Serial Ata Storage Architecture And Applications Designing High Performance Cost Effective Io Solutions

Plunkett's InfoTech Industry Almanac presents a complete analysis of the technology business, including the convergence of hardware, software, entertainment and telecommunications. This market research tool includes our analysis of the major trends affecting the industry, from the rebound of the global PC and server market, to consumer and enterprise software, to super computers, open systems such as Linux, web services and network equipment. In addition, we provide major statistical tables covering the industry, from computer sector revenues to broadband subscribers to semiconductor industry production. No other source provides this book's easy-to-understand comparisons of growth, expenditures, technologies, imports/exports, corporations, research and other vital subjects. The corporate profile section provides in-depth, one-page profiles on each of the top 500 InfoTech companies. We have used our massive databases to provide you with unique, objective analysis of the largest and most exciting companies in: Computer Hardware, Computer Software, Internet Services, E-Commerce, Networking, Semiconductors, Memory, Storage, Information Management and Data Processing. We've been working harder than ever to gather data on all the latest trends in information technology. Our research effort includes an exhaustive study of new technologies and discussions with experts at dozens of innovative tech companies. Purchasers of the printed book or PDF version may receive a free CD-ROM database of the corporate profiles, enabling export of vital corporate data for mail merge and other uses.
"Primarily a software developers guide for enabling UPnP, this book also provides a thorough introduction for those new to the technology. Described are the basic UPnP concepts such as control points, devices, and services and the protocols that form the foundation of UPnP. Developers are also shown how to develop a UPnP device from start to finish, including choosing a UPnP SDK, adding device discovery, defining device services, handling subscriptions, and adding a presentation page. Advanced topics include UPnP audio and video and adding AV support to a device. Also presented are ideas for the future such as UPnP Internet gateway devices, and simple control protocol."
Complex media storage computer systems are employed by broadcasters, digital cinemas, digital signage, and other business and entertainment venues to capture, store and retrieve moving media content on systems that will preserve the original integrity of the content over time and technological transition. This book provides detailed information related to the concepts, applications, implementation and interfaces of video file servers, intelligent storage systems, media asset management services, content distribution networks, and mission critical platforms. A tutorial and case example approach is taken to facilitate a

thorough understanding of the technologies, using numerous illustrations, tables and examples. The text and appendices are designed to provide easy to access valuable reference and historical information. .A focus on the media serving concepts and principles employed at the enterprise level .Practical and technological summaries of the applications and linkages between media asset management and storage technologies for studio, television, and media production workflows .Illustrations, standards, tables, and practical summaries serve as handy reference tools

Embedded Systems Design with Platform FPGAs introduces professional engineers and students alike to system development using Platform FPGAs. The focus is on embedded systems but it also serves as a general guide to building custom computing systems. The text describes the fundamental technology in terms of hardware, software, and a set of principles to guide the development of Platform FPGA systems. The goal is to show how to systematically and creatively apply these principles to the construction of application-specific embedded system architectures. There is a strong focus on using free and open source software to increase productivity. Each chapter is organized into two parts. The white pages describe concepts, principles, and general knowledge. The gray pages provide a technical rendition of the main issues of the chapter and show the concepts applied in practice. This includes step-by-step details for a specific development board and tool chain so that the reader can carry out the same steps on their own. Rather than try to demonstrate the concepts on a broad set of tools and boards, the text uses a single set of tools (Xilinx Platform Studio, Linux, and GNU) throughout and uses a single developer board (Xilinx ML-510) for the examples. Explains how to use the Platform FPGA to meet complex design requirements and improve product performance Presents both fundamental concepts together with pragmatic, step-by-step instructions for building a system on a Platform FPGA Includes detailed case studies, extended real-world examples, and lab exercises

This book describes the most frequently used high-speed serial buses in embedded systems, especially those used by FPGAs. These buses employ SerDes, JESD204, SRIO, PCIE, Aurora and SATA protocols for chip-to-chip and board-to-board communication, and CPCIE, VPX, FC and Infiniband protocols for inter-chassis communication. For each type, the book provides the bus history and version info, while also assessing its advantages and limitations. Furthermore, it offers a detailed guide to implementing these buses in FPGA design, from the physical layer and link synchronization to the frame format and application command. Given its scope, the book offers a valuable resource for researchers, R&D engineers and graduate students in computer science or electronics who wish to learn the protocol principles, structures and applications of high-speed serial buses.

