

## Enterprise Cloud Computing Technology Architecture Applications By Gautam Shroff Cambridge University Press

The complete guide to provisioning and managing cloud-based Infrastructure as a Service (IaaS) data center solutions Could computing will revolutionize the way IT resources are deployed, configured, and managed for years to come. Service providers and customers each stand to realize tremendous value from this paradigm shift-if they can take advantage of it. Cloud Computing brings together the realistic, start-to-finish guidance they need to plan, implement, and manage cloud solution architectures for tomorrow's virtualized data centers. It introduces cloud 'newcomers' to essential concepts, and offers experienced operations professionals detailed guidance on delivering Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). This book's replicable solutions and fully-tested best practices will help enterprises, services providers, consultants, and Cisco partners meet the challenge of provisioning end-to-end cloud infrastructures. Drawing on extensive experience working with leading cloud vendors and integrators, the authors present detailed operations workflow examples, proven techniques for operating cloud-based network, compute, and storage infrastructure: a comprehensive management reference architecture; and a complete case study demonstrating rapid, lower-cost solutions design. Cloud Computing will be an indispensable resource for all network/IT professionals and managers involved with planning, implementing, or managing the next generation of cloud computing services.
••Review the key concepts needed to successfully deploy and cloud-based services
•Transition common enterprise design patterns and use cases to the cloud
•Master architectural principles and infrastructure design for 'real-time' managed IT services
•Understand the Cisco approach to cloud-related technologies, systems, and services
•Develop a cloud management architecture using ITIL, TMF, and ITU-TMN standards
•Implement best practices for cloud service provisioning, activation, and management
•Automate cloud infrastructure to simplify service delivery, monitoring and assurance
•Choose and implement the right billing/chargeback approaches for your business
•Design and build IaaS services, from start to finish
•Manage the unique capacity challenges associated with sporadic, real-time demand
•Provide a consistent and optimal cloud user experience
This book is part of the Networking Technology Series from Cisco Press, which offers networking professionals valuable information for constructing efficient networks, understanding new technologies, and building successful careers.

A solid introduction to the practices, plans, and skills required for developing a smart system architecture Information architecture combines IT skills with business skills in order to align the IT structure of an organization with the mission, goals, and objectives of its business. This friendly introduction to IT architecture walks you through the myriad issues and complex decisions that many organizations face when setting up IT systems to work in sync with business procedures. Veteran IT professional and author Kirk Hausman explains the business value behind IT architecture and provides you with an action plan for implementing IT architecture procedures in an organization. You'll explore the many challenges that organizations face as they attempt to use technology to enhance their business's productivity so that you can gain a solid understanding of the elements that are required to plan and create an architecture that meets specific business goals. Defines IT architecture as a blend of IT skills and business skills that focuses on business optimization, business architecture, performance management, and organizational structure Uncovers and examines every topic within IT architecture including network, system, data, services, application, and more Addresses the challenges that organizations face when attempting to use information technology to enable profitability and business continuity While companies look to technology more than ever to enhance productivity, you should look to IT Architecture For Dummies for guidance in this field.

As the digital economy changes the rules of the game for enterprises, the role of software and IT architects is also transforming. Rather than focus on technical decisions alone, architects and senior technologists need to combine organizational and technical knowledge to effect change in their company's structure and processes. To accomplish that, they need to connect the IT engine room to the penthouse, where the business strategy is defined. In this guide, author Gregor Hohpe shares real-world advice and hard-learned lessons from actual IT transformations. His anecdotes help architects, senior developers, and other IT professionals prepare for a more complex but rewarding role in the enterprise. This book is ideal for: Software architects and senior developers looking to shape the company's technology direction or assist in an organizational transformation Enterprise architects and senior technologists searching for practical advice on how to navigate technical and organizational topics CTOs and senior technical architects who are devising an IT strategy that impacts the way the organization works IT managers who want to learn what's worked and what hasn't in large-scale transformation

