

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

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**Enterprise Business Architecture** - Ralph Whittle 2016-04-19

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

**Complex Enterprise Architecture** - John D. McDowall 2019-02-07

Implement successful and cost-effective enterprise architecture projects. This book provides a new approach to developing enterprise architecture based on the idea of emergent behaviors—where instead of micromanaging system implementation, the enterprise architecture effort establishes clear goals and leaves the details to the implementation teams. System development efforts are measured based on their contribution to achieving business goals instead of implementing specific (possibly outdated) requirements. Most enterprise architecture initiatives employ one of the existing system architecture frameworks

such as Zachman or The Open Group Architecture Framework, but these are not well-suited for enterprise architecture in a modern, agile organization. The new approach presented in this book is based on the author's experience with large enterprise architecture efforts. The approach leverages research into complex adaptive systems and emergent behaviors, where a few simple rules result in complex and efficient enterprise behaviors. Simplifying the task of establishing and maintaining the enterprise architecture cuts the costs of building and maintaining the architecture and frees up those resources for more productive pursuits. System implementers are given the freedom to rapidly adapt to changing user needs without the blessing of the enterprise modeling priesthood, and the architecture is transformed from a static pile of obscure models and documents into an operational framework that can be actively used to manage an enterprise's resources to better achieve business goals. The enterprise architect is free to stop focusing on building and maintaining models and start focusing on achieving business goals. What You'll Learn Refocus enterprise

architecture on business needs by eliminating most of the enterprise-level models Delegate tasks to the development teams who do system implementation Document business goals, establish strategies for achieving those goals, and measure progress toward those goals Measure the results and gauge whether the enterprise architecture is achieving its goals Utilize appropriate modeling techniques that can be effectively used in an enterprise architecture Who This Book Is For Architecture practitioners and architecture managers: Practitioners are experienced architects who have used existing frameworks such as Zachman, and have experience with formal architecture modeling and/or model-based system engineering; managers are responsible for managing an enterprise architecture project and either have experience with enterprise architecture projects that were ineffective or are looking for a different approach that will be more cost-effective and allow for more organizational agility. Government program managers looking for a different approach to make enterprise architecture more relevant and easier to implement will also find this book of value.

Empowering Businesses With Collaborative Enterprise Architecture Frameworks - Iyamu, Tiko 2020-08-07

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.

*Soft Computing for Business Intelligence* - Rafael Espin 2013-12-30  
The book *Soft Computing for Business Intelligence* is the remarkable output of a program based on the idea of joint trans-disciplinary research as supported by the Eureka Iberoamerica Network and the University of Oldenburg. It contains twenty-seven papers allocated to three sections: Soft Computing, Business Intelligence and Knowledge Discovery, and Knowledge Management and Decision Making. Although the contents touch different domains they are similar in so far as they follow the BI principle "Observation and Analysis" while keeping a practical oriented theoretical eye on sound methodologies, like Fuzzy Logic, Compensatory Fuzzy Logic (CFL), Rough Sets and other soft computing elements. The book tears down the traditional focus on business, and extends Business Intelligence techniques in an impressive way to a broad range of fields like medicine, environment, wind farming, social collaboration and interaction, car sharing and sustainability.

**Enterprise Architecture Made Simple** - Håkan Edvinsson, Lottie Aderinne 2013-10-01

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.

Digital Transformation of Enterprise Architecture - Vivek Kale

2019-07-08

"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.

*Proceedings of the Third International Conference on Contemporary Issues in Computer and Information Sciences (CICIS 2012) -*

### **Hagenberg Business Process Modelling Method** - Felix Kossak 2016-04-27

This book presents a proposal for designing business process management (BPM) systems that comprise much more than just process modelling. Based on a purified Business Process Model and Notation (BPMN) variant, the authors present proposals for several important issues in BPM that have not been adequately considered in the BPMN 2.0 standard. It focusses on modality as well as actor and user interaction modelling and offers an enhanced communication concept. In order to render models executable, the semantics of the modelling language needs to be described rigorously enough to prevent deviating interpretations by different tools. For this reason, the semantics of the necessary concepts introduced in this book are defined using the Abstract State Machine (ASM) method. Finally, the authors show how the different parts of the model fit together using a simple example process, and introduce the enhanced Process Platform (eP2) architecture, which binds all the different components together. The resulting method is named Hagenberg Business Process Modelling (H-BPM) after the Austrian village where it was designed. The motivation for the development of the H-BPM method stems from several industrial projects in which business analysts and software developers struggled with redundancies and inconsistencies in system documentation due to missing integration. The book is aimed at researchers in business

process management and industry 4.0 as well as advanced professionals in these areas.

