

data storage for everyone

September 2023 **Client Edition**

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The IBM Storage FlashSystem family meets the full range of cyber-resilient enterprise storage needs in one portfolio.

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Why choose IBM Storage FlashSystem?

Businesses are being challenged to optimise IT and drive growth without sacrificing performance, quality or security. With the IBM Storage FlashSystem family, you have everything you need to address transformation and increase cyber resilience.

Designed to deliver industry-leading performance and cost efficiency, FlashSystem all-flash and hybridflash arrays simplify hybrid cloud storage and shorten cyberattack recovery time. Each member of the family provides enterprise-grade capabilities, but they're not just for big businesses. Use this eBook to learn how IBM Storage FlashSystem helps organizations protect, manage and extend data to the cloud with less complexity and lower costs.

Watch the video \rightarrow

Fast. Smart. Sustainable. Affordable hybrid cloud-enabled storage solutions



Cyber resiliency

Ensure continuity of operations by protecting your data with flash storage backup solutions that help speed recovery from cyberattacks.



High performance

Achieve fast response times with low latency and high availability by using flash storage for mission-critical workloads.



Intelligent operations

Streamline data management and support by optimizing storage and networking with predictive analytics from AI-powered IBM Storage Insights.



Simple to operate

Streamline operations with a consistent storage software platform that provides enterprise-grade all-flash and hybrid flash capabilities across environments.



Flexible consumption

Procure capacity on demand and combine the control of on-premises storage and the agility of cloud with IBM-maintained storage as a service.



Consistent experience

Unify the view of your storage environment and enable seamless data mobility and storage management both on-premises and in the cloud.



Sustainability

Invest in energy efficient, dense data storage that makes a difference. IBM Storage FlashSystem devices leverage IBM FlashCore Modules with computational storage compression capabilities providing storage consolidation and power efficiency differentiation.

The IBM Storage FlashSystem family

IBM Storage FlashSystem, powered by IBM Storage Virtualize and with IBM Storage Insights, can optimize your storage infrastructure using predictive analytics and cloud-based management and support.

Complete peace of mind

IBM FlashWatch provides a whole suite of storage advantages and guaranteed results.



Flash endurance guarantee

Flash media is covered for all workloads while under warranty or maintenance



No-cost migration

Migrate data from over 500 storage controllers, both IBM and non-IBM, for 90 days at no cost



IBM Flash Momentum

Refresh your controller and storage every 3 years with full flexibility Watch the video \rightarrow



Cloud analytics

IBM Storage Insights included at no extra cost so you can proactively manage your environment

Find out more →

Data protection for modern environments

IBM Storage FlashSystem can help protect your data and make it more resilient, whether in your data centre, containerized or in hybrid environments.

Protect against cyber threats

with data encryption and immutable backups, which you can create on 500+ systems from multiple vendors

Improve IT effectiveness

with consistent, powerful data operations that do not compromise workforce flexibility or productivity

Immediately access data

from remote locations by replicating your data across hybrid environments

Maintain 100% data availability

even during destructive events with IBM HyperSwap

Shorten time to cyber recovery

Increase cyber resiliency with the IBM Storage FlashSystem Cyber Vault framework, which aims to shorten cyberattack recovery time from days to hours. Cyber Vault complements the IBM Storage FlashSystem Safeguarded Copy solution by regularly checking copies for evidence of data corruption caused by malware or ransomware.

Meet the solutions

Explore the IBM Storage FlashSystem family of cyber-resilient, performant and efficient enterprise storage for every kind of environment.

IBM Storage FlashSystem 5015

Budget-conscious businesses shouldn't miss out on enterprise-class features, performance or service.

Delivering faster data than the previous generation and support for hybrid cloud, IBM Storage FlashSystem 5015 is the future-proof answer to small business storage needs.

Product details →

Take a 3D tour \rightarrow



Protects storage investments

with local and remote replication and automated tiering

Dependable to the core

with six 9s availability and no single point of failure

Enables faster business decisions

with 70µs response time

Increases agility

with non-disruptive upgrades and the ability to scale up to 12PB of flash

3-year international warranty

for easy cross-border transfers

View datasheet →

Check prices →

The IBM Storage FlashSystem 5045 provides the same enhanced data resilience capabilities available on the higher-end IBM Storage FlashSystem 5200, 7300, and 9500 models.

