Serial Storage Architecture

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This paper describes Serial Storage
Architecture (SSA), a definition and general
specification of a high-performance serial link
for the attachment of input/output devices.
An overview is given of the architecture itself,
followed by a general description of the
hardware implementation of a dual-port SSA
node on a single chip.

Introduction

Serial Storage Architecture (SSA) defines a high-
performance serial link for the attachment of input/output
devices. It has been optimized for storage applications
such as hard disk drives, host adapter cards, and array
controllers. SSA has many advantages over existing
parallel interfaces such as the Small Computer Systems
Interface (SCSI-2). It uses compact cables and connectors,
and it has better performance, connectivity, and reliability.
However, to facilitate migration, SSA retains much of the
SCSI-2 logical protocol.

Current SSA implementations such as the IBM 7133
Disk Subsystem [1] provide a peak data rate of 20 MB/s in
each direction. However, a typical loop configuration with
one host adapter can provide a total sustained bandwidth
of up to 73 MB/s, and higher speeds are becoming
available. The physical medium is usually a copper cable
up to 20 meters long, but fiber optics can also be used for
longer distances.

This paper describes the link architecture and its
implementation in a single CMOS chip.

Why serial?

Serial links offer many advantages over traditional parallel
interfaces:

- *Compact cables and connectors*   This is becoming
  increasingly important with the trend to small-form-
  factor devices, e.g., 3.5-in. and 2.5-in. hard disk drives.
- *Improved connectivity*   A single host interface can attach
  many devices. The devices can also be shared among
  several host computers.
- *Higher performance*   A serial interface can provide
  full-duplex communications at little extra cost. Frame
  multiplexing allows the interface to be shared efficiently
  among several concurrent operations.
- *Higher reliability*   Error detection is improved by using a
  cyclic redundancy check (CRC) rather than a simple bus
  parity check. Point-to-point cables allow faults to be
  isolated more easily than in a multidrop bus. Devices
  can readily be dual-ported to provide alternate paths
  and allow continuous operation in the event of a fault.
  Individual devices can be "hot-swapped" for concurrent
  maintenance.

Architecture overview

SSA is defined in three layers:

- *SSA-PH1* [2] defines the electrical specifications, cables,
  and connectors.
- *SSA-TL1* [3] is a general-purpose transport layer. It
  defines the transmission protocol, configuration, and
  error recovery.
- *SSA-S2P* [4] is a mapping of the SCSI-2 queuing model,
  command set, status, and sense bytes.

Transport layer (SSA-TL1)

- *Nodes*

An SSA node is an addressable unit such as a host adapter
card, a switch, or a hard disk drive. In some cases a

Serial Storage Architecture Guide

Chris Almond,Janis Byrd,Joseph Kiernan,Livio Teixeira Filho,Phill Rowbottom,IBM Redbooks

Serial Storage Architecture Guide:

