Chapter 4 Cloud Computing Applications And Paradigms

Chapter 4 Cloud Computing Applications And Paradigms *Downloaded from* blog.gmercyu.edu *by guest*

CASSIUS MATHEWS

Designing Networks and Services for the Cloud Elsevier
R for Cloud Computing looks at some of the tasks performed by business analysts on the desktop (PC era) and helps the user navigate the wealth of information in R and its 4000 packages as well as transition the same analytics using the cloud. With this information the reader can select both cloud vendors and the sometimes confusing cloud ecosystem as well as the R packages that can help process the analytical tasks with minimum effort, cost and maximum usefulness and customization. The use of Graphical User Interfaces (GUI) and Step by Step screenshot tutorials is emphasized in this book to lessen the famous learning curve in learning R and some of the needless confusion created in cloud computing that hinders its widespread adoption. This will help you kick-start analytics on the cloud including chapters on both cloud computing, R, common tasks performed in analytics including the current focus and scrutiny of Big Data Analytics, setting up and navigating cloud providers. Readers are exposed to a breadth of cloud computing choices and analytics topics without being buried in needless depth. The included references and links allow the reader to pursue business analytics on the cloud easily. It is aimed at practical analytics and is easy to transition from existing analytical set up to the cloud on an open source system based primarily on R. This book is aimed at industry practitioners with basic programming skills and students who want to enter analytics as a profession. Note the scope of the book is neither statistical theory nor graduate level research for statistics, but rather it is for business analytics practitioners. It will also help researchers and academics but at a practical rather than conceptual level. The R statistical software is the fastest growing analytics platform in the world, and is established in both academia and corporations for robustness, reliability and accuracy. The cloud computing paradigm is firmly established as the next generation of computing from microprocessors to desktop PCs to cloud.
Introduction to Sensors in IoT and Cloud Computing Applications CRC Press
Cloud native infrastructure is more than servers, network, and storage in the cloud—it is as much about operational hygiene as it is about elasticity and scalability. In this book, you'll learn

practices, patterns, and requirements for creating infrastructure that meets your needs, capable of managing the full life cycle of cloud native applications. Justin Garrison and Kris Nova reveal hard-earned lessons on architecting infrastructure from companies such as Google, Amazon, and Netflix. They draw inspiration from projects adopted by the Cloud Native Computing Foundation (CNCF), and provide examples of patterns seen in existing tools such as Kubernetes. With this book, you will: Understand why cloud native infrastructure is necessary to effectively run cloud native applications Use guidelines to decide when—and if—your business should adopt cloud native practices Learn patterns for deploying and managing infrastructure and applications Design tests to prove that your infrastructure works as intended, even in a variety of edge cases Learn how to secure infrastructure with policy as code

IBM Data Center Networking: Planning for Virtualization and Cloud Computing "O'Reilly Media, Inc."

In the era of the Internet of Things and Big Data, Cloud Computing has recently emerged as one of the latest buzzwords in the computing industry. It is the latest evolution of computing, where IT recourses are offered as services. Cloud computing provides on-demand, scalable, device-independent, and reliable services to its users. The exponential growth of digital data bundled with the needs of analysis, processing and storage, and cloud computing has paved the way for a cheap, secure, and omnipresent computing framework allowing for the delivery of enormous computing and storage capacity to a diverse community of end-recipients. Clouds are distributed technology platforms that leverage sophisticated technology innovations to provide highly scalable and resilient environments that can be remotely utilized by organizations in a multitude of powerful ways. The term cloud is often used as a metaphor for the Internet and can be defined as a new type of utility computing that basically uses servers that have been made available to third parties via the Internet.

Distributed and Cloud Computing IGI Global

The book ‘Data Intensive Computing Applications for Big Data’ discusses the technical concepts of big data, data intensive computing through machine learning, soft computing and parallel computing paradigms. It brings together researchers to report their latest results or progress in the development of the above mentioned areas. Since there are few books on this specific subject, the editors aim to provide a common platform for researchers working in this area to exhibit their novel findings. The book is intended as a reference work for advanced undergraduates and graduate students, as well as multidisciplinary, interdisciplinary and transdisciplinary research workers and scientists on the subjects of big data and cloud/parallel and distributed computing, and explains didactically many of the core concepts of these approaches for practical applications. It is organized into 24 chapters providing a comprehensive overview of big data analysis using parallel computing and addresses the complete data science workflow in the cloud, as well as dealing with privacy issues and the challenges faced in a data-intensive cloud computing environment. The book explores both fundamental and high-level concepts, and will serve as a manual for those in the industry, while also helping beginners to understand the basic and advanced aspects of big data and cloud computing.

