

Building A Virtual Cluster For 3d Graphics Applications

This book shows the conference proceedings of CloudComp 2009 held in Munich, Germany, in October 2009.

I introduce the cloud computing fundamentals, architecture of layers, and scientific services on the cloud firstly. Then, I introduce several typical commercial cloud computing platforms, such as Amazon Cloud Computing, Microsoft Azure, and Google Cloud Platform. Lastly, I discuss the scientific cloud computing based on these three commercial cloud computing platforms.

Learn to deploy and support Hyper-V, building on what you know about VMware's vSphere. Whether you're looking to run both hypervisors in parallel or migrate completely, Hyper-V for VMware Administrators has everything you need to get started. The book begins with an overview of Hyper-V basics, including common management tasks such as creating a virtual machine and building a virtual network. You'll learn how to deploy a failover cluster against the risk of Hyper-V becoming a single point of failure, and how to make virtual machines fault tolerant. System Center Virtual Machine Manager (SCVMM) is the preferred tool for managing large Hyper-V deployments, so you'll get to know this next and how it differs from VMware's vCenter solution, as well as how to manage a mixed environment including both vSphere and Hyper-V deployments. Like any server migration, a virtual server migration requires careful planning to ensure success. You'll find information here on the specifics of migrating from vSphere to Hyper-V, planning for down time, IP address differences, performance considerations, and more. For migrations to Hyper-V, SCVMM is once again the preferred tool, but you'll also be introduced to some of the excellent free tools available. One easily overlooked aspect of the migration process is the way in which it impacts your backup and recovery strategy. Knowing the best practices here can help you protect your Hyper-V environment. The book also covers how to monitor and maintain your Hyper-V environment once it's up and running, using features like Cluster-Aware Updating, automated live migrations, and availability sets. The concluding chapter shows you how to take advantage of the efficiencies provided by virtual machine libraries and templates. Approach Hyper-V with confidence, and the knowledge that you've planned for success, with Hyper-V for VMware Administrators.

"Building, Managing, and Migrating Virtual Machines with Hyper-V and Azure is designed to teach virtualization administrators how to use Hyper-V and Microsoft Azure. The course begins by explaining how to deploy Hyper-V and build a failover cluster and create the virtual machines (VMs). From there, admins learn how to create VMs in Azure and how to link the two environments together--both from a manageability perspective, and from the perspective of extending an existing Active Directory to the cloud. Viewers also learn how to migrate VMs to and from Azure."--Resource description page.

Creative Cluster Development

Migration, Coexistence, and Management

Windows Server 2008 Hyper-V

14th EuroVR International Conference, EuroVR 2017, Laval, France, December 12-14, 2017, Proceedings

A Hands-on Approach to Virtualization and Implementation of a Private Cloud Using Real-time Use-cases (English Edition)

Mastering Microsoft Virtualization

This two volume set LNCS 7016 and LNCS 7017 constitutes the refereed proceedings of the 11th International Conference on Algorithms and Architectures for Parallel Processing, ICA3PP 2011, held in Melbourne, Australia, in October 2011. The first volume presents 24 revised regular papers and 17 revised short papers together with the abstract of the keynote lecture - all carefully reviewed and selected from 85 initial submissions. The papers cover the many dimensions of parallel algorithms and architectures, encompassing fundamental theoretical approaches, practical experimental results, and commercial components and systems and focus on two broad areas of parallel and distributed computing, i.e., architectures, algorithms and networks, and systems and applications.

people volunteer their time and energy and work in a dedicated fashion to pull everything together each year, including our very supportive Steering Comm-tee members led by Sukumar Ghosh. However, the success of ICDCN is mainly due to the hard work of all those people who submit papers and/or attend the conference. We thank you all. January 2009 Prasad Jayanti Andrew T. Campbell Message from the Technical Program Chairs Welcome to the proceedings of the 10thInternationalConferenceon Distributed Computing and Networking (ICDCN) 2009. As ICDCN celebrates its 10th -niversary,ithasbecomeanimportantforumfor disseminatingthelatestresearch results in distributed computing and networking. We received 179 submissions from all over the world, including Algeria, A. tralia, Canada, China, Egypt, France, Germany, Hong Kong, Iran, Italy, Japan, Malaysia, The Netherlands, Poland, Singapore, South Korea, Taiwan, and the USA, besides India, the host country. The submissions were read and evaluated by the Program Committee, which consisted of 25 members for the Distributed Computing Track and 28 members for the Networking Track, with the ad- tional help of external reviewers. The Program Committee selected 20 regular papers and 32 short papers for inclusion in the proceedings and presentation at the conference. We were fortunate to have several distinguished scientists as keynote speakers. Andrew Campbell (Dartmouth College, USA), Maurice Herlihy (Brown University, USA), and P. R. Kumar (University of Illinois, Urbana-Champaign) delivered the keynote address. Krti Ramamirtham from IIT Bombay, India, delivered the A. K. Choudhury Memorial talk.

