modules, and configurable functional capabilities that are expected from a comprehensive enterprise business application software suite. In most cases, companies that adopt SAP software remain heterogeneous enterprises running both SAP and non-SAP systems to support their business processes. Regardless of the specific scenario, in heterogeneous enterprises most SAP implementations must be integrated with a variety of non-SAP enterprise systems: Portals Messaging infrastructure Business process management (BPM) tools Enterprise Content Management (ECM) methods and tools Business analytics (BA) and business intelligence (BI) technologies Security Systems of record Systems of engagement The tooling included with SAP software addresses many needs for creating SAP-centric

environments. However, the classic approach to implementing SAP functionality generally leaves the business with a rigid solution that is difficult and expensive to change and enhance. When SAP software is used in a large, heterogeneous enterprise environment, SAP clients face the dilemma of selecting the correct set of tools and platforms to implement SAP functionality, and to integrate the SAP solutions with non-SAP systems. This IBM® Redbooks® publication explains the value of integrating IBM software with SAP solutions. It describes how to enhance and extend pre-built capabilities in SAP software with best-in-class IBM enterprise software, enabling clients to maximize return on investment (ROI) in their SAP investment and achieve a balanced enterprise architecture approach. This book describes IBM Reference Architecture for SAP, a prescriptive blueprint for using IBM software in SAP solutions. The reference architecture is focused on defining the use of IBM software with SAP, and is not intended to address the internal aspects of SAP components. The chapters of this book provide a specific reference architecture for many of the architectural domains that are each important for a large enterprise to establish common strategy, efficiency, and balance. The majority of the most important architectural domain topics, such as integration, process optimization, master data management, mobile access, Enterprise Content Management, business intelligence, DevOps, security, systems monitoring, and so on, are covered in the book. However, there are several other architectural domains which are not included in the book. This is not to imply that these other architectural domains are not important or are less important, or that IBM does not offer a solution to address them. It is only reflective of time constraints, available resources, and the complexity of assembling a book on an extremely broad topic. Although more content could have been added, the authors feel confident that the scope of architectural material that has been included should provide organizations with a fantastic head start in defining their own enterprise reference architecture for many of the important architectural domains, and it is hoped that this book provides great value to those reading it. This IBM Redbooks publication is targeted to the following audiences: Client decision makers and solution architects leading enterprise transformation projects and wanting to gain further insight so that they can benefit from the integration of IBM software in large-scale SAP projects. IT architects and consultants integrating IBM technology with SAP solutions. The book contains theoretical knowledge in such IT areas as enterprise architecture, information security, service management, project management, and business process management. It describes the models and approaches to assess the cost of ownership and organizational aspects of IT. The book will be a good asset for IT managers and heads of IT units. The material is presented in a logical order for the methodical study of all aspects of IT operations, as well as using it as a handbook.

IBM® CICS® Transaction Server (CICS TS) has been available in various guises for over 40 years, and continues to be one of the most widely used pieces of

commercial software. This IBM Redbooks® publication helps application architects discover the value of CICS Transaction Server to their business. This book can help architects understand the value and capabilities of CICS Transaction Server and the CICS tools portfolio. The book also provides detailed guidance on the leading practices for designing and integrating CICS applications within an enterprise, and the patterns and techniques you can use to create CICS systems that provide the qualities of service that your business requires.

"In this book, Vivek Kale makes an important contribution to the theory and practice of enterprise architecture ... this book captures the breadth and depth of information that a modern enterprise architecture must address to effectively support an agile enterprise. This book should have a place in every practicing architect's library." —John D. McDowall, Author of Complex Enterprise Architecture

