IBM 7226 Multimedia Storage Enclosure

Optimize storage devices and protect data

Highlights

- Deploy a low-profile design configuration with up to four storage devices in a 1U space in a 19-inch rack
- Enable the performance and capacity enhancements of half-high Linear Tape-Open (LTO) Ultrium 8 (30.0 TB) half-high LTO Ultrium 7 (15.0 TB), LTO Ultrium 6 (6.25 TB), LTO Ultrium 5 (3.0 TB), DVD-RAM or Remote DBA Experts, LLC (RDX) removable disk drives
- Provide multiple options to connect to high-performance IBM® POWER8®, IBM POWER7®, IBM POWER6®, IBM POWER®, IBM BladeCenter, IBM PureFlex® and other compatible original equipment manufacturer (OEM) systems

For organizations with rack-mount servers, IBM 7226 Multimedia Storage Enclosure provides reliable and flexible data backup and security in the data center. With high-speed SAS, USB and Fibre Channel interface options, as well as compatibility with a range of storage devices, 7226 Multimedia Storage Enclosure can help protect data on critical IBM Power Systems™, BladeCenter, PureFlex and other compatible OEM systems. High-density applications using half-high LTO Ultrium 8, 7, 6 and 5 SAS tape drives are available on POWER8 and POWER7 systems. These LTO Ultrium tape drives are also available with Fibre Channel for use on some POWER models and PureFlex systems.

7226 Multimedia Storage Enclosure is a rack-mounted unit that features two drive bays that can hold one or two tape drives, one or two RDX removable disk drives, and up to four slim-design DVD-RAM drives. These drives can be mixed in any combination of any available drive technology or electronic interface in a single 7226 Multimedia Storage Enclosure.

To help connect 7226 Multimedia Storage Enclosure to POWER8 and POWER7 systems, the SAS drive requires the Peripheral Component Interconnect eXtended (PCI-X) double data rate (DDR) Dual-x4 SAS Adapter (Features EKAA, EKAB, 5278, 5901 and 5912). High-density applications require POWER8 and POWER7 SAS Adapter Feature EJ10, EJ11, EL10, EJOJ or EJOM. Up to two 7226 enclosures can be attached to this adapter.

Each 7226 SAS device can be attached individually to a server host bus adapter (HBA) port or the Quad External SAS Cable (Feature 5544), which allows up to four SAS drives to attach to a single HBA port. USB drive features can also attach to standard USB ports on the system or to the four-port USB adapter (Features 2728 and EC45). Half-high LTO Ultrium 8, 7, 6 and 5 Fibre Channel tape drives can also attach to most POWER8 and POWER7 servers through a Fibre Channel external adapter (Features 5273, 5753, EL43 or EL5B).

POWER Blade servers require the 3 GB SAS Expansion Adapter (Feature 8246) and attach to 7226 Multimedia Storage Enclosure through BladeCenter. RDX removable hard drive storage devices can also attach to BladeCenter.

PureFlex systems require a Fibre Channel external adapter (Feature 1764) to attach the half-high LTO Ultrium 8, 7, 6 and 5 tape drives. RDX removable hard drive storage devices can also attach to PureFlex systems through an available USB3 internal port on the server, or USB3 adapter (Feature 2728 or EC45).

Includes broad choice of features

Drive options on 7226 Multimedia Storage Enclosure include:

- **Tape drive features:**
  - *LTO Ultrium 8 SAS and Fibre Channel tape drives:* Storage capacity of up to 30 TB with a data transfer rate of up to 300 MBps (assumes 2.5:1 compression); read/write compatibility of the half-high LTO Ultrium 8 drive with LTO Ultrium 8 and 7 media
  - *LTO Ultrium 7 SAS and Fibre Channel tape drives:* Storage capacity of up to 15 TB with a data transfer rate of up to 300 MBps (assumes 2.5:1 compression); read/write compatibility of the half-high LTO Ultrium 7 drive with LTO Ultrium 7 and 6 media, and read-only compatibility with LTO Ultrium 5 media
  - *LTO Ultrium 6 SAS and Fibre Channel tape drives:* Storage capacity of up to 6.25 TB with a data transfer rate of up to 320 MBps (assumes 2.5:1 compression); read/write compatibility of the half-high LTO Ultrium 6 drive with LTO Ultrium 6 and 5 media, and read-only compatibility with LTO Ultrium 4 media
  - *Half-high LTO Ultrium 5 SAS and Fibre Channel tape drives:* Storage capacity of up to 3 TB with a data transfer rate of up to 280 MBps (assumes 2:1 compression); read/write compatibility of the half-high LTO Ultrium 5 drive with LTO Ultrium 5 and 4 media, and read-only compatibility with LTO Ultrium 3 media
  - *Availability of both the SAS and Fibre Channel electronic interfaces on half-high LTO Ultrium 8, 7, 6 and 5:* Ability to expand the attach capability on POWER and PureFlex systems; high-density applications are available on POWER8 and POWER7 systems using the half-high LTO Ultrium 8, 7, 6 or 5 SAS tape drive features offered on 7226 Multimedia Storage Enclosure

