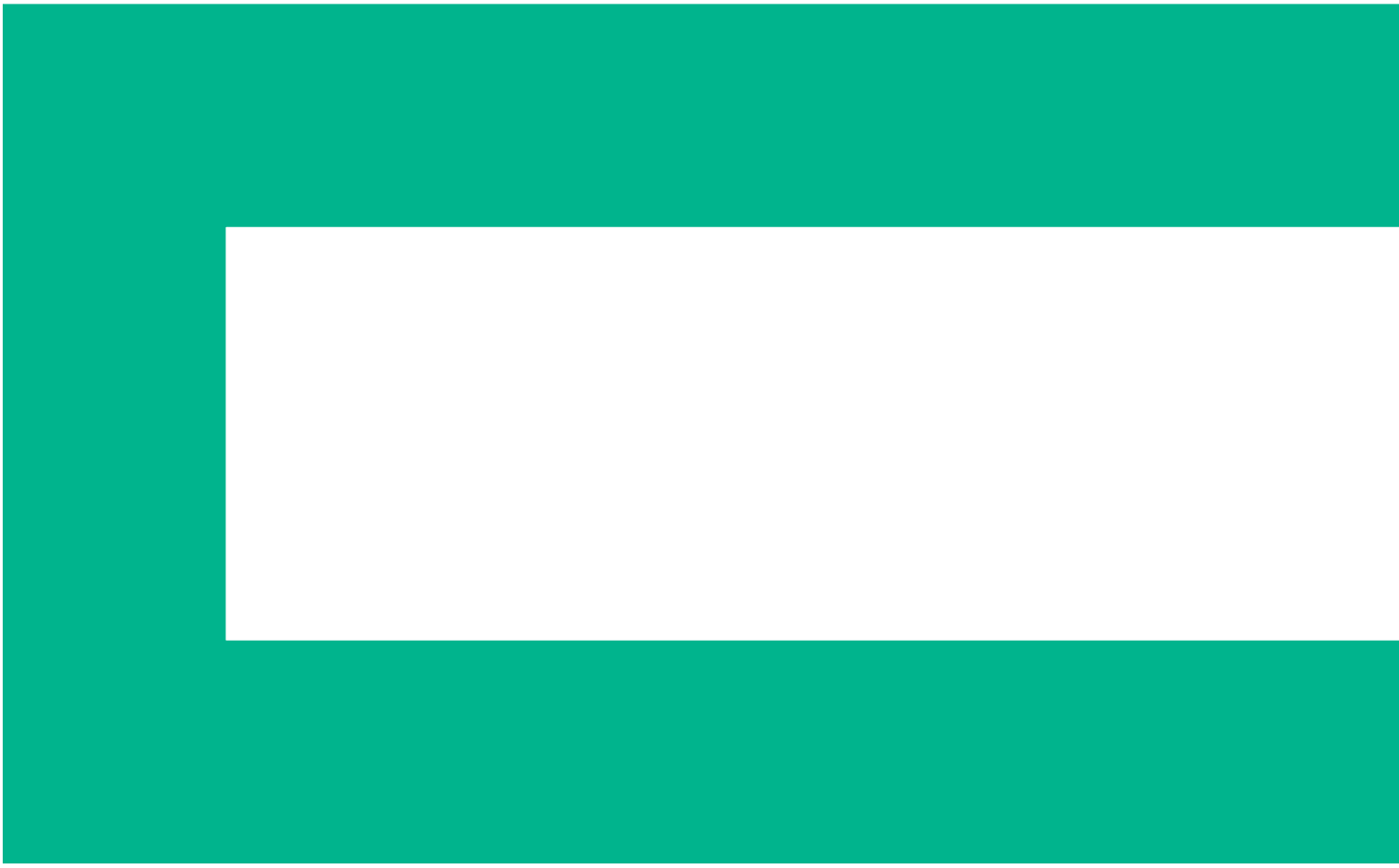
Hewlett Packard Enterprise

Business white paper

Protect your data

HPE StoreEver MSL6480 tape library



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Executive summary

Does your current mid-range tape data protection and archive infrastructure deliver the following benefits?

- Grow effortlessly—non-disruptive scale-out performance and capacity
- Save time—easy to deploy, use, scale, manage, and service
- Save money—optimize rack space, leverage existing tape investments
- Reduce risk—enterprise-class manageability, reliability, and security

If your answer to this question is an emphatic "no," then it's time to refresh your existing tape libraries.

This white paper discusses the challenges facing mid-size organizations like yours when it comes to protecting business critical data. It introduces the new HPE StoreEver MSL6480 with LTO-7 tape library as a solution that can help meet your short-term data protection and long-term archiving requirements. The white paper demonstrates how replacing your existing mid-range tape library with the new HPE MSL6480 with LTO-7 can bring significant improvements in simplicity, cost, performance, and scalability—resulting in significant ROI and reduced total cost of ownership.

