Cloud Data Backup Solutions

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Distributed Computing and Internet Technology Nikolaj Bjorner 2016-01-06 This book constitutes the proceedings of the 12th International Conference on Distributed Computing and Internet Technology, ICDCIT 2016, held in Bhubaneswar, India, in January 2016. The 6 full papers, 7 short papers and 11 poster papers presented in this volume were carefully reviewed and selected from 129 submissions. The ICDCIT conference focusses on distributed computing, internet technologies, and societal applications. The book also contains 3 full paper invited talks.

Backup & Recovery Curtis Preston 2007 Packed with practical, affordable backup and recovery solutions for UNIX, Linux, Windows, and the Mac OS X system--as well as various databases--this new guide is a complete overhaul of the author's strong-selling "UNIX Backup & Recovery," now revised and expanded with over 40 percent new material.

The InfoSec Handbook Umesha Nayak 2014-09-17 The InfoSec Handbook offers the reader an organized layout of information that is easily read and understood. Allowing beginners to enter the field and understand the key concepts and ideas, while still keeping the experienced readers updated on topics and concepts. It is intended mainly for beginners to the field of information security, written in a way that makes it easy for them to understand the detailed content of the book. The book offers a practical and simple view of the security practices while still offering somewhat technical and detailed information relating to security. It helps the reader build a strong foundation of information, allowing them to move forward from the book with a larger knowledge base. Security is a constantly growing concern that everyone must deal with. Whether it's an average computer user or a highly skilled computer user, they are always confronted with different security risks. These risks range in danger and should always be dealt with accordingly. Unfortunately, not everyone is aware of the dangers or how to prevent them and this is where most of the issues arise in information technology (IT). When computer users do not take security into account many issues can arise from that like system compromises or loss of data and information. This is an obvious issue that is present with all computer users. This book is intended to educate the average and experienced user of what kinds of different security practices and standards exist. It will also cover how to manage security software and updates in order to be as protected as possible from all of the threats that they face.

Pro Data Backup and Recovery Steven Nelson 2011-07-18 Good backup and recovery strategies are key to the health of any organization. Medium- to very-large-scale systems administrators have to protect large amounts of critical data as well as design backup solutions that are scalable and optimized to meet changing conditions. Pro Data Backup and Recovery will cover some of the more common backup applications, such as Symantec NetBackup/BackupExec, EMC NetWorker, and CommVault, but the main discussion will focus on the implementation of 21st century architectures that allow the backup software to be a "commodity" item. The underlying architecture provides the framework for meeting the requirements of data protection for the organization. This book covers new developments in data protection as well as the impact of single-instance storage upon backup infrastructures. It discusses the impact of backup and data replication, the often misapplied B2D and D2D strategies, and "tapeless" backup environments. Continuous data protection and remote replication strategies are also addressed as they are integrated within backup strategies—a very important topic today. Learn backup solution design regardless of specific backup software Design realistic recovery solutions Take into account new data protection standards and the impact of data replication Whether you are using NetBackup, CommVault, or some other backup software, Pro Data Backup and Recovery will give you the information you need to keep your data safe and available.

Microsoft System Center Data Protection for the Hybrid Cloud Shreesh Dubey 2015-06-06 Part of a series of specialized guides on System Center, this book helps you optimize your System Center Data Protection Manager environment. It focuses on best practices, design concepts, how-to procedures, and in-depth technical troubleshooting.

IBM Tivoli Storage Manager as a Data Protection Solution Larry Coyne 2014-08-15 When you hear IBM® Tivoli® Storage Manager, the first thing that you typically think of is data backup. Tivoli Storage Manager is the premier storage management solution for mixed platform environments. Businesses face a tidal wave of information and data that seems to increase daily. The ability to successfully and efficiently manage information and data has become imperative. The Tivoli Storage Manager family of products helps businesses successfully gain better control and efficiently manage the information tidal wave through significant enhancements in multiple facets of data protection. Tivoli Storage Manager is a highly scalable and available data protection solution. It takes data protection scalability to the next level with a relational database, which is based on IBM DB2® technology. Greater availability is delivered through enhancements such as online, automated database reorganization. This IBM Redbooks® publication describes the evolving set of data-protection challenges and how capabilities in Tivoli Storage Manager can best be used to address those challenges. This book is more than merely a description of new and changed functions in Tivoli Storage Manager; it is a guide to use for your overall data protection solution.

Information Security Management Handbook, Volume 6 Harold F. Tipton 2016-04-19 Updated annually, the Information Security Management Handbook, Sixth Edition, Volume 6 is the most comprehensive and up-to-date reference available on information security and assurance. Bringing together the knowledge, skills, techniques, and tools required of IT security professionals, it facilitates the up-to-date understanding required to stay

Cloud Computing for Trainers R. M. Shor 2011-04 This Infoline focuses on the emergence of cloud computing, its role in driving an important shift in information technology, and its growing presence in the lives of everyone who uses computing and telecommunications technology, with an emphasis on its role for workplace learning and performance professionals. This Infoline defines cloud computing, and discusses the benefits and potential issues it brings.