We overspend on data center storage yet, we fall short of business requirements. It's not about the technologies. It's about the proper application of technologies to

deliver storage services efficiently and affordably. It's about meeting business requirements dependent on data center storage. Spend less, deliver more. Data Center Storage: Cost-E

The concepts, trends and practices in different phases of software development have taken sufficient advancement from the traditional ones. With these changes, methods of developing software, system architecture, software design, software coding, software maintenance and software project management have taken new shapes. Software Engineering discusses the principles, methodologies, trends and practices associated with different phases of software engineering. Starting from the basics, the book progresses slowly to advanced and emerging topics on software project management, process models, developing methodologies, software specification, testing, quality control, deployment, software security, maintenance and software reuse. Case study is a special feature of this book that discusses real life situation of dealing with IT related problems and finding their practical solutions in an easy manner. Elegant and simple style of presentation makes reading of this book a pleasant experience.Students of Computer Science and Engineering, Information Technology and Computer Applications should find this book highly useful. It would also be useful for IT technology professionals who are interested to get acquainted with the latest and the newest technologies.

A resilient storage network is an environment where data is always available for the needs of the business. This book explains the components, as well as how to design and implement a resilient storage network for workgroup, departmental, and enterprise environments. Storage networks are an enabling capability combining technology and best practices to provide the foundation to support information technology systems and applications. Storage networks can be of various sizes, shapes, and technologies. This book shows you how to implement a resilient storage network infrastructure using different technologies including ATM, DWDM, FCIP, Fibre Channel, FICON, iFCP, InfiniBand, IP, iSCSI, Life Cycle Management, NAS, Object Based Storage, RAID, RDMA, Remote Mirroring, Replication, SAN, SCSI, SMI-S, SONET/SDH, Storage Services, Tape, Virtualization, and Volume Managers. *Important information is clarified and put into context to separate myths and realities *Covers storage networking technologies (hardware, software, networks) and practices *Numerous tips and recommendations allow the reader to quickly understand best practices *Checklists, templates and examples show potential solutions

A business development tool for professionals, marketers, sales directors, consultants and strategists seeking to understand and reach middle market American companies. It covers important business sectors, from InfoTech to health care to telecommunications. Profiles of more than 500 leading US middle market companies. Includes business glossary, a listing of business contacts, indexes and database on CD-ROM.

The second edition focuses on the media and entertainment sector (M&E), with more information relevant to encompass broadcasters migration to file-based production. New technology and new products are also included and there is more detail on systems integration and product examples, plus extra case studies. New content includes: - Storage management

where several products have been designed for the special needs of the media business. - XML and web services. - New case studies.

Used in laptop and desktop computers, low-end servers, and mobile devices, Serial ATA (Advance Technology Attachment), or SATA, is the pervasive disk storage technology in use today. SATA has also penetrated the enterprise computing environment by adding hardware components for fail-over, extending command processing capabilities, and increasing de

