



**Hewlett Packard  
Enterprise**



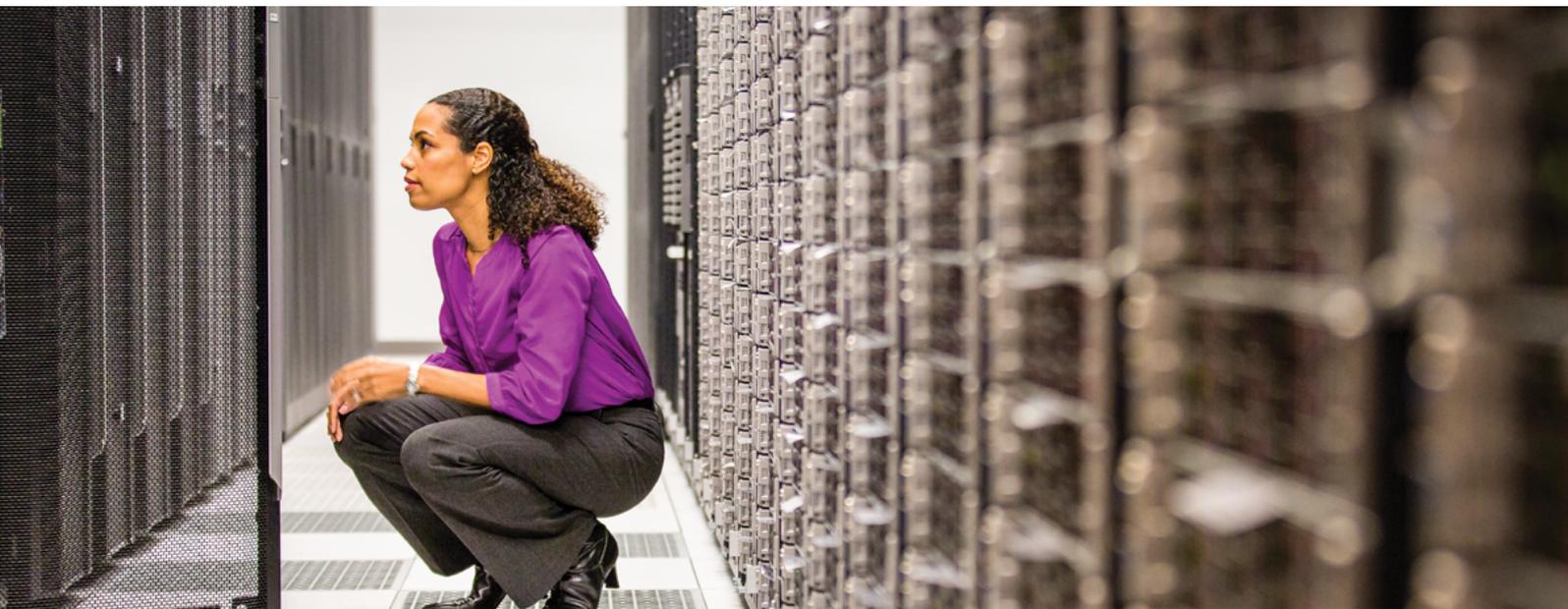
Brochure



**MAKE HPE LTO-8 TAPE THE  
BACKBONE OF YOUR HYBRID  
IT ARCHIVE STRATEGY**



[www.pmddatasolutions.com](http://www.pmddatasolutions.com)



## A HYBRID IT SOLUTION NEEDS A SOLID FOUNDATION TO UNDERPIN IT

Whatever kind of business you work in or own, and regardless of scale, in today's idea economy, it's data that makes it successful and data that will create new opportunities for growth in the future.

Smart businesses are realizing that a Hybrid IT storage ecosystem is the best way to ensure business success and survival by ensuring their data is always available, protected and visible for analysis and research. That means deploying the right blend of flash, traditional disk, tape and cloud data protection solutions. HPE believes that LTO Ultrium tape is an essential part of that vision.

Deployed in an automated environment, tape contributes to business growth goals, IT service level agreements and low ownership costs, as well doing its main job—secure long-term retention. This is why HPE continues to invest in the future of LTO tape. Your data can live safely and cost effectively for decades in a tape archive, giving you a vital last line of defence in the event of natural disasters, network or power outages, human error or malicious acts.

HPE has been shipping one LTO cartridge every six seconds since May 2000—over 100 million HPE LTO tapes and 220 billion gigabytes of capacity. This is not merely a symbol of trust; we can show you examples of original HPE LTO-1 cartridges still working flawlessly after 14 years in archive conditions. This, together with our accelerated aging tests on newer media types, shows HPE LTO tape can be relied upon to protect your data for up to 30 years.