Innovative Computing and Information Minli Dai 2011-08-30 This six-volume-set (CCIS 231, 232, 233, 234, 235, 236) constitutes the refereed proceedings of the International Conference on Computing, Information and Control, ICCIC 2011, held in Wuhan, China, in September 2011. The papers are organized in two volumes on Innovative Computing and Information (CCIS 231 and 232), two volumes on Computing and Intelligent Systems (CCIS 233 and 234), and in two volumes on Information and Management Engineering (CCIS 235 and 236).

Rethinking Enterprise Storage Marc Farley 2013-08-15 Use a Hybrid Cloud solution – combining cloud storage with on-premise storage – and help dramatically decrease costs while increasing scalability and agility. This book offers focused, concise insights on technical considerations, benefits, and tradeoffs, so you can begin planning for implementation. Explains, in both practical and strategic terms, how a new enterprise storage model can solve multiple challenges Delivers focused insights on architecture, access, backups, snapshots, data redundancy as a service, dedupes, capacity, data lifecycles, storage tiering, archiving, externalized blobs, storage consolidation, compression, bandwidth, and privacy and security planning The author is an expert for cloud storage technologies and is well known in the networking technologies community

Cloud Computing Security Dinesh G. Harkut 2020-09-16 Cloud computing is an emerging discipline that is changing the way corporate computing is and will be done in the future. Cloud computing is demonstrating its potential to transform the way IT-based services are delivered to organisations. There is little, if any, argument about the clear advantages of the cloud and its adoption can and will create substantial business benefits through reduced capital expenditure and increased business agility. However, there is one overwhelming question that is still hindering the adaption of the cloud: Is cloud computing secure? The most simple answer could be 'Yes', if one approaches the cloud in the right way with the correct checks and balances to ensure all necessary security and risk management measures are covered as the consequences of getting your cloud security strategy wrong could be more serious and may severely damage the reputation of organisations.

Pro Data Backup and Recovery Steven Nelson 2011-07-18 Good backup and recovery strategies are key to the health of any organization. Medium- to very-large-scale systems administrators have to protect large amounts of critical data as well as design backup solutions that are scalable and optimized to meet changing conditions. Pro Data Backup and Recovery will cover some of the more common backup applications, such as Symantec NetBackup/BackupExec, EMC NetWorker, and CommVault, but the main discussion will focus on the implementation of 21st century architectures that allow the backup software to be a "commodity" item. The underlying architecture provides the framework for meeting the requirements of data protection for the organization. This book covers new developments in data protection as well as the impact of single-instance storage upon backup infrastructures. It discusses the impact of backup and data replication, the often misapplied B2D and D2D strategies, and "tapeless" backup environments. Continuous data protection and remote replication strategies are also addressed as they are integrated within backup strategies—a very important topic today. Learn backup solution design regardless of specific backup software Design realistic recovery solutions Take into account new data protection standards and the impact of data replication Whether you are using NetBackup, CommVault, or some other backup software, Pro Data Backup and Recovery will give you the information you need to keep your data safe and available.

Principles of Information Security Michael E. Whitman 2014-11-26 Specifically oriented to the needs of information systems students, PRINCIPLES OF INFORMATION SECURITY, 5e delivers the latest technology and developments from the field. Taking a managerial approach, this bestseller teaches all the aspects of information security-not just the technical control perspective. It provides a broad review of the entire field of information security, background on many related elements, and enough detail to facilitate understanding of the topic. It covers the terminology of the field, the history of the discipline, and an overview of how to manage an information security program. Current and relevant, the fifth edition includes the latest practices, fresh examples, updated material on technical security controls, emerging legislative issues, new coverage of digital forensics, and hands-on application of ethical issues in IS security. It is the ultimate resource for future business decision-makers. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