This IBM® Redbooks® publication represents a compilation of best practices for deploying and configuring the IBM System Storage® DS5000 Series family of products. This book is intended for IBM technical professionals, Business Partners, and customers responsible for the planning, deployment, and maintenance of the IBM System Storage DS5000 Series family of products. We realize that setting up DS5000 Storage Servers can be a complex task. There is no single configuration that will be satisfactory for every application or situation. First, we provide a conceptual framework for understanding the hardware in a Storage Area Network. Then, we offer our guidelines, hints, and tips for the physical installation, cabling, and zoning, using the Storage Manager setup tasks. Next, we provide a quick guide to help you install and configure the DS5000 using best practices. After that, we turn our attention to the performance and tuning of various components and features, including numerous guidelines. We look at performance implications for various application products such as IBM DB2®, Oracle, IBM Tivoli® Storage Manager, Microsoft SQL server, and in particular, Microsoft Exchange server. Then we review the various tools available to simulate workloads and to measure, collect, and analyze performance data. We also consider the IBM AIX® environment, including IBM High Availability Cluster Multiprocessing (HACMPTM) and IBM General Parallel File System (GPFSTM). This edition of the book also includes guidelines for managing and using the DS5000 with the IBM System Storage SAN Volume Controller (SVC) and IBM Storwize® V7000.

This book explains the concepts, history, and implementation of IT infrastructures. Although many of books can be found on each individual infrastructure building block, this is the first book to describe all of them: datacenters, servers, networks, storage, operating systems, and end user devices. The building blocks described in this book provide functionality, but they also provide the non-functional attributes performance, availability, and security. These attributes are explained on a conceptual level in separate chapters, and specific in the chapters about each individual building block. Whether you need an introduction to infrastructure technologies, a refresher course, or a study guide for a computer science class, you will find that the presented building blocks and concepts provide a solid foundation for understanding the complexity of today's IT infrastructures. This book can be used as part of IT architecture courses based on the IS 2010.4 curriculum.

This book introduces fundamentals and trade-offs of data de-duplication techniques. It describes novel emerging de-duplication techniques that remove duplicate data both in storage and network in an efficient and effective manner. It explains places where duplicate data are originated, and provides solutions that remove the duplicate data. It classifies existing de-duplication techniques depending on size of unit data to be compared, the place of de-duplication, and the time of de-duplication. Chapter 3 considers redundancies in email servers and a de-duplication technique to increase reduction performance with low overhead by switching chunk-based de-duplication and file-based de-duplication. Chapter 4 develops a de-duplication technique applied for cloud-storage service where unit data to be compared are not physical-format but logical structured-format, reducing processing time efficiently. Chapter 5 displays a network de-duplication where redundant data packets sent by clients are encoded (shrunk to small-sized payload) and decoded (restored to original size payload) in routers or switches on the way to remote servers through network. Chapter 6 introduces a mobile de-duplication technique with image (JPEG) or video (MPEG) considering performance and

overhead of encryption algorithm for security on mobile device.

Discover one of the most comprehensive introductions to information systems hardware and software in business today with Burd's SYSTEMS ARCHITECTURE, 7E. This new edition remains an indispensable tool for current and future IS (Information Systems) professionals with a managerial, broad systems perspective that provides a holistic approach to systems architecture. This edition has been thoroughly updated to ensure all concepts, examples and applications reflects the latest in today's new and emerging technologies. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Aimed at systems engineers, product architects, and product line managers, discusses the new storage interconnect standard for desktop PCs, laptops, servers, and storage appliances.