Reassess the ability of your tape library infrastructure to meet your data protection and archive needs

Unprecedented and unpredictable growth—driven predominantly by the increase of new unstructured content and the need to keep more data for longer—is proving a challenge for many organizations. How do you optimize costs and simplify your infrastructure while reliably, securely, and simply protecting and retaining an ever-expanding amount of business critical information?

These challenges are particularly acute in mid-range businesses such as yours. You need to cost-effectively and efficiently scale your data protection infrastructure to keep pace with endless data growth while optimizing rack space. You require a reliable data protection and archiving infrastructure that allows you to securely retain data over the long term but demands minimal administration resource and expertise and a reduced TCO.

Mid-range tape library technologies and architectures that have served your organization well in the past have now come up against limitations in scalability, simplicity, and affordability. Transitioning from old to new technology simply makes good business sense. Now is the time to migrate to a modular tape library platform that delivers industry leading scalability, density, enterprise-class reliability, security, and manageability at a competitive price point.

Scalable, simplified, economical, and reliable storage for long-term, fail-proof data protection and retention

Grow effortlessly

Cost-effectively and efficiently scaling tape data protection and archive infrastructure to match exponential data growth is a top priority for mid-size businesses like yours. But keeping pace with unpredictable data growth—unexpected spikes in demand for services, and large variances in backup windows and retention periods—without consuming significant time and resources is a daunting task. Your business needs to avoid making capital investments in tape storage that are far beyond your short-term capacity requirements, yet you must be prepared for the unexpected. Put simply, you need a tape library solution that effortlessly and seamlessly addresses both your short-term and long-term data protection and archive needs.

When it comes to tape automation expansion, you need to forego the complicated pass through mechanisms or "forklift upgrades" offered by monolithic libraries in favor of modular scale-out architecture. You require a single library that can accommodate your data protection and archive requirements in every stage of your growth lifecycle, enabling you to cost-effectively expand without the disruption of ripping and replacing tape libraries or managing multiple libraries.

Save time

Simplicity and ease-of-use is a top priority for mid-size organizations such as yours because you need to keep your focus on your business, not your technological infrastructure. With the pace of data growth continuing to accelerate, mid-size businesses require a fast and easy way to implement, expand, manage, and maintain their data protection and archive infrastructure. You need the ability to:

- Free up resources with an automated data protection and archive solution that reduces human intervention and minimizes human error
- Simplify processes by consolidating data protection and archive to a single tape library
- Reduce complexity with a customer installable, scalable, and serviceable solution
- Reduce management time and service calls and shorten issue resolution time with proactive monitoring and remote diagnostics
- Access and share data on tape as easily as disk-based file systems

What you need from your tape data protection and archive infrastructure

Grow effortlessly	**Scalability** Pay as you grow with non-disruptive scale-out performance and capacity
Save time	**Ease-of-use** Customer installable, expandable and serviceable, enterprise-class manageability, and tape as NAS
Save money	**Affordability** Fine tune rack-space, plus library partitioning, and ability to leverage existing tape investments
Reduce risk	**Reliability and security** Simple, low cost data encryption solutions, broad compatibility, and integration

Save money
Mid-size businesses like yours need to optimize and balance the price and performance of your data protection and archive infrastructure. The value of data changes and tends to decrease over time, so it makes sense to store data that requires fast access on more expensive, faster disk tiers while moving less frequently accessed or older data to lower cost tape tiers. You can keep more data longer by using the right combination of technologies to match data value over time to the value of the storage that data resides on. This approach enables you to maximize the value you get from your data over its entire lifecycle, while minimizing total cost of ownership.

You also need to minimize your tape-related capital and operational expenditure costs by leveraging existing tape hardware and tape media investments and by deploying storage consolidation and cost-effective scalability.

Rack space is at a premium in most mid-size storage environments, since multiple products may need to share a single rack infrastructure. Your tape automation solution therefore needs to deliver the highest level of storage density as this will save rack space, minimize storage footprint, reduce power and cooling consumption, and thus increase efficiency and overall cost savings.

Reduce risk
The overriding customer-defined metric for a successful backup or archive is whether the data can be retrieved when needed. You need the peace of mind that your business data has been reliably backed up and archived, is protected from unauthorized access or online threats, and is retrievable and accessible multiple years in the future. You require the ability to:

- Safeguard your data while it's in the library, after export, and when it's offsite with integrated security features such as native drive encryption and library-based key management
- Implement offline data protection as the last line of defense versus virus attacks, natural disasters, or data corruption
- Proactively monitor and report on performance, utilization, and health of tape and archive infrastructure
- Archive data on tape with a 30-year media shelf life

Leverage the best of disk and tape for best practice data protection and archive
A fragmented and siloed approach to data retention and protection can open organizations to legal and financial risks, as well as high costs and management complexities. Converged storage infrastructures reduce costs and complexities, and offer a comprehensive approach to data protection that spans software, disk, and tape technologies in order to mitigate risk.

