[POWERSCALE](#)

Next-gen Workloads Require Next-gen Storage

Introducing the all-new all-flash PowerScale F210 and F710 nodes. Drive AI innovations faster with Dell's AI-ready data platform.

By [Chris Mount](#) | February 20, 2024

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Back in December our team announced that we're working on exciting storage advancements to deliver AI-optimized infrastructure as part of our **[vision for AI](#)**. Today, we're proud to report we're delivering on our promise with the introduction of two new nodes to our all-flash lineup— Dell PowerScale F210 and F710.

This release brings customers our latest generation of high-performance file storage systems, leveraging best-in-class PowerEdge servers to power the most compute intensive workloads. Integrated with the latest OneFS software, PowerScale is the complete AI-ready data platform, offering unmatched performance and scale, exceptional efficiency, federal-grade security and multicloud agility.

Meet Our Latest All-flash Nodes: PowerScale F210 and F710

Owing to sheer data gravity brought about by next-gen workloads, customers require solutions that are both faster and more cost effective. PowerScale is building on the tried-and-tested capabilities that made it a Gartner® Magic Quadrant™ **[leader](#)** for eight consecutive years and is delivering enhanced performance and efficiency with the launch of the F210 and F710. The F210 is the optimal platform for performance with small capacity requirements, whereas the F710 offers a balance of high performance and great capacity in 1RU.

PowerScale: The World's Most Flexible[1], Secure [2] and Efficient [3] File Storage...Just Keeps Getting Better

Unmatched Performance

Compared to the prior generation, coupled with software optimization over the last year, users will realize up to double the performance improvement in streaming reads, which drastically accelerates feeding GPUs for model training and fine-tuning. Similarly, users could also expect to optimize the model checkpointing phase of the AI pipeline with up to double the streaming write performance. Additionally, PowerScale will help bring about faster turnaround time and lower risk of tape-out delays with up to 2.6x improvement in high concurrency and latency sensitive workloads like high frequency trading (HFT) and electronic design automation (EDA) with software and hardware upgrades made over the last year.

Improved Efficiency

We've also made significant headway in optimizing our customers' total cost of ownership. Our latest platform leverages a Smart Flow chassis to streamline airflow, directing the right amount of air to where it's needed to improve energy efficiency. It's continuous innovation like this that allowed us to deliver up to 90% greater performance per watt, within a span of just one year.

Building on capacity and density from the previous generation nodes, the F710 accommodates up to ten drives in a 1U configuration, which translates to 25% increased node density compared to the F600. Similarly, we're improving storage utilization in a form-fitting configuration with the F210 by introducing the 15TB QLC drive that doubles capacity compared to the F200.

Collaborating with Dell means faster innovation for my business. The new Dell PowerScale F710 has exceeded our expectations with more than 25% performance improvements in our EDA workloads while delivering improved data center sustainability.

– Alan Davidson, CIO – Broadcom

PowerScale: Dell's AI-Ready Data Platform

We're enormously proud of the team delivering these PowerScale OneFS software and platform enhancements and excited to see how customers leverage them to drive AI innovation faster. Expanding on PowerScale's NVMe all-flash line up with GPU direct, and other embedded features like non-disruptive scaling, multi-tenant capabilities, universal data access with multi-protocol support, federal-grade security and seamless interoperability with flexible public clouds, the F210 and F710 are changing the game for high-speed storage and enabling the most demanding file workloads, including AI and generative AI (GenAI).

With these latest PowerScale all-flash nodes, we're ready to unleash the power of your data and fast-track your AI innovation journey. You can find more information on our latest generation nodes on the spec sheet **here** and on our PowerScale **page**.

Dell's Full-stack Portfolio of Validated Design Solutions for AI

As part of the world's broadest GenAI infrastructure portfolio that spans from cloud to client devices, all from a single vendor, at Dell Technologies, we're ready to bring AI to your data anywhere. To take the next step on your AI journey, reach out to your dedicated Dell or partner representative, and take advantage of our expert professional **services** to guide you every step of the way.

[1] Based on Dell analysis, February 2023

[2] Based on Dell analysis comparing cyber-security software capabilities offered for Dell PowerScale vs. competitive products, September 2022

[3] Based on Dell analysis comparing efficiency-related features: data reduction, storage capacity, data protection, hardware, space, lifecycle management efficiency, and ENERGY STAR certified configurations, June 2023

[4] Based on Dell preliminary testing. Oct 2023. Compares F710 all-flash node with OneFS 9.7 vs. PowerScale F600* all-flash node with OneFS 9.4. Actual results may vary.

[5] Based on Dell internal testing. January 2024. Comparing PowerScale F710 all-flash node with OneFS 9.7 vs. PowerScale F600* all-flash node with OneFS 9.4. Actual results may vary.