"Storage Networks Explained has much to recommend it.... a rarity in the literature of digital data storage – a complete exposition of both the base subject matter and its applications, which at the same time offers a level of readability making it suitable as an introduction to the subject. Storage Networks Explained is also flexible. It can be read cover-to-cover, browsed, or used as a reference. I recommend Storage Networks Explained as an essential component of any active information technology library." —Paul Massiglia, Technical Director, VERITAS Software Corporation Storage networks will become a basic technology like databases or local area networks. According to market research, 70% of external storage devices will be connected via storage networks in 2003. The authors have hands-on experience of network storage hardware and software, they teach customers about concrete network storage products, they understand the concepts behind storage networks, and show customers how storage networks address their business needs. Storage networks provide shared access to stored data from multiple computers and servers, thus increasing storage efficiency and availability. They permit information management functions such as backup and recovery, data mirroring, disaster recovery, and data migration to be performed quickly and efficiently, with a minimum of system overhead. This book explains how to use storage networks to fix malfunctioning business processes, covering the technologies as well as applications. A hot topic that will become increasingly important in the coming years. One of the first books to focus on using rather than building storage networks, and how to solve problems. Looking beyond technology and showing the true benefits of storage networks. Covers fibre channel SAN, Network Attached Storage, iSCSI and InfiniBand technologies. Contains several case studies (e.g. the example of a travel portal, protecting a critical database) Endorsed by the Storage Networking Industry Association. Written by very experienced professionals who tailored the book specifically to meet customer needs including support with supplementry material on Troppens website and Preface written by Tony Clark. Provides basic application information key for systems administrators, database administrators and managers who need to know about the networking aspects of their systems. As well as systems architects, network managers, information management directors and decision makers. This book also supports applications for graduate students and other relevant courses in the field. Awarded Best System Administration Book 2005 by the Linux Journal

Use your Raspberry Pi to get smart about computing fundamentals In the 1980s, the tech revolution was kickstarted by a flood of relatively inexpensive, highly programmable computers like the Commodore. Now, a second revolution in computing is beginning with the Raspberry Pi. Learning Computer Architecture with the Raspberry Pi is the premier guide to understanding the components of the most exciting tech product available. Thanks to this book, every Raspberry Pi owner can understand how the computer works and how to access all of its hardware and software capabilities. Now, students, hackers, and casual users alike can discover how computers work with Learning Computer Architecture with the Raspberry Pi. This book explains what each and every hardware component does, how they relate to one

another, and how they correspond to the components of other computing systems. You'll also learn how programming works and how the operating system relates to the Raspberry Pi's physical components. Co-authored by Eben Upton, one of the creators of the Raspberry Pi, this is a companion volume to the Raspberry Pi User Guide An affordable solution for learning about computer system design considerations and experimenting with low-level programming Understandable descriptions of the functions of memory storage, Ethernet, cameras, processors, and more Gain knowledge of computer design and operation in general by exploring the basic structure of the Raspberry Pi The Raspberry Pi was created to bring forth a new generation of computer scientists, developers, and architects who understand the inner workings of the computers that have become essential to our daily lives. Learning Computer Architecture with the Raspberry Pi is your gateway to the world of computer system design.
SAS (Serial Attached SCSI) is the serial storage interface that has been designed to replace and upgrade SCSI, by far the most popular storage interface for high-performance systems for many years. Retaining backward compatibility with the millions of lines of code written to support SCSI devices, SAS incorporates recent advances in high-speed serial design to provide better performance, better reliability and enhanced capabilities, all at a lower cost. SAS will be a significant part of many future high-performance storage systems, and hardware designers, system validation engineers, device driver developers and others working in this area will need a working knowledge of it.SAS Storage Architecture provides a comprehensive guide to the SAS standard. The book contains descriptions and numerous examples of the concepts presented, using the same building block approach as other MindShare offerings. This book details important concepts relating to the design and implementation of storage networks.Specific topics of interest include:SATA Compatibility Expander devices Discovery Process Connection protocols Arbitration of competing connection requests Flow Control protocols ACK/NAK protocol Primitives ? construction and uses Frames ? format, definition, used of each field Error checking mechanisms Description of responsibilities for each layer: Application layer ? mode and log pages Transport Layer ? frame construction Port Layer ? call center model Link Layer ? establish and maintain connections Phy Layer ? OOB, Initialization, and Reset Physical Layer ? connectors and cablesSerial Support ? serial transmission support requirements The future of SAS ? competition with SATA and Fibre Channel in the server marketplace
In the second edition of this very successful book, Tony Sammes and Brian Jenkinson show how the contents of computer systems can be recovered, even when hidden or subverted by criminals. Equally important, they demonstrate how to insure that computer evidence is admissible in court. Updated to meet ACPO 2003 guidelines, Forensic Computing: A Practitioner's Guide offers: methods for recovering evidence information from computer systems; principles of password protection and data encryption; evaluation procedures used in circumventing a system’s internal security safeguards, and full search and seizure protocols for experts and police officers.
For more than 20 years, Network World has been the premier provider of information, intelligence and insight for network and IT executives responsible for the digital nervous systems of large organizations. Readers are responsible for designing, implementing and managing the voice, data and video systems their companies use to support everything from business critical applications to employee collaboration and electronic commerce.
Prepare for Microsoft Exam 70-339–and help demonstrate your real-world mastery of planning, configuring, and managing Microsoft SharePoint 2016 core technologies in datacenters, in the cloud, and in hybrid environments. Designed for experienced IT pros ready to advance their status, this Exam Ref focuses on the critical-thinking and decision-making acumen needed for success at the MCSE level. Focus on the skills measured on the exam: • Design SharePoint infrastructure • Plan authentication and security • Plan workload optimization • Plan

