

1. Record Nr.	UNINA9910823607803321
Titolo	IBM tape solutions for storage area networks and FICON // [Barry Kadleck ... et al.]
Pubbl/distr/stampa	San Jose, CA, : IBM, International Technical Support Organization, 2003
Edizione	[4th ed.]
Descrizione fisica	xviii, 188 p. : ill
Collana	IBM redbooks
Altri autori (Persone)	KadleckBarry
Disciplina	004.5/6
Soggetti	Data tapes Storage area networks (Computer networks)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"December 2003."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front cover -- Contents -- Notices -- Trademarks -- Preface -- The team that wrote this redbook -- Become a published author -- Comments welcome -- Summary of changes -- December 2003, Fourth Edition -- Chapter 1. Storage area networks -- 1.1 The SCSI legacy -- 1.2 Storage networks -- 1.2.1 Network Attached Storage -- 1.2.2 Storage area network -- 1.3 The value of SANs -- 1.4 SAN overview and topologies -- 1.4.1 Fibre Channel -- 1.4.2 SAN topologies -- 1.4.3 Extended distance fabrics -- 1.4.4 SAN and NAS bridges and gateways -- 1.4.5 Storage network positioning -- Chapter 2. Tape in the SAN environment -- 2.1 Terminology -- 2.2 LAN backup model -- 2.3 SAN backup model -- 2.3.1 LAN-free backup -- 2.3.2 Server-free backup -- 2.4 Sharing and pooling -- 2.4.1 Economics of sharing -- 2.5 Remote tape vaulting and disaster tolerance -- 2.5.1 Fully redundant, disaster tolerant tape solutions -- 2.6 Storage virtualization -- Chapter 3. SAN building blocks -- 3.1 IBM SAN Data Gateway SCSI Tape Router -- 3.2 IBM SAN Data Gateway -- 3.3 IBM TotalStorage SAN Controller 160 -- 3.4 IBM Fibre Channel Storage Hub -- 3.4.1 Hub configuration -- 3.5 IBM TotalStorage SAN Switch F08 -- 3.6 IBM TotalStorage SAN Switch F16 -- 3.6.1 Product overview -- 3.6.2 Hardware components -- 3.6.3 Software specifications -- 3.6.4 Interoperability -- 3.7 IBM TotalStorage SAN Switch M12 -- 3.7.1 M12 description -- 3.7.2 M12 connectivity -- 3.7.3 Intelligence within the M12 -- 3.7.4 Open SAN management -- 3.7.5 Seamless upgrades and