*Integrated Information and Computing Systems for Natural, Spatial, and Social Sciences* - Rückemann, Claus-Peter 2012-10-31

The 21st century has seen a number of advancements in technology, including the use of high performance computing. Computing resources are being used by the science and economy fields for data processing, simulation, and modeling. These innovations aid in the support of production, logistics, and mobility processes. *Integrated Information and Computing Systems for Natural, Spatial, and Social Sciences* covers a carefully selected spectrum of the most up to date issues, revealing the benefits, dynamism, potential, and challenges of information and computing system application scenarios and components from a wide spectrum of prominent disciplines. This comprehensive collection offers important guidance on the development stage of the universal solution to information and computing systems for researchers as well as industry decision makers and developers.

### **Using the IBM Security Framework and IBM Security Blueprint to Realize Business-Driven Security** - Axel Buecker 2014-02-06

Security is a major consideration in the way that business and information technology systems are designed, built, operated, and managed. The need to be able to integrate security into those systems and the discussions with business functions and operations exists more than ever. This IBM® Redbooks® publication explores concerns that characterize security requirements of, and threats to, business and information technology (IT) systems. This book identifies many business drivers that illustrate these concerns, including managing risk and cost, and compliance to business policies and external regulations. This book shows how these drivers can be translated into capabilities and security needs that can be represented in frameworks, such as the IBM Security Blueprint, to better enable enterprise security. To help organizations with their security challenges, IBM created a bridge to address the communication gap between the business and technical perspectives of security to enable simplification of thought and process. The IBM

Security Framework can help you translate the business view, and the IBM Security Blueprint describes the technology landscape view. Together, they can help bring together the experiences that we gained from working with many clients to build a comprehensive view of security capabilities and needs. This book is intended to be a valuable resource for business leaders, security officers, and consultants who want to understand and implement enterprise security by considering a set of core security capabilities and services.

**Advanced Information Systems Engineering Workshops** - Anne Persson 2015

This book constitutes the thoroughly refereed proceedings of seven international workshops held in Stockholm, Sweden, in conjunction with the 27th International Conference on Advanced Information Systems Engineering, CAiSE 2015, in June 2015. The 38 full and nine short papers were carefully selected from 107 submissions. The workshops were the Second International Workshop on Advances in Services Design based on the Notion of Capability (ASDENCA), the Third International Workshop on Cognitive Aspects of Information Systems Engineering (COGNISE), the First International Workshop on Digital Business Innovation and the Future Enterprise Information Systems Engineering (DiFenSE), the First International Workshop on Enterprise Modeling (EM), the First Workshop on the Role of Real-World Objects in Business Process Management Systems (RW-BPMS), the 10th International Workshop on Trends in Enterprise Architecture Research (TEAR), and the 5th International Workshop on Information Systems Security Engineering (WISSE).

**Enterprise Architecture and Cartography** - Pedro Sousa 2022-06-02

This textbook provides guidance to both students and practitioners of enterprise architecture (EA) on how to develop and maintain enterprise models. Rather than providing yet another list of EA notations and frameworks from A to Z, it focuses on methods to perform such tasks. The problem of EA maintenance, named Enterprise Cartography, is an important aspect addressed in this book because EA is a never ending challenge that increases as the organization transformations pace also