productivity solutions • Manage search capabilities • Plan and configure cloud services • Monitor and optimize a SharePoint environment This Microsoft Exam Ref: • Organizes its coverage by the “Skills measured” posted on the exam webpage • Features strategic, what-if scenarios to challenge you • Provides exam preparation tips • Points to in-depth material by topic for exam candidates needing additional review • Assumes experience planning and maintaining SharePoint and related core technologies, including Windows Server 2012 R2 or later, Internet Information Services (IIS), Microsoft SQL Server 2014 or later, Active Directory, and networking infrastructure services

The first book to introduce computer architecture for security and provide the tools to implement secure computer systems This book provides the fundamentals of computer architecture for security. It covers a wide range of computer hardware, system software and data concepts from a security perspective. It is essential for computer science and security professionals to understand both hardware and software security solutions to survive in the workplace. Examination of memory, CPU architecture and system implementation Discussion of computer buses and a dual-port bus interface Examples cover a board spectrum of hardware and software systems Design and implementation of a patent-pending secure computer system Includes the latest patent-pending technologies in architecture security Placement of computers in a security fulfilled network environment Co-authored by the inventor of the modern Computed Tomography (CT) scanner Provides website for lecture notes, security tools and latest updates

* The emphasis of this book will be on detailed practicality. Most of the SAN books provide a theoretical treatment of the technology from a top-down perspective. This book will be written from the perspective of "from the ground up". * Relates specific technology offerings to particular application areas. Email stores, Image stores, Video Production and RDBMS disk are used as specific case studies to show how the hardware, firmware, and interconnects are set up and used. * SAN technology is ready to move out of the glass house and large scale storage is becoming applicable to even dedicated purposes. This represents an increase in the potential audience for a book on SANs and, of course, remains highly useful for the administrators and centralized technical staff responsible for backups, recoverability, and availability.

Bestselling text, The Essentials of Computer Organization and Architecture, Fourth Edition, is comprehensive enough to address all necessary organization and architecture topics, but concise enough to be appropriate for a single-term course. Its focus on real-world examples and practical applications encourages students to develop a "big-picture" understanding of how essential organization and architecture concepts are applied in the computing world. In addition to direct correlation with the ACM/IEEE guidelines for computer organization and architecture, the text exposes readers to the inner workings of a modern digital computer through an integrated presentation of fundamental concepts and principles.