## WHEN BUSINESSES LOSE DATA, THEY DON'T JUST STUMBLE, THEY FALL

In an always-connected world, unplanned downtime and data loss can come from anywhere—natural disasters, organised cyber attacks, network and power outages and simple human error. Storing data offline, and off-site, creates a barrier that physically distances your data from risk.

What's more, applications with very demanding Recovery Point and Recovery Time Objectives (RPO and RTO), when customers are measuring success in the minutes or even seconds it takes to recover from data disruption, by no means render tape obsolete.

Although it may seem a limitation, one of tape's key characteristics is also one of its strengths. Accessing smaller, individual files, at random, will always be faster using disk technology. But when it comes to reading or writing larger chunks of data, either as separate files or grouped together, tape's performance far exceeds that of disk. Data can be streamed to a data cartridge at phenomenal speeds (up to 750 MB/sec with LTO-8), so it's possible to store and transport huge quantities of data with relative ease.

A set of 10 LTO-8 30 TB cartridges can copy 2.7 TB per hour, so a midrange library, like the MSL6480, with 10 LTO-8 tape drives, can copy a PB of data in just over a day and a half onto less than 35 tapes. These would fit into a small box that could be shipped in 1-2 days anywhere in the world for just a few hundred dollars. Even the most expensive T-1 connection, assuming one could fully utilise the connection, would take over a week to accomplish the same task when transferring data from the cloud.

**In summary, tape is the most cost-effective solution with sufficient capacity, integrity and reliability to preserve archive data for compliance, new products and services, and future monetisation.**



**Data growth is accelerating—**  
50% within the next 12 months<sup>1</sup>.

**Dependency on data is increasing—**  
needs to be available 24x7x365.

**Recovery SLA requirements are transforming—**  
from days/hours to minutes.

**Ransomware is a clear and present threat to your data.**

## IT TAKES REAL BACKBONE TO STAND UP TO THE STRESSES AND STRAINS OF DATA PROTECTION

### Tape can help you address your key data protection challenges

Archiving data using HPE LTO Ultrium media underpins all HPE's Hybrid IT data protection solutions. It is the absolute last line of defence, based on the 3-2-1-1 rule: 3 copies of data, 2 copies on 2 different media types, 1 stored off site, 1 offline behind an air gap.

### HPE LTO-8 GIVES YOU TWICE AS MUCH

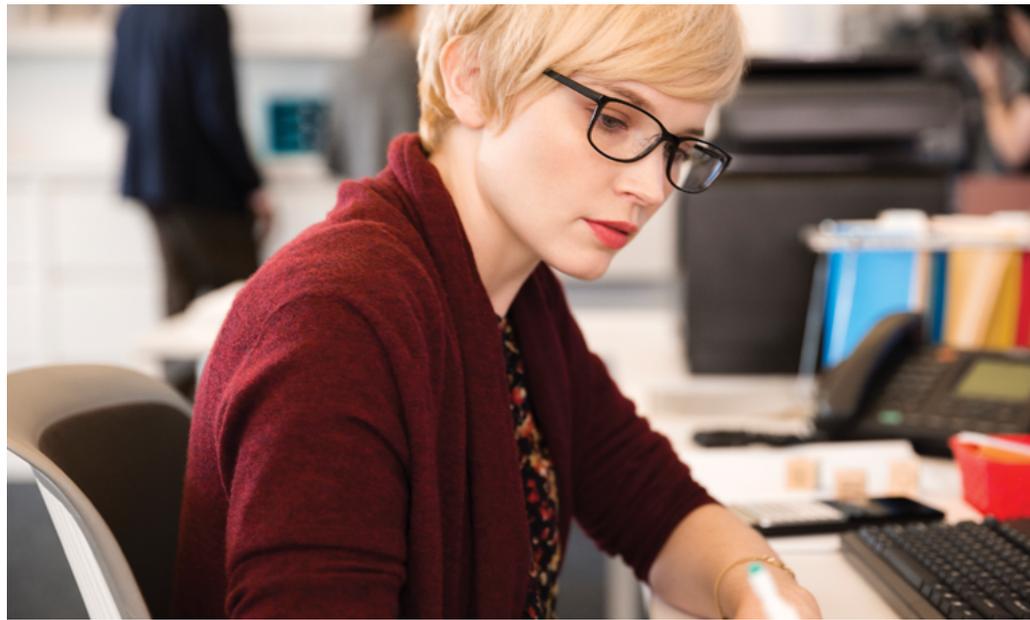
With HPE LTO-8 technology you can encrypt up to 30 TB per cartridge and scale to 1.6 EB<sup>2</sup> as your content grows, dramatically reducing your data centre footprint. The complementary LTO-7 Type M delivers a cost per TB lower than US \$5 per TB for cold data, with no hidden charges for data retrieval. Add the HPE brand specification for LTO media, the gold standard for media reliability, and it's clear that the only solution that can stand up to the very real, and everyday risks to data, is HPE LTO Ultrium.

