



PowerStore Prime and the sustainable data revolution

Transforming your data centre with smarter storage and a smaller footprint.

DELL Technologies

KIOXIA

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Data explosion vs environmental responsibility

What will define these times when we look back? The explosion of technology or a period of peak awareness of environmental impacts?

The good news is that modern data storage brings these two important priorities into perfect alignment.

PowerStore Prime is a versatile and adaptable data storage solution built to meet the needs of businesses of all sizes. It puts impressive sustainability wins within reach – without compromising performance. By enhancing efficiency and flexibility, PowerStore Prime positions your business for lasting success.

In this eGuide, we'll examine the case for maximising data storage sustainability with a modern data platform and explore how PowerStore Prime can play a crucial role in your sustainable IT strategy.



When sustainability meets scalability

We have more tech than ever, which leads to more data, more knowledge and more possibilities. On the other hand, expectations are high, budgets are squeezed and everyone wants to talk about the issue of the day: sustainability.

In addition to 'how much?' you now have to answer, 'how sustainable?' With the right approach and technology, the needs of the planet and demands of the C-Suite can all be met in one simple solution.

That's because a sustainable business is more than a business with a green reputation. It's a business that's versatile, lean and set up to scale fast in any direction on demand. Sustainable infrastructure creates advantages, cuts costs, addresses compliance and future-proofs business operations – all while leaning into environmental goals.

With these challenges in mind, let's take a look at how PowerStore Prime addresses both performance and sustainability.



Data centres consume approximately 200 terawatt hours (TWh) of increasingly expensive power annually.¹



As AI booms, data storage capacity is expected to grow from 10.1 zettabytes (ZB) in 2023 to 21.0 ZB in 2027.²



Redefining sustainable storage solutions

PowerStore Prime is an advanced, unified platform for the storage needs of modern organisations.

PowerStore contains end-to-end NVMe and container-based architecture that delivers fast, powerful, and flexible storage for modern and traditional workloads.

With machine learning for automation and optimisation and a design that is efficient and flexible, PowerStore is reliable, scalable and, by its very nature, sustainable.

By choosing PowerStore Prime, you ensure your business is ready for anything – from technological advances to regulatory demands for sustainability.



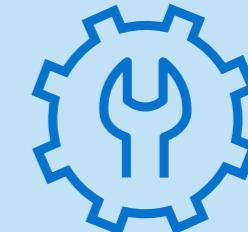
Leading 5:1 data reduction

Advanced, always-on data reduction technologies automate efficiency on your behalf, simplifying cost-saving measures with zero performance impact and shrinking both your data costs and your carbon footprint. PowerStore Prime sets new standards in efficiency by doing more with less and helping your teams do the same.



Outstanding security

The same smart design that makes PowerStore Prime more efficient also makes it more secure. End-to-end encryption and secure and immutable snapshots provide robust protection, while native metro replication keeps your business running in the event of unforeseen challenges.



Agile by nature

Software architecture and containerised design enable seamless updates and expansions. This extends the lifespan of your infrastructure, reducing e-waste and eliminating the need for frequent hardware replacements.