increases. The long time perspective also entails the evolution of architectural frameworks and notations, something that does not occur when developing new models. Thus, a catalogue of patterns, principles and methods is presented to develop and maintain EA models and views. After a general introduction to the book in chapter 1, chapter 2 presents basic concepts for EA modeling. Chapter 3 further details the set of EA concepts needed to present the patterns, and principles, which are subsequently introduced in chapter 4. Next, chapter 5 describes enterprise cartography concepts and principles. The remaining book then turns to techniques and methodologies. In chapter 6 an EA development method is summarized. In chapter 7 an enterprise strategy design approach is proposed, while in chapter 8 a business process design methodology is described. Chapters 9 and 10 focus on information architecture and information systems architecture design approaches, including information systems architecture planning and application portfolio management. Eventually, chapter 11 describes a method for enterprise cartography (EC) design. Last not least, several case studies on EA and EC are proposed in the last chapter.

**Industrial IoT** - Ismail Butun 2020-07-01

The proliferation of Internet of Things (IoT) has enabled rapid enhancements for applications, not only in home and environment scenarios, but also in factory automation. Now, Industrial Internet of Things (IIoT) offers all the advantages of IoT to industry, with applications ranging from remote sensing and actuating, to decentralization and autonomy. In this book, the editor presents the IIoT and its place during the new industrial revolution (Industry 4.0) as it takes us to a better, sustainable, automated, and safer world. The book covers the cross relations and implications of IIoT with existing wired/wireless communication/networking and safety technologies of the Industrial Networks. Moreover, the book includes practical use-case scenarios from the industry for the application of IIoT on smart factories, smart cities, and smart grids. IoT-driven advances in commercial and industrial building lighting and in street lighting are presented as an example to shed light on the application domain of IIoT. The state of the

art in Industrial Automation is also presented to give a better understanding of the enabling technologies, potential advantages, and challenges of the Industry 4.0 and IIoT. Finally, yet importantly, the security section of the book covers the cyber-security related needs of the IIoT users and the services that might address these needs. User privacy, data ownership, and proprietary information handling related to IIoT networks are all investigated. Intrusion prevention, detection, and mitigation are all covered at the conclusion of the book.

*Designing Green Networks and Network Operations* - Daniel Minoli  
2011-06-06

In recent years, socio-political trends toward environmental responsibility and the pressing need to reduce Run-the-Engine (RTE) costs have resulted in the concept of Green IT. Although a significant amount of energy is used to operate routing, switching, and transmission equipment, comparatively less attention has been paid to Green Networking. A clear and concise introduction to green networks and green network operations, *Designing Green Networks and Network Operations: Saving Run-the-Engine Costs* guides you through the techniques available to achieve efficiency goals for corporate and carrier networks, including deploying more efficient hardware, blade form-factor routers and switches, and pursuing consolidation, virtualization, and network and cloud computing. The book: Delineates techniques to minimize network power, cooling, floor space, and online storage while optimizing service performance, capacity, and availability Discusses virtualization, network computing, and Web services as approaches for green data centers and networks Emphasizes best practices and compliance with international standards for green operations Extends the green data center techniques to the networking environment Incorporates green principles in the intranet, extranet, and the entire IT infrastructures Reviews networking, power management, HVAC and CRAC basics Presents methodical steps toward a seamless migration to Green IT and Green Networking

**Evaluation of Novel Approaches to Software Engineering** - Leszek A. Maciaszek 2015-12-09

This book constitutes the thoroughly refereed proceedings of the 9th International Conference on Evaluation of Novel Approaches to Software Engineering, ENASE 2014, held in Lisbon, Portugal, in April 2014. The 11 full papers presented were carefully reviewed and selected from 58 submissions. The papers reflect a growing effort to increase the dissemination of new results among researchers and professionals related to evaluation of novel approaches to software engineering. By comparing novel approaches with established traditional practices and by evaluating them against software quality criteria, the ENASE conferences advance knowledge and research in software engineering, identify most hopeful trends, and propose new directions for consideration by researchers and practitioners involved in large-scale software development and integration.

**Enterprise Architecture, Integration and Interoperability** - Peter Bernus 2010-08-06

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).