Create simple, flexible SAS-based storage solutions for small to midsize businesses with IBM Storage FlashSystem 5045. This entry-level system can tap into advanced storage capabilities and scale up as needed.

Product details →



Safeguarded Copy

Protect your data from cyberattacks with immutable and isolated copies that are hidden, non-addressable, and cannot be altered, encrypted, or deleted. In the event of an attack, these copies can be quickly restored to support recovery

Two-Person Integrity

Gives administrators the ability to determine what features require two independent users to execute critical functions such as deletion, encryption, or copying of data

Multi-factor authentication

Adds multiple layers of authentication before authorisation is given to any IBM system

Role-based access control

An extra layer of protection that allows a subset of authorised users access to specific data on your IBM Storage FlashSystem arrays

Ultra-available and secure

with data encryption and IBM HyperSwap dual-site replication across edge, virtual and container-based environments

In-line threat detection

Additionally, the IBM Storage FlashSystem 5045 includes IBM's recently added in-line threat detection capabilities to Storage Virtualize, to identify data changes that might indicate a potential cyber-attack

View datasheet →

Check prices →

Enterprise-grade storage that's ready to grow with you.

IBM Storage FlashSystem 5200 is an NVMe storage option for entry-level enterprises that need compact, powerful storage. Part of the IBM Storage FlashSystem family, the 5200 unifies data management across the core, cloud and edge, and is designed in a revolutionary 1U form factor. The result is blazing speeds, robust density and numerous scale-up and scale-out options.

Product details →

Take a 3D tour 🗦



Deliver more with fewer drives and lower cost

Extreme scale

Scale up to 1.7PB, or scale out to 32PB with external virtualisation and 4-way clustering

Increased cyber resiliency

Detect data corruption caused by a cyberattack with IBM Safeguarded Copy, and shorten recovery time from days to hours with IBM Cyber Vault

Accelerates business decisions

with 70µs response time

Proven FlashCore technology performance

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delivering 3:1 compression and FIPS 140-2 encryption with no performance loss

Simplifies support

with IBM Storage Expert Care, which helps to reduce risk and maintenance outlays with predictable pricing

View datasheet →

Check prices →

IBM Storage FlashSystem 7300 is cost-effective storage that accelerates performance and seamlessly modernizes infrastructures.

Part of the IBM Storage FlashSystem family, the 7300 is powered by IBM FlashCore® Modules and NVMe technology. Built on IBM Storage Virtualize software, this is storage for the modern enterprise: simple, smart, secure—delivering incredible performance.



Product details →

Blazing fast data

at 3.5 million max. IOPS read hit and 45GB/s max.¹ bandwidth on a single system

Power to perform

with 4 x 10-core processors per control enclosure and up to 1,536 GB per control enclosure

Efficiency at the core

with inline hardware compression and a 2:1 data reduction guarantee to significantly increase capacity

Accelerates business execution

with end-to-end NVMe-powered IBM FlashCore technology

Microsecond latency

as low as 50µs enables faster business decisions

Leverages AI

to optimize storage management and streamline issue resolution

View datasheet →

IBM Storage FlashSystem 9500 delivers extreme speed and simplicity for the most demanding enterprise workloads. It also protects enterprise operations with IBM Cyber Vault for security and IBM HyperSwap® for business continuity.

Accelerate mission-critical applications across the modern hybrid cloud enterprise, transform data economics using data reduction with no performance impacts, and leverage the rich feature set and high availability of IBM Spectrum Virtualize.

Product details →



Increased speed and efficiency

with end-to-end NVMe-powered IBM FlashCore technology and a 2:1 data reduction guarantee

Highest performance

with 4 x 24-core processors, up to 3,072 GB cache per enclosure, and 8 million max. IOPS 4K (read hit)

High-performance hybrid cloud

with the software-defined functionality and services of IBM Spectrum Virtualize

Highest bandwidth

at 100 GB/s (256 KB read miss) on a single system

Microsecond latency

as low as 50µs enables faster business decisions

Quickens issue resolution

and optimises storage management by leveraging AI

View datasheet →

Choose the right solution

One platform makes storage simple. IBM Spectrum Virtualize provides a full range of industry-leading data services, which enables you to select the enterprise-class security, mobility and efficiency features required for each deployment.