SAP HANA on IBM Power Systems Backup and Recovery Solutions Dino Quintero 2021-05-27 This IBM® Redpaper Redbooks publication provides guidance about a backup and recovery solution for SAP High-performance Analytic Appliance (HANA) running on IBM Power Systems. This publication provides case studies and how-to procedures that show backup and recovery scenarios. This publication provides information about how to protect data in an SAP HANA environment by using IBM Spectrum® Protect and IBM Spectrum Copy Data Manager. This publication focuses on the data protection solution, which is described through several scenarios. The information in this publication is distributed on an as-is basis without any warranty that is either expressed or implied. Support assistance for the use of this material is limited to situations where IBM Spectrum Scale or IBM Spectrum Protect are supported and entitled, and where the issues are specific to a blueprint implementation. The goal of the publication is to describe the best aspects and options for backup, snapshot, and restore of SAP HANA Multitenant Database Container (MDC) single and multi-tenant installations on IBM Power Systems by using theoretical knowledge, hands-on exercises, and documenting the findings through sample scenarios. This document provides resources about the following processes: Describing how to determine the best option, including SAP Landscape aspects to back up, snapshot, and restore of SAP HANA MDC single and multi-tenant installations on IBM Spectrum Computing Suite, Red Hat Linux Relax and Recover (ReAR), and other products. Documenting key aspects, such as recovery time objective (RTO) and recovery point objective (RPO), backup impact (load, duration, scheduling), quantitative savings (for example, data deduplication), integration and catalog currency, and tips and tricks that are not covered in the product documentation. Using IBM Cloud® Object Storage and documenting how to use IBM Spectrum Protect to back up to the cloud. SAP HANA 2.0 SPS 05 has this feature that is built in natively. IBM Spectrum Protect for Enterprise Resource Planning (ERP) has this feature too. Documenting Linux ReaR to cover operating system (OS) backup because ReAR is used by most backup products, such as IBM Spectrum Protect and Symantec Endpoint Protection (SEP) to back up OSs. This publication targets technical readers including IT specialists, systems architects, brand specialists, sales teams, and anyone looking for a guide about how to implement the best options for SAP HANA backup and recovery on IBM Power Systems. Moreover, this publication provides documentation to transfer the how-to-skills to the technical teams and solution guidance to the sales team. This publication complements the documentation that is available at IBM Knowledge Center, and it aligns with the educational materials that are provided by IBM GarageTM for Systems Technical Education and Training.

Take Control of the Cloud, 2nd Edition Joe Kissell 2017-07-15 Cut through the hype, understand cloud services, and enhance your privacy and security! Updated 07/15/2017 Price Reduced! To encourage more people to buy this essential book (last updated in September 2017), we've cut the price from $15 to $5. We don't know if or when we'll next update it, but we wanted to make sure the information is widely available while it's still relatively fresh. To some people, the Cloud is a hard concept to grasp; what does it mean exactly? For others, it's the sheer complexity of the Cloud that is confusing; how to choose among the ever-increasing number of options. And for yet others, it's the security of the Cloud that is a concern; do I need to worry that my data isn't safe? With Take Control of the Cloud, Second Edition, award-winning author Joe Kissell cuts through the confusion and gives his expert advice on how to make the Cloud work best for you, no matter your needs. From a detailed explanation of what the Cloud is, to his top picks for cloud products and services, to how to enhance privacy and security in the Cloud, Joe covers the topics that are crucial to a clear understanding of what the Cloud can (and can't) do for you. Free Webinar As an added bonus, this book includes a free webinar for additional advice and problem-solving! (Although the webinar has already occurred—twice—purchasers can view recordings of the events at their leisure.) Cloud-related topics covered in this book include: • Basic concepts, like "cloud computing" and "personal cloud" • Storage • Syncing • Backups • Productivity apps • Entertainment apps • Virtual private servers • Computing engines • Privacy and security • Mobile devices • The personal cloud • Choosing cloud providers • The Internet of Things • Automation Teach This Book! Do you need to give a presentation concerning the Cloud? We'd like to help. This ebook includes links to a free PDF cheat sheet and a PDF-based slide deck that you can show on any computer or mobile device.

Economics of Grids, Clouds, Systems, and Services Kurt Vanmechelen 2012-03-05 This book constitutes the refereed post-proceedings of the 8th International Workshop on Economics of Grids, Clouds, Systems, and Services, GECON 2011, held in Paphos, Cyprus, in December 2011. The 9 revised full papers presented together with 5 work in progress papers were carefully reviewed and selected from 27 papers. The papers are organized in topical sections on market mechanisms and negotiation; cost models, charging, and trading platforms; resource allocation, scheduling, and admission control; and two work in progress sections: risk assessment and economics of cloud services; and cost-aware adoption of cloud services.

Data Protection Preston de Guise 2020-05-01 The second edition of Data Protection goes beyond the traditional topics including deduplication, continuous availability, snapshots, replication, backup and recovery, and explores such additional considerations as legal, privacy, and ethical issues. A new model is presented for understanding and planning the various aspects of data protection, which is essential to developing holistic strategies. The second edition also addresses the Cloud and the growing adoption of software and function as a service, as well as effectively planning over the lifespan of a workload what the best mix of traditional, and cloud native data protection services might be. Virtualization continues to present new challenges to data protection, and the impact of containerization is examined. The book takes a holistic, business-based approach to data protection. It explains how data protection is a mix of proactive and reactive planning, technology and activities that allow for data continuity. There are three essential activities that refer to themselves as data protection; while they all overlap in terms of scope and function, each operate as reasonably self-contained fields with their own specialists and domain nomenclature. These three activities are: Data protection as a storage and recovery activity Data protection as a security activity Data protection as a privacy activity These activities are covered in detail, with a focus on how organizations can use them to leverage their IT investments and optimize costs. The book also explains how data protection is becoming an enabler for new processes around data movement and data processing. This book arms readers with information critical for making decisions on how data can be protected against loss in the cloud, on-premises, or in a mix of the two. It explains the changing face of recovery in a highly virtualized data center and techniques for dealing with big data. Moreover, it presents a model for where data recovery processes can be integrated with IT governance and management in order to achieve the right focus on recoverability across the business.

