

New Principled Technologies study explores how a Dell PowerStore solution delivers efficiency and cost savings

In testing, a Dell PowerStore solution delivered better data reduction than an HCI solution, which can reduce spending on hardware and licensing

ROUND ROCK, TX, UNITED STATES, April 9, 2025 /EINPresswire.com/ -- Many organizations employ a mix of traditional workloads such as ERP and CRM and modern ones that involve containerization, AI, and edge computing. In a private cloud environment, these workloads generate diverse and complex storage requirements. IT teams are seeking cost-effective storage solutions that can meet these demands and let them avoid the vendor lock-in that can come with hyperconverged infrastructure (HCI). In this landscape, architectural flexibility becomes very important.

A new Principled Technologies study compares two storage solutions—a disaggregated infrastructure featuring Dell PowerStore, and an HCI solution—in the areas of data reduction, pricing, and lifecycle management. According to the report, “In our testing, a Dell PowerStore solution achieved up to 3.1 times more data reduction than a solution from a vendor we call HCI Vendor U. For the same amount of effective storage, Dell PowerStore would cost 21.9 percent less over five years, while offering familiar lifecycle management tools.”



Principled Technologies®

A Principled Technologies report: Hands-on testing. Real-world results.

With Dell™ PowerStore™, you can...

- Get greater storage efficiency** with up to 3.1x better data reduction than an HCI solution*
- Lower five-year costs by 21% compared to an HCI solution** to provide a similar amount of effective storage capacity*
- Manage storage resources with existing tools using the VSI plugin** or do even more with VSI + VxRail™ dynamic nodes

*Dell PowerStore 500T array data reduction on a 2C/2D data set 5.32:1; average data reduction ratio 5.10:1 vs. an HCI Vendor U solution (data reduction on a 2C/2D data set 1.69:1; average data reduction ratio 2.23:1). Savings based on list prices.

Gain the flexibility that diverse modern workloads demand with Dell PowerStore

A disaggregated infrastructure featuring Dell PowerStore can deliver cost savings compared to an HCI solution thanks to superior data reduction and lower licensing costs.

Organizations today rely on both traditional workloads, such as ERP and CRM, and modern workloads that employ containerization, AI/ML, and edge computing. Alongside the data growth these newer workloads are generating is an increase in the private cloud market, with one study predicting a compound annual growth rate of almost 30 percent from 2024 to 2030.¹ To manage a more diverse and complex set of storage requirements, IT teams need capable storage solutions that can support both modern and traditional demands.

As decision-makers explore storage options to meet these requirements, optimize spending, and—for those currently using hyperconverged infrastructure (HCI)—avoid vendor lock-in, they must prioritize architectural flexibility.

This paper explores the advantages of a disaggregated infrastructure featuring Dell PowerStore over HCI, focusing on data reduction, pricing, and lifecycle management. In our testing, a Dell PowerStore solution achieved up to 3.1 times more data reduction than a solution from a vendor we call HCI Vendor U. For the same amount of effective storage, Dell PowerStore would cost 21.9 percent less over five years, while offering familiar lifecycle management tools.

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April 2025

PT tested each solution with two data sets: one with 2:1 compression and 2:1 deduplication ratios (2C/2D) and one with 4:1 compression and 1:1 deduplication ratios (4C/1D). For the former data set, the Dell PowerStore solution delivered 3.1 times the data reduction of the HCI solution. Additionally, PT found that the PowerStore solution's efficient reduction means that organizations would require less hardware and fewer licenses, leading to cost savings.

PT also explored the Dell PowerStore solution's manageability using the Virtual Storage Integrator (VSI) plugin, which "lets VMware vSphere® admins manage their PowerStore arrays from the vSphere console." The report continues, "[F]or organizations relying on a VMware infrastructure, using Dell VxRail dynamic nodes offers straightforward lifecycle management capabilities for the Dell PowerStore array."

PT writes, "As the popularity of data-intensive, next-generation workloads increases alongside massive data growth, selecting the right storage architecture becomes extremely important. Choosing a disaggregated infrastructure featuring Dell PowerStore can help you optimize costs, maintain flexibility, and avoid overpaying for compute resources....With advantages in data reduction, cost, and manageability, shared storage can offer significant value for your next-generation workloads."

To learn more, read the report at <https://facts.pt/7OcQ7nT> or see the infographic at <https://facts.pt/Hea80ik>.

About Principled Technologies, Inc.

Principled Technologies, Inc. is the leading provider of technology marketing and learning & development services.

Principled Technologies, Inc. is located in Durham, North Carolina, USA. For more information, please visit www.principledtechnologies.com.

Sharon Horton

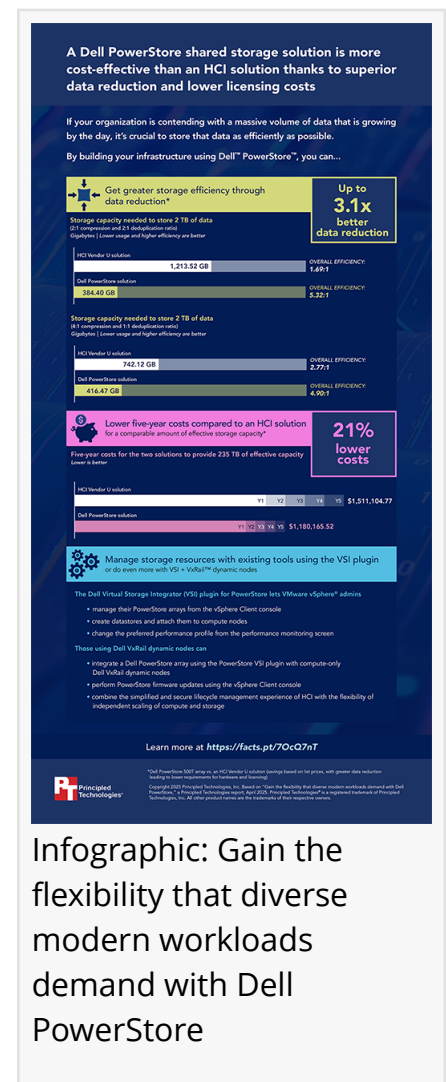
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