No single disk or tape solution can provide best practice data protection for any mid-sized organization. Disk and tape have different yet complementary roles to play within the spectrum of solutions for business continuity, disaster recovery, and longer term data retention. It should not be a question of "either-or" but more a case of "where" and "how" to best use disk and tape as part of a comprehensive, tiered, and converged data protection architecture that balances cost and performance.

HPE MSL6480 tape library—setting the new standard for mid-range tape automation

HPE StoreEver MSL6480 offers a powerful combination of scalability, affordability, reliability, and ease-of-use specifically designed to help mid-size customers meet both their short-term data protection and long-term archiving requirements.

HPE MSL6480 with LTO-7 key features and benefits:

- Capacity on demand with proven scalability—HPE MSL6480 with LTO-7 allows fast and non-disruptive capacity and performance growth. Simply add expansion modules to increase capacity and performance without investing in a new library. Scale vertically from 80 to 560 cartridge slots to store up to 8.4 PB (with 2.5:1 compression) in a single 19-inch rack; add between 1 and 42 linear tape-open 7 (LTO-7) or LTO-6 or LTO-5 half-height serial-attached SCSI (SAS) or Fibre Channel (FC) drives for backup speeds of up to 105.8 TB/hour. The unique modular design of MSL6480 includes a continuous robotics design to provide in-box scaling for higher performance, greater scalability, and fewer points of failure.
- Smaller storage footprint with proven storage density—Delivering 13 cartridge slots, or up to 195 TB (with 2.5:1 compression) per 1U of rack space using LTO-7 drives, MSL6480 provides the highest tape drive density per module of any mid-range tape library.

- Enterprise-class manageability and reliability at a mid-range price point—Your administrators can manage, configure, and use the MSL6480 library from across the room or across the globe with Hewlett Packard Enterprise-unique, Web-based remote management and diagnostic tools. Administrators can proactively and intelligently monitor utilization, operational performance, and overall life and health of the drives and media in your MSL6480 with HPE TapeAssure Advanced software. HPE StoreEver Data Verification software provides the ability to periodically scan archive or disaster recovery tapes to validate media readability and data integrity. By proactively identifying potential media errors before a failure occurs, data verification lets you actively migrate data to known quality media. Data verification is automated and policy based and scans tapes as a background process without interrupting host applications. Tape library partitioning enables even greater asset utilization by consolidating multiple libraries and applications into a single tape library.
- Added data security for compliance—HPE MSL6480 provides a high level of encryption security, with compression, for strong backup data privacy to secure confidential information and address compliance quickly. HPE MSL Encryption Kit provides secure keys to protect backup and archives and is completely independent of independent software vendor (ISV) applications. HPE MSL6480 also supports KMIP 1.2 encryption key managers—which includes the HPE ESKM 4.0 & SafeNet Secure Key Manager, enabling sharing of keys across the enterprise for encrypted remote backup or archive. Further protection from accidental overwrite is available by purchasing write once, read many (WORM) media (using the HPE LTO-7, LTO-6, LTO-5, or LTO-4 tape drives), providing a fail-safe method for permanently storing data records.
- Installed base investment protection—Existing HPE MSL customers can reuse their HPE MSL2024, 4048, 8048, and 8096 tape drives and tape media in the MSL6480 and thus leverage existing investment.
- Durability and longevity for archiving—Bulk load and unload of tape cartridges facilitates the movement of data into and out of archive. LTO delivers long-term durability with media specified to a 30-year shelf-life, longer than the expected life of a hard-disk drive and orders of magnitude superior bit error rate. Furthermore, the open standard Linear Tape File System (LTFS) delivers investment protection by helping eliminate software and system dependencies for interchange for data in archive. HPE MSL6480 tape libraries are qualified with a wide range of third-party LTFS and non LTFS archive solutions.

Conclusion

In the face of unprecedented and unpredictable data growth, your business needs a scalable, high density, economical, and simplified tape storage solution suited to long-term, fail-proof data protection and retention.

Setting a new standard for mid-range tape automation, the HPE StoreEver MSL6480 tape library delivers proven scalability, storage density, and performance with unrivalled simplicity, manageability, and return on investment. Seamlessly integrating with HPE Converged Storage, this intelligent, scalable tape library is specifically designed to address both short-term data protection and long-term archive challenges of mid-range businesses at a competitive price point.

Learn more at
hp.com/go/msl6480

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