	FlashSystem 5015	FlashSystem 5045	FlashSystem 5200	FlashSystem 7300	FlashSystem 9500
IBM Spectrum Virtualize software					
IBM Storage Insights (AI-based monitoring, predictive analytics and proactive support)	•	•		•	
VMware & Red Hat® OpenShift® container integration					
Multi-tenancy			•		
3-site replication				•	
Local & remote replication (snapshots, DR, copy/migrate to cloud)	•	•	•	•	•
AI-driven automated tiering with IBM Easy Tier	•	•			
Transparent data migration	•	•	•	•	•
Data reduction pools		•	•	•	•
Scale-out clustering					
HyperSwap high availability					
Encryption		•	•	•	
IBM Safeguarded Copy supported				•	•
CyberVault Support for Cyber Resiliency					
NVMe flash and FC-NVMe host connections			•	•	•
High-performance compression & encryption with IBM FlashCore Modules				•	
External storage virtualisation of 500+ systems			•	•	•
Storage Class Memory				•	



Safeguard your data with IBM Storage FlashSystem technology.

As cyberattacks increase in both frequency and sophistication, storage data protection is top of mind for everyone from corporate executives to IT managers. Even with protections in place, however, 100% data loss prevention is not possible.



Recover in hours, not days

Without a fast, simple disaster recovery process, disruptions can cause organisations to lose money and take time to recover from a ransomware attack or data breach.

The IBM Storage FlashSystem family is designed for comprehensive data privacy and cybersecurity preparedness.

Regardless of storage type, cloud storage, onpremises or public cloud, the system reduces recovery time from days to as little as two to three hours.



Automate attack detection and recovery

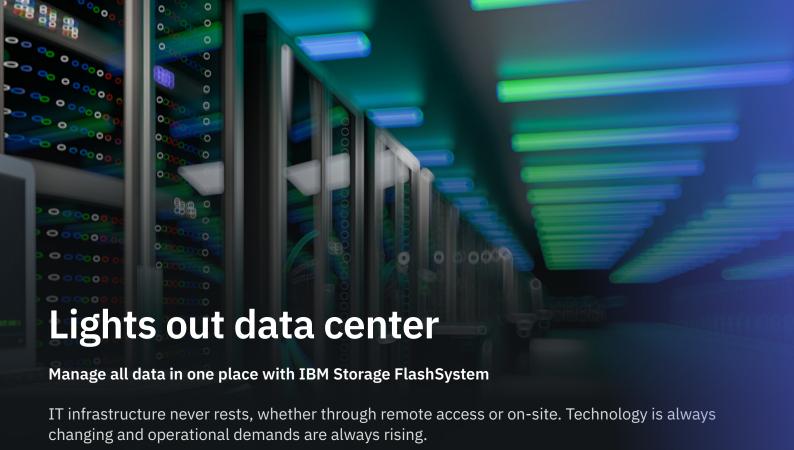
IBM SafeguardedCopy creates isolated, immutable data backup snapshots at regular intervals. At the same time, the IBM Storage FlashSystem Cyber Vault solution provides continuous data protection.

In the event of a breach, the Cyber Vault solution starts the process of recovering copies of the affected application. It tests the copies in an isolated environment until an uncorrupted copy is identified. Once identified, the clean backup data is restored to production for rapid recovery and data availability.

For further cyber preparedness, Resiliency Assessment with IBM

Schedule your Cyber Resiliency Assessment workshop







For their storage needs, many organizations and providers rely on heterogeneous environments, with on-premises and hybrid cloud solutions, typically taking advantage of colocation using multiple vendors.



Virtualize third-party storage systems

Unfortunately, each vendor has its own set of IT resources, API and rules. The result is inefficient storage management.

The IBM Storage FlashSystem family was designed with simplicity as a primary goal. Built with IBM Storage Virtualize software, IBM Storage FlashSystem solutions offer automation and consistency across all models.

IBM Storage Virtualize software provides the unique ability to virtualise third-party storage systems.



Breathe new life into legacy systems

Infrastructure management is crucial to sustainability goals.

With FlashSystem hardware, organizations can achieve digital transformation and simplify data management across all deployment types with one software stack. Lights out data centre management built on FlashSystem helps improve data mobility, modernize features and upgrade performance—all without disruption.