Digital Transformation of Enterprise Architecture is the first book to propose Enterprise Architecture (EA) as the most important element (after Business Models) for digital transformation of enterprises. This book makes digital transformation more tangible by showing the rationale and typical technologies associated with it, and these technologies in turn reveal the essence of digital transformation. This book would be useful for analysts, designers and developers of future-ready agile application systems. This book proposes that it is the perennial quest for interoperability & portability, scalability, availability, etc., that has directed and driven the evolution of the IT/IS industry in the past 50 years. It is this very quest that has led to the emergence of technologies like service-oriented, cloud, and big data computing. In addition to the conventional attributes of EA like interoperability, scalability and availability, this book identifies additional attributes of mobility, ubiquity, security, analyticity, and usability. This pragmatic book: Identifies three parts effort for any digital transformation: Business Models, Enterprise Architectures and Enterprise Processes. Describes eight attributes of EA: interoperability, scalability, availability, mobility, ubiquity, security, analyticity, and usability. Explains the corresponding technologies of service-oriented, cloud, big data, context-aware, Internet of Things (IoT), blockchain, soft, and interactive computing. Briefs on auxiliary technologies like integration, virtualization, replication, spatio-temporal databases, embedded systems, cryptography, data mining, and interactive interfaces that are essential for digital transformation of enterprise architecture. Introduces interactive interfaces like voice, gaze, gesture and 3D interfaces. Provides an overview of blockchain computing, soft computing, and customer interaction systems. Digital Transformation of Enterprise Architecture proposes that to withstand the disruptive digital storms of the future, enterprises must bring about digital transformation, i.e. a transformation that affects an exponential change (amplification or attenuation) in any aspect of the constituent attributes of EA. It proposes that each of these technologies (service-oriented, cloud, big data, context-aware, IoT, blockchain, soft, and interactive computing) bring about digital transformation of the corresponding EA attribute viz. interoperability,

scalability, availability, mobility, ubiquity, security, analyticity, and usability. Enterprise Architecture (EA) is an essential part of the fabric of a business; however, EA also transcends and transforms technology and moves it into the business space. Therefore, EA needs to be discussed in an integrated, holistic, and comprehensive manner. Only such an integrated approach to EA can provide the foundation for a transformation that readies the business for the myriad enterprise-wide challenges it will face. Highly disruptive technologies such as Big Data, Machine Learning, and Mobile and Cloud Computing require a fine balance between their business and technical aspects as an organization moves forward with its digital transformation. This book focuses on preparing all organizations – large and small – and those wishing to move into them for the impact of leveraging these emerging, disruptive, and innovative technologies within the EA framework.

A strategy and implementation guide for building, deploying, and managing APIs
Key Features Comprehensive, end-to-end guide to business-driven enterprise APIs Distills years of experience with API and microservice strategies Provides detailed guidance on implementing API-led architectures in any business Book Description APIs are the cornerstone of modern, agile enterprise systems. They enable access to enterprise services from a wide variety of devices, act as a platform for innovation, and open completely new revenue streams. Enterprise API Management shows how to define the right architecture, implement the right patterns, and define the right organization model for business-driven APIs. Drawing on his experience of developing API and microservice strategies for some of the world's largest companies, Luis Weir explains how APIs deliver value across an enterprise. The book explores the architectural decisions, implementation patterns, and management practices for successful enterprise APIs, as well as providing clear, actionable advice on choosing and executing the right API strategy in your enterprise. With a relentless focus on creating business value, Luis Weir reveals an effective method for planning, building, and running business products and services with APIs. What you will learn Create API strategies to deliver business value Monetize APIs, promoting them through public marketplaces and directories Develop API-led architectures, applying best practice architecture patterns Choose between REST, GraphQL, and gRPC-style API architectures Manage APIs and microservices through the complete life cycle Deploy APIs and business products, as well as Target Operating Models Lead product-based organizations to embrace DevOps and focus on delivering business capabilities Who this book is for Architects, developers, and technology executives who want to deliver successful API strategies that bring business value.