investment protection -- 3.8 INRANGE FC/9000 Fibre Channel Director -- 3.8.1 INRANGE Director product description -- 3.8.2 Supported attachments -- 3.8.3 Supported port types -- 3.8.4 Availability -- 3.8.5 Scalable capacity -- 3.9 McDATA ES-1000 Loop Switch -- 3.9.1 Product description -- 3.9.2 High availability features. 3.9.3 Concurrent firmware upgrades -- 3.9.4 Serviceability features -- 3.9.5 ES-1000 zoning -- 3.10 McDATA ES-3216 and ES-3232 fabric switches -- 3.10.1 Product description -- 3.10.2 High availability features -- 3.10.3 Setup configuration -- 3.10.4 Management software -- 3.10.5 Serviceability features -- 3.11 McDATA ED-6064 Director -- 3.11.1 Product description -- 3.11.2 Attachment -- 3.11.3 Planning for 2 Gbps -- 3.11.4 Port types -- 3.11.5 Scalable configuration options -- Chapter 4. Tape building blocks -- 4.1 SAN readiness -- 4.2 LTO tape subsystems -- 4.2.1 Ultrium -- 4.2.2 The IBM LTO Ultrium family of tapes and libraries -- 4.2.3 IBM 3580 Ultrium tape drive -- 4.2.4 IBM 3581 Ultrium tape autoloader -- 4.2.5 IBM 3582 Ultrium Scalable tape library -- 4.2.6 IBM 3583 Ultrium Scalable tape library -- 4.2.7 IBM 3584 UltraScalable tape library -- 4.2.8 IBM 3600 Series LTO tape automation family -- 4.3 IBM TotalStorage MP 3570 and 3575 -- 4.3.1 IBM 3570 drive and autoloader -- 4.3.2 IBM 3575 library -- 4.4 IBM TotalStorage 3590 -- 4.4.1 IBM TotalStorage 3590 tape drives -- 4.4.2 IBM 3590 cartridges -- 4.4.3 IBM 3590 Model A60 ESCON and FICON control unit -- 4.4.4 IBM TotalStorage 3592 tape drives -- 4.4.5 IBM 3592 cartridges -- 4.4.6 IBM TotalStorage 3494 Virtual Tape Server -- 4.5 Digital Linear Tape and SuperDLT -- 4.5.1 IBM 3502 DLT tape library family -- 4.6 Other tape libraries -- 4.7 SAN readiness summary -- Chapter 5. Tape solutions -- 5.1 Highly reliable, low cost backup and archive -- 5.1.1 Backup for workgroups -- 5.1.2 Backup for departments -- 5.1.3 Backup for large departments and enterprises -- 5.2 Remote tape vaulting -- 5.2.1 Workgroup and small department solution -- 5.2.2 Large department and enterprise solution -- 5.3 Disaster tolerant tape implementation -- 5.3.1 Disaster tolerance for departments and small enterprises. 5.3.2 Disaster tolerance for medium and large enterprise -- 5.4 Sharing S/390 tape library resources with open servers -- Chapter 6. FICON attachment of IBM tapes -- 6.1 FICON overview -- 6.2 FICON infrastructure -- 6.2.1 Channels -- 6.2.2 Fiber connections -- 6.2.3 Directors -- 6.2.4 FICON control units -- 6.2.5 FICON management -- 6.2.6 Sharing with storage area networks -- 6.3 3590-A60 control unit -- 6.3.1 Installation options -- 6.3.2 Features -- 6.3.3 Software support for FICON 3590-A60s -- 6.3.4 Defining devices -- 6.3.5 Performance -- 6.4 IBM 3592-J70 control unit -- 6.4.1 Installation options -- 6.4.2 Features -- 6.4.3 Software support for FICON 3592-J70s -- 6.4.4 Defining devices -- 6.5 IBM 3494 Virtual Tape Server -- 6.5.1 Connectivity -- 6.5.2 Software support -- 6.5.3 Advanced functions with the VTS -- 6.5.4 Feature codes -- Appendix A. Fibre Channel discussion -- Layers -- Lower layers -- Upper layers -- Topologies -- Classes of service -- Appendix B. Terminology and other basics -- StorWatch -- SCSI -- Fibre Channel terms -- Related publications -- IBM Redbooks -- Other resources -- Referenced Web sites -- How to get IBM Redbooks -- Help from IBM -- Index -- Back cover.

---

## Sommario/riassunto

The explosive growth of stored data, the increasing value of the data, and the fact that it is often distributed over multiple heterogeneous servers has created significant problems for backing up and archiving data. Also, the increased pressure for more productive IT time and less time for administrative tasks means that there is more data to backup in less time. This IBM Redbooks publication explains how tape drives

and tape libraries can use storage area networks (SANs) to solve these problems. It explains how you can exploit SANs to attach, share, and exploit IBM tape subsystems and tape libraries. The ability to share tape libraries across many hosts creates a tremendous financial advantage that can be an immediate benefit of implementing SANs in your enterprise. You can often achieve significant cost savings and increase data security by implementing the tape sharing and extended distance capabilities of SAN. This book also includes a practical description of the products and components that were made available with the IBM SAN product rollout. For a definitive guide to SANs and their implementation, refer to the book *Designing an IBM Storage Area Network*, SG24-5758. Although the primary focus in this book is on SAN tape solutions, you must also understand advances in SAN-attached disk storage, advances in copy functions, and storage management software.

---