



Ibm Tape Library

**Larry Coyne, Khanh Ngo, Illarion
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IBM System Storage Tape Library Guide for Open Systems Larry Coyne, Sandor Alavari, Simon Browne, Chris Hoffmann, Leticia Munoz, Markus Schaefer, 2013 This IBM Redbooks publication presents a general introduction to Linear Tape Open LTO technology and the implementation of corresponding IBM products The IBM Enterprise 3592 Tape Drive also is described This tenth edition includes information about the latest enhancements to the IBM Ultrium family of tape drives and tape libraries In particular it includes details of the latest IBM LTO Ultrium 6 tape drive technology and its implementation in IBM tape libraries Information is included about the recently released enhanced higher performance ProtecTIER servers and the features of the new version 3.2 server software The new software also enables a new feature the File System Interface FSI It also contains technical information about each IBM tape product for Open Systems It includes generalized sections about Small Computer System Interface SCSI and Fibre Channel connections and multipath architecture configurations This book also includes information about tools and techniques for library management This edition includes details about Tape System Library Manager TSLM TSLM provides consolidation and simplification in large TS3500 Tape Library environments including the IBM Shuttle Complex This publication is intended for anyone who wants to understand more about IBM tape products and their implementation This book is suitable for IBM clients IBM Business Partners IBM specialist sales representatives and technical specialists If you do not have a background in computer tape storage products you might need to reference other sources of information In the interest of being concise topics that are generally understood are not covered in detail

IBM Tape Library Guide for Open Systems Larry Coyne, Larry Coyne, Michael Engelbrecht, Simon Browne, Michael Engelbrecht, Simon Browne, Illarion Borisevich, 2018 Abstract This IBM Redbooks publication presents a general introduction to the latest IBM tape and tape library technologies Featured tape technologies include the IBM LTO Ultrium and Enterprise 3592 tape drives and their implementation in IBM tape libraries This 16th edition introduces the new TS1160 tape drive with up to 20 TB capacity on JE media and the latest updates to the IBM TS4500 and TS4300 tape libraries It includes generalized sections about Small Computer System Interface SCSI and Fibre Channel connections and multipath architecture configurations This book also covers tools and techniques for library management It is intended for anyone who wants to understand more about IBM tape products and their implementation It is suitable for IBM clients IBM Business Partners IBM specialist sales representatives and technical specialists If you do not have a background in computer tape storage products you might need to read other sources of information In the interest of being concise topics that are generally understood are not covered in detail

IBM Tape Library Guide for Open Systems Illarion Michael Engelbrecht Larry Coyne Simon Browne, 2018 Abstract This IBM Redbooks publication presents a general introduction to the latest IBM tape and tape library technologies Featured tape technologies include the IBM LTO Ultrium and Enterprise 3592 tape drives and their implementation in IBM tape libraries This 16th edition introduces the new TS1160

tape drive with up to 20 TB capacity on JE media and the latest updates to the IBM TS4500 and TS4300 tape libraries It includes generalized sections about Small Computer System Interface SCSI and Fibre Channel connections and multipath architecture configurations This book also covers tools and techniques for library management It is intended for anyone who wants to understand more about IBM tape products and their implementation It is suitable for IBM clients IBM Business Partners IBM specialist sales representatives and technical specialists If you do not have a background in computer tape storage products you might need to read other sources of information In the interest of being concise topics that are generally understood are not covered in detail IBM Tape Library Guide for Open Systems Larry Coyne, Michael Engelbrecht, Simon Browne, 2017 Abstract This IBM Redbooks publication presents a general introduction to the latest IBM tape and tape library technologies Featured tape technologies include the IBM LTO Ultrium and Enterprise 3592 tape drives and their implementation in IBM tape libraries This 15th edition includes information about the latest TS4300 Ultrium tape library TS1155 Enterprise tape drive and the IBM Linear Tape Open LTO Ultrium 8 tape drive along with technical information about each IBM tape product for open systems It includes generalized sections about Small Computer System Interface SCSI and Fibre Channel connections and multipath architecture configurations This book also covers tools and techniques for library management It is intended for anyone who wants to understand more about IBM tape products and their implementation It is suitable for IBM clients IBM Business Partners IBM specialist sales representatives and technical specialists If you do not have a background in computer tape storage products you might need to read other sources of information In the interest of being concise topics that are generally understood are not covered in detail *IBM Tape Library Guide for Open Systems* Larry Coyne, 2018 Abstract This IBM Redbooks publication presents a general introduction to the latest IBM tape and tape library technologies Featured tape technologies include the IBM LTO Ultrium and Enterprise 3592 tape drives and their implementation in IBM tape libraries This 16th edition introduces the new TS1160 tape drive with up to 20 TB capacity on JE media and the latest updates to the IBM TS4500 and TS4300 tape libraries It includes generalized sections about Small Computer System Interface SCSI and Fibre Channel connections and multipath architecture configurations This book also covers tools and techniques for library management It is intended for anyone who wants to understand more about IBM tape products and their implementation It is suitable for IBM clients IBM Business Partners IBM specialist sales representatives and technical specialists If you do not have a background in computer tape storage products you might need to read other sources of information In the interest of being concise topics that are generally understood are not covered in detail *IBM Tape Library Guide for Open Systems* Robert Beiderbeck, 2020 *IBM Spectrum Archive Single Drive Edition and Library Edition: Installation and Configuration Guide* Larry Coyne, Khanh Ngo, Illarion Borisevich, IBM Redbooks, 2018-03-22 The IBM Linear Tape File System™ LTFS is the first file system that works along with Linear Tape Open LTO tape technology to set a new standard for ease of use and portability for open systems tape storage In