Official (ISC)2® Guide to the ISSAP® CBK, Second Edition (ISC)2 Corporate 2017-01-06 Candidates for the CISSP-ISSAP professional certification need to not only demonstrate a thorough understanding of the six domains of the ISSAP CBK, but also need to have the ability to apply this in-depth knowledge to develop a detailed security architecture. Supplying an authoritative review of the key concepts and requirements of the ISSAP CBK, the Official (ISC)2® Guide to the ISSAP® CBK®, Second Edition provides the practical understanding required to implement the latest security protocols to improve productivity, profitability, security, and efficiency. Encompassing all of the knowledge elements needed to create secure architectures, the text covers the six domains: Access Control Systems and Methodology, Communications and Network Security, Cryptology, Security Architecture Analysis, BCP/DRP, and Physical Security Considerations. Newly Enhanced Design – This Guide Has It All! Only guide endorsed by (ISC)2 Most up-to-date CISSP-ISSAP CBK Evolving terminology and changing requirements for security professionals Practical examples that illustrate how to apply concepts in real-life situations Chapter outlines and objectives Review questions and answers References to free study resources Read It. Study It. Refer to It Often. Build your knowledge and improve your chance of achieving certification the first time around. Endorsed by (ISC)2 and compiled and reviewed by CISSP-ISSAPs and (ISC)2 members, this book provides unrivaled preparation for the certification exam and is a reference that will serve you well into your career. Earning your ISSAP is a deserving achievement that gives you a competitive advantage and makes you a member of an elite network of professionals worldwide.

Modern Data Protection W. Curtis Preston 2021-04-29 Give your organization the data protection it deserves without the uncertainty and cost overruns experienced by your predecessors or other companies. System and network administrators have their work cut out for them to protect physical and virtual machines in the data center and the cloud; mobile devices including laptops and tablets; SaaS services like Microsoft 365, Google Workspace, and Salesforce; and persistent data created by Kubernetes and container workloads. To help you navigate the breadth and depth of this challenge, this book presents several solutions so you can determine which is right for your company. You'll learn the unique requirements that each workload presents, then explore various categories of commercial backup hardware, software, and services available to protect these data sources, including the advantages and disadvantages of each approach. Learn the workload types that your organization should be backing up Explore the hardware, software, and services you can use to back up your systems Understand what's wrong with your current data protection system Pair your backed-up workloads to the appropriate backup system Learn the adjustments that will make your backups better, without wasting money

Architectural Transformations in Network Services and Distributed Systems Andriy Luntovskyy 2017-03-23 With the given work we decided to help not only the readers but ourselves, as the professionals who actively involved in the networking branch, with understanding the trends that have developed in recent two decades in distributed systems and networks. Important architecture transformations of distributed systems have been examined. The examples of new architectural solutions are discussed.

Cloud Backup Management with PowerHA SystemMirror Dino Quintero 2021-09-14 This IBM® Redpaper chapterexplains how to take a backup of your data by using either of two methods, and it explains how to recover your data if there is a disaster. This paper addresses topics for IT architects, IT specialists, developers, sellers, and anyone looking to implement and manage backups in the cloud. Moreover, this publication provides documentation to transfer the how-to-skills to the technical teams and solution guidance to the sales team. This book complements the documentation that is available at IBM Documentation and aligns with the educational materials that are provided by IBM GarageTM for Systems Technical Education.

The Enterprise Cloud James Bond 2015-05-19 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

Security in the Private Cloud John R. Vacca 2016-10-14 This comprehensive handbook serves as a professional reference and practitioner's guide to today's most complete and concise view of private cloud security. It explores practical solutions to a wide range of private cloud computing security issues. The knowledge imparted will enable readers to determine whether the private cloud security solution is appropriate for their organization from a business and technical perspective, to select the appropriate cloud security model, and to plan and implement a cloud security adoption and migration strategy.

