



TAKING CLOUD SOLUTIONS TO NEW HEIGHTS

With technology moving at an unprecedented pace, Rackspace relies on IT solutions that provide performance, agility and a range of capabilities to meet customer needs for managed cloud solutions



IT | Worldwide

Business needs

Organizations must evolve and innovate to be successful. Many that have deployed a private or hybrid cloud could benefit from the agility and on-demand provisioning of a public cloud. Rackspace has long worked with Dell EMC for the high-performance storage required for agile cloud solutions, and has been impressed with Dell EMC's latest, PowerMax.

Solutions at a glance

- [Dell EMC PowerMax \(beta\)](#)
- [Dell EMC VMAX](#)
- [Dell EMC Isilon](#)
- [Dell EMC Unity](#)
- [Dell EMC Connectrix B-Series directors](#)

Business results

- Offers unprecedented scalability to meet growing demand for cloud solutions
- Reduces power, cooling and space costs in company data centers worldwide
- Future-proofs capital investments through end-to-end NVMe
- Provides high performance and low latency for cloud apps

Up to

10M IOPS

with low latency



True

Tier 0

storage



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CTO, Enterprise Solutions Group,
Rackspace

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Rackspace is the leading provider of managed cloud solutions across multiple technologies, with services supporting a wide range of applications. The company prides itself on doing more than just supplying infrastructure by delivering the engineering necessary for high-quality services—including federating capabilities to create a more agile, public cloud-like experience. A long-time user of Dell EMC storage such as VMAX, Isilon and Unity, Rackspace always needs higher performance, greater density, improved economics and simplified management from the next evolution in storage. The company was one of the first to beta-test Dell EMC PowerMax, the world’s fastest array.¹

No moving of customers or applications

The Rackspace IT team put PowerMax through a rigorous series of tests. The array delivers unprecedented levels of performance, sub-millisecond response times and the highest levels of reliability to ensure true Tier 0 storage. This makes it ideal to support multiple cloud workloads across a given array—without ever having to worry about moving customers or applications within the IT infrastructure, or dealing with contention for critical resources.

“We have little visibility into how customers use their cloud infrastructure,” says Sean Wedige, chief technology officer of the Enterprise Solutions Group at Rackspace. “PowerMax enables us to support thousands of customers running cloud solutions in multi-tenant environments, while ensuring that no customer monopolizes an array and impacts the performance of others.”

PowerMax’s use of end-end non-volatile memory express (NVMe) and built-in machine learning that places data as appropriate on flash or next-generation storage class memory (SCM) media is designed to maximize throughput.² In addition, Rackspace utilizes Dell EMC Connectrix NVME-ready B-Series enterprise directors to squeeze every bit of performance out of the arrays and distribute that to its cloud customers.

Driving down costs in data centers worldwide

Rackspace has multiple data centers around the globe—in the U.S., Europe and Asia. These data centers represent a large share of the cost of providing its managed cloud solutions. As a result, the company looks to improve its efficiencies wherever possible—through better rack densities and reduced power and cooling costs.

PowerMax offers rack densities that are 2x better than VMAX All Flash³, with data reduction ratios of up to 5:1⁴, thanks to inline deduplication and compression.

“PowerMax provides increased density for similar-sized storage,” Wedige notes. “That, along with enhanced performance, is a game changer in our data center design—not just today, but years down the road.”

PowerMax also offers seamless, non-disruptive migration from VMAX arrays and simple migration from third-party arrays. “We often have customers making change requests,” explains Wedige. “With the number of these requests and the volume of data involved, it’s imperative that we have seamless, enterprise-class tooling to cost-effectively move and scale solutions for customers. PowerMax gives us that.”

¹ Based on Dell EMC internal analysis of published bandwidth of the PowerMax 8000 versus competitive mainstream arrays, March 2018.

² SCM drives will be available to be non-disruptively added to PowerMax arrays in early 2019.

³ Based on Dell EMC internal analysis comparing maximum capacity per floor tile of the PowerMax 8000 against the VMAX 950F, March 2018.

⁴ Based on Dell EMC internal analysis of dedupe and compression for a PowerMax array, March 2018. Actual data reduction will vary.

Intel Inside®. New Possibilities Outside.

Critical availability and simplified management

With customers relying on Rackspace’s managed cloud solutions, the company can’t afford any downtime. Services must be accessible on demand without disruption to avoid any impact on customers.

PowerMax takes that a step further by providing service levels, so that Rackspace can ensure it consistently delivers the right level of performance—the needed IOPS with low latency—that each customer requires without one application impacting another.

“The intelligence that’s built into PowerMax—plus the shift from Java to Unisphere’s HTML5 interface—has made our teams more efficient,” Wedige declares. “That enhancement has given us more consistency across operations with significantly reduced overhead.

“Being able to leverage the fastest arrays with the latest technologies is key to allowing us to make our customers’ businesses more competitive,” he concludes.



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