**Advances in Production Management Systems. Initiatives for a Sustainable World** - Irenilza Nääs 2017-03-15

This book constitutes the refereed post-conference proceedings of the International IFIP WG 5.7 Conference on Advances in Production Management Systems, APMS 2016, held in Iguassu Falls, Brazil, in September 2016. The 117 revised full papers were carefully reviewed and selected from 164 submissions. They are organized in the following topical sections: computational intelligence in production management; intelligent manufacturing systems; knowledge-based PLM; modelling of business and operational processes; virtual, digital and smart factory; flexible, sustainable supply chains; large-scale supply chains; sustainable manufacturing; quality in production management; collaborative systems; innovation and collaborative networks; agrifood supply chains; production economics; lean manufacturing; cyber-physical technology deployments in smart manufacturing systems; smart manufacturing system characterization; knowledge management in production systems; service-oriented architecture for smart manufacturing systems; advances in cleaner production; sustainable production management; and operations management in engineer-to-order manufacturing.

**Enterprise Architecture Turnaround** - Nagesh V. Anupindi 2011-12-22

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. Applying Business Capabilities in a Corporate Buyer M&A Process - Andreas Freitag 2014-10-01

As a first step towards applying Enterprise Architecture Management (EAM) in Mergers and Acquisitions (M&A), Andreas Freitag investigates

the end-to-end applicability of business capabilities in the M&A process of a corporate buyer organization. Enterprises still struggle to manage M&A efficiently. A significant number of merger projects do not reach the expected goals or fail completely. Therefore, companies attempt to improve their M&A capability by establishing the required skills, organization, processes and methods. EAM is an approach for business and IT planning, promising to contribute to the success of business transformation challenges such as M&A. Business capability models are an essential element of a state of the art EAM approach. They are frequently used as a starting point to work collaboratively with business and IT stakeholders.

*Enterprise Integration and Information Architecture* - Li Da Xu  
2014-07-10

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

**Proceedings of Seventh International Congress on Information and Communication Technology** - Xin-She Yang 2022-08-27

This book gathers selected high-quality research papers presented at the Seventh International Congress on Information and Communication Technology, held at Brunel University, London, on February 21-24, 2022. It discusses emerging topics pertaining to information and communication technology (ICT) for managerial applications, e-governance, e-agriculture, e-education and computing technologies, the Internet of Things (IoT) and e-mining. Written by respected experts and researchers working on ICT, the book offers a valuable asset for young researchers involved in advanced studies. The work is presented in four volumes.

**ICT Innovations 2010** - Marjan Gusev 2011-02-24

This book constitutes the refereed proceedings of the Second International Conference, ICT Innovations 2010, held in Ohrid, Macedonia, in September 2010. The 33 revised papers presented

together with 5 invited papers were carefully reviewed and selected. The papers address the following topics: internet applications and services, artificial intelligence, bioinformatics, internet, mobile and wireless technologies, multimedia information systems, computer networks, computer security, e-business, cryptography, high-performance-computing, social networks, e-government, as well as GPU computing.

*Enterprise Architecture A to Z* - Daniel Minoli 2008-06-19

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.

## **Enterprise Architecture for Strategic Management of Modern IT Solutions** - Tiko Iyamu 2022-03-16

The popularity of enterprise architecture (EA) has increased in the last two decades, in both business and academic domains. Despite the cumulative interest from all sectors, the implementation and practice of EA have been entangled with numerous challenges and complexities. Consequently, some organisations continue to theorise the concept, which has ramifications on practice and return on investment (ROI). This has led to many studies that have been conducted, to understand the complexities impacting the implementation and practice of EA in organisations. Yet, the trajectory of some convolutions remains mystery in many quarters. This attributes to the struggle to articulate the value of EA in many environments. Hence many organisations find it difficult to apply EA for strategic management of modern information technology (IT) solutions. Enterprise Architecture for Strategic Management of Modern IT Solutions provides guidance on how to employ EA in deploying and managing IT solutions from pragmatic and implementable strategies' perspectives. Until now, implementation and practice of EA have been slow, despite its growing popularity and interest from all sectors. The author employs sociotechnical theories such as actor-network theory (ANT) and structuration theory (ST) as lenses to examine and explain why and how challenges and complexities exist and derail the implementation or practice of EA in organisations. By doing so, this serves to enable practitioners and readers to gain fresh insights on why the challenges exist and how they can be addressed in creating collaborative capabilities for business enhancement, sustainability, and competitiveness. The book provides detailed insights on how to apply EA for organisational purposes, from three main fronts. First, it explains the implications that lack of understanding of EA have on organisational activities and processes. Second, it examines the challenges and complexities that hinder the implementation and practice of EA in organisations. Third, it proposes models and frameworks on how EA can be applied for strategic management of modern IT solutions in organisations. Written for postgraduates, researchers, academics, and