Pro Linux High Availability Clustering teaches you how to implement this fundamental Linux add-on to your business. Linux High Availability Clustering is needed to ensure the availability of mission critical resources. The technique is applied more and more in corporate datacenters around the world. While lots of documentation about the subject is available on the internet, it isn't always easy to build a real solution based on that scattered information, which is often oriented towards specific tasks only. Pro Linux High Availability Clustering explains essential high-availability clustering components on all Linux platforms, giving you the insight to build solutions for any specific case needed. In this book four common cases will be explained: Configuring Apache for high availability Creating an Open Source SAN based on DRBD, iSCSI and HA clustering Setting up a load-balanced web server cluster with a back-end, highly-available database Setting up a KVM virtualization platform with high-availability protection for a virtual machine. With the knowledge you'll gain from these real-world applications, you'll be able to efficiently apply Linux HA to your work situation with confidence. Author Sander Van Vugt teaches Linux high-availability clustering on training courses, uses it in his everyday work, and now brings this knowledge to you in one place, with clear examples and cases. Make the best start with HA clustering with Pro Linux High Availability Clustering at your side.

Windows Server 2012 Hyper-V Installation and Configuration GuideJohn Wiley & Sons

Hyper-V for VMware Administrators

Methodology, Systems, and Applications

Computational Science and Its Applications - ICCSA 2016

Programming and Administration

Pro SQL Server 2008 Failover Clustering

VMware vSphere 5® Building a Virtual Datacenter

Building, Managing, and Migrating Virtual Machines with Hyper-V and Azure

Hyper-V is one of the top virtualization products, and this practical guide focuses on the essentials of Windows Server 2008 Hyper-V. Written by the Microsoft team behind the Hyper-V product, this book shows you how to perform key virtualization scenarios, such as server consolidation, software test and development, and a dynamic data center and demonstrates how Hyper-V can be used to reduce cost and eliminate the complexity of a server infrastructure by consolidating workloads to a small number of machines. In addition, the material addresses using DPM, and SDCM with VMM in order to maintain and manage Hyper-V environments.

Go to the end of the world as avirtualization solution Windows Server 2012 Hyper-V offers greater scalability, newcomponents, and more options than ever before for large enterprisessystems and small/medium businesses. Windows Server 2012 Hyper-VInstallation and Configuration Guide is the place to startlearning about this new cloud operating system. You'll get up tospeed on the architecture, basic deployment and upgrading, creatingvirtual workloads, designing and implementing advanced networkarchitectures, creating multi-tenant clouds, backup, disasterrecovery, and more. The international team of expert authors offers deep technicaldetail, as well as hands-on exercises and plenty of real-worldscenarios, so you thoroughly understand all features and how bestto use them. Explains how to deploy, use, manage, and maintain the WindowsServer 2012 Hyper-V virtualization solutions in large enterprisessmall- to medium-businessProvides deep technical detail and plenty of exercises showingyou how to work with Hyper-V in real-world settings Shows you how to quickly configure Hyper-V from the GUI and usePowerShell to script and automate common tasks Covers deploying Hyper-V hosts, managing virtual machines,network fabrics, cloud computing, and using file servers Also explores virtual SAN storage, creating guest clusters,backup and disaster recovery, using Hyper-V for Virtual DesktopInfrastructure (VDI), and other topics Help make your Hyper-V virtualization solution a success with Windows Server 2012 Hyper-V Installation and ConfigurationGuide.

Conquer Windows Server 2016—from the inside out! Dive into Windows Server 2016—and really put your Windows Server expertise to work. Focusing on Windows Server 2016's most powerful and innovative features, this supremely organized reference packs hundreds of timesaving solutions, tips, and workarounds—all you need to plan, implement, or manage Windows Server in enterprise, data center, cloud, and hybrid environments. Fully reflecting Windows Server new capabilities for the cloud-first era, Orin covers everything from Nano Server to Windows Server and Hyper-V Containers. You'll discover how experts tackle today's essential tasks—and challenge yourself to new levels of mastery. • Optimize the full Windows Server 2016 lifecycle, from planning and configuration through rollout and administration • Ensure fast, reliable upgrades and migrations • Seamlessly deliver core DNS, DHCP, file, print, storage, and Internet services • Use IPAM to centrally manage all enterprise DNS and DHCP infrastructure • Gain dramatic storage utilization improvements with built-in deduplication and storage replica • Build flexible cloud and hybrid environments with Windows Containers and Shielded VMs • Seamlessly integrate Azure IaaS services with Windows Server 2016 • Slash resource usage and improve availability with tiny Nano Server installations • Improve configuration management with Desired State Configuration and Chef • Deliver Active Directory identity, certificate, federation, and rights management services • Protect servers, clients, assets, and users with advanced Windows Server 2016 security features including Just Enough Administration For Experienced Windows Server Users and IT Professionals • Your role: Experienced intermediate-to-advanced level Windows Server user or IT professional • Prerequisites: Basic understanding of Windows Server procedures, techniques, and navigation