Accelerating Business and Mission Success with Cloud Computing. Key Features A step-by-step guide that will practically guide you through implementing Cloud computing services effectively and efficiently. Learn to choose the most ideal Cloud service model, and adopt appropriate Cloud design considerations for your organization. Leverage Cloud computing methodologies to successfully develop a cost-effective Cloud environment successfully. Book Description Cloud adoption is a core component of digital transformation. Scaling the IT environment, making it resilient, and reducing costs are what organizations want. Architecting Cloud Computing Solutions presents and explains critical Cloud solution design considerations and technology decisions required to choose and deploy the right Cloud service and deployment models, based on your business and technology service requirements. This book starts with the fundamentals of cloud computing and its architectural concepts. It then walks you through Cloud service models (IaaS, PaaS, and SaaS), deployment models (public, private, community, and hybrid) and implementation options (Enterprise, MSP, and CSP) to explain and describe the key considerations and challenges organizations face during cloud migration. Later, this book delves into how to leverage DevOps, Cloud-Native, and Serverless architectures in your Cloud environment and presents industry best practices for scaling your Cloud environment. Finally, this book addresses (in depth) managing essential cloud technology service components such as data storage, security controls, and disaster recovery. By the end of this book, you will have mastered all the design considerations and operational trades required to adopt Cloud services, no matter which cloud service provider you choose. What you will learn Manage changes in the digital transformation and cloud transition process Design and build architectures that support specific business cases Design, modify, and aggregate baseline cloud architectures Familiarize yourself with cloud application security and cloud computing security threats Design and architect small, medium, and large cloud computing solutions Who this book is for If you are an IT Administrator, Cloud Architect, or a Solution Architect keen to benefit from cloud adoption for your organization, then this book is for you. Small business owners, managers, or consultants will also find this book useful. No prior knowledge of Cloud computing is needed.

Briggs

Architecting Cloud Computing Solutions

Best Practices for Transforming Legacy IT

Design high-availability and cost-effective applications for the cloud

Cloud Computing and SOA Convergence in Your Enterprise

Cloud Enterprise Architecture

Guide to Cloud Computing for Business and Technology Managers: From Distributed Computing to Cloudware Applications unravels the mystery of cloud computing and explains how it can transform the operating contexts of business enterprises. It provides a clear understanding of what cloud computing really means, what it can do, and when it is practical to use. Addressing the primary management and operation concerns of cloudware, including performance, measurement, monitoring, and security, this pragmatic book: Introduces the enterprise applications integration (EAI) solutions that were a first step toward enabling an integrated enterprise Details service-oriented architecture (SOA) and related technologies that paved the road for cloudware applications Covers delivery models like IaaS, PaaS, and SaaS, and deployment models like public, private, and hybrid clouds Describes Amazon, Google, and Microsoft cloudware solutions and services, as well as those of several other players Demonstrates how cloud computing can reduce costs, achieve business flexibility, and sharpen strategic focus Unlike customary discussions of cloud computing, Guide to Cloud Computing for Business and Technology Managers: From Distributed Computing to Cloudware Applications emphasizes the key differentiator—that cloud computing is able to treat enterprise-level services not merely as discrete stand-alone services, but as Internet-locatable, composable, and repackageable building blocks for generating dynamic real-world enterprise business processes.

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. The importance of demonstrating the value achieved from IT investments is long established in the Computer Science (CS) and Information Systems (IS) literature. However, emerging technologies such as the ever-changing complex area of cloud computing present new challenges and opportunities for demonstrating how IT investments lead to business value. Recent reviews of extant literature highlights the need for multi-disciplinary research. This research should explore and further develops the conceptualization of value in cloud computing research. In addition, there is a need for research which investigates how IT value manifests itself across the chain of service provision and in inter-organizational scenarios. This open access book will review the state of the art from an IS, Comp Science and Accounting perspective. will introduce and discuss the main techniques for measuring business value for cloud computing in a variety of scenarios, and illustrate these with mini-case studies.

