ESG Lab Whitepaper Summary

Dell Storage SC4020 TCO Analysis

Full-featured Value in a Cost-effective Solution for Smaller to Midsized Deployments

The Dell Storage SC4020 offers all of the enterprise-level features and functionality of the Dell Compellent SC8000 with a cost-effective hardware platform and budget-friendly pricing model that is perfect for smaller to midsized deployments. ESG Lab validated the automation, intelligence, virtualization, and efficiency features of the SC4020 and modeled the expected total cost of ownership (TCO) of the solution over an eight-year period for small- and medium-sized deployments. The SC4020’s TCO was 43-51% lower than similar solutions from other vendors.

The Product

The Dell Storage SC4020 was designed to deliver the enterprise-class features and functionality of the Dell Compellent SC8000 storage system in a more cost-effective package that is optimized for small to midsized deployments. The SC4020 comes in a 2U dual controller enclosure with 24 integrated drive slots, 8 Fibre Channel (FC) or 4 iSCSI host ports, and 4 SAS disk expansion ports. SC200/220 disk enclosures can be added to scale the system up to 120 drives. The controllers are powered by a single quad-core 2.5GHz Intel processor with 32GB of memory.

Although the SC4020’s hardware is a compact, scaled-down version of the more powerful SC8000, it contains all of the same enterprise-class features and functionality. The SC4020 runs the Storage Center 6.5 firmware with enterprise features such as Data Progression, thin provisioning, and space efficient snapshots. Like the SC8000, the SC4020 ensures investment protection with a Perpetual License software pricing model and Dell Copilot, which provides enterprise-class support for customers with entry-level budgets and requirements.

Why This Matters

Traditionally, enterprise storage systems are expensive. While many smaller deployments can certainly make great use of enterprise-level features and functionality, these features come at too great a cost to smaller businesses and enterprise organizations looking to deploy departmental or branched strategies. These organizations tend to settle for less feature-rich technologies to limit cost, but ultimately pay higher operational expenses due to increased technical complexity and management overhead.

ESG Lab validated that the Dell Storage SC4020 provides enterprise-level technology, functionality, and support in a cost-effective package that is ideal for organizations looking to deploy smaller storage systems than previous Dell SC Series configurations. The SC4020 takes advantage of Dell’s SC Series enterprise-grade virtualization technologies to help minimize capital and operational expenses for smaller organizations, while also providing investment protection for future growth.
The Bottom Line

ESG Lab modeled and analyzed the total cost of storage ownership over eight years for two theoretical customers at the small and large ends of the “medium-sized business” segment. The smaller company was modeled initially requiring about 20TB of FC attached block-based storage capacity to meet the needs of applications, and the larger company required approximately 24TB. Capacity and performance needs for each model gradually increased over eight years.

The ESG Lab analysis was quantitative in that it compared the cost of acquisition (hardware and software), support, management (including manpower), and power and cooling over eight years. ESG compared a Dell Storage SC4020 series-based solution with modular storage solutions from two other industry-leading storage vendors in the same market. The SC4020 used during ESG Lab hands-on testing formed the basis for the comparison. The eight-year models each included the need for equipment upgrades or additional systems due to an unanticipated spike in capacity and performance requirements.

The Dell total cost of ownership is impressively lower over an eight-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 Compellent had an eight-year total cost of ownership that was 43% lower than Vendor A and 47% lower than Vendor B.
• For large configurations, Dell Compellent had an eight-year total cost of ownership that was 54% lower than Vendor A and 51% Lower than Vendor B.
• Dell Compellent’s hardware, software/licensing, and support costs were significantly lower, potentially saving hundreds of thousands of dollars over the eight-year timeframe.

The Bigger Truth

Small and mid-sized IT departments are constantly struggling to balance their business and technical requirements, which are best served by full-featured storage systems, with the financial requirements of dealing with a smaller budget. Difficult decisions are made to balance the tradeoffs between cost, functionality, and performance. Dell Compellent has identified this challenge and made it a priority to better address the needs of small to midsized IT departments by delivering the enterprise-level features of the SC8000 storage system in a smaller and more cost-effective storage system—the SC4020.

ESG Lab has confirmed that the Dell Storage SC4020 storage array not only delivers the ability to leverage Compellent’s enterprise-level features and functionality in a more cost-effective package, but also offers a significant cost savings for an organization when compared with other vendors’ solutions. Growing organizations that are smartly looking to minimize the TCO of their storage purchases while delivering enterprise-level performance, features, and functionality should seriously consider the SC4020 for their future purchases.

Read the Full Report at http://dell.to/1BPSeuF

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1 For the complete analysis including configuration details and assumptions, see the full report available at http://dell.to/1BPSeuF

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