* This will be the only complete virtualization reference on the market; brings all virtualization technologies together * Microsoft has shifted its training strategy to include virtual machine technology in all new ALS/MOC courses, which leads to high demand for knowledge about this technology * Covers both Microsoft and Linux environments

Building Server-side and Microservices with Go

From Parallel Processing to the Internet of Things

Build a Highly Available Cluster with Commodity Hardware and Free Software

10th International Conference, ICDCN 2009, Hyderabad, India, January 3-6, 2009, Proceedings

Cloud Computing

11th International Conference, ICA3PP 2011, Melbourne, Australia, October 24-26, 2011, Proceedings

Advances in Computer Science and Its Applications

[Administration (réf é renc é lectronique) ; informatique].

Bring the benefits of Azure Pack to your cloud service and discover the secrets of enterprise class solutions About This Book Build, deploy and manage cloud solutions using combination of Windows Azure Pack, System Center and Hyper-V Impress your peers at work by learning to build applications that can leverage the cloud to meet the needs of your organization Get overall view about the functionalities of Azure Pack and understand how to build cloud fabric. IaaS, PaaS, DBaaS offerings Who This Book Is For This book targets cloud and virtualization professionals willing to get hands-on exposure to Windows Azure Pack. It will help virtualization customers adopt cloud architecture and would also help existing cloud providers to understand the benefits of Azure Pack. This book will also be of use to cloud professionals from other platforms such as VMware/OpenStack to appreciate and evaluate Azure Pack. What You Will Learn Learn about Windows Azure Pack architecture Get Cloud Fabric ready and then plan, install and configure Windows Azure Pack solution Build VM clouds and IaaS offerings for private Cloud and service provider's Cloud solutions. Learn about planning and deployment of three Cloud services models of WAP - IaaS, PaaS(WebSites, Service Bus), DBaaS(SQL, MySQL) Plan and manage Azure Pack plans, subscriptions and add on's for tenants Experience the solution built from tenant or customer point of view. Integrate Azure Pack with Service Management Automation(SMA) to automate your cloud Solution Extend your Azure Pack capabilities and integrate it with other vendors or solutions components such as VMware, Cloud Cruiser, etc. In Detail Windows Azure Pack is an on-premises cloud solution by Microsoft, which can be leveraged by Organizations and Services providers for building an enterprise class cloud solution. WAP provides consistent experience to Microsoft Azure, along with capabilities such as multi-tenancy, high density, self-service, automated. WAP can be leveraged to provide both IaaS & PaaS Offerings to internal and external customers. In this book, we will learn about planning and deployment of Cloud Fabric for Windows Azure Pack, Azure Pack components, VM Clouds and IaaS Offerings, PaaS Offering including WebSites & Service Bus, DBaaS offerings, Automation with SMA, and extending capabilities with third party products integration and tenant experience for all services. Style and approach This book is step-by-step guide accompanied by extensive screenshots to help existing cloud professionals understand what value Azure Pack can add in their cloud services and how it can be deployed.

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 e-commerce 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

Pro SQL Server 2008 Failover Clustering is dedicated to the planning, implementation, and administration of clustered SQL Server 2008 implementations. Whether deploying a single – instance, two – node cluster or a multiple – node, many – instance cluster for consolidation, this book will detail all of the considerations and pitfalls that may be encountered along the way. Clustering and high – availability expert Allan Hirt shares his many years of wisdom and experience, showing how to put together the right combination of people, processes, technology, and best practices to create and manage world – class, highly available SQL Server 2008 failover clusters. Provides a comprehensive look at SQL Server 2008 failover clustering from the first steps of planning to daily administration Goes beyond just SQL Server 2008 and also covers Windows Server 2008 clustering in depth with a SQL Server focus Covers how and where virtualization can be used with failover clusters Addresses the needs of enterprise – class, 24/7 SQL Server 2008 implementations Written by the leading expert on SQL Server failover clustering

Mastering VMware vSphere 6.7

A try-at-home, practical guide to implementing Oracle/Solaris and Veritas clustering using a desktop or laptop

Mastering Virtual Machine Manager 2008 R2

Cloud Computing for Scientific Research

Build production-ready applications using advanced Python concepts and industry best practices