To provide structure and transparency to the complex world of IT, Enterprise Architecture was created. However, we created complexities within Enterprise Architecture with Frameworks that are not easily understandable and purposefully implementable. In this book, Nagesh and Gerry help to turnaround

Enterprise Architecture organizations. They introduce a simple IDEA Framework that is based on common practices and investments within IT organizations. The Ten deliverables presented in this book bring structure and clarity to IT organizations that are 10-people IT shops and 1000+ IT staff enterprises alike. This book is not an ivory tower work, it is actionable, applied Enterprise Architecture. It is also a healthy dose of EA tough love. If you want to know why EA fails, read the second chapter. It is introspective, it does not blame external forces: the not-my-fault syndrome. It also does not blame, in fact it hardly mentions, technology. To be fair, the Nagesh and Gerry do recognize external influences; however they are viewed as risks that must be managed. Most corporations focus on this years budget, investments, and rewards. The same focus rolls downhill to the Information Technology department. If the IT department has not successfully communicated the budget and managed to spend it within the limits (10% variance), everything else may seem irrelevant. Eventually, Nagesh and Gerry started looking through current IT systems and IT assets to understand: (a) where the current funds were being invested, (b) how these investments jelled or were mandated because of the previous investments that had been made by IT, and (c) how the companys business priorities aligned with future technology needs, including the need to meet compliance requirements. Considering and discovering the answers to these three questions led Nagesh and Gerry to develop a definition of Enterprise Architecture that was based on technology investments Investment Driven Enterprise Architecture (IDEA) Framework. The purpose of the IDEA Framework is to provide guidance on how the corporations future technology will be drafted and communicated. Its method is to utilize actual systems, hardware, people, and business functions in order to establish boundaries within which the IDEA Framework will work. The structure of the IDEA Framework differs from that of many others because it consists of key deliverables that fit into day-to-day activities and it accommodates an enterprise-wide strategic plan. It also provides for the much-needed interaction between these key deliverables and facilitates contributions from key stakeholders across Business Units and the various IT departments. In essence, the IDEA Framework takes the key deliverables, stakeholders, and organizations and demonstrates how they dynamically function together.

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architectures. Since an architecture model is useful not only for providing insight into the current or future situation but can also be used to evaluate the transition from 'as-is' to 'to-be', the authors also describe analysis methods for assessing both the qualitative impact of changes to an architecture and the quantitative aspects of architectures, such as performance and cost issues. The modelling language and the other techniques presented have been proven in practice in many real-life case studies. So this book is an ideal companion for enterprise IT or business architects in industry as well as for computer or management science students studying the field of enterprise architecture.

Enterprise solutions have emerged as promising tools for integrating and extending business processes across business functions. Supplying a clear and comprehensive introduction to the field, this book provides a detailed description of enterprise information integration-from the development of enterprise systems to extended enterprise information

This handbook is about methods, tools and examples of how to architect an enterprise through considering all life cycle aspects of Enterprise Entities. It is based on ISO15704:2000, or the GERAM Framework. A wide audience is addressed, as the handbook covers methods and tools necessary to design or redesign enterprises, as well as those necessary to structure the implementation into manageable projects. This IBM® Redbooks® publication explains how to combine business process management (BPM) and Enterprise Architecture (EA) for better business outcomes. This book provides a unique synergistic approach to BPM and EA, based on a firm understanding of the life cycles of the enterprise and the establishment of appropriate collaboration and governance processes. When carried out together, BPM provides the business context, understanding, and metrics, and EA provides the discipline to translate business vision and strategy into architectural change. Both are needed for sustainable continuous improvement. This book provides thought leadership and direction on the topic of BPM and EA synergies. Although technical in nature, it is not a typical IBM Redbooks publication. The book provides guidance and direction on how to collaborate effectively across tribal boundaries rather than technical details about IBM software products. The primary audience for this book is leaders and architects who need to understand how to effectively combine BPM and EA to drive, as a key differentiator, continuous improvement and transformational change with enterprise scope.

The practice of enterprise application development has benefited from the emergence of many new enabling technologies. Multi-tiered object-oriented platforms, such as Java and .NET, have become commonplace. These new tools and technologies are capable of building powerful applications, but they are not easily implemented. Common failures in enterprise applications often occur because their developers do not understand the architectural lessons that experienced object developers have learned. Patterns of Enterprise Application Architecture is written in direct response to the stiff challenges that face enterprise application developers. The author, noted object-oriented designer Martin Fowler, noticed that despite changes in technology--from Smalltalk to CORBA to Java to .NET--the same basic design ideas can be adapted and applied to solve common problems. With the help of an expert group of contributors, Martin distills over

forty recurring solutions into patterns. The result is an indispensable handbook of solutions that are applicable to any enterprise application platform. This book is actually two books in one. The first section is a short tutorial on developing enterprise applications, which you can read from start to finish to understand the scope of the book's lessons. The next section, the bulk of the book, is a detailed reference to the patterns themselves. Each pattern provides usage and implementation information, as well as detailed code examples in Java or C#. The entire book is also richly illustrated with UML diagrams to further explain the concepts. Armed with this book, you will have the knowledge necessary to make important architectural decisions about building an enterprise application and the proven patterns for use when building them. The topics covered include