Solid State Drives (SSDs) are gaining momentum in enterprise and client applications, replacing Hard Disk Drives (HDDs) by offering higher performance and lower power. In the enterprise, developers of data center server and storage systems have seen CPU performance growing exponentially for the past two decades, while HDD performance has improved linearly for the same period. Additionally, multi-core CPU designs and virtualization have increased randomness of storage I/Os. These trends have shifted performance bottlenecks to enterprise storage systems. Business critical applications such as online transaction processing, financial data processing and database mining are increasingly limited by storage performance. In client applications, small mobile platforms are leaving little room for batteries while demanding long life out of them. Therefore, reducing both idle and active power consumption has become critical. Additionally, client storage systems are in need of significant performance improvement as well as supporting small robust form factors. Ultimately, client systems are optimizing for

best performance/power ratio as well as performance/cost ratio. SSDs promise to address both enterprise and client storage requirements by drastically improving performance while at the same time reducing power. Inside Solid State Drives walks the reader through all the main topics related to SSDs: from NAND Flash to memory controller (hardware and software), from I/O interfaces (PCIe/SAS/SATA) to reliability, from error correction codes (BCH and LDPC) to encryption, from Flash signal processing to hybrid storage. We hope you enjoy this tour inside Solid State Drives.

This IBM Redbooks publication is a companion to IBM System Storage Business Continuity: Part 1 Planning Guide, SG24-6547 . We assume that the reader of this book has understood the concepts of Business Continuity planning described in that book. In this book we explore IBM System Storage solutions for Business Continuity, within the three segments of Continuous Availability, Rapid Recovery, and Backup and Restore. We position these solutions within the Business Continuity tiers. We describe, in general, the solutions available in each segment, then present some more detail on many of the products. In each case, the reader is pointed to sources of more information.

This IBM® RedpaperTM publication is a comprehensive guide that covers the IBM Power System S821LC (8001-12C) server that uses the latest IBM POWER8® processor technology and supports the Linux operating system (OS). The Power S821LC server is designed to maximize data center floor space with its dense 1U server design, which helps to reduce infrastructure cost. The Power S821LC server delivers superior performance and exceptional throughput for data center and cloud workloads that require dense virtualization, open source database deployment, and high-performance computing applications. The Power S821LC server supports up to two processor sockets, offering 16-core 2.328 GHz (3.026 GHz turbo) or 20-core 2.095 GHz (2.827 GHz turbo) POWER8 configurations in a 19-inch rack-mount, 1U (EIA units) drawer configuration. All the cores are activated. The objective of this paper is to introduce the Power S821LC offering and its relevant functions, including: Two POWER8 processors in a 1U form factor Dense virtualization and dense database deployment capability-providing more value per server footprint than 1U x86-based alternatives Leadership data throughput that is enabled by POWER8 multithreading with up to 4X more threads than x86 designs Superior application performance due to 2x per core performance advantage over x86-based systems Acceleration of a broad range of workloads with GPUs and superior I/O bandwidth with Coherent Accelerator Processor Interface (CAPI) This publication is for professionals who want to acquire a better understanding of IBM Power SystemsTM products. The intended audience includes the following roles: Clients Sales and marketing professionals Technical support professionals IBM Business Partners Independent software vendors This paper expands the current set of IBM Power Systems documentation by providing a desktop reference that offers a detailed technical description of the Power S821LC system.

Becoming a master of networking has never been easier Whether you're in charge of a small network or a large network, Networking All-in-One is full of the information you'll need to set up a network and keep it functioning. Fully updated to capture the latest Windows 10 releases through Spring 2018, this is the comprehensive guide to setting up, managing, and securing a successful network. Inside, nine minibooks cover essential, up-to-date information for networking in systems such as Windows 10 and Linux, as well as best practices for security, mobile and cloud-based networking, and much more. Serves as a single source for the most-often needed network administration information Covers the latest trends in networking Get nine detailed and easy-to-understand networking minibooks in one affordable package Networking All-in-One For Dummies is the perfect beginner's guide as well as the professional's ideal reference book.

