

IBM Storage FlashSystem 5000

Performance, functionality and affordability
for entry enterprise workloads



Highlights

Deploy, manage and grow
with ease and flexibility

Provide affordable,
enterprise-grade
functionality and
performance

Increase efficiency
and simplify storage
management

Ensure business continuity
with multi-layered data
resilience features

In today's world, advanced technologies like AI, real-time analytics and blockchain require large amounts of data, which calls for new levels of IT infrastructure capabilities, including system optimization, data reduction, comprehensive security and encryption, cloud architectures and low-latency flash.

For an organization to succeed in the modern market, it will need an intelligent IT infrastructure that can be preserved and upgraded while keeping costs low. Better business agility will be crucial in meeting that goal, which requires infrastructure that is both flexible and scalable.

IBM® Storage FlashSystem® 5000 is a cost-effective solution tailored for entry enterprise workloads. It provides a wide range of award-winning functionality across your existing systems to help you optimize IT investments while building a leading, cloud-capable business platform. IBM Storage FlashSystem 5000 offers two models for added versatility:

- **FlashSystem 5015** is an affordable and easy-to-use solution with powerful scale-up features, offering various storage options and using IBM Storage Virtualize features
- **FlashSystem 5045** provides greater functionality, including powerful encryption capabilities, data reduction pools with compression, deduplication, thin provisioning and the ability to cluster for scale-up and scale-out



Deploy, manage and grow with ease and flexibility

IBM Storage FlashSystem 5000 models are now easier to use and deploy than ever before. With enterprise-grade capabilities like AI-powered IBM Easy Tier® functionality, IBM Storage FlashSystem 5000 offers automated, efficient data storage.

Additionally, all IBM Storage FlashSystem solutions are supported by AI-enhanced [IBM Storage Insights](#) that monitor your storage environment, alert you when something needs your attention and provide recommendations for remediation. IBM has also streamlined the onboarding process with a simplified purchasing process, and IBM Global Financing support for multiple payment options.

IBM Storage FlashSystem 5000 solutions enable you to grow with ease when your need to by quickly adding capacity without disruption. A single IBM Storage FlashSystem 5015 array can scale up to 392 drives per system. And the IBM Storage FlashSystem 5045 array can scale up to 440 drives per system—or up to 880 for two-way clustered systems. Each solution works with both your current and future applications, empowering your teams to address workloads with new technologies like containers and cloud architectures.

Provide affordable, enterprise-grade functionality and performance

The IBM Storage FlashSystem 5000 solution provides high performance and ultra-low latency which helps minimize delays between data processing and data storage.

Depending on which model you choose, IBM Storage Virtualize can deliver a wide spectrum of sophisticated storage functionality, including support for all of the following and more:

- Support for host-side virtualization solutions such as VMware virtual machines, Microsoft Hyper-V, and IBM PowerVM®
- Data reduction pool technology including deduplication, compression and automated thin provisioning
- The ability to use cloud resources to complement on-premises storage
- FlashCopy® and Remote Copy for local and remote replication
- Safeguarded Copy for isolated and immutable copies
- Automated tiering with IBM Easy Tier



Increase efficiency and simplify storage management

IBM Storage FlashSystem 5000 solutions offer advanced management and automation capabilities featuring AI-enhanced IBM Storage Insights, which provides real-time monitoring and predictive analytics. IBM Storage Insights and IBM Storage Insights Pro also provide unified dashboards that display the status of all block storage in an easily visible format.

Delivered as a service from IBM Cloud® at no additional charge, IBM Storage Insights is quick and easy to set up and requires no ongoing software maintenance. IBM Storage Insights Pro is an upgraded solution that provides more detailed information and additional capabilities. Use either solution to gain insight into the health of your storage system, view trend information pertaining to capacity and performance, more easily manage ticket creation and resolution, and make more impactful and accurate decisions.

IBM Easy Tier AI-enhanced technology automatically migrates frequently accessed data to high-performance flash storage or multiple tiers of disk drives, enhancing storage efficiency. And data reduction pools further help improve the economics of data storage. These pools can be applied to new or existing storage, boosting capacity and maintaining consistent application performance. This can lead to reduced costs for storage acquisition, rack space, power and cooling, and can also extend the longevity of existing storage assets.

IBM Storage FlashSystem 5000 also offers additional capabilities that vary depending on the model chosen. For example, block deduplication is a compression technology that provides guaranteed, consistent 2:1 or better reduction performance as well as thin provisioning and SCSI UNMAP support, which deallocates physical storage when the operating systems delete logical storage constructs like files in a file system.



Ensure business continuity with multi-layered data resilience features

The IBM Storage FlashSystem 5000 solution provides a diverse assortment of advanced capabilities to help maximize data protection, security and availability. These benefits can significantly reduce the risk of disruption and financial losses due to user errors, malicious destruction or ransomware attacks. Here are a few features provided by IBM Storage FlashSystem 5000 that may vary depending on your model selection:

- Storage encryption helps protect sensitive data from unauthorized users.
- IBM Safeguarded Copy helps protect your data from cyberattacks with immutable, isolated, hidden, non-addressable, unalterable and easy-to-restore copies.
- In-line data corruption detection, which gathers statistics on incoming write I/Os and sends those statistics to IBM Storage Insights Pro, which uses them to spot workload anomalies that might indicate potential ransomware attacks.
- Operate in DRAID 1, 5 and 6 modes and offer full DRAID protection and efficiency with only three drives to add capacity while minimizing capital expenses.
- High-uptime performance can deliver “six nines” (99.9999%) data availability with no single point of failure, an enterprise-wide control software and non-disruptive maintenance.
- Multi-factor authentication adds multiple layers of authentication before authorization is given to any IBM system.
- Two-person integrity gives administrators the ability to determine what features require two independent users to execute critical functions like deleting, encrypting or copying data.
- Role-based access control provides an extra layer of protection, allowing a subset of authorized users access to specific data on your FlashSystem 5000 storage arrays.

IBM Storage FlashSystem Cyber Vault builds on IBM Safeguarded Copy technology to reduce recovery time from cyberattacks from days to hours. Physical isolation layers can also be created by storing sensitive copies in immutable storage, cloud environments or WORM tape devices to provide physical air-gap protection.

Conclusion

IBM Storage FlashSystem 5000 is a modern, high-speed data platform both resilient against cyberattacks and capable of providing enterprise-class data storage solutions across a vast range of workloads. It streamlines IT operations and reduces complexity through a consistent user experience—from entry-level up to and through maximum-throughput systems. And it is ideal for on-premises and hybrid-cloud environments.

Why IBM?

The IBM Storage FlashSystem family is known for providing efficient, reliable, highly functional, high-performance storage for any type of workload, customized to meet the needs of entry, midrange or high-end enterprises.

For more information

For further cyber preparedness, organizations can opt for a no-cost [Cyber Resiliency Assessment](#) with IBM. In this two-hour virtual assessment, IBM will evaluate your current level of preparedness, suggest data protection solutions and create a detailed report for improvement.

Visit ibm.com/it-infrastructure/storage/flash to learn more about the IBM FlashSystem family of solutions or contact your IBM representative or IBM Business Partner. You can also fill out our [contact form](#) to schedule a consultation with an IBM Storage expert or [click here](#) to see a brief summary of the technical specifications for this solution.

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