The Official (ISC)2 Guide to the CCSP CBK Adam Gordon 2016-04-26 Globally recognized and backed by the Cloud Security Alliance (CSA) and the (ISC)2 the CCSP credential is the ideal way to match marketability and credibility to your cloud security skill set. The Official (ISC)2 Guide to the CCSPSM CBK Second Edition is your ticket for expert insight through the 6 CCSP domains. You will find step-by-step guidance through real-life scenarios, illustrated examples, tables, best practices, and more. This Second Edition features clearer diagrams as well as refined explanations based on extensive expert feedback. Sample questions help you reinforce what you have learned and prepare smarter. Numerous illustrated examples and tables are included to demonstrate concepts, frameworks and real-life scenarios. The book offers step-by-step guidance through each of CCSP's domains, including best practices and techniques used by the world's most experienced practitioners. Developed by (ISC)2, endorsed by the Cloud Security Alliance® (CSA) and compiled and reviewed by cloud security experts across the world, this book brings together a global, thorough perspective. The Official (ISC)2 Guide to the CCSP CBK should be utilized as your fundamental study tool in preparation for the CCSP exam and provides a comprehensive reference that will serve you for years to come.

LPIC-2: Linux Professional Institute Certification Study Guide Christine Bresnahan 2016-09-30 Full coverage of the latest LPI-level 2 exams, with bonus online test bank LPIC-2 is the one-stop preparation resource for the Linux Professional Institute's Advanced Level certification exam. With 100 percent coverage of all exam objectives, this book provides clear and concise coverage of the Linux administration topics you'll need to know for exams 201 and 202. Practical examples highlight the real-world applications of important concepts, and together, the author team provides insights based on almost fifty years in the IT industry. This brand new second edition has been completely revamped to align with the latest versions of the exams, with authoritative coverage of the Linux kernel, system startup, advanced storage, network configuration, system maintenance, web services, security, troubleshooting, and more. You also get access to online learning tools including electronic flashcards, chapter tests, practice exams, and a glossary of critical terms to help you solidify your understanding of upper-level Linux administration topics. The LPI-level 2 certification confirms your advanced Linux skill set, and the demand for qualified professionals continues to grow. This book gives you the conceptual guidance and hands-on practice you need to pass the exam with flying colors. Understand all of the material for both LPIC-2 exams Gain insight into real-world applications Test your knowledge with chapter tests and practice exams Access online study aids for more thorough preparation Organizations are flocking to the open-source Linux as an excellent, low-cost, secure alternative to expensive operating systems like Microsoft Windows. As the Linux market share continues to climb, organizations are scrambling to find network and server administrators with expert Linux knowledge and highly practical skills. The LPI-level 2 certification makes you the professional they need, and LPIC-2 is your ideal guide to getting there.

Data Storage Networking Nigel Poulton 2014-03-05 Learn efficient ways to harness and manage your data storage networks Whether you're preparing for the CompTIA Storage+ exam or simply seeking a deeper understanding of data storage networks, this Sybex guide will help you get there. This book covers data storage from the basics to advanced topics, and provides practical examples to show you ways to deliver world-class solutions. In addition, it covers all the objectives of the CompTIA Storage+ exam (SG0-001), including storage components, connectivity, storage management, data protection, and storage performance. Focuses on designing, implementing, and administering storage for today's evolving organizations, getting under the hood of the technologies that enable performance, resiliency, availability, recoverability, and simplicity Covers virtualization, big data, cloud storage, security, and scalability as well as how storage fits in to the wider technology environments prevalent in today's cloud era Provides advice and real-world examples that storage administrators in the trenches can actually use An excellent study aid for the CompTIA Storage+ exam (SG0-001), covering all the exam objectives Data Storage Networking: Real World Skills for the CompTIA Storage+ Certification and Beyond provides a solid foundation for data storage administrators and a reference that can be consulted again and again.

Efficient and Secure Deduplication for Cloud-based Backups Yufeng Wang 2015 Backup storage based on cloud service is becoming increasingly popular. Deduplication is a key technique that reduces the transmission and storage overhead of backing up large datasets by identifying multiple copies of redundant data. Elasticity is the ability to scale computing resources such as memory on-demand, and is one of the main advantages of utilizing cloud computing services. With the increasing popularity of cloud based storage, it is natural that more deduplication based storage systems will be migrated to the cloud. Existing deduplication systems however, do not adequately take advantage of elasticity. In this thesis, we illustrate how to use elasticity to improve deduplication based systems, and propose EAD (elasticity aware