- Dividing an enterprise application into layers
- The major approaches to organizing business logic
- An in-depth treatment of mapping between objects and relational databases
- Using Model-View-Controller to organize a Web presentation
- Handling concurrency for data that spans multiple transactions
- Designing distributed object interfaces

Today there are new and exciting possibilities available to you for creating a robust IT landscape. Such possibilities include those that can move current IT assets into the twenty-first century, while supporting state-of-the-art new applications. With advancements in software, hardware and networks, old and new applications can be integrated into a seamless IT landscape. Mobile devices are growing at exponential rates and will require access to data across the current and new application suites through new channels. Cloud computing is the new paradigm, featuring anything from SaaS to full server deployment. And although some environments are trying to virtualize and secure themselves, others such as IBM® zEnterprise® have been at the forefront even before cloud computing entered the scene. This IBM Redpaper™ publication discusses how transformation and extensibility can let you keep core business logic in IBM IMSTM and IBM CICS®, and extend BPM, Business Rules and Portal in IBM WebSphere® on IBM z/OS® or Linux on IBM System z® to meet new business requirements. The audience for this paper includes mainframe architects and consultants.

Driven by the need and desire to reduce costs, organizations are faced with a set of decisions that require analytical scrutiny. Enterprise Architecture A to Z: Frameworks, Business Process Modeling, SOA, and Infrastructure Technology examines cost-saving trends in architecture planning, administration, and management. It discusses The Open Group Architecture Framework (TOGAF) and the Zachman Architectural Framework (ZAF) in detail, as well as formal architecture standards and all four layers of these models: the business architecture, the information architecture, the solution architecture, and the technology architecture.

A critical part of any company's successful strategic planning is the creation of an Enterprise Business Architecture (EBA) with its formal linkages. Strategic research and analysis firms have recognized the importance of an integrated enterprise architecture and they have frequently reported on its increasing value to successful companies. Enterpr

An Introduction to Enterprise Architecture is the culmination of several decades of experience that I have gained through work initially as an information technology manager and then as a consultant to executives in the public and private sectors. I

wrote this book for three major reasons: (1) to help move business and technology planning from a systems and process-level view to a more strategy-driven enterprise-level view, (2) to promote and explain the emerging profession of EA, and (3) to provide the first textbook on the subject of EA, which is suitable for graduate and undergraduate levels of study. To date, other books on EA have been practitioner books not specifically oriented toward a student who may be learning the subject with little to no previous exposure. Therefore, this book contains references to related academic research and industry best practices, as well as my own observations about potential future practices and the direction of this emerging profession.

Explores cloud computing, breaking down the concepts, models, mechanisms, and architectures of this technology while allowing for the financial assessment of resources and how they compare to traditional storage systems.

Enterprise Architecture, Integration, and Interoperability and the Networked enterprise have become the theme of many conferences in the past few years. These conferences were organised by IFIP TC5 with the support of its two working groups: WG 5. 12 (Architectures for Enterprise Integration) and WG 5. 8 (Enterprise Interoperability), both concerned with aspects of the topic: how is it possible to architect and implement businesses that are flexible and able to change, to interact, and use one another's services in a dynamic manner for the purpose of (joint) value creation. The original question of enterprise integration in the 1980s was: how can we achieve and integrate information and material flow in the enterprise? Various methods and reference models were developed or proposed – ranging from tightly integrated monolithic system architectures, through cell-based manufacturing to on-demand interconnection of businesses to form virtual enterprises in response to market opportunities. Two camps have emerged in the endeavour to achieve the same goal, namely, to achieve interoperability between businesses (whereupon interoperability is the ability to exchange information in order to use one another's services or to jointly implement a service). One school of researchers addresses the technical aspects of creating dynamic (and static) interconnections between disparate businesses (or parts thereof).