   The Essential Guide to Computer Data Storage Andrei Khurshudov,2001 This book covers all data storage systems and latest technologies It s a practical easy to use book on data storage Extensive glossary of computer data storage related terms Aimed at a wide audience from beginner to advanced levels   *IBM TS7760 R4.2 Cloud Storage Tier Guide* Sosuke Matsui,Derek Erdmann,Nobuhiko Furuya,Rin Fujiwara,Joe Hew,Tomoaki Ogino,Alberto Barajas Ortiz,Michael Scott,Joe Swingler,Taisei Takai. Larry Coyne,IBM Redbooks,2019-06-14 Building on over 20 years of virtual tape experience the TS7760 now supports the ability to store virtual tape volumes in an object store This IBM Redpaper publication helps you set up and configure the new cloud object storage support for IBM Cloud Object Storage COS or Amazon Web Services AWS The TS7700 supported off loading to physical tape for over two decades Off loading to physical tape behind a TS7700 is used by hundreds of organizations around the world By using the same hierarchical storage techniques the TS7700 can also off load to object storage Because object storage is cloud based and accessible from different regions the TS7760 Cloud Storage Tier support essentially allows the cloud to be an extension of the grid In this IBM Redpaper publication we provide a brief overview of cloud technology with an emphasis on Object Storage Object Storage is used by a broad set of technologies including those technologies that are exclusive to IBM Z The aim of this publication is to provide a basic understanding of cloud Object Storage and different ways it can be integrated into your environment This Redpaper is intended for system architects and storage administrators with TS7700 experience who want to add the support of a Cloud Storage Tier to their TS7700 solution   **IBM TS7700 Release 5.2.2 Guide** Larry Coyne,Yuki Asakura,Ole Asmussen,Nielson 'Nino' de Carvalho,Derek Erdmann,Monica Falcone,Rin Fujiwara,Nobuhiko Furuya,Lourie Goodall,Joe Hew,Kousei Kawamura,Tony Makepeace,Erich Moraga,Stefan Neff,Tomoaki Ogino,Alberto Barajas Ortiz,Aderson Pacini,Trinidad Armando Rangel Ruiz,Michael Scott,Joe Swingler,Taisei Takai,Nao Takemura,Takahiro Tsuda,Chen Zhu,IBM Redbooks,2022-07-07 This IBM Redbooks publication covers IBM TS7700 R5 2 The IBM TS7700 is part of a family of IBM Enterprise tape products This book is intended for system architects and storage administrators who want to integrate their storage systems for optimal operation Building on 25 years of experience the R5 2 release includes many features that enable improved performance usability and security Highlights include IBM TS7700 Advanced Object Store an all flash TS7770 grid resiliency enhancements and Logical WORM retention By using the same hierarchical storage techniques the TS7700 TS7770 and TS7760 can also off load to object storage Because object storage is cloud based and accessible from different regions the TS7700 Cloud Storage Tier support essentially allows the cloud to be an extension of the grid As of this writing the TS7700C supports the ability to off load to IBM Cloud Object Storage Amazon S3 and RSTOR This publication explains features and concepts that are specific to the IBM TS7700 as of release R5 2 The R5 2 microcode level provides IBM TS7700 Cloud Storage Tier enhancements IBM DS8000 Object Storage enhancements Management Interface dual control security and

other smaller enhancements The R5 2 microcode level can be installed on the IBM TS7770 and IBM TS7760 models only Note The latest Release 5 2 was split into two phases R5 2 Phase 1 also referred to as and R5 2 Phase 2 and R TS7700 provides tape virtualization for the IBM z environment Off loading to physical tape behind a TS7700 is used by hundreds of organizations around the world Tape virtualization can help satisfy the following requirements in a data processing environment New and existing capabilities of the TS7700 5 2 2 release includes the following highlights Eight way Grid Cloud which consists of up to three generations of TS7700 Synchronous and asynchronous replication of virtual tape and TCT objects Grid access to all logical volume and object data that is independent of where it exists An all flash TS7770 option for improved performance Full Advanced Object Store Grid Cloud support of DS8000 Transparent Cloud Tier Full AES256 encryption for data that is in flight and at rest Tight integration with IBM Z and DFSMS policy management DS8000 Object Store AES256 in flight encryption and compression Regulatory compliance through Logical WORM and LWORM Retention support Cloud Storage Tier support for archive logical volume version and disaster recovery Optional integration with physical tape 16 Gb IBM FICON throughput that exceeds 5 GBps per TS7700 cluster Grid Resiliency Support with Control Unit Initiated Reconfiguration CUIR support IBM Z hosts view up to 3 968 common devices per TS7700 grid TS7770 Cache On demand feature that is based capacity licensing TS7770 support of SSD within the VED server The TS7700T writes data by policy to physical tape through attachment to high capacity high performance IBM TS1160 IBM TS1150 and IBM TS1140 tape drives that are installed in an IBM TS4500 or TS3500 tape library The TS7770 models are based on high performance and redundant IBM POWER9TM technology They provide improved performance for most IBM Z tape workloads when compared to the previous generations of IBM TS7700   IBM FlashSystem Best Practices and Performance Guidelines Anil K Nayak,Antonio Rainero,Barry Whyte,Chris Hoffmann,Danilo Morelli Miyasiro,David Green,Duane Bolland,Jackson Shea,Jon Herd,Jordan Fincher,Marcelo Avalos,Sergey Kubin,Sidney Varoni Junior,Thales Noivo Ferreira,Vasfi Gucer,IBM Redbooks,2021-10-13 This IBM Redbooks publication captures several of the preferred practices and describes the performance gains that can be achieved by implementing the IBM FlashSystem products These practices are based on field experience This book highlights configuration guidelines and preferred practices for the storage area network SAN topology clustered system back end storage storage pools and managed disks volumes Remote Copy services and hosts It explains how you can optimize disk performance with the IBM System Storage Easy Tier function It also provides preferred practices for monitoring maintaining and troubleshooting This book is intended for experienced storage SAN IBM FlashSystem SAN Volume Controller and IBM Storwize administrators and technicians Understanding this book requires advanced knowledge of these environments   IBM SAN Volume Controller Best Practices and Performance Guidelines Anil K Nayak,Antonio Rainero,Barry Whyte,Chris Hoffmann,Danilo Morelli Miyasiro,David Green,Duane Bolland,Jackson Shea,Jon Herd,Jordan Fincher,Marcelo Avalos,Sergey Kubin,Sidney Varoni Junior,Thales Noivo Ferreira,Vasfi Gucer,IBM Redbooks,2021-10-13 This