Mastering Windows Server 2016 Hyper-V

Building Cloud and Virtualization Infrastructure

Every year, datacenter managers must deliver more services faster, with greater flexibility. They must efficiently handle soaring amounts of data, and unprecedented levels of complexity. And they must do all this with lower budgets and fewer resources. Datacenter virtualization with VMware's vSphere® 5 is the best way to achieve these goals and to accelerate your transition to cloud services. VMware vSphere® 5: Building a Virtual Datacenter brings together all the practical knowledge you need to evaluate, plan, implement, and manage vSphere 5 in your datacenter environment. Top datacenter virtualization consultants Eric Maille and René-François Mennecier begin by introducing vSphere 5 from the viewpoint of the datacenter manager and professional. They present essential definitions, advantages, and functions; review vSphere 5's architecture; and introduce core components such as vCenter Server and ESXi 5.0. Next, Maille and Mennecier turn to implementation, presenting detailed examples, schemas, and best practices drawn from their extensive experience. They share practical insights into budgeting, scheduling, and planning; choosing the right architecture; and integrating vSphere with existing datacenter elements, including servers, storage, clusters, network infrastructure, and business continuity plans. They conclude with a start-to-finish case study: a datacenter virtualization project designed to support specific business objectives. Coverage includes • Assessing the potential benefits of datacenter virtualization in your environment • Organizing and managing a smooth migration to the virtualized datacenter • Anticipating specific challenges and risks associated with datacenter virtualization • Making tradeoffs to optimize stability, elasticity, scalability, and cost • Choosing the right architecture for your environment • Effectively linking vSphere 5 virtualization to existing datacenter elements • Driving more value from vSphere 5's powerful new datacenter features • Providing storage to efficiently support your hosted VMs, now and in the future • Managing limited memory and other server constraints • Leveraging new options for service continuity and high availability • Using backup architecture as a lever to reduce costs The Linux Enterprise Cluster explains how to take a number of inexpensive computers with limited resources, place them on a normal computer network, and install free software so that the computers act together like one powerful server. This makes it possible to build a very inexpensive and reliable business system for a small business or a large corporation. The book includes information on how to build a high-availability server pair using the Heartbeat package, how to use the Linux Virtual Server load balancing software, how to configure a reliable printing system in a Linux cluster environment, and how to build a job scheduling system in Linux with no single point of failure. The book also includes information on high availability techniques that can be used with or without a cluster, making it helpful for System Administrators even if they are not building a cluster. Anyone interested in deploying Linux in an environment where low cost computer reliability is important will find this book useful. The CD-ROM includes the Linux kernel, Idirector software, the Mon monitoring package, the Ganglia package, OpenSSH, rsync, Systemlmer, Heartbeat, and all the figures and illustrations used in the book. Build a seamless, flexible, full-service datacenter solution Microsoft Windows Server 2016 Hyper-V is the IT administrator's guide to this rising datacenter technology. Hyper-V has already surpassed VMWare in datacenter management, identity service for multiple devices, and more; this book shows you how to harness the power of this hypervisor to simplify the infrastructure, reduce costs, improve productivity, and better manage system resources. From a tour of the technology through architecture, deployment, and integration of System Center, Microsoft Azure, and Microsoft Azure Stack, the discussion illustrates the skills you need to create a complete solution for optimum enterprise management. Coverage includes Windows Azure capabilities for virtual machines, managing a hybrid cloud, IaaS, storage capabilities, PowerShell, and more, with practical real-world guidance from a leading authority in the field. Hyper-V has recently undergone improvements in scalability and features that have positioned it as an ideal solution in the Small/Medium Business and Enterprise markets. This book shows you how to exploit these new capabilities to build a robust data solution for your organization. Discover the capabilities of Microsoft Hyper-V Architect a Hyper-V datacenter solution Plan and manage a deployment or migration Integrate compatible technologies for full scalability Data is everywhere—on desktops, laptops, phones, and multiple operating systems, accessed through email, text messages, web searches, online services, and more. All of this data must be stored, accessible, updated, backed up, secured, managed, sorted, and analyzed—sometimes instantly. Hyper-V is the rising star in the virtualization space, and Microsoft Windows Server 2016 Hyper-V shows you how to turn greater capabilities into better datacenter solutions.

These proceedings focus on various aspects of computer science and its applications, thus providing an opportunity for academic and industry professionals to discuss the latest issues and progress in this and related areas. The book includes theory and applications alike.