Used in laptop and desktop computers, low-end servers, and mobile devices, Serial ATA (Advance Technology Attachment), or SATA, is the pervasive disk storage technology in use

today. SATA has also penetrated the enterprise computing environment by adding hardware components for fail-over, extending command processing capabilities, and increasing device performance and link speeds. If you work in a data center or manage your company's storage resources, you will likely encounter storage solutions that require SATA software or hardware. In this book, leading storage networking technologist David Deming presents a comprehensive guide to designing, analyzing, and troubleshooting any SATA or SATA Express (SATAe) storage solution. Written by an engineer, this book is for those who aren't afraid of digging into the technical details. It explains how SATA/SATAe powers data center applications and how it influences and interacts with all protocol layers and system components. This book covers all of the tasks associated with installing, configuring, and managing SATA/SATAe storage applications. If you are a test engineer, design engineer, system architect, or even a technically skilled gamer who likes to build your own systems, this book will answer your technical questions about SATA/SATAe. With this book, you should have everything you need to implement a SATA or SATAe storage solution.

This IBM® Redbooks® publication describes the concepts, architecture, and implementation of the IBM System Storage® DS8700 storage subsystem. This book has reference information that will help you plan for, install, and configure the DS8700 and also discusses the architecture and components. The DS8700 is the most advanced model in the IBM System Storage DS8000® series. It includes IBM POWER6®-based controllers, with a dual 2-way or dual 4-way processor complex implementation. Its extended connectivity, with up to 128 Fibre Channel/FICON® ports for host connections, make it suitable for multiple server environments in both open systems and IBM System z® environments. If desired, the DS8700 can be integrated in an LDAP infrastructure. The DS8700 supports thin provisioning. Depending on your specific needs, the DS8700 storage subsystem can be equipped with SATA drives, FC drives, and Solid® State Drives (SSDs). The DS8700 can now automatically optimize the use of SSD drives through its no charge Easy Tier feature. The DS8700 also supports Full Disk Encryption (FDE) feature. Its switched Fibre Channel architecture, dual processor complex implementation, high availability design, and the advanced Point-in-Time Copy and Remote Mirror and Copy functions that incorporates make the DS8700 storage subsystem suitable for mission-critical business functions.

Offering an overview, this guide details how 3GIO allows designers to overcome the practical performance limits of existing multidrop, parallel bus technology and explains how to increase performance and new capabilities for a broad range of computing and communications platforms.

InfoWorld is targeted to Senior IT professionals. Content is segmented into Channels and Topic Centers. InfoWorld also celebrates people, companies, and projects.

Enterprise architecture requires an understanding of all technologies, strategies, and data consumption throughout the enterprise. To this end, one must strive to always broaden knowledge of existing, as well as emerging trends and solutions. As a trade, this role demands an understanding beyond the specificities of technologies and vendor products. An enterprise architect must be versatile with the design and arrangement of elements in an extended network enterprise. Intended for anyone charged with coordinating enterprise architectural design in a small, medium, or large organization, Sustainable Enterprise Architecture helps you explore the various elements of your own particular network environment to develop strategies for mid- to long-term management and sustainable growth. Organized much like a book on structural architecture, this one starts with a solid foundation of frameworks and general guidelines for enterprise governance and design. The book covers common considerations for all enterprises, and then drills down to specific types of technology that may be found in your

enterprise. It explores strategies for protecting enterprise resources and examines technologies and strategies that are only just beginning to take place in the modern enterprise network. Each chapter builds on the knowledge and understanding of topics presented earlier in the book to give you a thorough understanding of the challenges and opportunities in managing enterprise resources within a well-designed architectural strategy. Emphasizing only those strategies that weather change, Sustainable Enterprise Architecture shows you how to evaluate your own unique environment and find alignment with the concepts of sustainability and architecture. It gives you the tools to build solutions and policies to protect your enterprise and allow it to provide the greatest organizational value into the future.