- **DVD optical drive features:**
  - *DVD-RAM SAS and USB drives:* Native capacity of up to 9.4 GB with a data transfer rate of 2.77 MBps
    - These DVD-RAM drives attach to an IBM server from the rear port of 7226 Multimedia Storage Enclosure. With a typical 3:1 compression, a single disk can read and write up to 28 GB of data. The DVD-RAM drive is mounted in the DVD sled feature, which has space for a second DVD-RAM drive in each 7226 drive bay. The DVD-RAM drive can read CD-recordable, CD-RW and CD-ROM media. DVD-RAM drives use bare media and support both synchronous and asynchronous data transfers. The DVD drives are compatible with 2.6 GB, 4.7 GB, 5.2 GB and 9.4 GB media. The availability of both the SAS and USB electronic interfaces expands the attach capability of DVD drives on various Power Systems servers.[1]
    - DVD-RAM SATA/SAS drives are available on POWER systems and BladeCenter servers.
    - The DVD-RAM USB drive is available for PureFlex and POWER8 systems with the USB port located on either the rear or the front bezel of the DVD drive sled.
- **RDX removable disk drive features:**
  - *RDX removable disk drive cartridges capacity options:* 500 GB, 1 TB and 2 TB with a data rate of up to 200 MBps
  - *RDX docking station:* Easy plug and play of computer data when installed in a drive bay of 7226 Multimedia Storage Enclosure. RDX removable hard drive technology is a more highly reliable save/restore backup option than tape or DVD. Data encryption is supported through a Power Systems application.

IBM 7226 Multimedia Storage Enclosure at a glance

Characteristics	
Number of storage devices	Four maximum (assumes four DVD drives)
Electronics	Optional SAS, USB or Fibre Channel electronic bus
Typical compression	2.5:1 for tape drives and 3:1 for DVD optical drives Compression on RDX disk drives is typically 2:1 and is supported by a Power Systems server
Service offerings	One-year limited warranty Customer-replaceable unit (CRU) and 24x7 on-site service, service upgrades available
Physical characteristics	
Dimensions (H x W x D)	4.3 cm x 48 cm x 43.8 cm (1.7 in. x 18.7 in. x 17.6 in.)
Weight	7.1 kg (15.6 lb)—typical configuration
Color	Black