Risk Thinking for Cloud-Based Application Services "O'Reilly Media, Inc."

Cloud Services, Networking and Management provides a comprehensive overview of the cloud infrastructure and services, as well as their underlying management mechanisms, including data center virtualization and networking, cloud security and reliability, big data analytics, scientific and commercial applications. Special features of the book include: State-of-the-art content Self-contained chapters for readers with specific interests Includes commercial applications on Cloud (video services and games)

Cloud Computing MIT Press

An exploration of the benefits of cloud computing in geoscience research and applications as well as future research directions, Spatial Cloud Computing: A Practical Approach discusses the essential elements of cloud computing and their advantages for geoscience. Using practical examples, it details the geoscience requirements of cloud computing, covers general procedures and considerations when migrating geoscience applications onto cloud services, and demonstrates how to deploy different applications. The book discusses how to choose cloud services based on the general cloud computing measurement criteria and cloud computing cost models. The authors examine the readiness of cloud computing to support geoscience applications using open source cloud software solutions and commercial cloud services. They then review future research and developments in data, computation, concurrency, and spatiotemporal intensities of geosciences and how cloud service can be leveraged to meet the challenges. They also introduce research directions from the aspects of technology, vision, and social dimensions. Spatial Cloud Computing: A Practical Approach a common workflow for deploying geoscience applications and provides references to the concepts, technical details, and operational guidelines of cloud computing. These features and more give developers, geoscientists, and IT professionals the information required to make decisions about how to select and deploy cloud services.

Applications of Cloud Computing BPB Publications

The enterprise data center has evolved dramatically in recent years. It has moved from a model that placed multiple data centers closer to users to a more centralized dynamic model. The factors influencing this evolution are varied but can mostly be attributed to regulatory, service level improvement, cost savings, and manageability. Multiple legal issues regarding the security of data housed in the data center have placed security requirements at the forefront of data center architecture. As the cost to operate data centers has increased, architectures have moved towards consolidation of servers and applications in order to better utilize assets and reduce "server sprawl." The more diverse and distributed the data center environment becomes, the more manageability becomes an issue. These factors have led to a trend of data center consolidation and resources on demand using technologies such as virtualization, higher WAN bandwidth technologies, and newer management technologies. The intended audience of this book is network architects and network administrators. In this IBM® Redbooks® publication we discuss the following topics: The current state of the data center network The business drivers making the case for change The unique capabilities and network requirements of system platforms The impact of server and storage consolidation on the data center network The functional overview of the main data center network virtualization and consolidation technologies The new data center network design landscape

Data Intensive Computing Applications for Big Data IBM Redbooks

Cloud computing has created a shift from the use of physical hardware and locally managed software-enabled platforms to that of virtualized cloud-hosted services.

