

IBM FlashSystem Modernizes Storage Environments, Improves Data Resiliency, And Avoids Costly Capacity Expansions

IBM FlashSystem — built with IBM Spectrum Virtualize software — enables organizations to manage disparate storage environments and growing data capacity requirements with less effort.

IBM commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying FlashSystem. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of FlashSystem on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed five decision-makers with experience using FlashSystem. For the purposes of this study, Forrester aggregated the interviewees' experiences and combined the results into a single composite organization.

Prior to using FlashSystem, the interviewees' organizations faced costly capacity expansions and increasing efforts from storage admins to manage their complex environments. Limited or nonexistent virtualization capabilities led to planned and unplanned downtime that impacted critical business functions.

INVESTMENT DRIVERS

The interviewees noted how their organizations struggled with common challenges, including:

- **Disparate legacy storage solutions required excessive effort to manage.** Interviewees told Forrester their organizations needed multiple FTEs to manage their environments prior to using



Return on investment (ROI)
305%



Net present value (NPV)
\$1.55M

FlashSystem. They said that increasing data needs increasing meant their organizations faced costly capacity expansions that would require more FTEs to manage and increase data center costs.

- **Planned and unplanned downtime impacting business operations.** Many organizations do not operate within a standard set of business hours, and interviewees said that created a need for a reliable storage solution that does not need to be taken offline for routine maintenance or critical updates. A global head storage engineer in the pharmaceutical industry said: "Having a system that doesn't require downtime is huge because, [for] global companies, it's hard to find a downtime when everything runs all the time. You have a regional data center or a global data center, [so] just because it's nighttime [where you are], it doesn't mean 50,000 people aren't using it."



READ THE FULL STUDY

“[FlashSystem] increased efficiency and ease of use. ... Compared to other storage systems we have in the ecosystem ... the ease of management [and] administration [and] performance [are] top notch.”

*Head of technology infrastructure operations,
financial services*

KEY RESULTS

After investing in FlashSystem, interviewees' organizations mitigated the current need to purchase additional storage capacity, reduced the effort needed to manage the environment, and reduced downtime.

Reduced storage costs by \$837,000. Interviewees said FlashSystem compresses data with minimal impact to performance of the environment if it impacts it at all. This reduces or eliminates the need to purchase additional capacity and also reduces data center costs.

- An infrastructure architect in the manufacturing industry said FlashSystem reduced storage costs. They said: “We do use compression a lot, and that has saved us tremendously in terms of costs because we’re doing compression and getting [a compression rate of] about 3:1. We’re able to store more data and that has helped us to not have to expand as much as we would have if we didn’t use compression. If we didn’t have the compression, then we would have to spend a lot more money to expand our storage capacity.”
- A global head storage engineer in the pharmaceutical industry said: “[FlashSystem uses] less space, less heat, [and] less electricity

in that section of the data center. ... When we went from spinning disk [technology] to Flash, it was one-tenth the power consumption, which loosely translated to one-tenth of the heat output.”

Increased operational efficiency worth \$695,000.

Interviewees said FlashSystem greatly reduces the effort needed to manage the storage environment, freeing up over 90% of FTE time to work on other value-added tasks.

- An infrastructure architect in the manufacturing industry told Forrester: “The [FlashSystem] environment is so stable. It doesn’t require a whole lot of care and feeding, so it allows me to spend a lot more time on the other hats that I wear. ... I am the only [employee who] supports it, so I like the fact that the web interface is really easy to manage and straightforward for someone [who doesn’t have] a storage background.”
- A global head storage engineer in the pharmaceutical industry said: “[FlashSystem is] simple enough to use that we can hand off daily operations to a third-party provider. ... It is simple enough that we can outsource it without needing high-end people in terms of running it. ... Regular operations can be managed by a lower-skilled person without breaking stuff. I find it more efficient in that respect: You don’t need to tune it all the time. You don’t need high-end people to make it work.”

“[IBM] has the best product at the best price.”

Lead systems engineer, healthcare

Reduced downtime worth \$528,000. The reliability of FlashSystem along with the ability to perform updates, patches, maintenance, and other work on the storage environment without taking any hardware offline reduces the planned and unplanned downtime experienced by organizations.

- A lead systems engineer in the healthcare industry said: “[IBM Storage] Insights helps you reduce downtime by keeping you alerted to both drive and controller issues so you can be proactive and not hit the scenario. ...

[FlashSystem] helped us avoid outages because I was able to move things so easily and transparently off of a problem area.”

- An infrastructure architect in the manufacturing industry said: “With the Flash environment, we have not had any failures of the Flash drives in the six years that we’ve had this platform in place. That’s pretty impressive.”

[FlashSystem] really exemplifies ... the reputation that IBM has with reliability, scalability, [and] security. We’ve been very impressed and very happy with the decision to go with [FlashSystem].

— Infrastructure architect, manufacturing

**Since we implemented FlashSystem,
we never had any downtime on the
service system.”**

— Head of technology infrastructure operations, financial services

DISCLOSURES

The reader should be aware of the following:

- The study is commissioned by IBM 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 IBM FlashSystem.
- IBM 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.
- IBM 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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