In the past few years, going cloud native has been a big advantage for many companies. But it's a tough technique to get right, especially for enterprises with critical legacy systems. This practical hands-on guide examines effective architecture, design, and cultural patterns to help you transform your organization into a cloud native enterprise—whether you're moving from older architectures or creating new systems from scratch. By following Wealth Grid, a fictional company, you'll understand the challenges, dilemmas, and considerations that accompany a move to the cloud. Technical managers and architects will learn best practices for taking on a successful company-wide transformation. Cloud migration consultants Pini Reznik, Jamie Dobson, and Michelle Gienow draw patterns from the growing community of expert practitioners and enterprises that have successfully built cloud native systems. You'll learn what works and what doesn't when adopting cloud native—including how this transition affects not just your technology but also your organizational structure and processes. You'll learn: What cloud native means and why enterprises are so interested in it Common barriers and pitfalls that have affected other companies (and how to avoid them) Context-specific patterns for a successful cloud native transformation How to implement a safe, evolutionary cloud native approach How companies addressed root causes and misunderstandings that hindered their progress Case studies from real-world companies that have succeeded with cloud native transformations

Measuring the Business Value of Cloud Computing

Technology, Architecture, Applications

Cloud Application Architectures

Practical Patterns for Innovation

Redefining the Architect's Role in the Digital Enterprise

Multi-Cloud Architecture and Governance

*If you're involved in planning IT infrastructure as a network or system architect, system administrator, or developer, this book will help you adapt your skills to work with these highly scalable, highly redundant infrastructure services. While analysts hotly debate the advantages and risks of cloud computing, IT staff and programmers are left to determine whether and how to put their applications into these virtualized services. Cloud Application Architectures provides answers -- and critical guidance -- on issues of cost, availability, performance, scaling, privacy, and security. With Cloud Application Architectures, you will: Understand the differences between traditional deployment and cloud computing Determine whether moving existing applications to the cloud makes technical and business sense Analyze and compare the long-term costs of cloud services, traditional hosting, and owning dedicated servers Learn how to build a transactional web application for the cloud or migrate one to it Understand how the cloud helps you better prepare for disaster recovery Change your perspective on application scaling To provide realistic examples of the book's principles in action, the author delves into some of the choices and operations available on Amazon Web Services, and includes high-level summaries of several of the other services available on the market today. Cloud Application Architectures provides best practices that apply to every available cloud service. Learn how to make the transition to the cloud and prepare your web applications to succeed. Cloud computing has become a significant technology trend. Experts believe cloud computing is currently reshaping information technology and the IT marketplace. The advantages of using cloud computing include cost savings, speed to market, access to greater computing resources, high availability, and scalability. Handbook of Cloud Computing includes contributions from world experts in the field of cloud computing from academia, research laboratories and private industry. This book presents the systems, tools, and services of the leading providers of cloud computing; including Google, Yahoo, Amazon, IBM, and Microsoft. The basic concepts of cloud computing and cloud computing applications are also introduced. Current and future technologies applied in cloud computing are also discussed. Case studies, examples, and exercises are provided throughout. Handbook of Cloud Computing is intended for advanced-level students and researchers in computer science and electrical engineering as a reference book. This handbook is also beneficial to computer and system infrastructure designers, developers, business managers, entrepreneurs and investors within the cloud computing related industry.*

*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.*

*The primary purpose of this book is to capture the state-of-the-art in Cloud Computing technologies and applications. The book will also aim to identify potential research directions and technologies that will facilitate creation a global market-place of cloud computing services supporting scientific, industrial, business, and consumer applications. We expect the book to serve as a reference for larger audience such as systems architects, practitioners, developers, new researchers and graduate level students. This area of research is relatively recent, and as such has no existing reference book that addresses it. This book will be a timely contribution to a field that is gaining considerable research interest, momentum, and is expected to be of increasing interest to commercial developers. The book is targeted for professional computer science developers and graduate students especially at Masters level. As Cloud Computing is recognized as one of the top five emerging technologies that will have a major impact on the quality of science and society over the next 20 years, its knowledge will help position our readers at the forefront of the field.*