deduplication), an indexing algorithm that uses the ability to dynamically increase memory resources to improve overall deduplication performance. Our experimental results indicate that EAD is able to detect more than 98\% of all duplicate data, however only consumes less than 5\% of expected memory space. Meanwhile, it claims four times of deduplication efficiency than the state-of-art sampling technique while costs less than half of the amount of memory. Furthermore, as the data growing rapidly in data centers, single-node storage node is no longer be able to provide the corresponding throughput and capacities as expected. Building deduplication clusters is considered as a promising strategy to leverage such bottle-neck on single-node system. However, deduplication relies on how much the system knows about information of previous stored data. The single-node system obviously obtains all such information and is able to detect duplicate data there; however storage nodes in cluster-based system cannot know information on other nodes. It is nontrivial to route data intelligently enough so that the system could support deduplication performance comparable to that of a single-node system, while also at a trivial cost. Thus, we propose an elastic data routing strategy, aiming to achieve deduplication performance comparable to state-of-the-art, while require much less computation resources. To step further, deduplication as it is currently adopted by cloud backup providers is vulnerable to side-channel attacks. Traditional defenses in cloud computing can prevent such attacks, but are cannot be use together with deduplication. Therefore, we explore the impact of encryption on data uploads to the cloud as well as proposing a solution for cloud-based backup services that combines deduplication and encryption to provide both security and high bandwidth and efficiency. Extensive experiments on real world dataset shows that our solution incurs a small overhead compared to native deduplication while offering strong security protections.

Cloud Application Architectures George Reese 2009-04-01 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.

The DAM Book Peter Krogh 2009-04-27 One of the main concerns for digital photographers today is asset management: how to file, find, protect, and re-use their photos. The best solutions can be found in The DAM Book, our bestselling guide to managing digital images efficiently and effectively. Anyone who shoots, scans, or stores digital photographs is practicing digital asset management (DAM), but few people do it in a way that makes sense. In this second edition, photographer Peter Krogh -- the leading expert on DAM -- provides new tools and techniques to help professionals, amateurs, and students: Understand the image file lifecycle: from shooting to editing, output, and permanent storage Learn new ways to use metadata and key words to track photo files Create a digital archive and name files clearly Determine a strategy for backing up and validating image data Learn a catalog workflow strategy, using Adobe Bridge, Camera Raw, Adobe Lightroom, Microsoft Expression Media, and Photoshop CS4 together Migrate images from one file format to another, from one storage medium to another, and from film to digital Learn how to copyright images To identify and protect your images in the marketplace, having a solid asset management system is essential. The DAM Book offers the best approach.

Cloud Computing Kris Jamsa 2022-03-24 In the past decade, cloud computing and managed infrastructure services have rapidly become the leading model of web hosting. Cloud Computing, Second Edition accounts for the many changes to the then-emerging business model and technology paradigm since the release of the first edition. Readers will learn specifics about software as a service (Saas), platform as a service (Paas), infrastructure as a service (IaaS), server and desktop virtualization, and much more. Each chapter presents a cloud topic, examines the underlying business case, and then takes the reader on a test drive. The chapters are filled with real-world case studies. The content is ideal for users wanting to migrate to the cloud, IT professionals seeking knowledge on cloud fundamentals, developers who will build future cloud solutions, and CIOs wanting insights on the most recent cloud solutions. Each new print copy includes Navigate eBook Access enabling you to read your digital textbook online or offline from your computer, tablet, or mobile device. Key Features: Available with new Cloud Labs, which provide immersive mock IT infrastructures where students can learn and practice foundational cloud computing skills Updated with the latest trends and technologies in Cloud Computing, including virtualization and containerization Aligned with CompTIA Cloud Essentials+ Every print copy will include an access code for a full color Navigate eBook

Learning AWS Aurobindo Sarkar 2018-02-01 Discover techniques and tools for building serverless applications with AWS Key Features Get well-versed with building and deploying serverless APIs with microservices Learn to build distributed applications and microservices with AWS Step Functions A step-by-step guide that will get you up and running with building and managing applications on the AWS platform Book Description Amazon Web Services (AWS) is the most popular and widely-used cloud platform. Administering and deploying application on AWS makes the applications resilient and robust. The main focus of the book is to cover the basic concepts of cloud-based development followed by running solutions in AWS Cloud, which will help the solutions run at scale. This book not only guides you through the trade-offs and ideas behind efficient cloud applications, but is a comprehensive guide to getting the most out of AWS. In the first section, you will begin by looking at the key concepts of AWS, setting up your AWS account, and operating it. This guide also covers cloud service models, which will help you build highly scalable and secure applications on the AWS platform. We will then dive deep into concepts of cloud computing with S3 storage, RDS and EC2. Next, this book will walk you through VPC, building realtime serverless environments, and deploying serverless APIs with microservices. Finally, this book will teach you to monitor your applications, and automate your infrastructure and deploy with CloudFormation. By the end of this book, you will be well-versed with the various services that AWS provides and will be able to leverage AWS infrastructure to accelerate the development process. What you will learn Set up your AWS account and get started with the basic concepts of AWS Learn about AWS terminology and identity access management Acquaint yourself with important elements of the cloud with features such as computing, ELB, and VPC Back up your database and ensure high availability by having an understanding of database-related services in the AWS cloud Integrate AWS services with your application to meet and exceed non-functional requirements Create and automate infrastructure to design cost-effective, highly available applications Who this book is for If you are an I.T. professional or a system architect who wants to improve infrastructure using AWS, then this book is for you. It is also for programmers who are new to AWS and want to build highly efficient, scalable applications.