professionals in the fields of EA, IT, and information systems, this book provides a valuable resource that will enable and enhance implementation and practice of EA including future studies.

## Design of Enterprise Systems - Ronald Giachetti 2016-04-19

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 *Business Process Model and Notation* - Remco Dijkman 2011-11-17 This book constitutes the proceedings of the third workshop on Business Process Model and Notation, BPMN 2011, held in Lucerne, Switzerland, in November 2011. The 8 research papers presented were carefully reviewed and selected from 20 submissions. In addition, 10 short papers are included. The workshop applied a thorough reviewing process, during which each paper was reviewed by three Program Committee members. The BPMN workshop series provides a forum for academics and practitioners who share an interest in business process modeling using the business process modeling notation, which is seen by many as the de facto standard for business process modeling. This year, the workshop lasted two days and consisted of both a scientific and a practitioner event.

## **Business Information Systems Workshops** - Witold Abramowicz 2019-01-02

This book constitutes revised papers from the seven workshops and one accompanying event which took place at the 21st International Conference on Business Information Systems, BIS 2018, held in Berlin, Germany, in July 2018. Overall across all workshops, 58 out of 122 papers were accepted. The workshops included in this volume are: AKTB 2018 - 10th Workshop on Applications of Knowledge-Based Technologies in Business BITA 2018 - 9th Workshop on Business and IT Alignment BSCT 2018 - 1st Workshop on Blockchain and Smart Contract Technologies IDEA 2018 - 4th International Workshop on Digital Enterprise Engineering and Architecture IDEATE 2018 - 3rd Workshop

on Big Data and Business Analytics Ecosystems SciBOWater 2018 - Scientific Challenges & Business Opportunities in Water Management QOD 2018 - 1st Workshop on Quality of Open Data In addition, one keynote speech in full-paper length and contributions from the Doctoral Consortium are included

**Enterprise Process Management Systems** - Vivek Kale 2018-10-10  
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.

*HCI in Business, Government, and Organizations: Information Systems* - Fiona Fui-Hoon Nah 2016-07-04

This volume constitutes the refereed proceedings of the Third International Conference on HCI in Business, Government and Organizations, HCIBGO 2016, held as part of the 18th International Conference on Human-Computer Interaction, HCII 2016, which took place in Toronto, Canada, in July 2016. HCII 2016 received a total of 4354 submissions, of which 1287 papers were accepted for publication after a careful reviewing process. The 43 papers presented in this volume were organized in topical sections named: designing information systems; HCI in the public administration and government; HCI at work; and mobile applications and services.

**Capability Management in Digital Enterprises** - Kurt Sandkuhl 2018-07-28

Putting capability management into practice requires both a solid theoretical foundation and realistic approaches. This book introduces a development methodology that integrates business and information system development and run-time adjustment based on the concept of capability by presenting the main findings of the CaaS project - the Capability-Driven Development (CDD) methodology, the architecture and components of the CDD environment, examples of real-world applications of CDD, and aspects of CDD usage for creating business value and new opportunities. Capability thinking characterizes an organizational mindset, putting capabilities at the center of the business model and information systems development. It is expected to help organizations and in particular digital enterprises to increase flexibility and agility in adapting to changes in their economic and regulatory environments. Capability management denotes the principles of how capability thinking should be implemented in an organization and the organizational means. This book is intended for anyone who wants to explore the opportunities for developing and managing context-dependent business capabilities and the supporting business services. It

does not require a detailed understanding of specific development methods and tools, although some background knowledge and experience in information system development is advisable. The individual chapters have been written by leading researchers in the field of information systems development, enterprise modeling and capability management, as well as practitioners and industrial experts from these fields.