Driven by the need and desire to reduce costs, organizations are faced with a set of decisions that require analytical scrutiny. Enterprise Architecture A to Z: Frameworks, Business Process Modeling, SOA, and Infrastructure Technology examines cost-saving trends in architecture planning, administration, and management. To establish a framework for discussion, this book begins by evaluating the role of Enterprise Architecture Planning and Service-Oriented Architecture (SOA) modeling. It provides an extensive review of the most widely deployed architecture framework models. In particular, the book discusses The Open Group Architecture Framework (TOGAF) and the Zachman Architectural Framework (ZAF) in detail, as well as formal architecture standards and all four layers of these models: the business architecture, the information architecture, the solution architecture, and the technology architecture. The first part of the text focuses on the upper layers of the architecture framework, while the second part focuses on the technology architecture. In this second section, the author presents an assessment of storage technologies and networking and addresses regulatory and security issues. Additional coverage includes high-speed communication mechanisms such as Ethernet, WAN and Internet communication technologies, broadband communications, and chargeback models. Daniel Minoli has written a number of columns and books on the high-tech industry and has many years of technical hands-on and managerial experience at top financial companies and telecom/networking providers. He brings a wealth of knowledge and practical experience to these pages. By reviewing the strategies in this book, CIOs, CTOs, and senior managers are empowered by a set of progressive approaches to designing state-of-the-art IT data centers.

Increasingly, organizations allocate a substantial financial budget to the acquisition, implementation, and management of IT solutions. IT solutions are employed strategic partners in supporting business strategic outcome, and the solutions are tools used to support operational activities within an environment. Given the vast amounts being invested in IT solutions and development, there is a need for a better return and outcome for organizations. Empowering Businesses With Collaborative Enterprise Architecture Frameworks is an essential reference source that provides readers with pragmatic, implementable strategies and direction to create IT with collaborative capabilities that can reduce the cost of running IT within an organization. Moreover, the book offers pragmatic roadmaps to adopting disruptive IT solutions effectively and efficiently and towards gaining a better understanding of enterprise architecture as a means to business decision making. Featuring research on topics such as business engineering, cloud computing, and open systems, this book is ideally designed for managers, directors, and other business decision makers; government and industry policymakers; business and enterprise architects; industry professionals; academicians; researchers; and students.

Enterprise Process Management Systems: Engineering Process-Centric Enterprise Systems using BPMN 2.0 proposes a process-centric paradigm to replace the traditional data-centric paradigm for Enterprise Systems (ES)--ES should be reengineered from the present data-centric enterprise architecture to process-centric process architecture to be called as Enterprise Process Management Systems (EPMS). The real significance of business processes can be understood in the context of current heightened priority on digital transformation or digitalization of enterprises. Conceiving the roadmap to realize a digitalized enterprise via the business model innovation becomes amenable only from the process-centric view of the enterprise. This pragmatic book: Introduces Enterprise Process Management Systems (EPMS) solutions that enable an agile enterprise. Describes distributed systems and Service Oriented Architecture (SOA) that paved the road to EPMS. Leverages SOA to explain the cloud-based realization of business processes in terms of Web Services. Describes how BPMN 2.0 addresses the requirements for agility by ensuring a seamless methodological path from process requirements modeling to execution and back (to enable process improvements). Presents the spreadsheet-driven Spreadsheets Application Development (SAD) methodology for the design and development of process-centric application systems. Describes process improvement programs ranging right from disruptive programs like BPR to continuous improvement programs like lean, six sigma and TOC. Enterprise Process Management Systems: Engineering Process-Centric Enterprise Systems using BPMN 2.0 describes how BPMN 2.0 can not only capture business requirements but it can also provide the backbone of the actual solution implementation. Thus, the same diagram prepared by the business analyst to describe the business's desired To-Be process can also be used to automate the execution of that process on a modern process engine.

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