IBM Redbooks publication describes several of the preferred practices and describes the performance gains that can be achieved by implementing the IBM SAN Volume Controller powered by IBM Spectrum Virtualize V8 4 These practices are based on field experience This book highlights configuration guidelines and preferred practices for the storage area network SAN topology clustered system back end storage storage pools and managed disks volumes Remote Copy services and hosts Then it provides performance guidelines for IBM SAN Volume Controller back end storage and applications It explains how you can optimize disk performance with the IBM System Storage Easy Tier function It also provides preferred practices for monitoring maintaining and troubleshooting IBM SAN Volume Controller This book is intended for experienced storage SAN and IBM SAN Volume Controller administrators and technicians Understanding this book requires advanced knowledge of the IBM SAN Volume Controller IBM FlashSystem and SAN environments   <u>IBM System Storage Business Continuity: Part 2 Solutions Guide</u> Charlotte Brooks,Clem Leung,Aslam Mirza,Curtis Neal,Yin Lei Qiu,John Sing,Francis TH Wong,Ian R Wright,IBM Redbooks,2009-06-09 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   **IBM Flex System p260 and p460 Planning and Implementation Guide** David Watts,Jose Martin Abeleira,Kerry Anders,Alberto Damigella,Bill Miller,Will Powell,IBM Redbooks,2012-06-15 To meet today s complex and ever changing business demands you need a solid foundation of compute storage networking and software resources that is simple to deploy and can quickly and automatically adapt to changing conditions You also need to be able to take advantage of broad expertise and proven preferred practices in systems management applications hardware maintenance and more The IBM Flex SystemTM p260 and p460 Compute Nodes are IBM Power SystemsTM servers optimized for virtualization performance and efficiency The nodes support IBM AIX IBM i or Linux operating environments and are designed to run various workloads in IBM PureFlexTM System This IBM Redbooks publication is a comprehensive guide to IBM PureFlex System and the Power Systems compute nodes We introduce the offerings and describe the compute nodes in detail We then describe planning and implementation steps and go through some of the key the management features of the IBM Flex System Manager management node This book is for customers IBM Business Partners and IBM technical specialists that want to understand the new offerings and to plan and implement an IBM Flex System installation that involves the Power Systems compute nodes   **IBM AIX Version 7.1 Differences Guide** Scott Vetter,Richard Bassemir,Thierry Fauck,Chris Gibson,Brad Gough,Murali Neralla,Armin Röll,Murali Vaddagiri,IBM Redbooks,2011-02-25 This IBM Redbooks publication focuses on the enhancements to IBM AIX Version 7 1

