

# IBM FlashSystem portfolio

Fast, resilient and simple data storage solutions

## Highlights

Simplifies application workload management with built-in AI

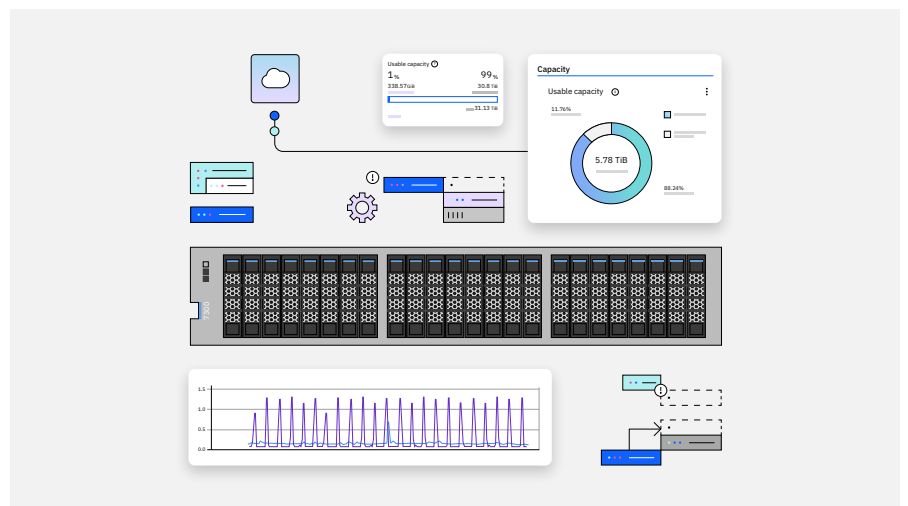
Enables proactive identification of cyberthreats to speed response times

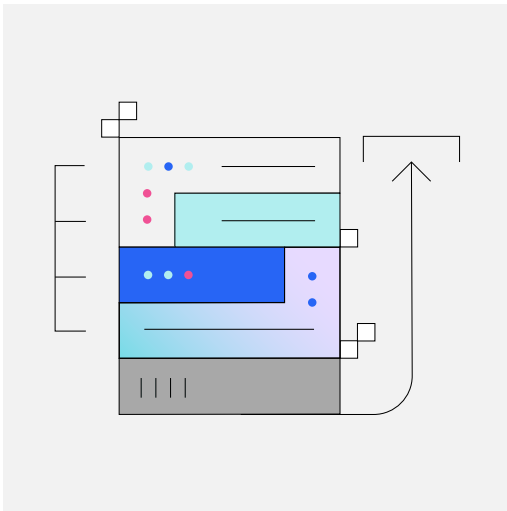
Helps reduce your data storage environmental impact

Accommodates storage additions and upgrades without disruption

In today's data-driven world, organizations' data storage requirements are actively increasing—and so are global cyberthreats. A fragmented approach to storage needs typically involves manual procedures and organizational silos, resulting in a lack of cyber resilience, performance and power efficiency to protect against threats and ransomware. Businesses require an integrated, simplified and sustainable solution that unifies and speeds data management across core, cloud and edge environments.

The IBM FlashSystem® portfolio offers a wide range of enterprise-grade, high-speed solutions to meet the ever-growing storage needs of businesses of all sizes. Combining advanced machine learning tools and data reduction features, the all-flash array platform helps maximize storage density, streamline IT operations and reduce complexities. With IBM FlashSystem, you gain real-time and hardware-assisted encryption, multifactor authentication, inline threat detection, ransomware detection and various replication capabilities to protect your business against cyberthreats.





### **Simplifies application workload management with built-in AI**

With intelligent data services and capabilities designed for IT environments of any size, IBM FlashSystem provides built-in AI and machine learning that you can take advantage of immediately. Inherent interoperability lets you integrate the solution natively with other tools and applications for IT service management (ITSM), IT lifecycle management (ITLM) and AI for IT operations (AIOps), including VMware vSphere Virtual Volumes (vVols).

### **Enables proactive identification of cyberthreats to speed response times**

IBM FlashSystem enables timely operational responses to breaches by providing built-in features such as ransomware threat detection, logical air-gapping with Safeguarded Copy, operational air-gapping with integrations to IBM Cyber Vault, and physical air-gapping with the ability to offload data to tap. The platform features real-time and hardware-assisted encryption, multifactor authentication, inline threat detection, ransomware detection and various replication capabilities. Backed by the IBM Cyber Resiliency Guarantee, IBM FlashSystem is designed to identify cyberthreats before they happen.<sup>1</sup>

### **Helps reduce your data storage environmental impact**

It's more important than ever to lower carbon emissions and address the environmental impact of your data storage. IBM FlashSystem helps reduce energy costs and provides a solid data storage sustainability guarantee, with some configurations guaranteed as low as 1.7 W/TB.<sup>2</sup> Support your green IT initiatives across all IBM FlashCore® module drive configurations.