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Implementing IBM Tape in i5/OS Babette Haeusser,Ingo Dimmer,Alv Hovda,Jana Jamsek,Ricardo Silva,Erwin Zwemmer,2008 This IBM Redbooks publication follows The IBM System Storage Tape Libraries Guide for Open Systems SG24 5946 and can help you plan install and configure IBM Ultrium LTO tape drives as well as the TS1120 Tape Drive and libraries in i5 OS environments The book focuses on the setup and customization of these drives and libraries The first part of the book gives an overview of the System i family of servers and describes how to attach and configure the drives and libraries It also covers basic installation and administration We describe the sharing and partitioning of libraries and explain the concept and usage of the Advanced Library Management System ALMS In the second part of the book we document how to use these products with Backup Recovery and Media Services BRMS how to implement Tape Encryption and how to use the IBM TS7520 Virtualization Engine with i5 OS This book can help IBM personnel Business Partners and customers to better understand and implement the IBM Ultrium LTO product line and also the TS1120 Tape Drive attached to System i servers We assume that the reader is familiar with tape drives and libraries and has a basic understanding of System i servers and i5 OS

IBM Ts4500 R2 Tape Library Guide Ibm Redbooks,2016

IBM TS4500 R8 Tape Library Guide Ole Asmussen,Robert Beiderbeck,Albrecht Friess,Hans-Günther Hörhammer,Khanh Ngo,Jesus Eduardo Cervantes Rolon,Fabian Corona Villarreal,Larry Coyne,IBM Redbooks,2022-03-21 The IBM TS4500 TS4500 tape library is a next generation tape solution that offers higher storage density and better integrated management than previous solutions This IBM Redbooks publication gives you a close up view of the new IBM TS4500 tape library In the

TS4500 IBM delivers the density that today's and tomorrow's data growth requires. It has the cost effectiveness and the manageability to grow with business data needs while you preserve investments in IBM tape library products. Now you can achieve a low per terabyte cost and high density with up to 13 PB of data up to 39 PB compressed in a single 10 square foot library by using LTO Ultrium 9 cartridges or 11 PB with 3592 cartridges. The TS4500 offers the following benefits: Support of the IBM Linear Tape Open LTO Ultrium 9 tape drive. Store up to 1.04 EB 2.5:1 compressed per library with IBM LTO 9 cartridges. High availability. Dual active accessors with integrated service bays reduce inactive service space by 40%. The Elastic Capacity option can be used to eliminate inactive service space. Flexibility to grow. The TS4500 library can grow from the right side and the left side of the first L frame because models can be placed in any active position. Increased capacity. The TS4500 can grow from a single L frame up to another 17 expansion frames with a capacity of over 23,000 cartridges. High density. HD generation 1 frames from the TS3500 library can be redeployed in a TS4500. Capacity on demand. CoD CoD is supported through entry level, intermediate and base capacity configurations. Advanced Library Management System (ALMS). ALMS supports dynamic storage management which enables users to create and change logical libraries and configure any drive for any logical library. Support for IBM TS1160 while also supporting TS1155, TS1150 and TS1140 tape drive. The TS1160 gives organizations an easy way to deliver fast access to data, improve security and provide long term retention all at a lower cost than disk solutions. The TS1160 offers high performance flexible data storage with support for data encryption. Also this enhanced fifth generation drive can help protect investments in tape automation by offering compatibility with existing automation. Store up to 1.05 EB 3:1 compressed per library with IBM 3592 cartridges. Integrated TS7700 back end. Fibre Channel (FC) switches are available. Up to four library managed encryption (LME) key paths per logical library are available. This book describes the TS4500 components, feature codes, specifications, supported tape drives, encryption, new integrated management console (IMC), command line interface (CLI) and REST over SCSI (RoS) to obtain status information about library components. You learn how to accomplish the following tasks: Improve storage density with increased expansion frame capacity up to 2.4 times and support 33% more tape drives per frame.

