

TEI Spotlight:

The Total Economic Impact Of Deploying Dell EMC PowerScale Storage

Forrester recently spoke with multiple Dell Technologies customers regarding their organizations' investments in Dell EMC PowerScale as part of a Total Economic Impact™ (TEI) study. Through these interviews, Forrester uncovered various benefits from the customers' adoption of Dell EMC PowerScale. These benefits include: storage workload optimization savings, storage management efficiencies, data center space savings, gaining the ability to innovate with data, and revenue-generating business value added. Interviewed customers noted that the performance and resiliency of their PowerScale clusters helped their organizations support fast and unpredictable business growth, and it also provided scalability and cost effectiveness over their previous systems. Interviewees reported the ability to run a wide variety of workloads on the same data set within a single platform.

Organizations need to manage massive amounts of unstructured data that continue to grow exponentially. Whether the data is created at the edge, core, or cloud, unstructured data helps customers innovate with data and understand business results while decision-makers quickly and proactively act on business opportunities. PowerScale scale-out storage solutions are designed for organizations that want to store unstructured data anywhere: at the edge, the data center, or the cloud.

To better understand the benefits, costs, and risks associated with Dell EMC PowerScale, Dell Technologies commissioned Forrester Consulting to interview PowerScale customers and to conduct a Total Economic Impact™ (TEI) study. For this Spotlight, Forrester interviewed decision-makers from



Return on
investment (ROI)
382%



Payback period
< 6 months

12 organizations with experience using Dell EMC PowerScale storage platform with a single file system, single volume, and single namespace that can easily scale PBs to accommodate rapidly growing, unstructured data capacity.

This Spotlight will focus on the ways these organizations use Dell EMC PowerScale and the value it provides their organizations.

Dell EMC PowerScale. [According to Dell Technologies, PowerScale](#) scale-out storage solutions are designed for organizations that want to manage their data, not their storage. PowerScale storage systems are powerful, yet simple to install, manage, and scale to virtually any size. Customers can meet the most demanding business needs with a choice of PowerScale all-flash nodes along with Isilon all-flash, hybrid, or archive nodes.

Composite Organization

Based on the interviews, Forrester constructed a TEI framework, a composite *Organization*, and an associated ROI analysis that illustrates the areas financially affected. The composite *Organization* that

Forrester synthesized from the customer interviews has the following characteristics:

Description of composite. The global *Organization* uses PowerScale to store and manage critical line-of-business applications and high-performance computing (HPC) workloads. The solution has to grow to drive big data analytics, AI, machine learning (ML), and deep learning (DL) workloads to deliver insights from the data. The *Organization's* previous solution limited its ability to store and manage this data. The *Organization* experiences rapid growth in its data capacity as well as unpredictable performance needs that are driven by ever-changing business demands. The storage must simultaneously handle multiple protocols like file, object, and Hadoop to support these workloads.

Deployment characteristics. Data capacity and performance needs are increasing every year. New workloads require massive performance as well as capacity. In order to manage this data, the composite *Organization* upgrades to: PowerScale F600 all-NVMe nodes for production workloads in its primary data center; CloudPools to tier aged data to Amazon ECS after 12 months; Isilon A200 nodes for disaster recovery in its secondary data center; and SyncIQ to efficiently replicate data. In the event of complete failure at the primary data center, only a key set of business-critical applications will be engaged at the secondary data center. The *Organization* also uses DataIQ and CloudIQ software for reporting and monitoring its storage and data needs. The *Organization* has an eventual average storage utilization of 85%. Based on customer interviews and analysis on its data set, the *Organization* knows that it can get up to a 4:1 data reduction on the data that is stored.

KEY CHALLENGES

The interviewees faced several challenges with their previous storage environments that led them to consolidate onto PowerScale. The *Organization* also had outgrown its previous storage, which made it

difficult to manage at the PB scale. Because of the changing and unpredictable needs of the business, the previous solution was complex and limiting; it could not handle the future capacity and performance needs of the business.

“Dell EMC PowerScale was one of the best technology investment decisions we’ve ever made.”



“PowerScale helps us better innovate with the data where it resides. This was part of our plan to increase our business and get more customers quickly. Without a system like Dell EMC PowerScale, it would not be possible. Storage is a critical part of our business, and we have a strong vendor in Dell Technologies to back us up.”



Senior director of software-as-a-service (SaaS) engineering, software company

WHY DELL EMC POWERSCALE?

Prior to using PowerScale, the interviewees' organizations used traditional storage solutions to store and analyze a rapidly growing volume of unstructured data. The organizations often had management inefficiencies that prevented IT staff from focusing on more valuable work. These systems lacked the flexibility to scale with growth, and overprovisioning created cost inefficiencies from lower utilization. Additionally, these customer organizations required continuous delivery of services for customer satisfaction and business growth. Their previous systems were less flexible, and could not provide the scalability, performance, or availability necessary to avoid costly disruptions to their business.

“With traditional storage system limitations, eventually you hit a point of growth where the storage has a limit. Dell EMC’s PowerScale removed that limitation for us so we could grow their single namespace out to basically unlimited capacity and performance.”