Windows Server 2016 Inside Out (includes Current Book Service)

Insiders Guide to Microsoft's Hypervisor

16th International Conference, Beijing, China, July 4-7, 2016, Proceedings, Part II

Euro-Par 2007 Workshops: Parallel Processing

CSA 2013

Building Clouds with Windows Azure Pack

Algorithms and Architectures for Parallel Processing, Part I

Take your Python skills to the next level to develop scalable, real-world applications for local as well as cloud deployment Key FeaturesAll code examples have been tested with Python 3.7 and Python 3.8 and are expected to work with any future 3.x releaseLearn how to build modular and object-oriented applications in PythonDiscover how to use advanced Python techniques for the cloud and clustersBook Description Python is a multipurpose language that can be used for multiple use cases. Python for Geeks will teach you how to advance in your career with the help of expert tips and tricks. You'll start by exploring the different ways of using Python optimally, both from the design and implementation point of view. Next, you'll understand the life cycle of a large-scale Python project. As you advance, you'll focus on different ways of creating an elegant design by modularizing a Python project and learn best practices and design patterns for using Python. You'll also discover how to scale out Python beyond a single thread and how to implement multiprocessing and multithreading in Python. In addition to this, you'll understand how you can not only use Python to deploy on a single machine but also use clusters in private as well as in public cloud computing environments. You'll then explore data processing techniques, focus on reusable, scalable data pipelines, and learn how to use these advanced techniques for network automation, serverless functions, and machine learning. Finally, you'll focus on strategizing web development design using the techniques and best practices covered in the book. By the end of this Python book, you'll be able to do some serious Python programming for large-scale complex projects. What you will learnUnderstand how to design and manage complex Python projectsStrategize test-driven development (TDD) in PythonExplore multithreading and multiprocessing in PythonUse Python for data processing with Apache Spark and Google Cloud Platform (GCP)Deploy serverless programs on public clouds such as GCPUse Python to build web applications and application programming interfacesApply Python for network automation and serverless functionsGet to grips with Python for data analysis and machine learningWho this book is for This book is for intermediate-level Python developers in any field who are looking to build their skills to develop and manage large-scale complex projects. Developers who want to create reusable modules and Python libraries and cloud developers building applications for cloud deployment will also find this book useful. Prior experience with Python will help you get the most out of this book.

Learn the fundamental concepts of OS clustering, Oracle Solaris clustering high-level design, Oracle Solaris clustering implementation using VirtualBox, and Veritas clustering implementation using VirtualBox. Oracle Solaris and Veritas Cluster: An Easy-build Guide shows you how to implement a cluster on your desktop or laptop devices using virtualized network, host, and storage configuration. This book explains both the architecture design and technical implementation for building Solaris Oracle- or Veritas-based clustered environments. This book provides snapshot-based steps to set up Solaris virtual hosts under VirtualBox and implement Veritas clustering across two virtual hosts that can be implemented on a desktop or laptop. This book will help you understand what it's like setting up a clustered environment, in simple steps that can be followed by users having little knowledge of clustering. What You Will Learn: Practice cluster implementation on your local PC or laptop Implement both Oracle/Solaris and Veritas clusters under Oracle Solaris 10 OS Master cluster fundamentals, concepts, and design Create virtualized environments under VirtualBox Learn the prerequisites and configuration for host builds, networking, and storage setup using VirtualBox for Solaris Oracle and Veritas Who This Book Is For: IT support engineers, education institutions and students.

Learn the foundation of cloud computing and how to build your own Microsoft private cloud Written by a team of expert authors who are MVPs and leaders in their respective fields, this one-of-a-kind book is an essential resource for IT administrators who are responsible for implementing and managing a cloud infrastructure. You'll quickly learn how cloud computing offers significant cost savings while also providing new levels of speed and agility. Serving as a how-to guide, Microsoft Private Cloud Computing walks you through building a secure, internal cloud and delivering it as a service to your company using Microsoft Windows Server Hyper-V and Microsoft System Center Virtual Machine Manager 2012. Walks you through the entire process: understanding cloud computing, understanding the Microsoft concept of a private cloud, deploying a private cloud fabric, deploying services, and building a private cloud, as well as integrating it with Microsoft's public cloud to create a cross-premises or public cloud Discusses fabric management with System Center Virtual Machine Manager (VMM) 2012 Examines how to provide network and storage with VMM 2012 Looks at the VMM library configuration Discusses private cloud and cloud service management with Microsoft App Controller Microsoft Private Cloud Computing is a must-have comprehensive resource that covers all aspects of implementing a private cloud.

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.

Virtualization

Microsoft Hyper-V Cluster Design

Digital Innovation

Governance, Place-Making and Entrepreneurship

Windows Server 2012 Hyper-V Installation and Configuration Guide

Virtual Reality and Augmented Reality

First International Conference, CloudComp 2009, Munich, Germany, October 19-21, 2009, Revised Selected Papers

This book constitutes the refereed proceedings of the 14th International Conference on Virtual Reality and Augmented Reality, EuroVR 2017, held in Laval, France, in December 2017. The 10 full papers and 2 short papers presented were carefully reviewed and selected from 36 submissions. The papers are organized in four topical sections: interaction models and user studies, visual and haptic real-time rendering, perception and cognition, and rehabilitation and safety.