### **Accommodates storage additions and upgrades without disruption**

Add and upgrade data storage capacity without disruption and at scale with your business. A single IBM FlashSystem array can scale up to 392 drives per system. Each model works with your current and future applications, empowering your teams to address workloads with additional applications, including containers and cloud architectures. Multiple purchase-over-time options allow you to quickly scale your data storage solutions as needed.

The IBM Storage Assurance program provides access to IBM FlashSystem hardware and software innovations. It offers all-inclusive software upgrades, full-system automatic hardware refreshes, SLA-based workload performance guarantees, premium support and guaranteed nondisruptive migrations. All of this comes with flat and fair pricing aligned with flexible contract terms, giving you the peace of mind that your data storage is in safe hands.

| Product specifications                              | IBM FlashSystem 5000  | IBM FlashSystem 5300  | IBM FlashSystem 7300  | IBM FlashSystem 9500  |
|---|---|---|---|---|
| Maximum bandwidth (reads)                           | 12 GB per second  | 17.8 GB per second  | 50 GB per second  | 100 GB per second   |
| Response times (reads)                              | < 70 microseconds   | < 50 microseconds   | < 50 microseconds   | < 50 microseconds   |
| Effective maximum capacity within single enclosure* | 570 TBe (2U enclosure)  | 1.8 PBe (1U enclosure) <sup>3</sup>   | 3.87 PBe (2U enclosure)   | 7.9 PBe (4U enclosure)  |
| Processor/PCIe Gen                                  | Intel Broadwell DE  | Intel Sky Lake, Gen 4 PCIe  | Intel Cascade Lake, Gen 3 PCIe  | Intel Ice Lake, Gen 4 PCIe  |
| Maximum front-end host ports                        | 8   | 16  | 24  | 48  |
| IBM FlashCore module capacities supported           | Not applicable (supports industry standard modules)   | 4.8, 9.6, 19.2 and 38.4 TB  | 4.8, 9.6, 19.2 and 38.4 TB  | 4.8, 9.6, 19.2 and 38.4 TB  |
| Use cases   | <ul style="list-style-type: none"> <li>– Server and desktop virtualization</li> <li>– Production and development databases</li> <li>– Containers</li> <li>– Data center edge</li> </ul> | <ul style="list-style-type: none"> <li>– SAP</li> <li>– Oracle</li> <li>– Server and desktop virtualization</li> <li>– Production database</li> <li>– Containers</li> <li>– Workload consolidation</li> </ul> | <ul style="list-style-type: none"> <li>– SAP</li> <li>– Oracle</li> <li>– Server and desktop virtualization</li> <li>– Production database</li> <li>– Containers</li> <li>– In-memory database</li> </ul> | <ul style="list-style-type: none"> <li>– SAP</li> <li>– Oracle</li> <li>– Server and desktop virtualization</li> <li>– Production database</li> <li>– Containers</li> <li>– In-memory database</li> </ul> |
|   | <a href="#">Explore IBM FlashSystem 5000</a>  | <a href="#">Explore IBM FlashSystem 5300</a>  | <a href="#">Explore IBM FlashSystem 7300</a>  | <a href="#">Explore IBM FlashSystem 9500</a>  |

\*Assuming 3:1 compression and 2:1 deduplication.

[Explore all technical specifications →](#)



### **Conclusion**

The high-speed IBM FlashSystem data storage platform provides enterprise-class data solutions for businesses, large and small. The platform offers built-in AI and interoperability while enabling a fast response to cyberthreats and data breaches. From hybrid storage to performant nonvolatile memory express (NVMe) all-flash arrays and both on-premises and cloud-based workloads, IBM FlashSystem meets even the most demanding data storage requirements.

### **For more information**

To learn more about IBM FlashSystem, contact your IBM representative or IBM Business Partner, or visit [ibm.com/FlashSystem](https://ibm.com/FlashSystem).

1. IBM Cyber Resiliency Guarantee, IBM.
2. FlashSystem Sustainability Guarantee, IBM.
3. Results based on 1U control enclosure:  
12 drives of 38.4TB each = 460.8TB configured  
in a 9+Q+P+S DRAID-6 array, after RAID  
overhead and metadata provisioning, deliver  
302.12TB of usable capacity, with a 3:1  
compression and 2:1 deduplication ratio  
equal to 1.81PBe of effective capacity.

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