Storage architect, managed services provider

With PowerScale, the interviewees' organizations have a storage platform with a single file system, single volume, and single namespace that can easily scale PBs to accommodate rapidly growing, unstructured data capacity. PowerScale's heterogeneous clusters can support a variety of applications and storage needs with different tiers of storage appliances as well as a cloud storage tier. Aligning data with the best-fit tier creates cost efficiencies and higher utilization rates from reduced silos and reduced overprovisioning. PowerScale provides significant management efficiencies due to

automated tiering with PowerScale SmartPools and CloudPools software and efficient data replication with PowerScale SyncIQ for disaster recovery.

KEY RESULTS

Forrester modeled \$14.1 million in three-year benefits directly related to the *Organization's* investment in PowerScale storage solutions. The four quantifiable benefit categories are:

- **Storage workload optimization savings – \$10,706,058.** The composite *Organization* upgrades its previous storage solution with PowerScale storage, generating significant cost savings with increased storage efficiency and cost-effective options for cold data (i.e., data that is infrequently accessed).
- **Storage management efficiencies – \$1,631,157.** With PowerScale, the *Organization* significantly reduces complexity and time-consuming storage management tasks.
- **Data center space savings – \$253,659.** Interviewees said the improved storage efficiency, density, and cloud capability of PowerScale contributed to reduced data center space requirements as compared to their previous multivendor storage solutions, given the same storage capacity.
- **Business value added – \$1,460,556.** Scalability, performance, and availability of storage infrastructure impacted the ability of the interviewees' organizations to deliver services that satisfy customers and keep pace with business growth. The organizations relied on PowerScale's performance, scalability, and availability to drive customer reach and customer satisfaction to generate incremental revenue.

FLEXIBILITY OPTIONS

Flexibility, as defined by TEI, represents an investment in additional capacity or capability that could be turned into business benefit in the future.

There are scenarios in which a customer might choose to implement PowerScale storage and later realize additional uses and business opportunities.

These include:

- A key benefit of the PowerScale data lake, which supports a wide range of applications, is the ability to share data more effectively across those applications and to potentially surface new insights with in-place analytics. One interviewee noted: “A key thing for us is we’re advertising PowerScale as our data lake foundation. As we’re pushing more big-data initiatives and big-data services, it’s becoming more valuable to us to have multiprotocol access to the same set of data. Based on initial tests, we are able to use PowerScale to eliminate additional infrastructure that would have been required with a traditional Hadoop platform.” Potential benefits for future analytics efforts include avoided infrastructure costs, more efficient data analytics projects, and positive business impacts from data insights.
- Interviewees reported additional cost efficiencies with PowerScale’s inline data reduction and SmartDedupe data deduplication software. Based on the amount of redundant data organizations are storing, SmartDedupe can help them achieve additional storage efficiency by reducing the amount of physical storage needed, helping to avoid unnecessary node purchases and maximizing the use of data center space.

Flexibility would also be quantified when evaluated as part of a specific project.

Key assumptions

- **Primary data center cluster:**
 - **PowerScale F600 nodes**
 - **Stale data tiered to ECS after 12 months**
- **Secondary data center cluster:**
 - **Isilon A200 nodes**
- **Software used:**
 - **SmartPools**
 - **CloudPools**
 - **SyncIQ**
 - **CloudIQ**
 - **DataIQ**

“We have a very good relationship with Dell Technologies. Our account manager and SE [sales engineer] have regular meetings with us where they provide useful tips and product updates. They are very supportive. Dell Technologies has been a great partner to our organization.”

*Storage infrastructure engineer,
pharmaceutical sciences*

TOTAL ECONOMIC IMPACT ANALYSIS

For more information, download the full case study: “The Total Economic Impact™ of Deploying Dell EMC PowerScale Storage,” commissioned by Dell Technologies and delivered by Forrester Consulting.

STUDY FINDINGS

Forrester interviewed 12 decision-makers from organizations with experience using Dell EMC PowerScale, and we combined the results into a three-year composite organization financial analysis. Risk-adjusted present value (PV) quantified benefits include:

- Storage workload optimization savings – \$10,706,058.
- Storage management efficiencies – \$1,631,157.
- Data center space savings – \$253,659.
- Business value added – \$1,460,556.
- Read the full TEI study for additional benefits and details.



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DISCLOSURES

The reader should be aware of the following:

- The study is commissioned by Dell Technologies and Intel Corporation and delivered by Forrester Consulting. It is not meant to be a competitive analysis.
- Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the report to determine the appropriateness of an investment in Dell EMC PowerScale storage.
- Dell Technologies reviewed and provided feedback to Forrester. Forrester maintains editorial control over the study and its findings and does not accept changes to the study that contradict Forrester’s findings or obscure the meaning.
- Dell Technologies provided the customer names for the interview(s) but did not participate in the interviews.

ABOUT TEI

Total Economic Impact™ (TEI) is a methodology developed by Forrester Research that enhances a company’s technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders. The TEI methodology consists of four components to evaluate investment value: benefits, costs, risks, and flexibility.

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