The five-volume set LNCS 9786-9790 constitutes the refereed proceedings of the 16th International Conference on Computational Science and Its Applications, ICCSA 2016, held in Beijing, China, in July 2016. The 239 revised full papers and 14 short papers presented at 33 workshops were carefully reviewed and selected from 849 submissions. They are organized in five thematic tracks: computational methods, algorithms and scientific applications; high performance computing and networks; geometric modeling, graphics and visualization; advanced and emerging applications; and information systems and technologies.

Mastering cluster technology—the linking of servers—is becoming increasingly important for application and system programmers and network designers, administrators, and managers. With Microsoft's Windows NT cluster server being the first to tie cluster technology with a major operating system, it appears destined to take a leadership position in the industry. Introduction to Microsoft Windows NT Cluster Server provides all you need to know to develop your abilities for this essential technology. The author provides both introductory and advanced material focused on the three basic functions: fault tolerant computing (failover), load balancing, and centralized administration and monitoring. He guides the reader from the basics of cluster servers, through Microsoft's cluster server set-up, communication, programming, and administration. His extensive familiarity with the Windows NT operating system and have programming experience, Introduction to Microsoft Windows NT Cluster Server contains information instrumental in helping you achieve zero downtime.

This book presents: • The results of an empirical analysis of the new phenomenon of virtual clusters (VCs) which highlight the dynamics of these emerging innovation networks in the digital economy; the challenges that this dynamics represents for the conventional theories, which are unable to define a comprehensive framework that supports the development of these networks. • An overview of the most significant theoretical approaches to innovation networks, and their rethinking in the digital economy scenario. Following a neo-Schumpeterian approach, a particular focus is on the opportunity to integrate the economic benefits coming from the geographical proximity, with the advantages related to the "organisational proximity" allowed by the ICT networks. • The constituent points of a strategy aimed at sustaining the developing processes of a VC in a drawback region, and a description of the e-Salento project, an application of this strategy to an Italian drawback region, the Salento. Some general implications of the project for theory and practice are also discussed. • The architecture and the master plan of two initiatives within the e-Salento project, concerning the agribusiness and tourism sectors. • A model of leadership, to guide innovation in an organisation competing in the digital economy, including both firms and regions. The perspective advanced in this book addresses issues concerned with VC growth and regions' economic development processes that are common to both the regional studies and the innovation management literature; the book represents an important empirically grounded contribution to them. Furthermore, several scholars argue that new development models are emerging for firms and regions. There is a lack of published work that provides empirical grounding and/or analytical models of firms' and regions' development processes in the Net Economy. Contents: Industrial Clusters in the Net-Economy: Empirical Evidence and Some Theoretical Approaches (G Passiante) A Strategy to Sustain the Development Processes of a "Smart Community" in the Digital Economy (V ElliA) Knowledge Hub for Regional Development (M Marinazzo) Net-Economy Business Models for SMEs Operating in Fragmented Markets (T Massari) Knowledge Leadership to Drive Digital Innovation (G Passiante & V ElliA) Readership: Economists and management scholars (academic market); graduate students and scholars in technology and innovation management, economics of innovation/technological change, and regional studies. Keywords: Innovation; Learning Organisation; Industrial Cluster; Net-Economy; Regional Development; e-Business Models; Digital Economy; Innovation Leadership; Reviews: "Digital Innovation offers an important theoretical discussion of the changing economic landscape ... It takes an important step in formulating theories; other researchers can take these theories as testable hypotheses. The authors' recommendations for regional actions are a logical extension of these theories ..."Regional Studies

Distributed and Cloud Computing

Developing Virtual Environments for Social and Pedagogical Advancement

Virtualizing Microsoft Tier 1 Applications with VMware vSphere 4

Encyclopedia of Networked and Virtual Organizations

Build Your Own Distributed Compilation Cluster - A Practical Walkthrough

Web-Based Learning Solutions for Communities of Practice: Developing Virtual Environments for Social and Pedagogical Advancement

Shares step-by-step guidelines for deploying a complete virtualization stack, providing coverage of how to run multiple operating systems on a single machine, consolidate workloads, and alleviate the costs and demands of multiple machines. Original.

