

Choosing Archive Technology: Drive and Media Life and Backward Compatibility

Rorke Data customers know that our archiving management software supports a wide selection of technologies including; RAID, CAS, Tape, Optical, RDX and Cloud storage.

When choosing an archive technology it is important to determine data retention requirements.

Archive class media has a 30-, 50- or even 100-year life. No one expects to keep data on the original media for this length of time, so it should be used as a confidence indicator.

The longer the desired retention time, the more migrations may be required, thus when choosing an archive technology the ability to read data back is very important.

Most archive technologies guarantee their drives will read multiple media generations, which allows users to upgrade the drive technologies without losing the ability to read older data. Some technologies support more past generations than others, extending their useful life.

By researching drive and media life and backward compatibility, data center managers can create an obsolescence plan, which allows them to develop a ROI model. This can quickly show the significant cost savings of using the correct archive technology to match each individual user's requirements.

	RAID	Centera	LTO	Blu-ray	RDX	Cloud
Media Life	3 - 5 years	3 - 5 years	30 years	50+ years	30 years	Unlimited
Upgradeable	Add more of the same	Yes - add more nodes (capacity and processing)	Yes - add slots or add new generation drives	Yes - add slots or new generation drives	Yes - add slots or new generation media	Yes - on demand
Drive Read Compatibility	None	None	3 versions (8 years)	Reads all 120mm discs (20 years)	Reads all RDX	Migration inbuilt
System Support	5 years	5+ years	More than 10 years	More than 15 years	More than 10 years	Unlimited
Cost	Low	High	Low	Medium	Medium	Very High

Note 1: A recent addition to the options is "Cloud Storage." A higher cost is paid to use the Cloud – but the cost of migration should be built into the contract.

Note 2: Media is always susceptible to damage and data loss. Keeping this in mind, data should always be stored on multiple (2 or 3) pieces of media. At least 1 of these copies should be offsite or in a fire safe.

Backup is NOT Archiving

When using a backup solution for long-term preservation of data, files on primary storage are copied to the backup and optionally, deleted from the primary location.

A significant weakness of this approach is that there is no transparent access to this 'archived' data.

Some backup applications provide special User Interfaces to allow users to search the contents of the backup for their archived files, while others don't even offer this feature, relying on an Administrator to restore archived files. This operation can be very time consuming and expensive.

A good archiving strategy uses archiving software to move files off of primary storage and onto lower-cost storage and keeps archived files easily searchable and accessible when needed, saving time and money.

A backup solution does not make a good archive solution.