Standard Edition It is intended to help system administrators developers and users understand these enhancements and evaluate potential benefits in their own environments AIX Version 7 1 introduces many new features including Domain Role Based Access Control Workload Partition enhancements Topas performance tool enhancements Terabyte segment support Cluster Aware AIX functionality AIX Version 7 1 offers many other new enhancements and you can explore them all in this publication For clients who are not familiar with the enhancements of AIX through Version 5 3 a companion publication AIX Version 6 1 Differences Guide SG24 7559 is available **IBM TS7700 Release 4.2 Guide** Larry Coyne,Derek Erdmann,Joe Hew,Sosuke Matsui,Alberto Barajas Ortiz,Aderson Pacini,Michael Scott,Chen Zhu,IBM Redbooks,2019-04-19 This IBM Redbooks publication covers IBM TS7700 R4 2 The IBM TS7700 is part of a family of IBM Enterprise tape products This book is intended for system architects and storage administrators who want to integrate their storage systems for optimal operation Building on over 20 years of virtual tape experience the TS7760 now supports the ability to store virtual tape volumes in an object store The TS7700 has supported off loading to physical tape for over two decades Off loading to physical tape behind a TS7700 is utilized by hundreds of organizations around the world Using the same hierarchical storage techniques the TS7700 can also off load to object storage Given object storage is cloud based and accessible from different regions the TS7760 Cloud Storage Tier support essentially allows the cloud to be an extension of the grid As of the release of this document the TS7760C supports the ability to off load to IBM Cloud Object Storage as well as Amazon S3 To learn about the TS7760 cloud storage tier function planning implementation best practices and support see IBM Redpaper IBM TS7760 R4 2 Cloud Storage Tier Guide redp 5514 at http www redbooks ibm com abstracts redp5514 html The IBM TS7700 offers a modular scalable and high performance architecture for mainframe tape virtualization for the IBM Z environment It is a fully integrated tiered storage hierarchy of disk and tape This storage hierarchy is managed by robust storage management microcode with extensive self management capability It includes the following advanced functions Improved reliability and resiliency Reduction in the time that is needed for the backup and restore process Reduction of services downtime that is caused by physical tape drive and library outages Reduction in cost time and complexity by moving primary workloads to virtual tape More efficient procedures for managing daily backup and restore processing Infrastructure simplification through reduction of the number of physical tape libraries drives and media TS7700 delivers the following new capabilities TS7760C supports the ability to off load to IBM Cloud Object Storage as well as Amazon S3 8 way Grid Cloud consisting of any generation of TS7700 Synchronous and asynchronous replication Tight integration with IBM Z and DFSMS policy management Optional Transparent Cloud Tiering Optional integration with physical tape Cumulative 16Gb FICON throughput up to 4 8GB s 8 IBM Z hosts view up to 496 8 equivalent devices Grid access to all data independent of where it exists The TS7760T writes data by policy to physical tape through attachment to high capacity high performance IBM TS1150 and IBM TS1140 tape drives installed in an IBM TS4500 or TS3500 tape library The TS7760 models are based on

high performance and redundant IBM POWER8 technology They provide improved performance for most IBM Z tape workloads when compared to the previous generations of IBM TS7700 **IBM AIX Version 6.1 Differences Guide** Scott Vetter,Roman Aleksic,Ismael "Numi" Castillo,Rosa Fernandez,Armin Röll,Nobuhiko Watanabe,IBM Redbooks,2008-03-10 This IBM Redbooks publication focuses on the differences introduced in IBM AIX Version 6 1 when compared to AIX 5L Version 5 3 It is intended to help system administrators developers and users understand these enhancements and evaluate potential benefits in their own environments AIX Version 6 1 introduces many new features including workload partitions advanced security continuous availability and managing and monitoring enhancements There are many other new features available with AIX Version 6 1 and you can explore them all in this publication For clients who are not familiar with the enhancements of AIX through Version 5 3 a companion publication AIX 5L Differences Guide Version 5 3 Edition SG24 7463 is available along with an addendum AIX 5L Differences Guide Version 5 3 Addendum SG24 7414 which includes between release enhancements that are available through applying service updates *CCNA Data Center DCICT 640-916 Official Cert Guide* Navaid Shamsee,David Klebanov,Hesham Fayed,Ahmed Afrose,Ozden Karakok,2015-02-12 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 **AIX 5L Differences Guide Version 5.3 Edition** Scott Vetter,Adrian Demeter,Shiv Dutta,Armin Röll,SeongLul Son,IBM Redbooks,2005-08-29 This IBM Redbooks publication focuses on the differences introduced in AIX 5L Version 5 3 when compared to AIX 5L Version 5 2 It is intended to help system administrators developers and users understand these enhancements and evaluate potential benefits in their own environments AIX 5L Version 5 3 introduces many new features including NFS Version 4 and Advanced Accounting and exploits the advanced capabilities of POWER5 equipped severs such as Virtual SCSI Virtual Ethernet SMT Micro Partitioning and others There are many other enhancements available with AIX 5L Version 5 3 and you can explore them in this book For customers who are not familiar with the enhancements of AIX 5L through Version 5 2 a companion publication AIX 5L Differences Guide Version 5 2 Edition SG24 5765 is available **IBM Power Systems Performance Guide: Implementing and Optimizing** Dino Quintero,Sebastien Chabrolles,Chi Hui Chen,Murali Dhandapani,Talor Holloway,Chandrakant Jadhav,Sae Kee Kim,Sijo Kurian,Bharath Raj,Ronan Resende,Bjorn Roden,Niranjan Srinivasan,Richard Wale,William Zanatta,Zhi Zhang,IBM Redbooks,2013-05-01 This IBM Redbooks publication addresses performance tuning topics to help leverage the virtualization strengths of the POWER platform to solve clients system resource utilization challenges and maximize system throughput and capacity We examine the performance monitoring tools utilities documentation and other resources available to help technical teams provide optimized business solutions and support for applications running on IBM POWER systems virtualized environments The book offers application performance examples deployed on IBM Power SystemsTM utilizing performance monitoring tools to leverage the comprehensive set of POWER virtualization features Logical Partitions LPARs micro partitioning active memory sharing workload partitions and more We provide a well defined and documented performance tuning model in a POWER system virtualized environment to help you plan a foundation for scaling capacity and optimization This book targets technical professionals technical consultants technical support staff IT Architects and IT Specialists responsible for providing solutions and support on IBM POWER systems including performance tuning *IBM Certification Study Guide eServer p5 and pSeries Administration and Support for AIX 5L Version 5.3* Scott Vetter,Jose Eduardo Martinez Cordero,Shiv Dutta,Liviu Rosca,Gilvan Pereira da Silva,Kristof Stroobants,IBM Redbooks,2010-09-22 This IBM Redbooks publication is designed as a study guide for professionals wishing to prepare for the certification exam Test 222 to achieve IBM Certified Specialist eServer p5 and pSeries Administration and Support for AIX 5L Version 5 3 The certification validates a broad scope of AIX 5L administration support problem determination skills and the ability to perform general AIX 5L software system maintenance This book helps AIX 5L professionals seeking a comprehensive and task oriented guide for developing the knowledge and