Cloud assembles large networks of virtual services, including hardware (CPU, storage, and network) and software resources (databases, message queuing systems, monitoring systems, and load-balancers). As Cloud continues to revolutionize applications in academia, industry, government, and many other fields, the transition to this efficient and flexible platform presents serious challenges at both theoretical and practical levels—ones that will often require new approaches and practices in all areas. Comprehensive and timely, Cloud Computing: Methodology, Systems, and Applications summarizes progress in state-of-the-art research and offers step-by-step instruction on how to implement it. Summarizes Cloud Developments, Identifies Research Challenges, and Outlines Future Directions Ideal for a broad audience that includes researchers, engineers, IT professionals, and graduate students, this book is designed in three sections: Fundamentals of Cloud Computing: Concept, Methodology, and Overview Cloud Computing Functionalities and Provisioning Case Studies, Applications, and Future Directions It addresses the obvious technical aspects of using Cloud but goes beyond, exploring the cultural/social and regulatory/legal challenges that are quickly coming to the forefront of discussion. Properly applied as part of an overall IT strategy, Cloud can help small and medium business enterprises (SMEs) and governments in optimizing expenditure on application-hosting infrastructure. This material outlines a strategy for using Cloud to exploit opportunities in areas including, but not limited to, government, research, business, high-performance computing, web hosting, social networking, and multimedia. With contributions from a host of internationally recognized researchers, this reference delves into everything from necessary changes in users' initial mindset to actual physical requirements for the successful integration of Cloud into existing in-house infrastructure. Using case studies throughout to reinforce concepts, this book also addresses recent advances and future directions in methodologies, taxonomies, IaaS/SaaS, data management and processing, programming models, and applications. Cloud Computing Simplified CRC Press Designing Networks and Services for the Cloud Delivering business-grade cloud applications and services A rapid, easy-to-understand approach to delivering a secure, resilient, easy-to-manage, SLA-driven cloud experience Designing Networks and Services for the Cloud helps you understand the design and architecture of networks and network services that enable the delivery of business-grade cloud services. Drawing on more than 40 years of experience in network and cloud design, validation, and deployment, the authors demonstrate how networks spanning from the Enterprise branch/HQ and the service provider Next-Generation Networks (NGN) to the data center fabric play a key role in addressing the primary inhibitors to cloud adoption–security, performance, and management complexity. The authors first review how virtualized infrastructure lays the foundation for the delivery of cloud services before delving into a primer on clouds, including the management of cloud services. Next, they explore key factors that inhibit enterprises from moving their core workloads to the cloud, and how advanced networks and network services can help businesses migrate to the cloud with confidence. You'll find an in-depth look at data center networks, including virtualization-aware networks, virtual network services, and service overlays. The elements of security in this virtual, fluid environment are discussed, along with techniques for optimizing and accelerating the service delivery. The book dives deeply into cloud-aware service provider NGNs and their role in flexibly connecting distributed cloud resources, ensuring the security of provider and tenant resources, and enabling the optimal placement of cloud services. The role of Enterprise networks as a critical control point for securely and cost-effectively connecting to high-performance cloud services is explored in detail before various parts of the network finally come together in the definition and delivery of end-to-end cloud SLAs. At the end of the journey, you preview the exciting future of clouds and network services, along with the major upcoming trends. If you are a technical professional or manager who must design, implement, or operate cloud or NGN solutions in enterprise or service-provider environments, this guide will be an indispensable resource. * Understand how virtualized data-center infrastructure lays the groundwork for cloud-based services * Move from distributed virtualization to "IT-as-a-service" via automated self-service portals * Classify cloud services and deployment models, and understand the actors in the cloud ecosystem * Review the elements, requirements, challenges, and opportunities associated with network services in the cloud * Optimize data centers via network segmentation, virtualization-aware networks, virtual network services, and service overlays * Systematically secure cloud services * Optimize service and application performance * Plan and implement NGN infrastructure to support and accelerate cloud services * Successfully connect enterprises to the cloud * Define and deliver on end-to-end cloud SLAs * Preview the future of cloud and network services *Cloud Computing Applications and Techniques for E-Commerce* Bentham Science Publishers
Getting familiar with cloud computing features from scratch to advanced. KEY FEATURES ● Detailed coverage on Cloud fundamentals, Cloud Service Models, and deployment models. ● Easy, detailed, and practical approach to develop skills on working with Cloud Computing. ● Includes charts, diagrams, and graphical illustrations for better visual learning on complex topics of cloud computing. DESCRIPTION Cloud computing is a technology that allows you to store, access data and programs over the internet instead of the hard drive or a server. In this book, you will gain knowledge about the fundamentals of cloud computing. This book includes a detailed description of the features of the cloud, the importance of cloud in today's era, and uses of cloud computing. This book provides you with a deep knowledge of the basics of cloud computing. You will learn about the characteristics, architecture, and uses and importance of cloud computing. This book also explores the concept of scalability and redundancy regarding cloud computing. You will learn about the various cloud deployment and service models. You will also gain knowledge of virtualization technology. You will also have a guided tour of concepts related to cloud management, data storage and security, and cloud operations and technologies. At the end of the book, you will learn about the advanced concepts of cloud computing and also learn about mobile cloud computing. WHAT YOU WILL LEARN ● In-depth understanding on the fundamentals of cloud computing. ● Explore the role and importance of cloud computing across businesses and enterprises. ● Learn about cloud deployment models and service models. ● Gain knowledge on cloud storage, cloud security, administration of cloud and mobile cloud computing. WHO THIS BOOK IS FOR This book is open to all graduates, beginners and working professionals to help them understand everything about cloud computing and how to operate in a cloud environment. TABLE OF CONTENTS 1. Introduction 2. Architecture and Applications 3. Scalability

and Redundancy 4. Cloud Services 5. Cloud Deployment Models 6. Virtualization 7. Management 8. Data Storage and Security 9. Operations and Challenges 10. Technologies and Service Providers 11. Cloud Cube Model 12. Mobile Cloud Computing

