



Spend less on all-flash storage

HPE Store More Guarantee for HPE Primera

Brochure

HPE 
GreenLake



Everyone's data is a little different

Want to know more on the impact of HPE Primera data compaction technologies in your environment?

Find out how HPE Primera can simplify your storage and workload environment while reducing the cost and footprint of flash with an assessment and report available from your HPE sales or channel partner representative. The report highlights inefficiencies and ways to better utilize your current infrastructure, regardless of what equipment you're using today.

Navigating all the different data reduction ratios offered by every storage vendor out there can be difficult because no two are alike. That's why HPE goes beyond the ratio to focus on actual data consumption and capacity. Everyone's ratios are going to be different but with HPE you are guaranteed to store more raw data in the same, or less capacity than any competitive offering.

HPE Primera compaction technologies change the economics of flash and help you get the most out of your system's flash capacity while improving flash media endurance.

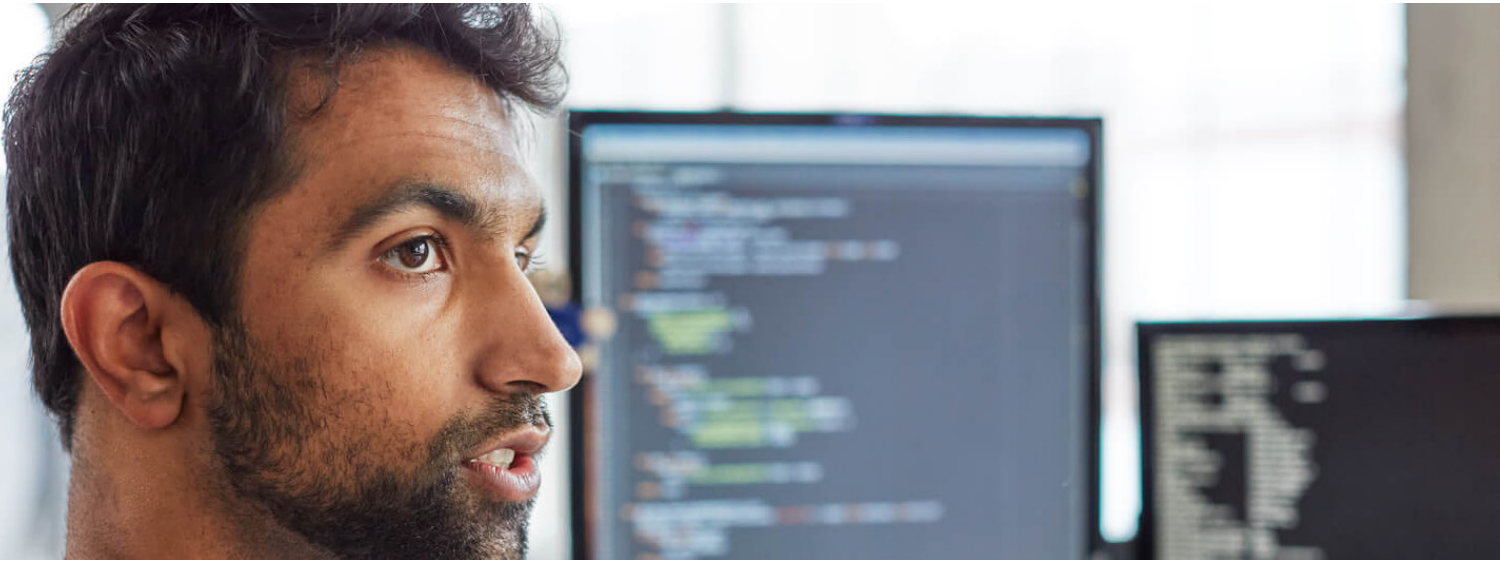
On your journey to the flash-driven data center, it only makes sense to make sure your flash storage offers superior capacity and efficiency. With the HPE Store More Guarantee, you can be confident that you'll get the most from your flash investment.

Store more data per terabyte of capacity with HPE compared to the competition. Get more for less with better overall efficiency. We back this up with a guaranteed data compaction ratio for HPE Primera, based on your workloads HPE data efficiency technologies. It's as simple as that.

HPE Primera is an ultra-efficient flash storage system that dramatically changes the economics of flash and delivers a radically simple user experience for the enterprise. Hardware-accelerated compaction technologies are deeply integrated and automatically work to provide a complete solution with top-class efficiency to reduce the high cost and footprint of flash.

Designed for mission-critical applications, HPE Primera compaction technologies are inline for peak efficiency without performance penalties. This not only increases the endurance of flash but also achieves consistent performance by not requiring resource-intensive post-process tasks. In addition, running compaction inline provides predictable savings as data is loaded into your system and prevents running out of space due to deferred processing. You get storage efficiency without sacrificing HPE Primera flash performance.





HPE Primera delivers advanced compaction capabilities

The combination of these compaction technologies is key to reducing the cost of flash and making it an economical choice for nearly any application.

Thin Provisioning

HPE 3PAR Thin Provisioning leverages the system's dedicate-on-write capabilities to improve storage utilization dramatically, allowing customers to purchase only the disk capacity they actually need, when they actually need it.

Zero Detect

Zero Detect reduces the amount of capacity required to store data without affecting performance because operations are driven by one of the many dedicated engines built into the HPE Primera ASIC. Zero Detect examines incoming write streams, identifies extended strings of zeros, and removes them—preventing unnecessary data from ever being written to storage. As a result, the duplicated data does not consume capacity on the array.

Deduplication

Like Zero Detect, deduplication on HPE Primera uses the ASIC and is designed to reduce the amount of capacity needed to store data by reducing the amount of data actually being written to storage. However, unlike Zero Detect, the system is looking for data that is more complex to avoid duplicating data that has already been written to storage.

Compression

While Zero Detect and deduplication both reduce the amount of flash required to store data by helping eliminate unnecessary data, compression works by looking inside data streams for opportunities to reduce the overall size of the data set. The HPE Primera ASIC plays an indirect role by offloading other resource-intensive operations from the CPUs, freeing them up to perform compression operations. The customer can either choose to enable deduplication and compaction, or not. These features cannot be turned on or off separately.

Virtual Copy

Virtual Copy is the HPE Primera snapshot implementation used to provide a point-in-time Virtual Copy of data to share and protect data for almost any application simply and affordably. HPE Primera Virtual Copy is thin, non-duplicative, and reservationless.



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With HPE Primera, you will experience up to 8:1 data compaction based on effective to usable capacity and dependent on your workloads. The following table provides data compaction results achieved by HPE Primer customers by workload. To understand what data compaction ratio you can expect at the system level, and to receive a written HPE Store More Guarantee, contact your HPE sales or channel partner representative.¹

Table 1. Data compaction ratios for HPE Primera and HPE 3PAR Storage systems by application

Application	Data compaction ratio
Virtual desktops	4:1-8:1
Virtual server environments	2:1-4:1
Databases	2:1-4:1

If you do not achieve up to 8:1 data compaction based on effective to usable capacity and dependent on your workloads, HPE will provide expertise related to data efficiency, additional storage needed to reach the targeted data efficiency, or other compensation. Refer to the guarantee document provided by your sales representative for full details. Hewlett Packard Enterprise will provide expertise related to data compaction or additional storage capacity necessary to achieve the indicated range. That is the HPE Store More Guarantee.

Learn more at

hpe.com/storage/hpeprimera

¹ Based on HPE internal study conducted in July 2020. The average data compaction savings per workload is derived from HPE 3PAR and HPE Primera Storage telemetry data at the time of publication. Contact your HPE sales or channel partner representative for more information.

