

# The smart buyer's guide to flash

Find out whether flash storage  
is right for your business.

# Introduction

If you're searching for the right data-storage method for your company, you're probably overwhelmed by the number of hybrid flash and all-flash storage options out there. So how can you figure out which solution gives you a strong competitive advantage and offers the best fit for your company's requirements?

This guide lays out key information and answers common questions about flash storage, so you can make the best possible decision for your business.

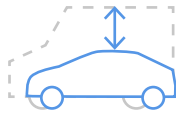
## Smart tip #1

# Drive down costs

If you're thinking of investing in flash, cost is probably a major factor in your decision-making process. And with most IT budgets staying fairly flat, you'll need to maximize performance while maintaining low costs. Keep the following factors in mind to get the most value from your next storage solution.

### Workload scalability

Don't get a van when a compact car will do. If you have a less demanding workload, you'll save money by choosing the flash storage product that's the right size for your company's needs. Look for a mature suite of solutions that let you compare multiple products with different capacities.



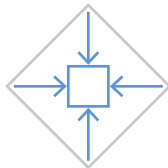
### Computing resources

End to end NVMe flash solutions actually cut back on overall IT expenses. With high speeds that eliminate storage-related infrastructure bottlenecks, flash lets you support larger workloads.



### Storage installation needs

Flash storage requires less space to store the same amount of data. When you invest in flash, you save money by cutting back on costs associated with additional space and management requirements.



### Efficient solutions

Flash modules use less power than hard drives. You can lower costs even further by paying close attention to power efficiency. Because flash modules use less power than hard drives, they have lower energy expenses.



## Smart tip #2

# Prioritize performance

### Accelerated performance

Faster is always better for business. NVMe Flash storage greater speeds give companies the power to quickly mine deeper insights and respond to customers almost instantaneously—all while using fewer resources. And if you are looking for even faster response times you can add Storage Class Memory to your storage.



### Harnessing existing applications

As you strive for better performance, you might consider replacing your applications or doing expensive and time-consuming optimizations just to seek out small improvements. But flash lets you boost performance while using your existing applications—no overhaul needed.



### Data reduction

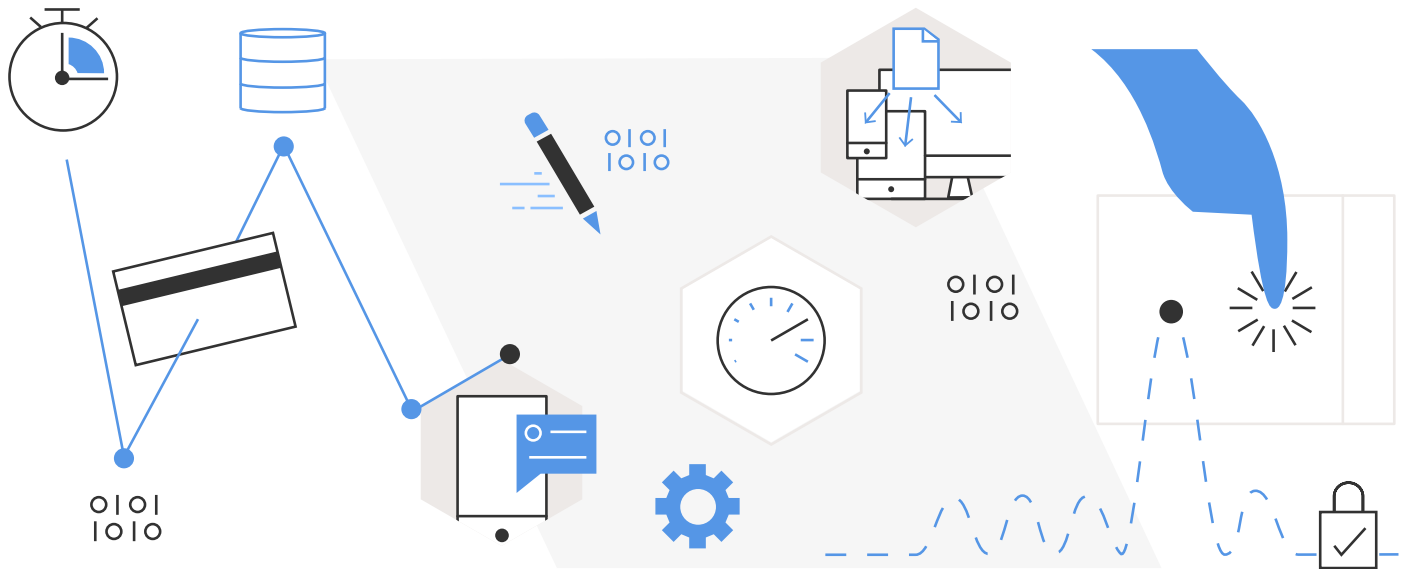
To improve storage efficiency, look for a solution with data reduction technologies, like pattern removal, deduplication and compression. Thin provisioning and space-efficient snapshots are additional functions that make the most of your storage capacity. Just watch out for compression solutions that include “recompression” as a value add. The first compression cycle should work well enough that a second one isn’t needed.



### Maturity

As a mature, reliable storage solution, flash is increasingly considered to be the new standard.





### Smart tip #3

# Plan for the future

## Hybrid multicloud

Hybrid multicloud solutions offer undeniable advantages, but they also come with a unique set of challenges. With public clouds, you may see increased system latency caused by data being delivered over long distances. The performance of private clouds can suffer due to complex system architectures. With top speeds and high performance levels, flash more than compensates for these shortcomings, helping you get the most from your hybrid multicloud computing solutions.

## Real-time analytics

When your competitors are making point-of-sale suggestions and analyzing transactions as they occur, you can't afford to fall behind. So if you haven't made the leap to real-time analytics, you'll need to do it soon. Stay competitive in this market with a storage system like flash that pulls information from multiple sources in mere microseconds.

## Container storage

Flash Storage is the enterprise container storage that helps you build and deploy enterprise class scale-out microservices applications to exceed your goals, delivering highest performance, data efficiency, protection, and agility your containers deserve.

## Speed of innovation







The world's most successful businesses are constantly innovating. You already know timing is essential when you're introducing new rollouts, and your IT infrastructure will either drag you down or propel you forward. Whether you're modeling new concepts, connecting teams in different locations or turning raw data into insights, flash storage accelerates your speed of implementation.

## Virtual desktops

Virtual desktop infrastructure (VDI) helps you improve data security, lower costs and give employees access to their files from any device. But to make this technology successful, you need strong system performance. Flash not only delivers high-performance standards and lowers the cost per desktop, it also handles the extreme spikes in data traffic that are common with VDI implementations.

Take the next steps

# Key considerations when purchasing flash storage

-  How will this solution perform as data volumes increase?
-  Does this solution have a method for preventing shutdowns and slowdowns during background cleanup tasks?
-  Does this solution deliver low latency and high performance?
-  How is storage performance monitored?
-  How do your data reduction technologies affect performance?
-  Do you have a consistent software to manage your solution?

As your data volume continues to surge, you'll face more challenges when it comes to storing, accessing and harnessing all of it. Flash is your ideal solution for meeting growing performance demands while bringing speed, scalability and savings to your business.

IBM's mature portfolio of flash solutions fits a range of budgets, workloads and performance profiles.



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