The Agile Architecture Revolution

IT Architecture For Dummies

Enterprise Architecture A to Z

Automating the Virtualized Data Center

From Distributed Computing to Cloudware Applications

Cloud Native Architectures

The easy way to understand and implement cloud computing technology written by a team of experts Cloud computing can be difficult to understand at first, but the cost-saving possibilities are great and many companies are getting on board. If you've been put in charge of implementing cloud computing, this straightforward, plain-English guide clears up the confusion and helps you get your plan in place. You'll learn how cloud computing enables you to run a more green IT infrastructure, and access technology-enabled services from the Internet ("in the cloud") without having to understand, manage, or invest in the technology infrastructure that supports them. You'll also find out what you need to consider when implementing a plan, how to handle security issues, and more. Cloud computing is a way for businesses to take advantage of storage and virtual services through the Internet, saving money on infrastructure and support This book provides a clear definition of cloud computing from the utility computing standpoint and also addresses security concerns Offers practical guidance on delivering and managing cloud computing services effectively and efficiently Presents a proactive and pragmatic approach to implementing cloud computing in any organization Helps IT managers and staff understand the benefits and challenges of cloud computing, how to select a service, and what's involved in getting it up and running Highly experienced author team consults and gives presentations on emerging technologies Cloud Computing For Dummies gets straight to the point, providing the practical information you need to know.

How do you start? How should you build a plan for cloud migration for your entire portfolio? How will your organization be affected by these changes? This book, based on real-world cloud experiences by enterprise IT teams, seeks to provide the answers to these questions. Here, you'll see what makes the cloud so compelling to enterprises; with which applications you should start your cloud journey; how your organization will change, and how skill sets will evolve; how to measure progress; how to think about security, compliance, and business buy-in; and how to exploit the ever-growing feature set that the cloud offers to gain strategic and competitive advantage.

"Provides strategic insights, describes the breakout business models, and offers the planning and implementation guidance business and technology leaders need to chart their course ahead." - cover.

Unleash the power of cloud computing using Azure, AWS and Apache Hadoop Description With the advent of internet, there is a complete paradigm shift in the manner we comprehend computing. Need to enable ubiquity, convenient and on-demand access to resources in highly scalable and resilient environments that can be remotely accessed, gave birth to the concept of Cloud computing. The acceptance is so rapid that the notion influences sophisticated innovations in academia, industry and research world-wide and hereby change the landscape of information technology as we thought of. Through this book, the authors tried to incorporate core principles and basic notion of cloud computing in a step-by-step manner and tried to emphasize on key concepts for clear and thorough insight into the subject. Audience This book is intended for students of B.E., B.Tech., B.Sc., M.Sc., M.E., and M.Tech. as a text book. The content is designed keeping in mind the bench marked curriculum of various universities (both National and International). The book covers not only the technical details of how cloud works but also exhibits the strategy, technical design, and in-depth knowledge required to migrate existing applications to the cloud. Therefore, it makes it relevant for the beginners who wants to learn cloud computing right from the foundation. Aspiring Cloud Computing Researchers Instructors, Academicians and Professionals, if they are familiar with cloud, can use this book to learn various open source cloud computing tools, applications, technologies. They will also get a flavor of various international certification exams available. What will you learn
• Learn about the Importance of Cloud Computing in Current Digital Era
• Understand the Core concepts and Principles of Cloud Computing with practical benefits
• Learn about the Cloud Deployment models and Services
• Discover how Cloud Computing Architecture works
• Learn about the Load balancing approach and Mobile Cloud Computing (MCC)
• Learn about the Virtualization and Service-Oriented Architecture (SOA) concepts
• Learn about the various Cloud Computing applications, Platforms and Security concepts
• Understand the adoption Cloud Computing technology and strategies for migration to the cloud
• Case Studies for Cloud computing adoption - Sub-Saharan Africa and India Key Features
• Provides a sound understanding of the Cloud computing concepts, architecture and its applications
• Explores the practical benefits of Cloud computing services and deployment models in details
• Cloud Computing Architecture, Cloud Computing Life Cycle (CCLC), Load balancing approach, Mobile Cloud Computing (MCC), Google App Engine (GAE)
• Virtualization and Service-Oriented Architecture (SOA)
• Cloud Computing applications - Google Apps, Dropbox Cloud and Apple iCloud and its uses in various sectors - Education, Healthcare, Politics, Business, and Agriculture
• Cloud Computing platforms - Microsoft Azure, Amazon Web Services (AWS), Open Nebulla, Eucalyptus, Open Stack, Nimbus and The Apache Hadoop Architecture
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Enterprise Cloud Computing

Cloud Computing: A Hands-On Approach

The Enterprise Cloud

Principles and Practice

A Strategy Guide for Business and Technology Leaders-- and the Rest of Us

"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 Cloud 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 EA. EA can 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 architecture (SOA), cloud computing, etc. 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: scalability, availability, interoperability, 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 management, etc. 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 embrace digital transformation.