IBM 7226 Multimedia Storage Enclosure at a glance	
Operating environment	
Temperature	10°C – 40°C (50°F – 104°F)
Relative humidity	20% – 80%
Wet bulb (maximum)	26°C (79°F)
Electrical power	0.047 kVA
Power requirement	140 watt power supply
Acoustics (maximum)	5.5 bels idle; 6.2 bels operating
Software requirements	
IBM AIX® v7.3, v7.2, v7.1, v6.1, v5.3	• All levels • With 6100-01 technology and Service Pack 7 or later • With 5300-10 technology and Service Pack 2 or later
IBM System i® (previously known as IBM OS/400®)	• IBM System i v7.1 or later (SAS devices only) • IBM System i v6.1.1 or later (SAS devices only)
Linux	• SUSE Linux Enterprise Server 10 SP3 for Power Systems or later • SUSE Linux Enterprise Server 11 SP1 for Power Systems or later • Red Hat Enterprise Linux for POWER v5.5 or later
Virtual I/O Server (VIOS) (supports SAS devices only)	Assignment of devices in 7226 enclosure requires VIOS v2.2 or later
Power Systems hardware adapter requirements	
SAS adapters (Features 5278, 5900, 5901 and 5912) One drive device per HBA standard SAS adapters (Features EKAA, EKAB, EJ10, EJ11, EL10, EJOJ and EJOM) on POWER8 and POWER7 Systems using high-density applications Quad Cable (Feature 5544) allows up to four devices per HBA	• PCI-X DDR Dual-x4 external SAS controller adapter for half-high LTO Ultrium 7, 6 and 5 tape drives and DVD-RAM drives • High-density external SAS controller adapters for attaching half-high LTO Ultrium 8, 7, 6 and 5 tape drives
USB adapter (Feature 2728) USB3 adapter (Feature EC45)	• 4-port USB adapter for RDX removable disk drive docking station, and DVD-RAM USB drives
BladeCenter adapter (Feature 8246) (for use with POWER blade systems)	• 3 GB SAS Expansion Adapter installed in BladeCenter
Fibre Channel adapter POWER7(Feature EK43, EL5B, 5273 and 5753)	• External Fibre Channel adapter for Power Systems
PureFlex systems Fibre Channel adapter (Feature 1764)	• External Fibre Channel adapter for PureFlex systems

Why IBM?

IBM storage solutions provide compelling capabilities with superior value for all levels of business. With storage efficiency more vital than ever and the amount of data you are required to store growing exponentially, IBM disk storage systems provide the storage efficiency and flexibility you need.

High-performance POWER8, POWER7, POWER6, PureFlex and POWER blade systems provide the foundation for an enterprise infrastructure that can help your organization manage rapid change, reduce business risk and meet higher service levels—all in the most cost-effective manner. IBM storage solutions such as 7226 Multimedia Storage Enclosure provide reliable protection for the business-critical data and information organizations rely on in their IBM-based data center environments.

For more information

To learn more about IBM 7226 Multimedia Storage Enclosure, please contact your IBM representative or IBM Business Partner, or visit: **ibm.com**/us-en/marketplace/7226-multimedia-enclosure

For a current list of host software versions and release levels that support 7226 Multimedia Enclosure, please visit: **ibm.com**/systems/support/storage/ssic/interoperability.wss

For more information on tape drives and to order media for tape drives, please visit: **ibm.com**/storage/tape

For information about the IBM Linear Tape File System™ feature on the half-high LTO Ultrium 5 tape drive, please visit: **ibm.com**/us-en/marketplace/data-archive

For more information on the advantages of RDX removable disk drive technology, please visit: **ibm.com**/storage/media

This IBM 7226 Multimedia Storage Enclosure marketing information is available in a limited number of translations. For a detailed description of 7226 Storage Enclosure in several other languages, please visit: **ibm.com**/e-business/linkweb/publications/servlet/pbi.wss

Additionally, IBM Global Financing provides numerous payment options to help you acquire the technology you need to grow your business. We provide full lifecycle management of IT products and services, from acquisition to disposition. For more information, visit: **ibm.com**/financing

© Copyright IBM Corporation 2017

IBM Systems
New Orchard Road
Somers, New York 10589

Produced in the United States of America
October 2017

IBM, the IBM logo, ibm.com, AIX, POWER8, POWER7, POWER6, POWER, PureFlex, Power Systems, OS/400, Linear Tape File System, and System i are trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at "Copyright and trademark information" at **ibm.com**/legal/copytrade.shtml

Linux is a registered trademark of Linus Torvalds in the United States, other countries or both.

Linear Tape-Open, LTO, the LTO Logo, Ultrium, and the Ultrium logo are trademarks of HP, IBM Corp. and Quantum in the U.S. and other countries.

This document is current as of the initial date of publication and may be changed by IBM at any time. Not all offerings are available in every country in which IBM operates.

It is the user's responsibility to evaluate and verify the operation of any other products or programs with IBM products and programs.

THE INFORMATION IN THIS DOCUMENT IS PROVIDED "AS IS" WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NON-INFRINGEMENT. IBM products are warranted according to the terms and conditions of the agreements under which they are provided.

Actual available storage capacity may be reported for both uncompressed and compressed data and will vary and may be less than stated.

[1] The DVD-RAM feature cannot attach to PureFlex Systems or to a POWER blade server.

Please Recycle

TSD03148-USEN-04