Handbook of Cloud Computing BPB Publications

Unleash the power of cloud computing using Azure, AWS and Apache HadoopKey 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 Adoption of Cloud Computing technology and strategies for migration to the cloud Cloud computing adoption case studies - Sub-Saharan Africa and India Chapter-wise Questions with Summary and Examination Model Question papers 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.This book begins with the fundamentals of cloud computing, its service and deployment models, architecture, as well as applications and platforms. It presents some key enterprise strategies and models for the adoption of and migration to cloud. Privacy and security issues and challenges also form a major part of our discussion in the book as well as case studies of cloud computing adoption in Sub-Saharan Africa and India. The book concludes with a discussion of several advanced topics, such as Amazon Web Services (AWS), Open Nebulla, Microsoft Azure, Apache Hadoop and Google App Engine (GAE). 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 Who this book is forThis 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. Table of contents1. Foundation of Cloud Computing 2. Cloud Services and Deployment Models3. Cloud Computing Architecture4. Virtualization Technology5. Service Oriented Architecture6. Cloud Security and Privacy7. Cloud Computing Applications8. Cloud Computing Technologies, Platform and Services9. Adoption of Cloud Computing10. Model Paper 111. Model Paper 212. Model Paper 313. Model Paper 4 About the authorKamal Kant Hiran is working as Associate Professor & Head IT in the BlueCrest University College, Liberia, West Africa as well as Research Fellow, Aalborg University, Copenhagen, Denmark. He has rich experience of 14+ years as an academician and researcher in Asia, Africa and Europe. His research interests include Cloud Computing adoption theories and framework, Internet of Things (IoT) and Digital Image and Video Processing. He has several awards on his credit such as International travel grant for Germany from ITS Europe, Gold Medal Award in M. Tech (ICT), IEEE Ghana Section Award, IEEE Senior Member Recognition, IEEE Student branch award and Best Research paper award from the University of Gondar, Ethiopia. He has published research papers in peer-reviewed international journals and conferences. He is Reviewer and Editorial board member of various reputed International Journals in Elsevier, Springer, IEEE, Bentham Science, IGI Global, IJSET, IJTEE, IJSTR and IJERT. He is the active member in organizing many international seminars, workshops and conferences in India, Ghana, Liberia, Denmark, Jordan and Ethiopia.His website: http://www.kamalhiran.in/His LinkedIn profile: https://www.linkedin.com/in/kamal-kant-hiran-4553b643Ruchi Doshi is having more than 10 years of academic, research and software development experience in Asia and Africa. She is working as Registrar in the BlueCrest University College, Liberia, West Africa an also worked with BlueCrest University College, Ghana; Amity University, India & Trimax IT Infrastructure & Services as software engineer. She is interested in the field of Cloud computing, Computer vision, Artificial Intelligence and latest technology used in the higher education. She has published research papers in peer-reviewed international journals and conferences. She is Reviewer, Advisor, Ambassador & Editorial board member of various reputed International Journals and Conferences such as MIR Labs, USA, IEEE W4S, IJCS and IJERT. She is the active member in organizing many international events in India, Ghana, and Liberia. Her LinkedIn profile: https://www.linkedin.com/in/ruchi-doshi-96bb63b4 Dr. Fagbola Temitayo is currently a Post-Doctoral Fellow (PDF) at Durban University of Technology, South Africa and an Assistant Professor in the Department of Computer Science, Federal University, Oye-Ekiti, Nigeria with over 10 years of proven teaching and research experience. He bagged a Ph.D., M.Sc and B.Tech degrees in Computer Science with strong research interests in cloud computing ecosystem, deep learning, computational intelligence, social media big-data analytics, information security, decision support system and video processing. Dr Fagbola is a member of the South African Institute of Computer Scientists and Information Technologists (SAICSIT), Asian Council of Science Editors (ACSE), Machine Intelligence Institute of Africa (MIIA), Computer Professionals (Registration