View and manage all data from one standard interface.

IBM Storage Virtualize software not only runs off FlashSystem hardware but also on multiple public clouds, including Amazon Web Services, Microsoft Azure and the IBM Cloud®. This creates a dynamic data centre environment that can be managed using the same standard interface for both onpremises storage and cloud storage.

Read more





Storage Sustainability

IBM Storage technologies including FlashSystem can help you reduce e-waste by upcycling your existing investments, get more out of your investments with data reduction capabilities and reduce your carbon footprint with environmentally friendly storage technologies.

Storage that makes a difference



29%

less energy than a market leading competitor¹

Learn how much you can save →



30%

more effective capacity per rack unit compared to the previous generation of FlashCore Modules²

Learn how we innovate for sustainability \rightarrow



99.6%

of IBM's product waste by weight was diverted from landfills or incineration, in 2022³

Learn how IBM can help you recycle \rightarrow



Discover the key considerations to drive your clients' storage sustainability strategy: consolidation; energy; waste.

Watch the video

3:1 Data Compression guarantee

Not all flash is created equal, and IBM FlashCore Modules deliver computational storage capacity in a class all its own. They run at the highest capacity with a guaranteed 3:1 data compression.

They deliver best-in-class storage management, performance, provisioning, and storage retrieval with latency as low as 50 microseconds. And they offer the longest lifespan.

FlashSystem Sustainability guarantee

Because of the innovative computational storage design in the IBM FlashCore Module, the FlashSystem devices are able to guarantee that they will not exceed a certain energy efficiency (W/TB) amount across all FlashCore Module drive configurations. Some configurations can guarantee as low as a 1.7 W/TB maximum.

Read more about our guarantees here →



Faster storage analytics, faster time to insight

Next-generation data analytics are more important than ever and companies that can harness the power of their data and automation will have a huge competitive advantage over those who can't.



The smartest way to store all your data

How you store and use your data sets is crucial to your business and a solid foundation that integrates high performance computing (HPC), AI, machine learning and predictive analytics is key.

The innovative design of IBM Storage FlashSystem solutions offer unparalleled scalability - increase your storage density up to 1PB of effective capacity per rack unit.

It's a high-performance all-flash storage solution designed for data centres handling today's most demanding apps and workloads, including data analytics.



Be flashy with computational storage

Flash memory helps you achieve faster response times and IBM Storage FlashSystem solutions offer storage arrays with the high availability and low latency needed to reduce downtime and improve data management.

Swiftly adapt to new workloads with real-time analytics delivered by IBM FlashCore Modules - available on all IBM Storage FlashSystem platforms.

Read more →

IBM Storage FlashSystem across industries

Succeed in different industries with IBM Storage FlashSystem, providing a high-performance, all-flash data management and storage solution to accelerate digital transformation with the required performance, secure storage, high availability, and data resilience specifications.

Financial services storage solutions with IBM Storage FlashSystem

Fast, responsive storage for critical financial applications.

IBM Storage FlashSystem is a high-performance, all-flash data management and storage solution that helps accelerate digital transformations. Purpose-built for demanding financial services workloads, it can scale to meet the needs of the most data-intensive apps. IBM FlashCore technology helps deliver ultra-fast performance with flash memory to achieve significantly lower latencies than traditional disk-based storage systems.

Learn more →





Government storage solutions with IBM Storage FlashSystem

Safe and secure data management storage options.

As government organisations shift towards digital tools, securing and managing data properly is crucial.

To achieve these goals while guaranteeing the security of sensitive citizen information, it is vital to use data effectively and transmit it quickly. IBM Storage FlashSystem products are designed to meet and surpass these specifications. Specifically, it provides the required performance, secure storage, high availability and data resilience government agencies demand.

Learn more →

Healthcare storage solutions with IBM Storage FlashSystem

Readily accessible healthcare data.

Every minute counts in healthcare. IBM Storage FlashSystem solutions provide quick and easy access to medical records and patient data.

Additionally, IBM Storage FlashSystem for healthcare systems comply with industry standards including the National Institute of Standards and Technology (NIST) and the Health Insurance Portability and Accountability Act (HIPAA). This conformity is critical for ensuring the security and confidentiality of patient information.