Serial ATA Storage Architecture and ApplicationsDesigning High-performance, Cost-effective I/O Solutions

IBM’s vision of the future of computing and how its evolving technologies, product lines, and services fit into that future are the subject of this broad look at the world’s largest computer company. Discussing IBM’s e-business strategy to leverage Internet technology, its new emphasis on IBM Global Services, and its fast-growing consulting business this overview. profiles of IBM’s new eServer xSeries, pSeries, iSeries, and zSeries, showing how each fits into an e-business context. A companion web site accessible only to buyers of this book provides the latest news and additional resources related to IBM technology and product lines.

Part of the successful PH PTR Essential Guide to...Series, this book will look at where e-business has been, where it is today, and where it is going--in terms and at a level that will help the businessperson sort out the hype from the real.

IBM® System Storage® N series storage systems offer an excellent solution for a broad range of deployment scenarios. IBM System Storage N series storage systems function as a multiprotocol storage device that is designed to allow you to simultaneously serve both file and block-level data across a single network. These activities are demanding procedures that, for some solutions, require multiple, separately managed systems. The flexibility of IBM System Storage N series storage systems, however, allows them to address the storage needs of a wide range of organizations, including distributed enterprises and data centers for midrange enterprises. IBM System Storage N series storage systems also support sites with computer and data-intensive enterprise applications, such as database, data warehousing, workgroup collaboration, and messaging. This IBM Redbooks® publication explains the software features of the IBM System Storage N series storage systems with Clustered Data ONTAP (cDOT) Version 8.2, which is the first version available on the IBM System Storage N series, and as of October 2013, is also the most current version available. cDOT is different from previous ONTAP versions by the fact that it offers a storage solution that operates as a cluster with flexible scaling capabilities. cDOT configurations allow clients to build a scale-out architecture, protecting their investment and allowing horizontal scaling of their environment. This book also covers topics such as installation, setup, and administration of those software features from the IBM System Storage N series storage systems and clients, and provides example scenarios.

CCNA Data Center DCICT 640-916 Official Cert Guide CCNA Data Center DCICT 640-916 Official Cert Guide from Cisco Press enables you to succeed on the exam the

first time and is the only self-study resource approved by Cisco. A team of leading Cisco data center experts shares preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. This complete, official study package includes --A test-preparation routine proven to help you pass the exam --“Do I Know This Already?” quizzes, which enable you to decide how much time you need to spend on each section --Part-ending exercises, which help you drill on key concepts you must know thoroughly --The powerful Pearson IT Certification Practice Test software, complete with hundreds of well-reviewed, exam-realistic questions, customization options, and detailed performance reports --Study plan suggestions and templates to help you organize and optimize your study time --A final preparation chapter that guides you through tools and resources to help you craft your review and test-taking strategies Well regarded for its level of detail, study plans, assessment features, and challenging review questions and exercises, this official study guide helps you master the concepts and techniques that ensure your exam success. The official study guide helps you master topics on the CCNA Data Center DCICT 640-916 exam, including --Cisco data center concepts: architectures, devices, layers, modular design, vPC, FabricPath, Cisco Nexus switches, and more --Data center unified fabric: FCoE, multihop, VIFs, FEX, and setup --Storage networking: concepts, targets, verification, connectivity, zoning, setup, and configuration --Data center virtualization: servers, devices, and Nexus 1000V, including setup and operations --Cisco Unified Computing: concepts, discovery, connectivity, setup, and UCSM --Data center network services: ACE load balancing, virtual context, HA, management, global/local solutions, and WAAS The CD-ROM contains more than 450 practice questions for the exam, memory table exercises and answer keys, and a study planner tool. Includes Exclusive Offer for 70% Off Premium Edition eBook and Practice Test Pearson IT Certification Practice Test minimum system requirements: Windows XP (SP3), Windows Vista (SP2), Windows 7, or Windows 8; Microsoft .NET Framework 4.0 Client; Pentium class 1GHz processor (or equivalent); 512 MB RAM; 650 MB disk space plus 50 MB for each downloaded practice exam; access to the Internet to register and download exam databases