ESG Lab Brief

Dell EqualLogic PS Series Product Update

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Abstract: This brief summarizes the recent PS series announcements and offers a preview of the results of ESG Lab’s 5-year TCO analysis and Lab Validation report which can be viewed at http://dell.to/1b27HJa.

Background

Organizations are looking to spend less yet at the same time are faced with the difficult task of meeting more demanding application performance requirements and consolidating virtualized workloads. ESG Research clearly lists a lower total cost of ownership (TCO) as the number one priority when purchasing storage. ¹

ESG Lab recently performed a hands-on validation of the latest enhancements to the Dell EqualLogic product portfolio and performed a modeled analysis that showed that Dell EqualLogic had the lowest TCO over a 5-year period.

What’s New?

In December 2013, Dell announced the release of the PS6210, the latest generation of EqualLogic PS series storage arrays. The PS6210 controllers are equipped with more powerful processors and faster memory to minimize latency. In addition to better performing memory, the PS6210 controller has much more of it – 4 times more than the previous generation PS6110 controller. The 12th generation storage controller can be added and will function seamlessly in a group consisting of any combination of PS series controllers. The PS6210 can combine flash storage and 10GBe to deliver up to three times more IOPS and twice the throughput at a much lower cost than traditional storage arrays.

In addition to new hardware, Dell has also taken great steps forward in streamlining their already simple and intuitive management portfolio. The EqualLogic management GUI has been updated with a Dell branded look and feel that is familiar to many non-storage focused IT professionals. ESG Lab was particularly impressed with the new access control policies that greatly help to speed deployment of new resources. The latest software enables block and file to be managed with a single user interface while adding file dedupe and compression capabilities. SAN HQ 3.0 adds functionality like search and find capability and RAID policy recommendations, as well as providing simplified support with SANAssist.

The PS series is well known for its simplified scale-out architecture. The latest firmware and software continues to build on this solid foundation. The new flagship PS6210XS is an auto-tiered hybrid storage array that delivers high performance scalability at low latencies. The PS6210XS can be thought of as a performance accelerator to an existing PS Series group. Adding the PS6210XS as a new member to an existing group will instantly increase the performance of the entire group. Automatic load balancing and auto-tiering work in unison to balance the resources and accelerate the performance of the most demanding virtualized applications. ESG Lab was shown that the PS6210XS utilizes flash storage along with automated tiering and can deliver up to 2.4 times the number of virtual machines than the previous generation PS controller making it a perfect platform for application consolidation and virtualization.

The Bottom Line

ESG Lab modeled and analyzed the total cost of storage ownership over five years for two theoretical customers at the small and large ends of the “medium-sized business” segment. The smaller company was modeled requiring approximately 112TB of block-based storage capacity to meet the needs of common business applications and the larger company was modeled with a requirement of approximately 218TB. Each model began the first year with lesser capacity and performance needs and the requirements for each increased in the third year. The capacities include a mix of SSD, SAS and NL-SAS drives.

The ESG Lab analysis was quantitative in that it compared the cost of acquisition (hardware and software), support, management and service (including manpower), and power and cooling. ESG compared a Dell EqualLogic iSCSI SAN solution to competing solutions from two other industry-leading storage vendors. The analysis included the need for an upgrade in the third year due to an unanticipated increase in capacity and performance requirements.

Dell EqualLogic’s total cost of ownership is impressively lower over a five-year period than its competitors. The price difference can be attributed to a combination of cost savings in hardware, software, support and management.

**TCO Key Highlights**

- For small configurations, Dell EqualLogic had a 5-year total cost of ownership that was 41% lower than Vendor A and 47% lower than Vendor B.
- For large configurations, Dell EqualLogic had a 5-year total cost of ownership that was 44% lower than Vendor A and 58% Lower than Vendor B.
- Dell EqualLogic had no software cost resulting is a cost savings of up to $290,000. In addition, up to 28% lower management costs, 50% lower hardware costs, and 54% lower support costs were achieved.

The Bigger Truth

Organizations are working hard to lower the TCO of their storage purchases while also meeting the increased performance and capacity requirements demanded by mixed workload and virtualized environments. In order to lower TCO organizations must consider not only the capital costs associated with hardware and software, but also the operational costs associated with management, migrations, support, and power and cooling.

Dell EqualLogic storage is designed to be simple. Simple to manage, simple to scale, and simple to maintain. The latest announcement of the PS6210XS storage system shows that simple can also be powerful. Dell continues to lower operational costs by simultaneously enriching and simplifying their software, while also simplifying the support process. While every organization has unique requirements, ESG Lab’s TCO analysis shows that simplification of the storage simply results in a lower TCO!

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2 For the complete analysis including configuration details and assumptions, see the full report available at [http://dell.to/1b27HJa](http://dell.to/1b27HJa)

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