Moving Microsoft Workloads to IBM Cloud Matthew Price 2018-01-19 This IBM® RedpaperTM offers a quick, yet comprehensive, guide to moving Microsoft applications to IBM Cloud. It provides questions and considerations that help to define the scope of the cloud project, including identifying the cost structure and performing workload assessment. The paper describes the solution architecture, specifically putting together the available options and functionality to build a cloud-ready solution. The paper explores the migration options and process, and discusses how to operate the application after it is deployed.

Cloud Data Backup Standard Requirements Gerardus Blokdyk 2018-09-05 At what point would vulnerability assessments be performed once Cloud Data Backup is put into production (e.g., ongoing Risk Management after implementation)? What is Cloud Data Backup's impact on utilizing the best solution(s)? Are there any constraints known that bear on the ability to perform Cloud Data Backup work? How is the team addressing them? Are there any easy-to-implement alternatives to Cloud Data Backup? Sometimes other solutions are available that do not require the cost implications of a full-blown project? What is our Cloud Data Backup Strategy? Defining, designing, creating, and implementing a process to solve a challenge or meet an objective is the most valuable role... In EVERY group, company, organization and department. Unless you are talking a one-time, single-use project, there should be a process. Whether that process is managed and implemented by humans, AI, or a combination of the two, it needs to be designed by someone with a complex enough perspective to ask the right questions. Someone capable of asking the right questions and step back and say, 'What are we really trying to accomplish here? And is there a different way to look at it?' This Self-Assessment empowers people to do just that - whether their title is entrepreneur, manager, consultant, (Vice-)President, CxO etc... - they are the people who rule the future. They are the person who asks the right questions to make Cloud Data Backup investments work better. This Cloud Data Backup All-Inclusive Self-Assessment enables You to be that person. All the tools you need to an in-depth Cloud Data Backup Self-Assessment. Featuring 677 new and updated case-based questions, organized into seven core areas of process design, this Self-Assessment will help you identify areas in which Cloud Data Backup improvements can be made. In using the questions you will be better able to: - diagnose Cloud Data Backup projects, initiatives, organizations, businesses and processes using accepted diagnostic standards and practices - implement evidence-based best practice strategies aligned with overall goals - integrate recent advances in Cloud Data Backup and process design strategies into practice according to best practice guidelines Using a Self-Assessment tool known as the Cloud Data Backup Scorecard, you will develop a clear picture of which Cloud Data Backup areas need attention. Your purchase includes access details to the Cloud Data Backup self-assessment dashboard download which gives you your dynamically prioritized projects-ready tool and shows your organization exactly what to do next. You will receive the following contents with New and Updated specific criteria: - The latest quick edition of the book in PDF - The latest complete edition of the book in PDF, which criteria correspond to the criteria in... - The Self-Assessment Excel Dashboard, and... - Example pre-filled Self-Assessment Excel Dashboard to get familiar with results generation ...plus an extra, special, resource that helps you with project managing. INCLUDES LIFETIME SELF ASSESSMENT UPDATES Every self assessment comes with Lifetime Updates and Lifetime Free Updated Books. Lifetime Updates is an industry-first feature which allows you to receive verified self assessment updates, ensuring you always have the most accurate information at your fingertips.

Managing Trust in Cyberspace Sabu M. Thampi 2013-12-14 In distributed, open systems like cyberspace, where the behavior of autonomous agents is uncertain and can affect other agents' welfare, trust management is used to allow agents to determine what to expect about the behavior of other agents. The role of trust management is to maximize trust between the parties and thereby provide a basis for cooperation to develop. Bringing together expertise from technology-oriented sciences, law, philosophy, and social sciences, Managing Trust in Cyberspace addresses fundamental issues underpinning computational trust models and covers trust management processes for dynamic open systems and applications in a tutorial style that aids in understanding. Topics include trust in autonomic and self-organized networks, cloud computing, embedded computing, multi-agent systems, digital rights management, security and quality issues in trusting e-government service delivery, and context-aware e-commerce applications. The book also presents a walk-through of online identity management and examines using trust and argumentation in recommender systems. It concludes with a comprehensive survey of anti-forensics for network security and a review of password security and protection. Researchers and practitioners in fields such as distributed computing, Internet technologies, networked systems, information systems, human computer interaction, human behavior modeling, and intelligent informatics especially benefit from a discussion of future trust management research directions including pervasive and ubiquitous computing, wireless ad-hoc and sensor networks, cloud computing, social networks, e-services, P2P networks, near-field communications (NFC), electronic knowledge management, and nano-communication networks.

