


Dell Adds PowerScale F210 and F710 To Its All-Flash Lineup

written by Harold Fritts | February 22, 2024


In the dynamic world of AI technology, preprocessing unstructured data plays a crucial role. Their appetite for unstructured data grows as AI systems evolve, driving the need for robust preprocessing techniques. Storagereview covered the news as [Dell announced updates to Powerscale to address customer demand for an AI-ready Infrastructure](#).

PowerScale All-Flash Nodes Leverage Latest-Gen PowerEdge

PowerScale F710



PowerScale F210



Customized for greatest performance
software-defined persistent memory, greater compute density & leading performance per watt

Performance & Density

- 4th generation Intel Xeon Sapphire Rapids CPUs
- DDR5 – latest DRAM with greater speed and bandwidth
- PCIe Gen 5: 4X throughput compared to PCIe Gen 3 in previous nodes
- Greater density in 1U platform, with introduction of F710
- 15TB drive option for F210
- Smart Flow Chassis for balanced airflow design

Unstructured data, spanning text, images, audio, and more, poses a unique challenge due to its lack of structure. Preprocessing this data is akin to refining raw material before creating a masterpiece. Techniques like data completion, noise reduction, and validation are essential for improving AI model performance.

Enter PowerScale, a leader in unstructured data innovation, unveiling the latest generation of PowerEdge-based nodes – the PowerScale F210 and F710. These storage nodes, powered by Dell PowerEdge R660, mark a new era of performance. With PowerScale OneFS 9.7 at its core, they're primed to handle even the most demanding workloads effortlessly.

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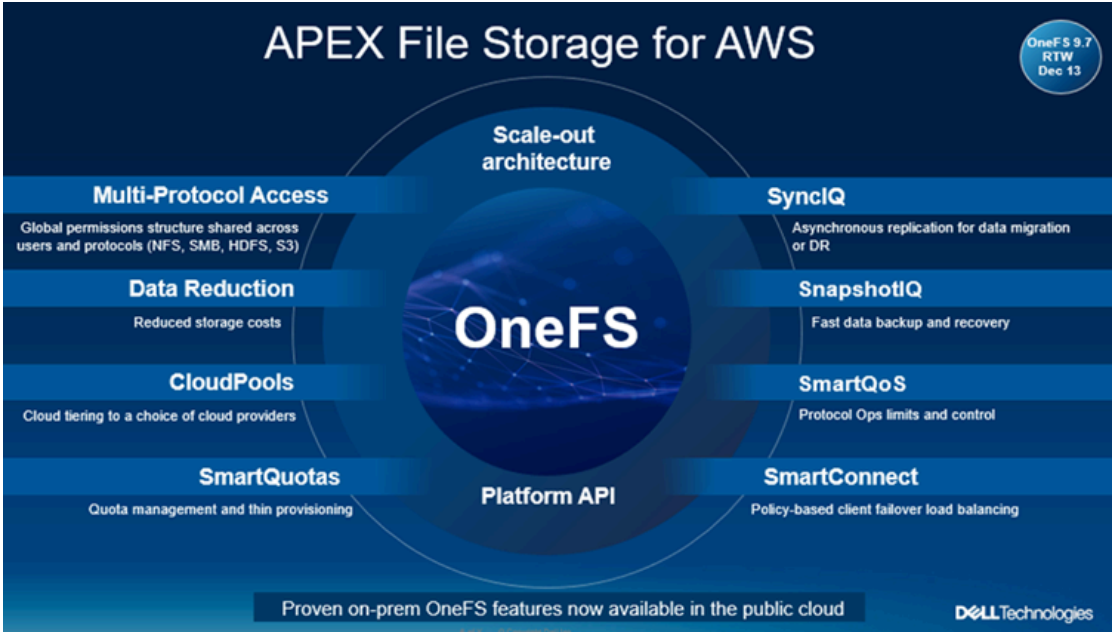
CPU	Single Socket – Intel Sapphire Rapids 4410Y (2G/12C)
Memory	Dual Rank DDR5 RDIMMs 128 GB (8 x 16 GB)
Journal	1 x 32 GB SDPM
Front-end networking	2 x 100 GbE or 25 GbE
Infrastructure networking	2 x 100 GbE or 25 GbE
NVMe SSD drives	4

The F210 and F710 redefine density in a 1U platform, offering features like support for 10 NVMe SSDs per node in the F710 and a 15.36 TB drive option in the F210. Equipped with Sapphire Rapids CPUs, these nodes deliver enhanced performance and efficiency. DDR5 memory ensures greater speed and bandwidth, further boosting performance.

PowerScale F710 Specification	
Chassis	1U Dell PowerEdge R660
CPU	Dual Socket – Intel Sapphire Rapids 6442Y (2.6G/24C)
Memory	Dual Rank DDR5 RDIMMs 512 GB (16 x 32 GB)
Journal	1 x 32 GB SDPM
Front-end networking	2 x 100 GbE or 25 GbE
Infrastructure networking	2 x 100 GbE
NVMe SSD drives	10

This new OneFS 9.7 release introduces PowerScale innovations in Cloud, Performance, Security, and simplicity. OneFS software platform provides the same experience customer-managed on-prem and in the cloud.

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Server Rack	
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This release sees a 60 percent capacity increase for APEX File Storage for AWS, delivering linear capacity and performance scaling up to six SSD nodes with 1.6 PB per namespace/cluster. With up to 10GB/s reads and 4GB/s writes per cluster, this is an ideal fit for file sharing, home directories, and vertical workloads like media and entertainment, healthcare, financial services, next-gen AI, ML, and analytics applications.

PowerScale OneFS 9.7 updates include enhancements to the protocol stack and locking functionalities. The introduction of Dell Software Defined Persistent Memory (SDPM) technology in the F210 and F710 nodes marks a significant shift, offering improved persistence without consuming a DIMM slot.

With these advancements, the PowerScale F210 and F710 nodes and OneFS 9.7 represent a significant technological leap forward. These improvements translate into tangible benefits, particularly for streaming reads and writes, solidifying PowerScale's position as a leader in AI-driven innovation.

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HAROLD FRITTS

I have been in the tech industry since IBM created Selectric. My background, though, is writing. So I decided to get out of the pre-sales biz and return to my roots, doing a bit of writing but still being involved in technology.

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