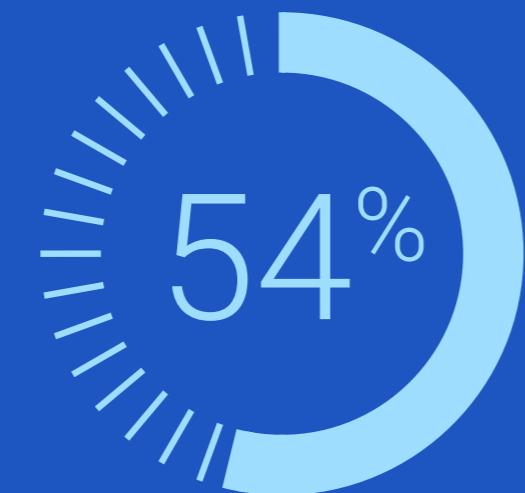
Dell PowerStore Prime by the numbers

PERFORMANCE



Faster performance³

CONSUMPTION



Lower energy costs³

DATA REDUCTION



data reduction –
the industry's best
guaranteed³

READINESS



better data reduction
than a leading
competitor⁴

CERTIFIED

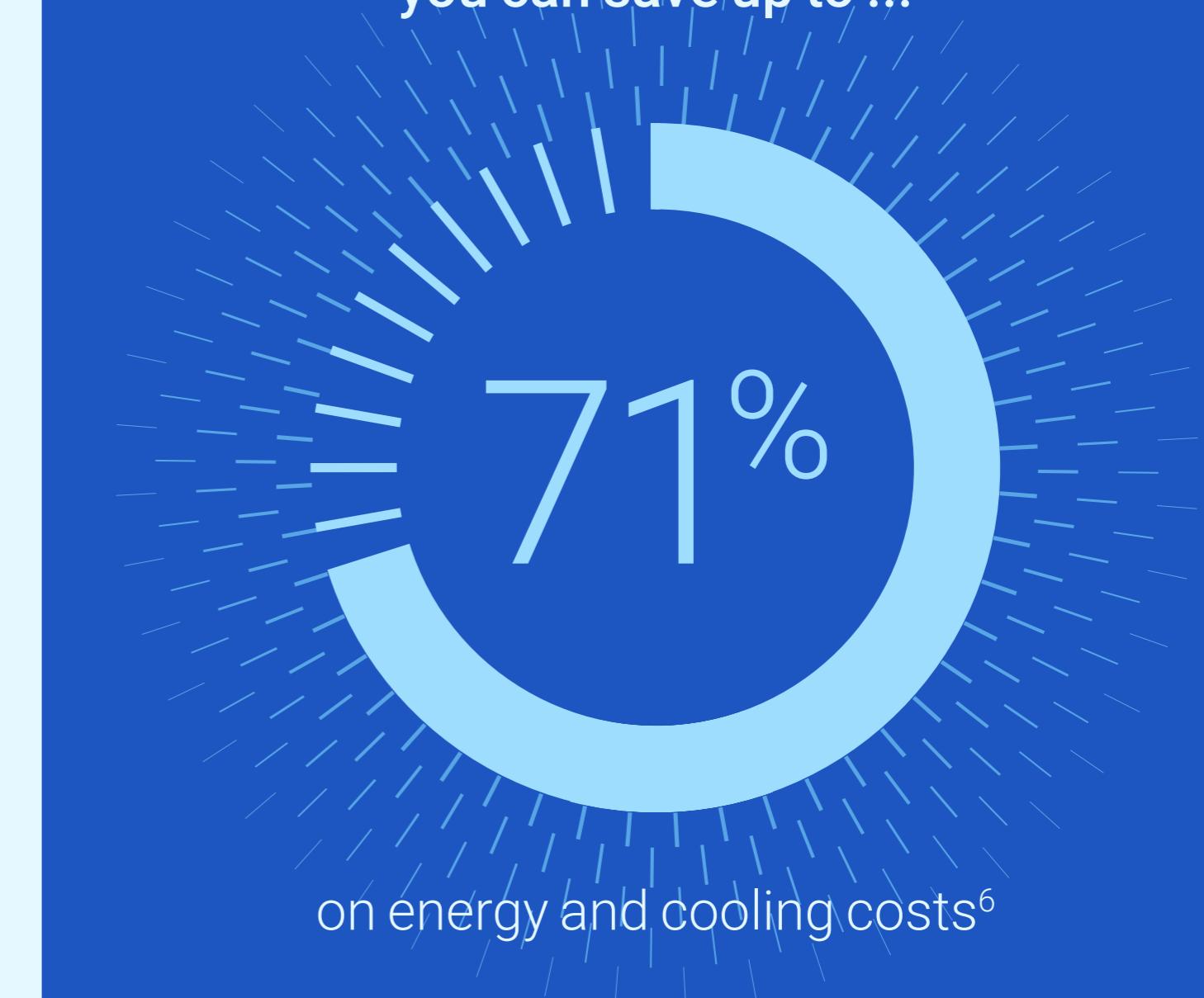


Dell Technologies
was the first major
PC manufacturer to
offer ENERGY STAR.
PowerStore Prime is
ENERGY STAR certified.⁵

PowerStore Prime comparison

	Competitor Single System All-Flash Array Max Capacity Configuration	PowerStore 5200T⁶ Single System All-Flash Array Max Capacity Configuration
Data Reduction	4:1	5:1
Effective Capacity	6710TB	5900TB
Annual Energy Use	108,493 kWh	31,907 kWh
Heat Dissipation	42,233 BTU / Hour	12,428 BTU / Hour

**With PowerStore Prime,
you can save up to ...**



How to achieve uncompromising sustainability in data storage

PowerStore Prime offers revolutionary efficiencies and advantages that show how success can be truly sustainable.