Cloud Computing for Enterprise Architectures  
Building Applications and Infrastructure in the Cloud  
A Handbook for Modern Day Architecture and Design with Enterprise-Grade Examples  
Cloud Native Architecture and Design  
Digital Transformation of Enterprise Architecture

*Build enterprise-grade cloud-native systems and learn all about cloud-native architecture and design. This book provides extensive in-depth details of patterns, tools, techniques, and processes with plenty of examples. Cloud Native Architecture and Design begins by explaining the fundamentals of cloud-native architecture and services, what cloud principles and patterns to use, and details of designing a cloud-native element. The book progresses to cover the details of how IT systems can modernize to embrace cloud-native architecture, and also provides details of various enterprise assessment techniques to decide what systems can move and cannot move into the cloud. Architecting and designing a cloud-native system isn't possible without modernized software engineering principles, the culture of automation, and the culture of innovation. As such, this book covers the details of cloud-native software engineering methodologies, and process, and how to adopt an automated governance approach across enterprises with the adoption of artificial intelligence. Finally, you need your cloud-native applications to run efficiently; this section covers the details of containerization, orchestration, and virtualization in the public, private, and hybrid clouds. After reading this book, you will have familiarity with the many concepts related to cloud-native and understand how to design and develop a successful cloud-native application. Technologies and practices may change over time, but the book lays a strong foundation on which you can build successful cloud-native systems. What You Will Learn Discover cloud-native principles and patterns, and how you can leverage them to solve your business problems Gain the techniques and concepts you need to adapt to design a cloud-native application Use assessment techniques and tools for IT modernization Apply cloud-native engineering principles to the culture of automation and culture of innovation Harness the techniques and tools to run your cloud-native applications and automate infrastructure Operate your cloud-native applications by using AI techniques and zero operation techniques Who This Book Is For Software architects, leaders, developers, engineers, project managers, and students.*

*An expert guide to selecting the right cloud service model for your business Cloud computing is all the rage, allowing for the delivery of computing and storage capacity to a diverse community of end-recipients. However, before you can decide on a cloud model, you need to determine what the ideal cloud service model is for your business. Helping you cut through all the haze, Architecting the Cloud is vendor neutral and guides you in making one of the most critical technology decisions that you will face: selecting the right cloud service model(s) based on a combination of both business and technology requirements. Guides corporations through key cloud design considerations Discusses the pros and cons of each cloud service model Highlights major design considerations in areas such as security, data privacy, logging, data storage, SLA monitoring, and more Clearly defines the services cloud providers offer for each service model and the cloud services IT must provide Arming you with the information you need to choose the right cloud service provider, Architecting the Cloud is a comprehensive guide covering everything you need to be aware of in selecting the right cloud service model for you.*

*Cloud Enterprise Architecture examines enterprise architecture (EA) in the context of the surging popularity of Cloud computing. It explains the different kinds of desired transformations the architectural blocks of EA undergo in light of this strategically significant convergence. Chapters cover each of the contributing architectures of EA—business, information, application, integration, security, and technology—illustrating the current and impending implications of the Cloud on each. Discussing the implications of the Cloud paradigm on EA, the book details the perceptible and positive changes that will affect EA design, governance, strategy, management, and sustenance. The author ties these topics together with chapters on Cloud integration and composition architecture. He also examines the Enterprise Cloud, Federated Clouds, and the vision to establish the InterCloud. Laying out a comprehensive strategy for planning and executing Cloud-inspired transformations, the book: Explains how the Cloud changes and affects enterprise architecture design, governance, strategy, management, and sustenance Presents helpful information on next-generation Cloud computing Describes additional architectural types such as enterprise-scale integration, security, management, and governance architectures This book is an ideal resource for enterprise architects, Cloud evangelists and enthusiasts, and Cloud application and service architects. Cloud center administrators, Cloud business executives, managers, and analysts will also find the book helpful and inspirational while formulating appropriate mechanisms and schemes for sound modernization and migration of traditional applications to Cloud infrastructures and platforms.*