Learn more →



Succeed with IBM Storage FlashSystem

See how other businesses have used IBM Storage FlashSystem to achieve their data storage goals.

The IBM Storage FlashSystem family is ideal for businesses that want to:



Improve economics

Store more with less hardware with up to 5x data reduction. Align opex with consumption with a cloud-like experience.



Utilize hybrid cloud

The IBM Storage FlashSystem common software platform extends seamlessly to hybrid cloud storage deployments.



Simplify storage

Manage IBM storage and 500+ multi-vendor systems from a single pane, powered by IBM Spectrum Virtualize. IBM Storage Insights provides intelligent assistance.



Increase cyber resiliency

Detect cyberattacks early to minimize damage. Reduce recovery time from days or weeks to just hours. Enable forensic analysis of attacks.

Client case studies

Read FlashSystem success stories from a range of industries

Download the eBook \rightarrow

Höganäs Borgestad AB

Höganäs Borgestad doubled storage performance at 90% savings compared to competing offerings by deploying IBM Storage FlashSystem storage to support its new virtualized IT landscape.

Read the story \rightarrow

Micro Strategies

Using flash memory and the IBM Storage portfolio, Micro Strategies created DataVault, a managed security service that helps clients quickly identify and recover from cyberattacks.

Read the story \rightarrow

Data Action

With high-performance IBM Storage FlashSystem, Data Action hosts its IBM QRadar® SIEM solution. The deployment has had a significant impact on the ability of the security operations center (SOC) to analyze security threats.

Read the story \rightarrow

Genus Power

By implementing IBM Storage FlashSystem, Genus Power modernized its storage infrastructure and improved response time for its enterprise workloads.

Read the story \rightarrow

Enhance your investment

In today's fast-changing business world, infrastructure decisions count. IBM offers support and options* to help you make the best storage investment.

Finance

IBM Global Financing

Accelerate digital transformation with flexible finance options for storage solutions. You can win more business, expand client relationships and improve your key performance metrics when you offer a payment option. IBM can also help you improve cash flow with working capital solutions for distributors and Business Partners.

See the latest IGF offers \rightarrow

IBM Storage Utility Offering

Pay only for the storage capacity you use. IBM Storage Utility Offering aligns storage opex with business needs. Costs are calculated monthly and billed quarterly based on usage. Get all the performance and capacity you need and have greater agility to plan for growth – with no lengthy procurement process.

Learn more →

A smarter way to meet evolving data demands

IBM Storage as-a-Service enables you to combine the agility of cloud-like services and only pay for what you use.

This flexible hybrid cloud model can help you:

Deploy applications faster

with quick provisioning

Be ready for growth

with 50% additional capacity pre-installed

Increase productivity

with consistent data services on premises and in the cloud

IBM Storage as-a-Service is powered by the enterprise-class capabilities of IBM Storage FlashSystem, designed for cyber resiliency and 99.9999% uptime.

Solution details \rightarrow

Test-Drive the latest IBM Storage Systems

IBM Storage FlashSystem is designed to be faster, smarter and more affordable.

Discover IBM's new family of Storage Systems with enterprise class capabilities and **TEST-DRIVE** one of these superior arrays - **AT NO COST** to you.



This is your chance to experience the ultimate price/performance showcase and gain competitive advantage. You can access our powerful IBM Storage FlashSystem arrays in different ways:

IBM Storage FlashSystem product tour

Web-based 3D interactive KAON product tour animation displaying all recent models of the IBM Storage FlashSystem family and more (self service).

Duration: approx. 15 min

Find out more

 \rightarrow

IBM Storage FlashSystem solutions tour

Web-based 3D interactive management interface tour animation supporting you to explore the core functions, features and solutions (self service).

Duration: approx. 30 min

Find out more

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IBM Storage FlashSystem quick demo

Short demo to get the powerful capabilities of IBM Storage FlashSystem demonstrated (led by your IBM Business Partner or our IBM Digital Sellers).

Duration: approx. 15 min

IBM Storage FlashSystem on-site PoC

On-site client experience to evaluate IBM Storage FlashSystem FlashSystem 5015, 5045, 5200 or 7300 with a physical system shipped to your client at no cost to them or yourself as IBM BP – to be conducted on your premises.