With PowerStore Prime, business success and environmental responsibility are no longer mutually exclusive. PowerStore Prime offers a solution that transforms your data centre from a necessary expense into a strategic asset.

Five actions for sustainable storage

Here's how you can implement sustainable storage practices:



Evaluate

Audit your existing infrastructure to find inefficiencies and areas for improvement.



Streamline

Use modern infrastructure and data reduction techniques to simplify your systems and reduce your power and cooling demands.



Rotate

Employ device rotations with a lifecycle management service like Dell Technology Rotation to keep your equipment up to date and efficient.



Utilise

Modern storage solutions like PowerStore Prime have eco-friendly features to maximise efficiency and cooling.



Recycle

Dispose of legacy systems through the proper recycling programs and repurposing methods to reduce e-waste.



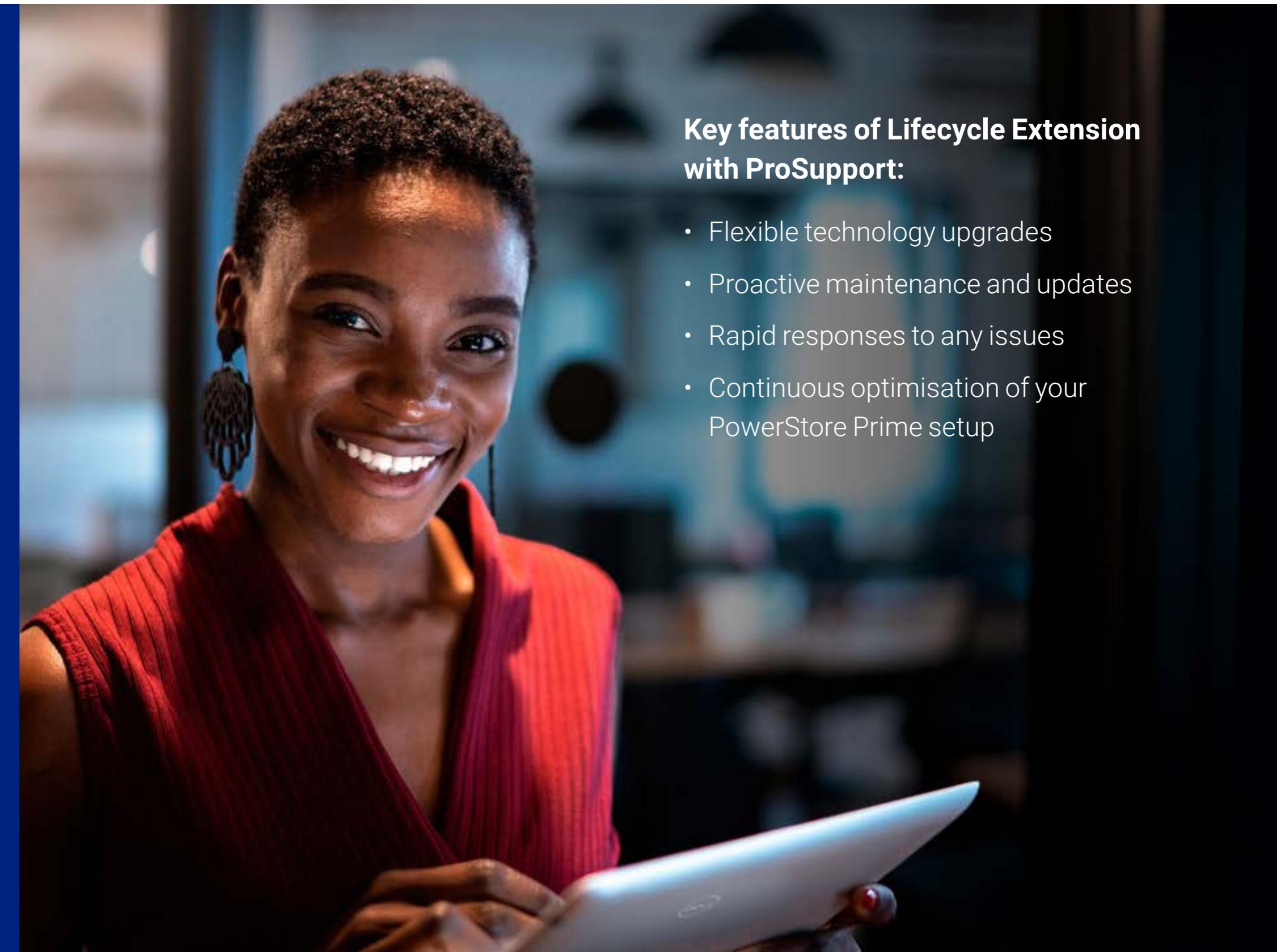
Contact our experts on **0800 587 0798 (UK)** or **request a call back** to discuss how you can implement these steps in your business.