*A comprehensive guide to architecting, managing, implementing, and controlling multi-cloud environments Key FeaturesDeliver robust multi-cloud environments and improve your business productivityStay in control of the cost, governance, development, security, and continuous improvement of your multi-cloud solutionIntegrate different solutions, principles, and practices into one multi-cloud foundationBook Description Multi-cloud has emerged as one of the top cloud computing trends, with businesses wanting to reduce their reliance on only one vendor. But when organizations shift to multiple cloud services without a clear strategy, they may face certain difficulties, in terms of how to stay in control, how to keep all the different components secure, and how to execute the cross-cloud development of applications. This book combines best practices from different cloud adoption frameworks to help you find solutions to these problems. With step-by-step explanations of essential concepts and practical examples, you'll begin by planning the foundation, creating the architecture, designing the governance model, and implementing tools, processes, and technologies to manage multi-cloud environments. You'll then discover how to design workload environments using different cloud propositions, understand how to optimize the use of these cloud technologies, and automate and monitor the environments. As you advance, you'll delve into multi-cloud governance, defining clear demarcation models and management processes. Finally, you'll learn about managing identities in multi-cloud: who's doing what, why, when, and where By the end of this book, you'll be able to create, implement, and manage multi-cloud architectures with confidence What you will learnGet to grips with the core functions of multiple cloud platformsDeploy, automate, and secure different cloud solutionsDesign network strategy and get to grips with identity and access management for multi-cloudDesign a landing zone spanning multiple cloud platformsUse automation, monitoring, and management tools for multi-cloudUnderstand multi-cloud management with the principles of BaseOps, FinOps, SecOps, and DevOpsDefine multi-cloud security policies and use cloud security toolsTest, integrate, deploy, and release using multi-cloud CI/CD pipelinesWho this book is for This book is for architects and lead engineers involved in architecting multi-cloud environments, with a focus on getting governance right to stay in control of development in multi-cloud. Basic knowledge of different cloud platforms (Azure, AWS, GCP, VMWare, and OpenStack) and understanding of IT governance is necessary.*

*Accelerating Cloud Adoption*

*Cloud Native Transformation*

*Cloud Computing For Dummies*

*Build cloud strategies that align technology and economics while effectively managing risk*

*Cloud Computing*

*How Cloud Computing, REST-Based SOA, and Mobile Computing Are Changing Enterprise IT*

*Despite the buzz surrounding the cloud computing, only a small percentage of organizations have actually deployed this new style of IT—so far. If you're planning your long-term cloud strategy, this practical book provides insider knowledge and actionable real-world lessons regarding planning, design, operations, security, and application transformation. This book teaches business and technology managers how to transition their organization's traditional IT to cloud computing. Rather than yet another book trying to sell or convince readers on the benefits of clouds, this book provides guidance, lessons learned, and best practices on how to design, deploy, operate, and secure an enterprise cloud based on real-world experience. Author James Bond provides useful guidance and best-practice checklists based on his field experience with real customers and cloud providers. You'll view cloud services from the perspective of a consumer and as an owner/operator of an enterprise private or hybrid cloud, and learn valuable lessons from successful and less-than-successful organization use-case scenarios. This is the information every CIO needs in order to make the business and technical decisions to finally execute on their journey to cloud computing. Get updated trends and definitions in cloud computing, deployment models, and for building or buying cloud services Discover challenges in cloud operations and management not foreseen by early adopters Use real-world lessons to plan and build an enterprise private or hybrid cloud Learn how to assess, port, and migrate legacy applications to the cloud Identify security threats and vulnerabilities unique to the cloud Employ a cloud management system for your enterprise (private or multi-provider hybrid) cloud ecosystem Understand the challenges for becoming an IT service broker leveraging the power of the cloud Cloud computing promises to revolutionize IT and business by making computing available as a utility over the internet. This book is intended primarily for practising software architects who need to assess the impact of such a transformation. It explains the evolution of the internet into a cloud computing platform, describes emerging development paradigms and technologies, and discusses how these will change the way enterprise applications should be architected for cloud deployment. Gautam Shroff provides a technical description of cloud computing technologies, covering cloud infrastructure and platform services, programming paradigms such as MapReduce, as well as 'do-it-yourself' hosted development tools. He also describes emerging technologies critical to cloud computing. The book also covers the fundamentals of enterprise computing, including a technical introduction to enterprise architecture, so it will interest programmers aspiring to become software architects and serve as a reference for a graduate-level course in software architecture or software engineering.*