Duration: two weeks

To request a quick demo or a PoC (proof of concept; remote or on-site) or if you need further assistance please contact your **IBM Business Partner**.

Connect with IBM Storage FlashSystem

Stay in touch with the latest resources, updates and conversations.

Useful tools

Smart buyer's guide to flash

Find out whether flash storage is right for you

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2023 Gartner Magic Quadrant report

Learn why IBM has been recognized for the 16th year in a row as a Leader in the Gartner Magic Quadrant for Primary Storage report

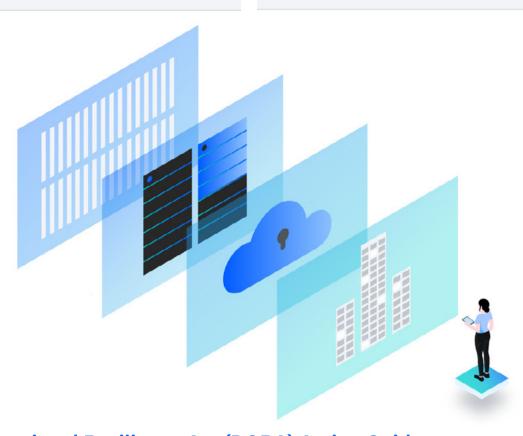
IBM Storage FlashSystem product tour

Get an in-depth, interactive demonstration

ESG analyst white paper

Understand storage's role in ensuring cyber resiliency

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Digital Operational Resilience Act (DORA) Action Guide

DORA is a European Union regulation that creates a binding, comprehensive, information and communication technology risk management framework for the EU financial sector.

IBM Storage solutions enable you to develop and manage cyber resilience in a hybrid cloud environment and support compliance with key requirements from regulations like DORA.

Read the DORA Action Guide \rightarrow

Storage solutions

IBM Storage for Data and AI

Unlock the value of data throughout your information supply chain to improve business outcomes. Learn more →

IBM Storage for Data Resiliency

Safeguard data from breaches and threats while reducing costs and downtime with resilient storage

Learn more →

IBM Storage for Hybrid Cloud

Modernize applications and innovate faster with data orchestration services for Red Hat® OpenShift®. Learn more →

IBM Storage Defender

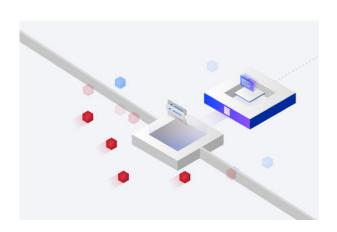
Simplify data resilience for enterprise data storage.

Learn more →

IBM Storage Defender Solution Brief

Learn how IBM Storage Defender can help you address your data resiliency challenges by addressing threats, accelerating recovery, and working with your existing SecOps tools and processes.

Read the solution brief \rightarrow



Join the conversation



Discuss storage challenges

Join the IBM Storage group on LinkedIn



Follow us on social media

IBM Storage on Twitter IBM Storage on LinkedIn



See the latest

Watch the IBM YouTube channel



IBM Storage Blog

Read the latest storage insights from the IBM community

Ready to learn more?

Discuss how FlashSystem can meet your business needs. Contact your IBM Business Partner now.



- 1. Based on comparable configurations between IBM FlashSystem and a 2022 Gartner Magic Quadrant report participant: https://www.ibm.com/blogs/systems/gartner-magic-quadrant-2021-primary-storage/. Each comparison was at the same temperature, memory, and core frequencies with comparable raw capacities and system performances. For each configuration, the power of the devices were estimated with engineering calculations from the typical power withdraw of the CPUs, drives and components on each of the devices. Based on information from: https://www.manua.ls/dell/powermax-2000/manual (link resides outside of ibm.com); https://www.inxero.com/channels/storcom-net/showcase/4284-it-infrastructure-trends-and-insights?resource_mapping_id=50240 (link resides outside of ibm.com); https://www.sanstorageworks.com/PowerMax-8000.asp (link resides outside of ibm.com).
- 2. Based on listed effective capacity of FlashCore Module Generation 3 38.4TB drives vs. the listed effective capacity of the FlashCore Module Generation 2 38.4TB drives.
- $3. \ Results \ based \ on: \ https://www.ibm.com/impact/files/reports-policies/2022/IBM_2022_ESG_Report.pdf$
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