Council) of Nigeria (CPN), the International Association of Engineers (IAENG) and DataHack4FI in Africa. He has over 50 refereed publications in referred international journals and conference proceedings to his credit and currently serves as a reviewer for over 15 reputable international journals. He is also a recipient of the ACM FAT's grant in November 2018.His LinkedIn profile: https://www.linkedin.com/in/temitayo-fagbola-5941a2169Mehul Mahrishi is currently working as an Associate Professor in the Faculty of Computer Science & Engineering at the Swami Keshvanand Institute of Technology, Management and Gramothan, Jaipur, India. He is a life member of International Association of Engineers and has published several research articles in National/International Journals, Conferences including Global Journals, ICCCTAM-Dubai, ICMLC-Singapore, IACC and chapters in books. He is also an active technical reviewer of Journal of Parallel and Distributed Computing (SCI & Scopus-Elsevier). His research activities are currently twofold: while the first research activity is set to explore the developmental enhancements video processing and analysis; the second major research theme is focused on the emerging capabilities of cloud computing. Mr. Mahrishi is rewarded at number of occasions in various domains including Recognition as an active reviewer by Journal of Parallel and Distributed Computing (JPDC, Elsevier, SCI & Scopus Indexed), IEEE continuing education certification for "e;Cloud Computing Enable Technologies and Recognition for outstanding performance in Campus Connect Program by Infosys, India.His LinkedIn profile: https://www.linkedin.com/in/mehuk-mahrishi-30979026

Cloud Technology: Concepts, Methodologies, Tools, and Applications BPB Publications

Mastering Cloud ComputingNewnes

Cloud Services, Networking, and Management CreateSpace

Mastering Cloud Computing is designed for undergraduate students learning to develop cloud computing applications. Tomorrow's applications won’t live on a single computer but will be deployed from and reside on a virtual server, accessible anywhere, any time. Tomorrow's application developers need to understand the requirements of building apps for these virtual systems, including concurrent programming, high-performance computing, and data-intensive systems. The book introduces the principles of distributed and parallel computing underlying cloud architectures and specifically focuses on virtualization, thread programming, task programming, and map-reduce programming. There are examples demonstrating all of these and more, with exercises and labs throughout. Explains how to make design choices and tradeoffs to consider when building applications to run in a virtual cloud environment Real-world case studies include scientific, business, and energy-efficiency considerations

Cloud Computing Fundamentals CRC Press

Everybody has a supposition on what is a Cloud computing. Cloud computing is a modern area emerged by distributed computing that offers many powerful benefits to different organizations. It has an ability to rent a server or a thousand of servers via information technology (IT) services whole the world. The capabilities of Cloud computing are obtained by running a geophysical modeling application on most powerful systems. Organizations can improve their efficiency to quickly and reliably respond to the needs of their customers. It is performed by making a contract for various Cloud services such as applications, software, data storages, and processing capabilities. There are some risks in Cloud-based servers such as maintaining the security of systems, asserting the privacy of information, and insuring the wise expenditures of IT resources. Cloud technology causes the dedicated services to be always on, occurring on the running systems to be upgraded, and accordance with demand to be scaled considerably. Cloud computing involves a range of underlying technologies and configuration options instead of being as a single system. Organizations should consider the strengths and weaknesses of the Cloud technology, service models, and deployment methods through evaluating services to meet their requirements. A Cloud system can extremely store and secure large amounts of data that is accessible only by authorized users and applications. It is supported and sponsored by a Cloud service provider which installs a powerful platform on the Cloud systems. The platform involves some of the required abilities such as the operating system, Apache, a MySQL database, Perl, Python, and PHP with a capability for automatically scaling in response to changing the different workloads. Cloud computing can utilize some applications such as sales automation, email, and forum management on the Internet. Internet can protect data while providing a consumer's service as well it is able to utilize the Cloud storage for holding an application, personal data, and business. A Cloud system with the aid of the Internet can use a small number of Web services in order to integrate maps, photos, and GPS information. This book discusses about the main concepts of Cloud computing. It is an appropriate tutorial for ordinary and professional people to acquire some required information about Cloud technology. Chapter 1 introduces the overall and fundamental characteristic of Cloud systems such as Web services, Grid computing, and hardware virtualization. In Chapter 2, the architectures of Cloud computing including the deployment models and the service models defined for Cloud-based servers are described carefully. Chapter 3 explains various applications of Cloud computing in various applications such as file storage, Cloud database, and email. In Chapter 4, some popular consumer applications designed by Cloud-based systems such as Evernote, iCloud, and Spotify are represented completely. Chapter 5 discusses about the different usages of Cloud servers such Cloud monitoring, healthcare, and banking. In Chapter 6, the security issues of Cloud computing such as privacy, reliability, and compliance are presented carefully. Chapter 7 points out the famous simulation tools designed for Cloud-based issues such as CloudSim, Xen hypervisor, and UEC. Finally, Chapter 8 introduces some well-liked companies established for Cloud-based usages such as CloudLock, CloudMunch, and CloudPhysics. I hope that this book can help to ordinary people and professional researchers to design and implement various applications with Cloud technology. Undoubtedly, this book like any humanistic product is not devoid of any problem. Hence, the next version of this book can be published more appropriate than current version according to valuable suggestions of dear readers. I wish that this book can assist to computer science to design complex systems and to solve some of the exiting problems.

