Polar-Arc
ARCHIVE SYSTEMS & APPLIANCES

Complete turnkey archive systems that scale from terabytes to multi-petabytes

March 2025

What is Polar-Arc?

Available as either a **Polar-Arc System** or a **Polar-Arc Appliance**. Both feature servers powered by XenData with fast SSD Cache that connect to LTO drives and libraries via SAS or Fibre Channel cables and connects to the local network via 10 GbE ports.

The **Polar-Arc Systems** are available with 8/24/40/80/120 slot LTO libraries with up to 6 LTO tape drives as a fully configured and tested system. Just plug it in, connect to your network and you are ready to go. The industry-standard tape libraries use superior LTO tape drives that are TAA compliant for use in any installation with any data type.
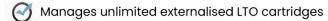
The **Polar-Arc Appliance** supports LTO libraries from a wide range of manufacturers including Dell, HPE, IBM, MagStor, Overland Storage, Qualstar, Quantum and Spectra Logic.

Archive servers powered by XenData to meet every workflow and budget need

LTO archive storage ranging from desktop and rackmount tape drives to multi-petabyte tape libraries

Functionality & Advantages

- ✅ Manages unlimited externalised LTO cartridges
- ✅ LTFS or TAR Formats
- ✅ Automatically replicates LTO Cartridges
- ✅ Mounts LTO archive as SMB or NFS share or via FTP
- ✅ Redundant power supplies and disk volumes
- ✅ Easy migration to later LTO generations
- ✅ Requires minimal operator intervention
- ✅ Superb technical support from the UK - no need to wait for support from international countries

Standard File System Interface
Polar-Arc accepts all file types and presents them in a single Windows file/folder structure. Files are written to and retrieved as though from a standard disk drive.

Standard Network Protocols
The solution is optimized for SMB, NFS and FTP, as well as local file transfers.

LTFS and TAR
May be configured with tape pools using the LTFS or TAR format.

LTO Cartridge Replication
Automatically generates replica LTO cartridges that may be exported from the library for off-site retention. For libraries with one LTO drive, replication may be scheduled to occur overnight.

Nearline and Offline LTO
Manages LTO cartridges in a library and an unlimited number of cartridges taken offline.

SSD RAID Cache Enhances Performance
The user defines policies for disk caching that can be tailored for different file types and folders.

Easy LTO Migration
The Polar-Arc archive makes for easy system upgrades, going from an older to a later generation of LTO.

End-to-End Verification
Provides an automated check-sum operation for all data written to LTO.

LTO Cartridge Spanning
Policies can be set to allow or prevent files being spanned across multiple LTO cartridges.

Multiple Tape Pool Support
The software allows groups of files to be allocated to specified groups of LTO cartridges.

Auto-Expansion of LTO Pools
The system will dynamically expand LTO cartridge pools to meet capacity demands, minimising system administration.

Optimised Restores
The system restores a queue of files in the shortest possible time. The restore requests are processed in an order that minimises unnecessary tape movement.

File Version Control
The software provides comprehensive file version control. Deleted files and old file versions may be restored from LTO.

Partial File Restore
The Polar-Arc XML interface is available with partial file restore (PFR) based on timecodes. In addition, the file system interface supports PFR based on byte offset.

Supports WORM Tape
Polar-Arc systems support both standard rewritable cartridges and unalterable WORM cartridges.

Metadata Backup and Restore
Provides rapid system restore in case of rebuild after RAID failure.

Alert Module
A software module is included which provides e-mail and on-screen alerts. These are tailored to the needs of archive system operators, system administrators and IT support personnel.

Cartridge Contents and Search Reports
The files contained on any cartridge, including offline cartridges, can be listed in a report. Additionally, search reports list all the files and their LTO cartridge barcode locations that match a search term.

Industry Standard File Security
The appliance runs on a Windows Server 2022 operating system and integrates fully with the Microsoft Windows security model based on Active Directory.

Cloud File Gateway Option
Allows files to be stored on cloud object storage in addition to LTO.

XML Interface Option
The workflow API is used by many complementary applications to move files to and from the archive.

Object Storage Option
This allows secure access to the archive from anywhere.

Multi-Site Sync Option
When you have LTO archives at different facilities, you can use the Multi-Site Sync to integrate them in a single global file system accessible from any location.

Sync Option
FS Mirror utility provides file synchronisation across your local network .

Polar-Arc Systems Models

Polar-Arc10   Polar-Arc20/40   Polar-Arc60

Desktop and Rackmount
LTO Drives

8 Slot LTO
Libraries

24 Slot LTO
Libraries

40 Slot LTO
Libraries

80 Slot LTO
Libraries

120 Slot LTO
Libraries