Data Protection Preston de Guise 2017-03-03 This is the fundamental truth about data protection: backup is dead. Or rather, backup and recovery, as a standalone topic, no longer has relevance in IT. As a standalone topic, it's been killed off by seemingly exponential growth in storage and data, by the cloud, and by virtualization. So what is data protection? This book takes a holistic, business-based approach to data protection. It explains how data protection is a mix of proactive and reactive planning, technology and activities that allow for data continuity. It shows how truly effective data protection comes from a holistic approach considering the entire data lifecycle and all required SLAs. Data protection is neither RAID nor is it continuous availability, replication, snapshots or backups—it is all of them, combined in a considered and measured approach to suit the criticality of the data and meet all the requirements of the business. The book also discusses how businesses seeking to creatively leverage their IT investments and to drive through cost optimization are increasingly looking at data protection as a mechanism to achieve those goals. In addition to being a type of insurance policy, data protection is becoming an enabler for new processes around data movement and data processing. This book arms readers with information critical for making decisions on how data can be protected against loss in the cloud, on-premises, or in a mix of the two. It explains the changing face of recovery in a highly virtualized data center and techniques for dealing with big data. Moreover, it presents a model for where data recovery processes can be integrated with IT governance and management in order to achieve the right focus on recoverability across the business.

Service Oriented and Cloud Computing Schahram Dustdar 2015-09-08 Infotext: This book constitutes the refereed proceedings of the 4th European Conference on Service-Oriented and Cloud computing, ESOCC 2015, held in Taormina, Sicily, Italy, in September 2015. The 13 research papers, three industry papers, and two work-in-progress papers presented were carefully reviewed and selected from 48 submissions. The papers are organized in topical sections on cloud technology, service composition, software development and cloud technology, cloud computing, and industry track.

Computer Security Handbook, Set Seymour Bosworth 2014-03-24 Computer security touches every part of our daily lives from our computers and connected devices to the wireless signals around us. Breaches have real and immediate financial, privacy, and safety consequences. This handbook has compiled advice from top professionals working in the real world about how to minimize the possibility of computer security breaches in your systems. Written for professionals and college students, it provides comprehensive best guidance about how to minimize hacking, fraud, human error, the effects of natural disasters, and more. This essential and highly-regarded

reference maintains timeless lessons and is fully revised and updated with current information on security issues for social networks, cloud computing, virtualization, and more.

 IBM Private, Public, and Hybrid Cloud Storage Solutions Larry Coyne 2018-11-27 This IBM® RedpaperTM publication takes you on a journey that surveys cloud computing to answer several fundamental questions about storage cloud technology. What are storage clouds? How can a storage cloud help solve your current and future data storage business requirements? What can IBM do to help you implement a storage cloud solution that addresses these needs? This paper shows how IBM storage clouds use the extensive cloud computing experience, services, proven technologies, and products of IBM to support a smart storage cloud solution designed for your storage optimization efforts. Clients face many common storage challenges and some have variations that make them unique. It describes various successful client storage cloud implementations and the options that are available to meet your current needs and position you to avoid storage issues in the future. IBM CloudTM Services (IBM Cloud Managed Services® and IBM SoftLayer®) are highlighted as well as the contributions of IBM to OpenStack cloud storage. This paper is intended for anyone who wants to learn about storage clouds and how IBM addresses data storage challenges with smart storage cloud solutions. It is suitable for IBM clients, storage solution integrators, and IBM specialist sales representatives.

 Cloud Storage Security Aaron Wheeler 2015-07-06 Cloud Storage Security: A Practical Guide introduces and discusses the risks associated with cloud-based data storage from a security and privacy perspective. Gain an in-depth understanding of the risks and benefits of cloud storage illustrated using a Use-Case methodology. The authors also provide a checklist that enables the user, as well as the enterprise practitioner to evaluate what security and privacy issues need to be considered when using the cloud to store personal and sensitive information. Describes the history and the evolving nature of cloud storage and security Explores the threats to privacy and security when using free social media applications that use cloud storage Covers legal issues and laws that govern privacy, compliance, and legal responsibility for enterprise users Provides guidelines and a security checklist for selecting a cloud-storage service provider Includes case studies and best practices for securing data in the cloud Discusses the future of cloud computing

 Emerging Research in Web Information Systems and Mining Gong Zhiguo 2011-09-09 This book constitutes, together with LNCS 6987 and LNCS 6988, the refereed proceedings of the International Conference on Web Information Systems and Mining, WISM 2011, held in Taiyuan, China, in September 2011. The 112 revised full papers presented in the three volumes were carefully reviewed and selected from 472 submissions. The 61 papers presented in this volume are organized in topical sections on applications of artificial intelligence; applications of computational intelligence; automated problem solving; brain models/cognitive science; data mining and knowledge discovering; expert and decision support systems; fuzzy logic and soft computing; intelligent agents and systems; intelligent control; intelligent image processing; intelligent scheduling; intelligent signal processing; natural language processing; nature computation; neural computation; pattern recognition; rough set theory.