skills required for the certification It is designed to provide a combination of theory and practical experience needed for a general understanding of the subject matter This book does not replace practical experience you should have but is an effective tool that when combined with education activities and experience should prove to be a very useful preparation guide for the exam Due to the practical nature of the certification content this publication can also be used as a desk side reference So whether you are planning to take the eServer p5 and pSeries Administration and Support for AIX 5L Version 5 3 certification exam or if you just want to validate your AIX 5L skills this book is for you *IBM Flex System p270 Compute Node Planning and Implementation Guide* David Watts,Kerry Anders,Simon Casey,Fabien Willmann,IBM Redbooks,2014-01-07 To meet today s complex and ever changing business demands you need a solid foundation of compute storage networking and software resources that is simple to deploy and can quickly and automatically adapt to changing conditions You also need to make full use of broad expertise and proven preferred practices in systems management applications hardware maintenance and more The IBM Flex System p270 Compute Node is an IBM Power SystemsTM server that is based on the new dual chip module POWER7 TM processor and is optimized for virtualization performance and efficiency The server supports IBM AIX IBM i or Linux operating environments and is designed to run various workloads in IBM PureFlexTM System The p270 Compute Node is a follow on to the IBM Flex SystemTM p260 Compute Node This IBM Redbooks publication is a comprehensive guide to the p270 Compute Node We introduce the related Flex System offerings and describe the compute node in detail We then describe planning and implementation steps including converged networking management virtualization and operating system installation This book is for customers IBM Business Partners and IBM technical specialists who want to understand the new offerings and plan and implement an IBM Flex System installation that involves the Power Systems compute nodes *Server+ Certification* Elton Jernigan,2002 If you re a candidate for Server certification which measures essential competencies in advanced PC hardware issues such as RAID SCSI multiple CPUs SANs and much more the Training Guide has what you need to pass We have partnered with Elton Jernigan a Subject Matter Expert SME of the initial Focus Group for development of the Server exam He brings you an excellent resource that not only will help you pass the exam but will also prove to be a handy concise reference for managers and technicians who must select and implement hardware for network servers You will benefit from Elton s insight as a 27 year veteran of the IT industry including his experience as Director of Technology for the College of Business at Florida State University and as a senior computer trainer for the Beacon Institute for Learning We make the most of your Server Certification study time by providing Content that is organized according to each job dimension and exam objective Exam objectives that are clearly detailed and explained Study strategies to optimize your learning Exam tips that provide specific exam related advice Step by step instructions that walk you through a task and help you learn faster Additional content sections with in depth reference material Chapter summaries that review key concepts Key terms you ll need to understand