IBM TS4500 R3 Tape Library Guide ,2016

IBM System Storage Open Systems Tape Encryption Solutions Alex Osuna, Luciano Cecchetti, Edgar Vinson, IBM Redbooks, 2010-12-08. This IBM Redbooks publication discusses IBM System Storage Open Systems Tape Encryption solutions. It specifically describes Tivoli Key Lifecycle Manager (TKLM) Version 2 which is a Java software program that manages keys enterprise wide and provides encryption enabled tape drives with keys for encryption and decryption. The book explains various methods of managing IBM tape encryption. These methods differ in where the encryption policies reside, where key management is performed, whether a key manager is required and if required how the tape drives communicate with it. The security and accessibility characteristics of encrypted data create considerations for clients which do not exist with storage devices that do not encrypt data. Encryption key material must be kept secure from disclosure or use by any

agent that does not have authority to it at the same time it must be accessible to any agent that has both the authority and need to use it at the time of need This book is written for readers who need to understand and use the various methods of managing IBM tape encryption

IBM TS4500 Tape Library Guide Larry Coyne,2014 The IBM TS4500 tape library is a next generation tape solution that delivers higher storage density and integrated management This IBM Redbooks publication will give you a close up view of the new IBM TS4500 tape library In the TS4500 IBM delivers the density that today s and tomorrow s data growth require with the cost efficiency and the manageability to grow with business data needs while preserving existing investments in IBM tape library products Now organizations can achieve both a low cost per terabyte TB and a high TB density per square foot In fact the TS4500 can store up to 2.2 PBs of data in a single 10 square foot library frame up to 3.4 times more capacity than the IBM TS3500 tape library This book covers the TS4500 product description components feature codes specifications supported tape drives encryption new integrated management console and the command line interface CLI This publication is intended for anyone who wants to understand more about the IBM TS4500 tape library This book is suitable for IBM clients IBM Business Partners IBM specialist sales representatives and technical specialists

IBM Ts4500 Tape Library Guide IBM Redbooks,2015-01-08

IBM Linear Tape File System Enterprise Edition V1.1.1.2: Installation and Configuration Guide Larry Coyne,Khanh Ngo,Stefan Neff,IBM Redbooks,2015-01-29 This IBM Redbooks publication helps you with the planning installation and configuration of the new IBM Linear Tape File System™ LTFS Enterprise Edition EE V1.1.1.2 for the IBM TS3310 IBM TS3500 and IBM TS4500 tape libraries LTFS EE enables the use of LTFS for the policy management of tape as a storage tier in an IBM General Parallel File System IBM GPFS™ based environment and helps encourage the use of tape as a critical tier in the storage environment LTFS EE can run any application that is designed for disk files on tape LTFS EE supports IBM Linear Tape Open LTO Ultrium 6 and 5 tape drives in IBM TS3310 TS3500 and TS4500 tape libraries IBM TS1140 and IBM TS1150 tape drives are supported in TS3500 and TS4500 tape libraries LTFS EE can play a major role in reducing the cost of storage for data that does not need the access performance of primary disk The use of LTFS EE to replace disks with tape in Tier 2 and Tier 3 storage can improve data access over other storage solutions because it improves efficiency and streamlines management for files on tape LTFS EE simplifies the use of tape by making it transparent to the user and manageable by the administrator under a single infrastructure This publication is intended for anyone who wants to understand more about LTFS EE planning and implementation This book is suitable for IBM clients IBM Business Partners IBM specialist sales representatives and technical specialists

IBM Information Infrastructure Solutions Handbook Sangam Racherla,Vikas Bajaj,Emile Knebel,Glenn Korn,Anna Kutepova,Gary Newell,Sebastian Szumczyk,IBM Redbooks,2010-07-11 An information infrastructure is comprised of software servers storage and networks integrated and optimized to deliver timely secure and trusted information throughout the organization and to its clients and partners With the explosive growth in data and

