

Tape storage has had its day

 By [Johan Scheepers](#)

20 Nov 2015

To see an audio cassette or VHS in the shops or someone's living room would almost be a bizarre sighting these days, a technological relic from a bygone time. However, in an enterprise technology environment, tape is yet to retire and still hides in many of our storage systems. So we find ourselves asking: is it time for businesses to finally say goodbye to tape storage?



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Despite years of hype around the movement towards the Cloud, perceived reduction of costs and increased IT control, tape storage remains resilient to digital disruption and is still used by many businesses today.

It is primarily companies that operate in highly regulated industries such as law and financial services that are continuing to use tape, as on-going audits and potential fines for data breaches drive the assumption that data must be kept on premises. However, with recent advances in cloud computing, these organisations can now have peace of mind in their data being secure while maximising the cost benefits associated with the cloud.

Costly to protect

Though tape itself is affordable, it's a costly affair to protect and maintain tape facilities from the environment - starting simply with their requirement to be in a dark and dry condition. One customer in Australia looked at the costs they currently incurred with their tape rotation, off-site service, tape media as well as maintenance costs across two sites, and compared it with outlay if they removed tape and instead leveraged Amazon Web Services (AWS) cloud.

They found not only were they able to cut 30% due to unnecessary manpower, media and recall costs, they were able to simplify their management of data and improve reliability in recovering data. The quality of tape can also diminish over time, and if you're dealing with sensitive enterprise data, you can't afford to lose even the smallest amount.

With the rapidly increasing rate at which data is being generated, storage facilities also need to grow, in turn, increasing the price of maintaining and managing the tape. Data growth is also forcing tape-bound enterprises to increase the frequency of backups, which can be labour-intensive and once again very expensive. Further, due to tape recording data sequentially, it can be time intensive when looking to retrieve data.

Comparatively, in the context of backing up in the cloud, these highly regulated companies can use a single platform to organise continuous backups and can easily recover data for those on-the-spot business continuity and compliance inspections.

Storing tape on-site

The often misguided belief that storing tape on-site reduces the risk of data breach or loss, ironically, increases the chance for data to be damaged. It sounds obvious but if something was to affect your work site, by having data hosted on the cloud, you minimise the chance of critical company information being impacted whilst at the same time maximising your ability to access this data from elsewhere.

Data security is always at the forefront of an IT manager's mind, because the reality is that the goalposts are constantly moving and a company's reputation is at stake. The fact is, cloud computing has become a far safer environment in recent years and data is not going to be kept safe through the continuation of tape storage. Even if companies make the shift to storing data off-site, if it is still written on tape, archives still require a high level of physical security to protect itself from other threats.

This is a significant financial burden for businesses, especially as they are increasingly focusing on keeping costs down. Migrating data from tape to the cloud and following the relevant industry processes of encryption and security fundamentally provides a better level of security in the long run.

Changing technology

Another factor that regulated industries seem to forget is that technology is forever changing. This means businesses need to look at how tape technology fits with compliance reporting systems and how it relates to their ability to archive, back-up and restore data written to tape years ago. In many cases, the original tape hardware has become obsolete, meaning not only are backup tapes no longer restorable with any backup solution, but organisations could fail in their accountability to the relevant authority.

In our ever growing global world, more and more companies require flexibility to meet the specific requirements from their industry, different governments or shareholders. From privacy issues to data retention laws, there are a myriad of complex rules to be followed by organisations in order to remain compliant.

There was a time and place, but tape has had its day and these companies have to let go if they wish to remain competitive and progressive. As we see momentum gaining around cloud computing, it is inevitable that storage will migrate too - finally leaving tape in the past.

ABOUT JOHAN SCHEEPERS

Johan Scheepers is Commvault systems engineering director for MESAT
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