Embracing the future with continuously modern technology

The PowerStore Prime commitment to sustainability does not end with its initial deployment. To truly maximise the long-term environmental benefits of your storage solution, Dell Technologies offers Lifecycle Extension with ProSupport.

Lifecycle Extension with ProSupport goes beyond traditional support and contributes to your sustainability goals by extending the working life of your technology infrastructure. This service ensures that your PowerStore Prime solution remains efficient for years to come, reducing the need for frequent replacements and minimising e-waste.

By combining the inherent adaptability of PowerStore Prime with the comprehensive care of Lifecycle Extension with ProSupport, you're not just investing in today's needs, you're future-proofing your data infrastructure for tomorrow's challenges.



Key features of Lifecycle Extension with ProSupport:

- Flexible technology upgrades
- Proactive maintenance and updates
- Rapid responses to any issues
- Continuous optimisation of your PowerStore Prime setup

Takeaways and talking points on sustainable storage

In the eGuide, we've seen how unrestrained and unpredictable data growth is impacting business success and sustainability right now. This situation will only intensify as technology advances. PowerStore Prime represents an investment in both performance and sustainability, and Lifecycle Extension with ProSupport features further enhance the future-proof power of the system.



Recap of the sustainable advantages of PowerStore Prime:



Efficiency

Significant reductions in energy consumption and improved space utilisation.



Adaptability

Flexible architecture that grows with your needs, without requiring constant hardware upgrades.



Performance

Enhanced data processing capabilities that maximise output for energy input.



Security

Robust protection features that don't compromise on efficiency.



Longevity

Extended lifespan through Lifecycle Extension with ProSupport, reducing e-waste and total cost of ownership.



All-inclusive software upgrades

Stay ahead of the curve with nonstop PowerStore Prime innovation, which includes all new software enhancements at no additional cost for the life of the product.

To move forward with your sustainable storage solution and discover how PowerStore Prime can transform your data centre into a strategic asset for both performance and sustainability, contact Dell Technologies for a personalised solution today.

Contact our experts on **0800 587 0798** (UK), **request a call back**, or visit **Dell PowerStore Prime**.

References

1. Dell Technologies, Delivering the Sustainable Data Centre: Storage.
2. JLL, [Growth of Artificial Intelligence creates unprecedented demand for data centres](#), Feb. 2024.
3. Dell Technologies, [Harness the future of software-driven innovation](#), 2024.
4. Based on Prowess Consulting Report, commissioned by Dell, May 2024, comparing Dell PowerStore Prime 1200T to similarly configured storage platform from a major competitor, using Vdbench. Actual results may vary.
5. Dell Technologies, [Dell PowerStore Prime: Revolutionizing Data Centres Through Sustainability](#), March 2024.
6. PowerStore model 5200T Disclaimers:
 - A) Based on the actual analysis comparing the specification sheet, advertised annual energy use between a competitive all-flash array and PowerStore 5200T maximum effective capacity appliance configurations. September 2024. Rounded to the nearest whole percent. Actual results vary.
 - B) Based on the actual analysis comparing the specification sheet, advertised heat dissipation (BTU/hr) between a competitive all-flash array and PowerStore 5200T maximum effective capacity appliance configurations. September 2024. Rounded to the nearest whole percent. Actual results vary.

About Dell Technologies

Dell (NYSE: DELL) helps organizations and individuals build their digital future and transform how they work, live and play. The company provides customers with the industry's broadest and most innovative technology and services portfolio for the data era.