R for Cloud Computing Mastering Cloud Computing

From small start-ups to major corporations, companies of all sizes have embraced cloud computing for the scalability, reliability, and cost benefits it can provide. It has even been said that cloud computing may have a greater effect on our lives than the PC and dot-com revolutions combined.Filled with comparative charts and decision trees, Impleme

Cloud Native Infrastructure CRC Press

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 Newnes

Distributed and Cloud Computing: From Parallel Processing to the Internet of Things offers complete coverage of modern distributed computing technology including clusters, the grid, service-oriented architecture, massively parallel processors, peer-to-peer networking, and cloud computing. It is the first modern, up-to-date distributed systems textbook; it explains how to create high-performance, scalable, reliable systems, exposing the design principles, architecture, and innovative applications of parallel, distributed, and cloud computing systems. Topics covered by this book include: facilitating management, debugging, migration, and disaster recovery through virtualization; clustered systems for research or ecommerce applications; designing systems as web services; and social networking systems using peer-to-peer computing. The principles of cloud computing are discussed using examples from open-source and commercial applications, along with case studies from the leading distributed computing vendors such as Amazon, Microsoft, and Google. Each chapter includes exercises and further reading, with lecture slides and more available online. This book will be ideal for students taking a distributed systems or distributed computing class, as well as for professional system designers and engineers looking for a reference to the latest distributed technologies including cloud, P2P and grid computing. Complete coverage of modern distributed computing technology including clusters, the grid, service-oriented architecture, massively parallel processors, peer-to-peer networking, and cloud computing Includes case studies from the leading distributed computing vendors: Amazon, Microsoft, Google, and more Explains how to use virtualization to facilitate management, debugging, migration, and disaster recovery Designed for undergraduate or graduate students taking a distributed systems course—each chapter includes exercises and further reading, with lecture slides and more available online

Collaboration with Cloud Computing IGI Global

You may regard cloud computing as an ideal way for your company to control IT costs, but do you know how private and secure this service really is? Not many people do. With Cloud Security and Privacy, you'll learn what's at stake when you trust your data to the cloud, and what you can do to keep your virtual infrastructure and web applications secure. Ideal for IT staffers, information security and privacy practitioners, business managers, service providers, and investors alike, this book offers you sound advice from three well-known authorities in the tech security world. You'll learn detailed information on cloud computing security that-until now-has been sorely lacking. Review the current state of data security and storage in the cloud, including confidentiality, integrity, and availability Learn about the identity and access management (IAM) practice for authentication, authorization, and auditing of the users accessing cloud services Discover which security management frameworks and standards are relevant for the cloud Understand the privacy aspects you need to consider in the cloud, including how they compare with traditional computing models Learn the importance of audit and compliance functions within the cloud, and the various standards and frameworks to consider Examine security delivered as a service-a different facet of cloud security

Cloud Computing Springer

With its cost efficiency, enabling of collaboration and sharing of resources, and its ability to improve access, cloud computing is likely to play a big role in the classrooms of tomorrow. Cloud Computing for Teaching and Learning: Strategies for Design and Implementation provides the latest information about cloud development and cloud applications in teaching and learning. The book alsos include empirical research findings in these areas for professionals and researchers working in the field of e-learning who want to implement teaching and learning with cloud computing, as well as provide insights and support to executives concerned with cloud development and cloud applications in e-learning communities and environments.

Spatial Cloud Computing CRC Press

Many enterprises are moving their applications and IT services to the cloud. Better risk management results in fewer operational surprises and failures, greater stakeholder confidence and reduced regulatory concerns; proactive risk management maximizes the likelihood that an enterprise’s objectives will be achieved, thereby enabling organizational success. This work methodically considers the risks and opportunities that an enterprise taking their applications or services onto the cloud must consider to obtain the cost reductions and service velocity improvements they desire without suffering the consequences of unacceptable user service quality.

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