information coupled with demands for projects with rapid ROI IT infrastructures and storage administrators are reaching a breaking point IBM can help with the changes needed to manage information availability security and regulatory and compliance requirements on a tighter budget And because the health of any business often depends on its ability to take advantage of information in real time a sound intelligent information infrastructure becomes critical to supporting new growth initiatives IBM offers an innovative approach to help you manage information growth more effectively and mitigate risks with a dynamic infrastructure that efficiently and securely stores and protects information and optimizes information access You can control protect manage and gain new intelligence from your information with the IBM leading edge Information Infrastructure products services and integrated solutions supported by world class expertise and access to top experts from around the world This IBM Redbooks publication provides an overview of the IBM Information Infrastructure solutions that are designed to help you manage the information explosion and address challenges of information compliance availability retention and security This will lead your company toward improved productivity service delivery and reduced risk while streamlining costs IBM System Storage Tape Library Guide for Open Systems Alex Osuna,2012 *IBM TS4500 R4 Tape Library Guide* ,2017 **IBM TS4500 R5 Tape Library Guide** Illarion Michael Engelbrecht Larry Coyne Simon Browne,2018 Abstract The IBM TS4500 TS4500 tape library is a next generation tape solution that offers higher storage density and integrated management than previous solutions This IBM Redbooks publication gives you a close up view of the new IBM TS4500 tape library In the TS4500 IBM delivers the density that today s and tomorrow s data growth requires It has the cost effectiveness and the manageability to grow with business data needs while you preserve existing investments in IBM tape library products Now you can achieve both a low cost per terabyte TB and a high TB density per square foot because the TS4500 can store up to 11 petabytes PB of uncompressed data in a single frame library or scale up to 2 PB per square foot to over 350 PB The TS4500 offers the following benefits High availability Dual active accessors with integrated service bays reduce inactive service space by 40% The Elastic Capacity option can be used to completely eliminate inactive service space Flexibility to grow The TS4500 library can grow from the right side and the left side of the first L frame because models can be placed in any active position Increased capacity The TS4500 can grow from a single L frame up to another 17 expansion frames with a capacity of over 23 000 cartridges High density HD generation 1 frames from the TS3500 library can be redeployed in a TS4500 Capacity on demand CoD CoD is supported through entry level intermediate and base capacity configurations Advanced Library Management System ALMS ALMS supports dynamic storage management which enables users to create and change logical libraries and configure any drive for any logical library Support for IBM TS1160 while also supporting TS1155 TS1150 and TS1140 tape drive The TS1160 gives organizations an easy way to deliver fast access to data improve security and provide long term retention all at a lower cost than disk solutions The TS1160 offers high performance flexible data storage with support for data encryption Also this enhanced fifth

generation drive can help protect investments in tape automation by offering compatibility with existing automation The new TS1160 Tape Drive Model 60E delivers a dual 10 Gb or 25 Gb Ethernet host attachment interface that is optimized for cloud based and hyperscale environments The TS1160 Tape Drive Model 60F delivers a native data rate of 400 MBps the same load ready locate speeds and access times as the TS1155 and inc

IBM TS4500 R5 Tape Library Guide Michael Engelbrecht Larry Coyne Simon Browne, 2018 Abstract The IBM TS4500 TS4500 tape library is a next generation tape solution that offers higher storage density and integrated management than previous solutions This IBM Redbooks publication gives you a close up view of the new IBM TS4500 tape library In the TS4500 IBM delivers the density that today's and tomorrow's data growth requires It has the cost effectiveness and the manageability to grow with business data needs while you preserve existing investments in IBM tape library products Now you can achieve both a low cost per terabyte TB and a high TB density per square foot because the TS4500 can store up to 11 petabytes PB of uncompressed data in a single frame library or scale up to 2 PB per square foot to over 350 PB The TS4500 offers the following benefits High availability Dual active accessors with integrated service bays reduce inactive service space by 40% The Elastic Capacity option can be used to completely eliminate inactive service space Flexibility to grow The TS4500 library can grow from the right side and the left side of the first L frame because models can be placed in any active position Increased capacity The TS4500 can grow from a single L frame up to another 17 expansion frames with a capacity of over 23 000 cartridges High density HD generation 1 frames from the TS3500 library can be redeployed in a TS4500 Capacity on demand CoD CoD is supported through entry level intermediate and base capacity configurations Advanced Library Management System ALMS ALMS supports dynamic storage management which enables users to create and change logical libraries and configure any drive for any logical library Support for IBM TS1160 while also supporting TS1155 TS1150 and TS1140 tape drive The TS1160 gives organizations an easy way to deliver fast access to data improve security and provide long term retention all at a lower cost than disk solutions The TS1160 offers high performance flexible data storage with support for data encryption Also this enhanced fifth generation drive can help protect investments in tape automation by offering compatibility with existing automation The new TS1160 Tape Drive Model 60E delivers a dual 10 Gb or 25 Gb Ethernet host attachment interface that is optimized for cloud based and hyperscale environments The TS1160 Tape Drive Model 60F delivers a native data rate of 400 MBps the same load ready locate speeds and access times as the TS1155 and inc

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