Resource URLs that list web sites you can access for additional information on topics in each chapter Exercises that provide concrete experiences to reinforce learning Review questions and answers to assess your comprehension Sample exam questions that include answers and detailed explanations *IBM eServer Certification Study Guide eServer p5 and pSeries Enterprise Technical Support AIX 5L V5.3* Scott Vetter,Tierry Huche,David Kgabo,Hansjoerg Schneider,IBM Redbooks,2005-12-15 This IBM Redbooks publication is designed as a study guide for professionals wanting to prepare for the certification exam to achieve IBM Certified Systems Expert eServer p5 and pSeries Enterprise Technical Support AIX 5L V5 3 This technical support certification validates a broad scope of configuration installation and planning skills In addition it covers administrative and diagnostic activities needed to support logical partitions and virtual resources This publication helps IBM eServer p5 and pSeries professionals seeking a comprehensive and task oriented guide for developing the knowledge and skills required for the certification It is designed to provide a combination of theory and practical experience needed for a general understanding of the subject matter This publication does not replace the practical experience you should have but is an effective tool that when combined with education activities and experience should prove to be a very useful preparation guide for the exam Due to the close association with the certification content this publication might reflect older software and firmware levels of the IBM eServer p5 systems and available features If you are planning to take the eServer p5 and pSeries Enterprise Technical Support AIX 5L V5 3 certification exam this book is for you <u>Sun Solaris to IBM AIX 5L Migration: A Guide for System Administrators</u> Chris Almond,Janis Byrd,Joseph Kiernan,Livio Teixeira Filho,Phill Rowbottom,IBM Redbooks,2007-04-17 The aim of this IBM Redbooks publication is to provide a technical reference for IT system administrators in organizations that are considering a migration from Sun Solaris to IBM AIX 5L based systems This book presents a system administrator view of the technical differences that exist and the methods that are necessary to complete a successful migration to AIX 5L based systems This book is designed primarily as a reference for experienced Sun Solaris 8 or 9 system administrators who will be working with AIX 5L This book is not an AIX 5L administration how to book for system administrators who are beginners but rather a guide for experienced administrators who have to translate a given Solaris system administration task to AIX 5L *IBM System Storage DS8700 Architecture and Implementation* Bertrand Dufrasne,Werner Bauer,Brenda Careaga,Jukka Myyrrylainen,Antonio Rainero,Paulus Usong,IBM Redbooks,2011-02-12 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   Administering Data Centers Kailash Jayaswal,2005-10-28 This book covers a wide spectrum of topics relevant to implementing and managing a modern data center The chapters are comprehensive and the flow of concepts is easy to understand Cisco reviewer Gain a practical knowledge of data center concepts To create a well designed data center including storage and network architecture VoIP implementation and server consolidation you must understand a variety of key concepts and technologies This book explains those factors in a way that smoothes the path to implementation and management Whether you need an introduction to the technologies a refresher course for IT managers and data center personnel or an additional resource for advanced study you ll find these guidelines and solutions provide a solid foundation for building reliable designs and secure data center policies Understand the common causes and high costs of service outages Learn how to measure high availability and achieve maximum levels Design a data center using optimum physical environmental and technological elements Explore a modular design for cabling Points of Distribution and WAN connections from ISPs See what must be considered when consolidating data center resources Expand your knowledge of best practices and security Create a data center environment that is user and manager friendly Learn how high availability clustering and disaster recovery solutions can be deployed to protect critical information Find out how to use a single network infrastructure for IP data voice and storage

Unveiling the Magic of Words: A Review of "**Serial Storage Architecture Guide**"

In a global defined by information and interconnectivity, the enchanting power of words has acquired unparalleled significance. Their power to kindle emotions, provoke contemplation, and ignite transformative change is actually awe-inspiring. Enter the realm of "**Serial Storage Architecture Guide**," a mesmerizing literary masterpiece penned by a distinguished author, guiding readers on a profound journey to unravel the secrets and potential hidden within every word. In this critique, we shall delve in to the book is central themes, examine its distinctive writing style, and assess its profound effect on the souls of its readers.

https://letsgetcooking.org.uk/public/detail/Documents/studd%20s%20juke%20joint.pdf

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Serial Storage Architecture Guide Introduction

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