*Computational Science and Its Applications -- ICCSA 2013* - Beniamino Murgante 2013-06-22

The five-volume set LNCS 7971-7975 constitutes the refereed proceedings of the 13th International Conference on Computational Science and Its Applications, ICCSA 2013, held in Ho Chi Minh City, Vietnam in June 2013. The 248 revised papers presented in five tracks and 33 special sessions and workshops were carefully reviewed and selected. The 46 papers included in the five general tracks are organized in the following topical sections: computational methods, algorithms and scientific applications; high-performance computing and networks; geometric modeling, graphics and visualization; advanced and emerging applications; and information systems and technologies. The 202 papers presented in special sessions and workshops cover a wide range of topics in computational sciences ranging from computational science technologies to specific areas of computational sciences such as computer graphics and virtual reality.

Knowledge Architectures - Denise Bedford 2020-12-30

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. Enterprise Architecture, Integration and Interoperability - Peter Bernus 2010-08-23

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).

**Enterprise Architecture A to Z** - Daniel Minoli 2008-06-19

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.

Combining Business Process Management and Enterprise Architecture for Better Business Outcomes - Claus T. Jensen 2011-03-31

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.

**Enterprise Architecture and Information Assurance** - James A. Scholz 2013-07-29

Securing against operational interruptions and the theft of your data is much too important to leave to chance. By planning for the worst, you can ensure your organization is prepared for the unexpected. Enterprise Architecture and Information Assurance: Developing a Secure Foundation explains how to design complex, highly available, and secure enterprise architectures that integrate the most critical aspects of your organization's business processes. Filled with time-tested guidance, the book describes how to document and map the security policies and procedures needed to ensure cost-effective organizational and system security controls across your entire enterprise. It also demonstrates how to evaluate your network and business model to determine if they fit well together. The book's comprehensive coverage includes: Infrastructure security model components Systems security categorization Business impact analysis Risk management and mitigation Security configuration management Contingency planning Physical security The certification and accreditation process Facilitating the understanding you need to reduce and even mitigate security liabilities, the book provides sample

rules of engagement, lists of NIST and FIPS references, and a sample certification statement. Coverage includes network and application vulnerability assessments, intrusion detection, penetration testing, incident response planning, risk mitigation audits/reviews, and business continuity and disaster recovery planning. Reading this book will give you the reasoning behind why security is foremost. By following the procedures it outlines, you will gain an understanding of your infrastructure and what requires further attention.

**Transforming Healthcare Through Information Systems** - Doug Vogel 2016-03-26

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.

**Advanced SOA Tools and Applications** - Stanisław Ambroszkiewicz 2013-10-28

This book presents advanced software development tools for construction, deployment and governance of Service Oriented Architecture (SOA) applications. Novel technical concepts and

paradigms, formulated during the research stage and during development of such tools are presented and illustrated by practical usage examples. Hence this book will be of interest not only to theoreticians but also to engineers who cope with real-life problems. Additionally, each chapter contains an overview of related work, enabling comparison of the proposed concepts with existing solutions in various areas of the SOA development process. This makes the book interesting also for students and scientists who investigate similar issues.

*Enterprise GIS* - John R. Woodard 2020-01-24

This book defines and discusses how the field of Enterprise Architecture (EA) can be incorporated into the design of Enterprise Geographic Information Systems (EGIS). The objective of EA is to develop a strategic plan that structures an organization's resources (data, information, people, and assets) into one team that works together to achieve the company's objectives in an efficient, agile, and adaptable way. It demonstrates how EA concepts can be incorporated within EGIS by improving the system's efficiency and reliability. Through real-world examples and step-by-step explanations, the reader will reach a comfortable understanding of the theories and methods discussed in the book.

*Enterprise Architecture for Connected E-Government: Practices and Innovations* - Saha, Pallab 2012-06-30

"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.