<sup>1</sup> IDC White Paper

"Tape and Cloud: Solving Storage Problems in the Zettabyte Era of Data" by Phil Goodwin, June 2019. Actual percentage may differ by industry and use case.

<sup>2</sup> HPE TFinity library supports 53,560 slots, 144 LTO-8 drives for 1.6 EB maximum capacity.





## THE MOST DEMANDING STRESS TEST— THE HPE LTO BRAND SPECIFICATION

### The best microscope

As a leader in hardware and storage supplies for all of the mainstream tape technologies, HPE has established comprehensive R&D and manufacturing programs to scrutinise the performance of tape backup solutions under every conceivable kind of stress. These programs use the best microscope for their analysis—a tape drive—or rather thousands of tape drives—performing the same backup and restore tasks as end users. HPE LTO Ultrium extreme testing gives us more confidence that your data will be safe on HPE tapes, no matter which brand of hardware you own.

### Constant vigilance

HPE forensically examines all the different parts of the media design. Samples from suppliers are tested against the HPE brand specification every month, whereas the LTO logo is only renewed once a year. Not only is HPE scrutiny more frequent, it's also a lot more rigorous than the industry standard in key areas such as Green Tape Testing (GTT).

### A unique set of quality requirements

HPE sets a quality benchmark for HPE LTO Ultrium cartridges like no other in the industry. LTO logo specification tests are tough, but nowhere near tough enough for our brand specification. It's a foundation that underpins the whole range of HPE storage solutions, including 3PAR all-flash primary storage; StoreOnce secondary storage disk arrays and StoreOnce CloudBank repositories for backup. This creates powerful assurances for businesses investing in best-in-class hybrid solutions. HPE tests all these technologies in equal measure.

HPE's brand specification is broader and deeper than any of the other LTO vendors because it takes account of how media is used, as well as how it is made. It has tighter, more controlled specifications in key areas like environmental interchange, load/unload and stringent process controls such as regular Full Volume Life (FVL) and Green Tape Testing (GTT).

### Extreme performance in the round

Homing in on aspects like particle design, though important, cannot alone provide a guarantee of quality. Other features matter just as much and that's why we make sure all aspects of the media design perform at the highest level. It's why HPE LTO Ultrium media is tested to extremes for reliability, using processes unique to HPE, and specific to how tape is used in Hybrid IT data centre environments by some of the world's most innovative companies,





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**SPINE**

**Protection**

Encloses and protects the delicate spinal cord which drives the nervous system within the spinal canal.

**Support**

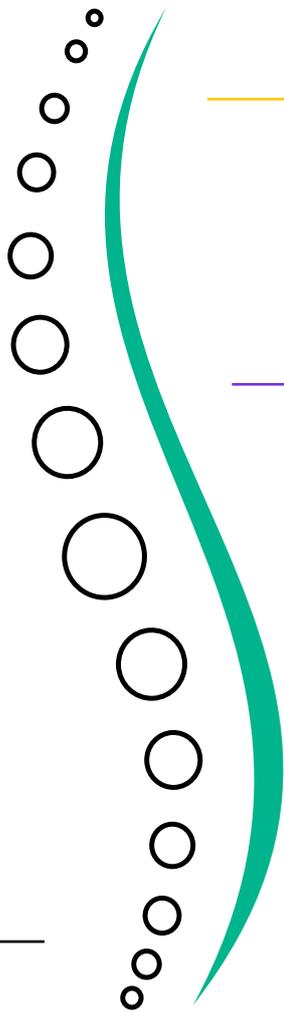
Carries the weight of the body above the pelvis and enables a strong, upright posture.

**Axis**

Forms the central axis of the body that keeps us perfectly balanced.

**Movement**

Plays a key role in enabling the body to move flexibly and stand tall.



**LTO TAPE**

**Protection**

Isolates and protects sensitive and valuable data in an off-premises archive, distancing it from loss, damage or deliberate misuse.

**Support**

Supports the business by providing a strong and reliable foundation for mission-critical data.

**Axis**

HPE StoreEver LTO Ultrium tape technology complements and balances hybrid data protection solutions like 3PAR and StoreOnce.

**Movement**

Adapts to changes in technology and data storage strategies thanks to continuous innovation—WORM, encryption, LTFS and Type M.

Your spine is a vertical chain of around 33 small bones (vertebrae), separated by intervertebral discs. It's a complex arrangement that does four fundamental things for us. It is an appropriate analogy for the importance of tape in providing a safe place for data to live and work.

Make the right purchase decision. Contact our presales specialists.



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