*The current work provides CIOs, software architects, project managers, developers, and cloud strategy initiatives with a set of architectural patterns that offer nuggets of advice on how to achieve common cloud computing-related goals. The cloud computing patterns capture knowledge and experience in an abstract format that is independent of concrete vendor products. Readers are provided with a toolbox to structure cloud computing strategies and design cloud application architectures. By using this book cloud-native applications can be implemented and best suited cloud vendors and tooling for individual usage scenarios can be selected. The cloud computing patterns offer a unique blend of academic knowledge and practical experience due to the mix of authors. Academic knowledge is brought in by Christoph Fehling and Professor Dr. Frank Leymann who work on cloud research at the University of Stuttgart. Practical experience in building cloud applications, selecting cloud vendors, and designing enterprise architecture as a cloud customer is brought in by Dr. Ralph Retter who works as an IT architect at T-Systems, Walter Schupeck, who works as a Technology Manager in the field of Enterprise Architecture at Daimler AG, and Peter Arbitter, the former head of T Systems' cloud architecture and IT portfolio team and now working for Microsoft. Voices on Cloud Computing Patterns Cloud computing is especially beneficial for large companies such as Daimler AG. Prerequisite is a thorough analysis of its impact on the existing applications and the IT architectures. During our collaborative research with the University of Stuttgart, we identified a vendor-neutral and structured approach to describe properties of cloud offerings and requirements on cloud environments. The resulting Cloud Computing Patterns have profoundly impacted our corporate IT strategy regarding the adoption of cloud computing. They help our architects, project managers and developers in the refinement of architectural guidelines and communicate requirements to our integration partners and software suppliers. Dr. Michael Gorriz – CIO Daimler AG Ever since 2005 T-Systems has provided a flexible and reliable cloud platform with its “Dynamic Services”. Today these cloud services cover a huge variety of corporate applications, especially enterprise resource planning, business intelligence, video, voice communication, collaboration, messaging and mobility services. The book was written by senior cloud pioneers sharing their technology foresight combining essential information and practical experiences. This valuable compilation helps both practitioners and clients to really understand which new types of services are readily available, how they really work and importantly how to benefit from the cloud. Dr. Marcus Hacke – Senior Vice President, T-Systems International GmbH This book provides a conceptual framework and very timely guidance for people and organizations building applications for the cloud. Patterns are a proven approach to building robust and sustainable applications and systems. The authors adapt and extend it to cloud computing, drawing on their own experience and deep contributions to the field. Each pattern includes an extensive discussion of the state of the art, with implementation considerations and practical examples that the reader can apply to their own projects. By capturing our collective knowledge about building good cloud applications and by providing a format to integrate new insights, this book provides an important tool not just for individual practitioners and teams, but for the cloud computing community at large. Kristof Kloeckner – General Manager, Rational Software, IBMSoftware Group This book provides a technical description of cloud computing technologies, covering cloud infrastructure and platform services. It then addresses the basics of operating a Cloud computing data center, the services offered from Cloud providers, the carrier role in connecting users to data centers, and the process of interconnecting Cloud data centers to form a flexible processing unit. It also describes how cloud computing has made an impact in various industries and provides emerging technologies that are critical within each industry. Lastly, this book will address security requirements and provide the best practices in securing data.*

*Enterprise Cloud Computing for Non-Engineers*

*Cloud Computing Patterns*