Transform the way you deliver IT resources digitally to connect to people and businesses. KEY FEATURES ? Extensive demonstration of service and deployment models with related use-cases. ? Includes wide and deep practical scenarios to explore the real cloud platform. ? Broad perspective to manage resources and disaster recovery. ? Infers various security standards and IAM with numerous examples. DESCRIPTION The book 'Building Cloud and Virtualization Infrastructure' covers the designing of a private cloud using various components and tools on various platforms such as AWS and OpenNebula. This book includes network virtualization and integrated technologies such as the Internet of Things and how to create web servers/instances on Amazon Web Services and OpenNebula. The readers will gain a better understanding of the concept of resource management, which offers benefits such as cost savings and improved manageability after reading this book. They will also learn disaster recovery, techniques, and tools to support virtualization, as well as the security challenges inherent in cloud platforms, the various IAM roles and their associated security, and various security standards. WHAT YOU WILL LEARN ? Understand the fundamentals of cloud concepts. ? Explore the knowledge of virtualization through different virtualization tools. ? Understand economic considerations to launch businesses online. ? Create your private cloud as per business needs. ? Learn to choose the right services to grow rapidly in the market. WHO THIS BOOK IS FOR This book is intended for students, researchers, and anyone interested in learning about designing, configuring, and deploying cloud-based applications. The readers should have a basic understanding of networking concepts, but not necessarily of the cloud. TABLE OF CONTENTS 1. Introduction to Cloud 2. Cloud Service Models 3. Cloud Deployment Models 4. Introduction to Hypervisor 5.

Introduction to Virtualization 6. Virtualization on IT Assets 7. Experimental Part: Installation and Configuration 8. Practical Approach and Experiments 9. Resource Management in Cloud 10. Security in Cloud

Master your virtual environment with the ultimate vSphere guide Mastering VMware vSphere 6.7 is the fully updated edition of the bestselling guide to VMware's virtualization solution. With comprehensive coverage of this industry-leading toolset, this book acts as an informative guide and valuable reference. Step-by-step instruction walks you through installation, configuration, operation, security processes, and much more as you conquer the management and automation of your virtual environment. Written by certified VMware vExperts, this indispensable guide provides hands-on instruction and detailed conceptual explanations, anchored by practical applications and real-world examples. This book is the ultimate guide to vSphere, helping administrators master their virtual environment. Learn to: Install, configure, and manage the vCenter Server components Leverage the Support Tools to provide maintenance and updates Create and configure virtual networks, storage devices, and virtual machines Implement the latest features to ensure compatibility and flexibility Manage resource allocation and utilization to meet application needs Monitor infrastructure performance and availability Automate and orchestrate routine administrative tasks Mastering VMware vSphere 6.7 is what you need to stay up-to-date on VMware's industry-leading software for the virtualized datacenter.

Build Your Own Distributed Compilation Cluster is a collected volume of my article series of the same name. Throughout the 6 in-depth how-to articles, I'll take you through the process of building a fully working cross-compilation distributed build system. The canonical example is of building a distributed ARM to X86-64 cross-compilation cluster. This system is also generic enough to apply to most any compilation environment, while remaining powerful enough to outperform all but the most advanced compilation systems. With source code examples provided and easy step by step instructions, this 60+ page instructional eBook is a valuable introductory and practical resource for those interested in distributed compilation, cross compilation, low power computing clusters, and so much more. It's also one terrific bargain, and an excellent reference.

Encyclopedia of Developing Regional Communities with Information and Communication Technology

From the Desktop to the Enterprise

Microsoft Private Cloud Computing

The Linux Enterprise Cluster

Distributed Computing and Networking

Pro Linux High Availability Clustering

Innovation Processes in Virtual Clusters and Digital Regions

Learn Kubernetes in a Month of Lunches is your guide to getting up and running with Kubernetes. Summary In Learn Kubernetes in a Month of Lunches you'll go from "what's a Pod?" to automatically scaling clusters of containers and components in just 22 hands-on lessons, each short enough to fit into a lunch break. Every lesson is task-focused and covers an essential skill on the road to Kubernetes mastery. You'll learn how to smooth container management with Kubernetes, including securing your clusters, and upgrades and rollbacks with zero downtime. No development stack, platform, or background is assumed. Author Elton Stoneman describes all patterns generically, so you can easily apply them to your applications and port them to other projects! Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Create apps that perform identically on your laptop, data center, and cloud! Kubernetes works with a consistent method for deploying applications on any platform, making it easy to grow. By efficiently orchestrating Docker containers, Kubernetes simplifies tasks like rolling upgrades, scaling, and self-healing. About the book Learn Kubernetes in a Month of Lunches is your guide to getting up and running with Kubernetes. You'll progress from Kubernetes basics to essential skills, learning to model, deploy, and manage applications in production. Exercises demonstrate how Kubernetes works with multiple languages and frameworks. You'll also practice with new apps, legacy code, and serverless functions. What's inside Deploying applications on Kubernetes clusters Understanding the Kubernetes app lifecycle, from packaging to rollbacks Self-healing and scalable apps Using Kubernetes as a platform for new technologies About the reader For readers familiar with Docker and containerization. About the author Elton Stoneman is a Docker Captain, a 11-time Microsoft MVP, and the author of Learn Docker in a Month of Lunches. Table of Contents PART 1 - FAST TRACK TO KUBERNETES 1 Before you begin 2 Running containers in Kubernetes with Pods and Deployments 3 Connecting Pods over the network with Services 4 Configuring applications with ConfigMaps and Secrets 5 Storing data with volumes, mounts, and claims 6 Scaling applications across multiple Pods with controllers PART 2 - KUBERNETES IN THE REAL WORLD 7 Extending applications with multicontainer Pods 8 Running data-heavy apps with StatefulSets and Jobs 9 Managing app releases with rollouts and rollbacks 10 Packaging and managing apps with Helm 11 App development—Developer workflows and CI/CD PART 3 - PREPARING FOR PRODUCTION 12 Empowering self-healing apps 13 Centralizing logs with Fluentd and Elasticsearch 14 Monitoring applications with Kubernetes with Prometheus 15 Managing incoming traffic with Ingress 16 Securing applications with policies, contexts, and admission control PART 4 - PURE AND APPLIED KUBERNETES 17 Securing resources with role-based access control 18 Deploying Kubernetes: Multinode and multiarchitecture clusters 19 Controlling workload placement and automatic scaling 20 Extending Kubernetes with custom resources and Operators 21 Running serverless functions in Kubernetes 22 Never the end

"This encyclopedia provides a thorough examination of concepts, technologies, policies, training, and applications of ICT in support of economic and regional developments around the globe"--Provided by publisher.

Develop and deploy efficient server-side applications and microservice architectures. KEY FEATURES [] Extensive examples of the Go programming language and REST concepts. [] Includes graphical illustrations and visual explanation of the microservice architecture. [] Graphs and visual explanation for Docker and Kubernetes commands. DESCRIPTION 'Building Server-side and Microservices with Go' teaches you the fundamentals of Go programming languages, REST server applications, and microservices. You can develop efficient server-side applications and use modern development concepts such as microservices after reading this book. We will create simple server-side applications and add new features as and when a new topic is covered. We will begin with the fundamentals of Go programming languages, which will create simple server-side applications. During development, a layered design will be introduced, with each application layer serving a specific purpose. We will introduce you to the microservice concept, and it is further divided into a couple of smaller microservices. Finally, we'll look at how to use Docker and Kubernetes to deploy and scale microservices. After reading this book, we will be able to successfully develop monolithic and microservice applications and identify when one approach is more appropriate than another. This book can also help improve existing applications. It is a perfect handy guide to build proficiency with Docker and Kubernetes. WHAT YOU WILL LEARN [] Basics of Go programming language (data types, structures, loops, functions, concurrency, etc.) [] REST concept development and implementation. [] Introduction to layered server-side application designs and key roles. [] PostgreSQL database design, CRUD operations, and queries. [] Introduction to microservices, common practices, and advantages and disadvantages of microservices. [] Microservices development with Go and how to break monolithic applications into microservices. [] Understanding protocol buffers and message queuing protocols for microservice communications. WHO THIS BOOK IS FOR This book is intended for backend developers, software architects, and students interested in learning about the Go programming language, REST Server Applications, and Microservices. Knowing fundamental programming concepts would be an advantage but not essential. TABLE OF CONTENTS 1. Fundamentals of Go Programming Language 2. REST Server Applications 3. HTTP Layer and Handler 4. Core Layer 5. Data Layer and Database 6. Microservices 7. Microservices in Go 8. Microservice Communication 9. Deployment and Scaling

This book is written in a friendly and practical style with numerous tutorials centred on common as well as atypical Hyper-V cluster designs. This book also features a sample cluster design throughout to help you learn how to design a Hyper-V in a real-world scenario Microsoft Hyper-V Cluster Design is perfect for the systems administrator who has a good understanding of Windows Server in an Active Directory domain and is ready to expand into a highly available virtualized environment. It only expects that you will be familiar with basic hypervisor terminology.

Python for Geeks

Introduction to Microsoft Windows NT Cluster Server

Building Modern Backends and Microservices Using Go, Docker and Kubernetes (English Edition)

Learn Kubernetes in a Month of Lunches

HPC 2007, UNICORE Summit 2007, and VHPC 2007. Rennes, France, August 28-31, 2007. Revised Selected Papers

" **"This book provides readers with an up-to-date research manual in developing innovative and effective learning systems using web-based technologies"**--Provided by publisher.

In recent decades, the importance of creative cluster development has gained increasing recognition from national and regional governments. Governments have been investing in initiatives and urban development plans that aim to create or support localized creative industries. Our understanding of creative clusters is expanded with this insightful volume, which looks at issues of governance, place-making and entrepreneurship. In addition to its theoretical contributions, the book also presents a rich range of international case studies, including, among others, an analysis of coworking spaces in Toronto, business park development in MediaCityUK and mediapark.brussels and public-private partnerships in Warsaw. Creative Cluster Development will be valuable reading for advanced students, researchers and policymakers in urban planning, regional studies, economic geography, innovation studies and the creative and cultural industries.