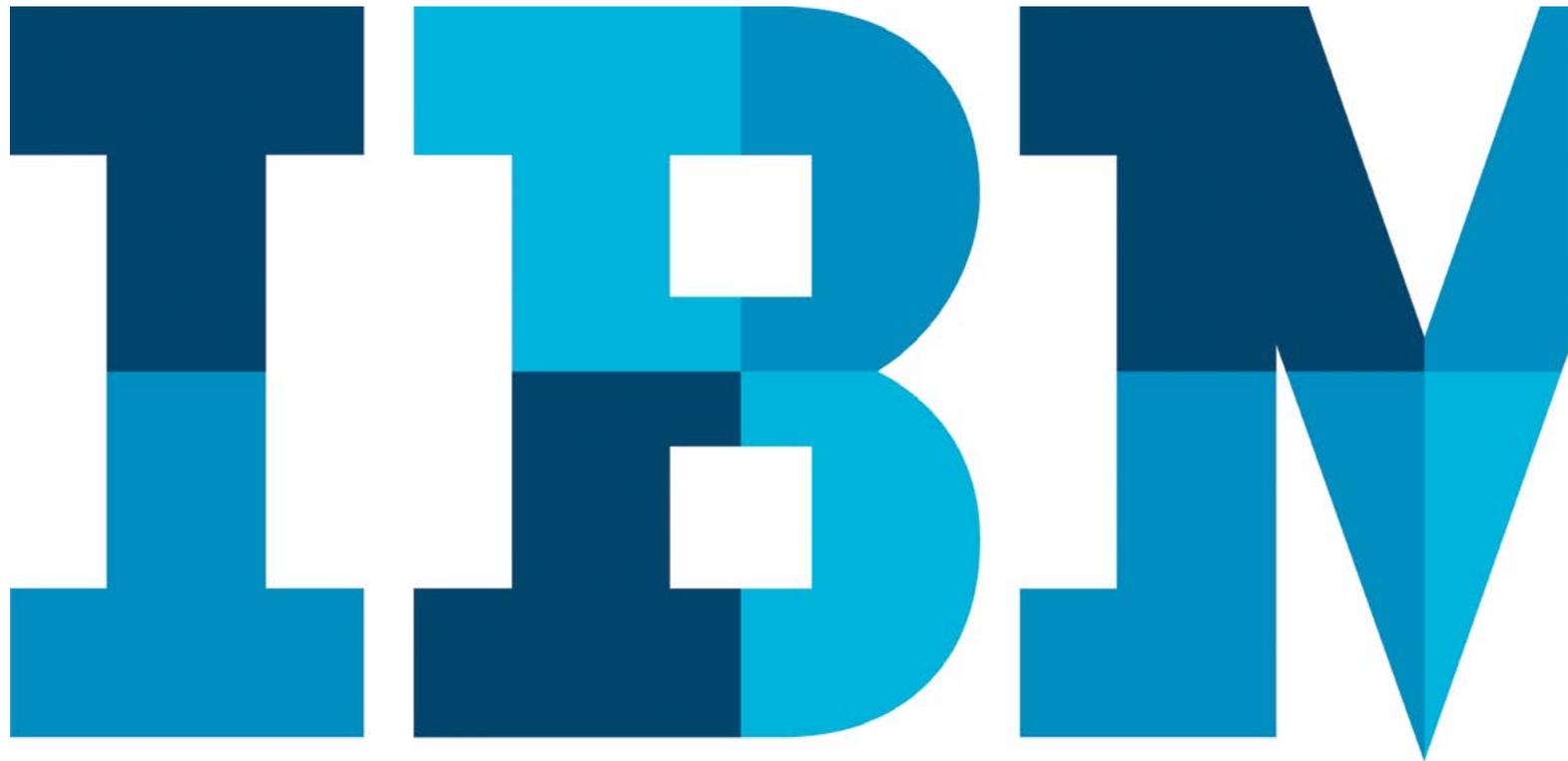


IBM Storage and Software-Defined Infrastructure

Interactive product guide



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Introduction

Throughout the world, organizations in different industries are leveraging IBM software-defined infrastructure solutions for big data, analytics, artificial intelligence/deep learning (AI/DL), high-performance computing (HPC) and cloud to improve business results in a highly competitive market.

IBM software-defined infrastructure solutions enable organizations to deliver IT services in the most efficient way possible, leveraging resource utilization to accelerate time to results and reduce costs. These solutions form the foundation for a fully integrated software-defined environment, optimizing compute, storage and networking infrastructure so organizations can quickly adapt to changing business requirements.

A comprehensive portfolio of management tools dynamically manages workloads and data, transforming a static IT environment into a shared resource pool that is workload-, infrastructure- and data-aware.

IBM® Spectrum® Computing provides a portfolio of sophisticated management tools for a software-defined computing environment. Using these tools, organizations can maximize their resources to speed time to results and decrease infrastructure costs across their compute and storage environment, whether on-premises or in the cloud.

IBM Spectrum Storage™ is the first software-defined storage family designed to simplify and speed storage management, scale with data anywhere, and optimize economics with multi-brand virtualization, intelligent tiering and open application programming interface (API) support. The portfolio helps transform your business with hybrid cloud storage and data protection for analytics. The portfolio includes IBM Spectrum Scale, which offers fast, simplified management of unstructured data, providing easy accessibility and nondisruptive scaling for massive volumes of file and object data.

Using IBM software-defined infrastructure solutions, organizations achieve their goals and get more out of their compute and storage resources. Whether it's human genome research for cancer treatments and personalized medicine, aerodynamics testing for race cars or analyzing stock portfolios for risk assessment, software-defined infrastructure leads to improved business agility while accelerating time to results and reducing costs.



IBM Spectrum Storage family

Simplifying storage to speed data-driven innovation for the cloud era

Family features

- Simplify and integrate storage management and data protection across traditional and new applications
- Deliver elastic scalability with high performance for analytics, big data, social and mobile
- Unify silos to deliver data without borders with built-in hybrid cloud support
- Optimize data economics with intelligent data tiering from flash to tape and cloud
- Build on open architectures supporting industry standards including OpenStack and Hadoop

IBM Spectrum Protect

IBM Spectrum Protect enables reliable, efficient data protection and resiliency for software-defined, virtual, physical and cloud environments. Learn more [on the web](#) or download the [data sheet](#).

IBM Spectrum Protect Plus is a data protection, availability and re-use solution for databases and virtual environments that can be deployed in minutes and protect your environment within an hour. It simplifies data protection, whether data is hosted in physical, virtual, software-defined or cloud environments. It can be implemented as a stand-alone solution or integrate with your IBM Spectrum Protect environment to offload copies for long-term storage and data governance with scale and efficiency. Learn more [on the web](#) or download the [data sheet](#).

IBM Spectrum Control

IBM Spectrum Control provides monitoring, automation and analytics across flash, file, object, block and software-defined storage, simplifying storage management and optimizing storage use to help reduce costs, including through data-driven capacity planning, performance tracking and reporting.

IBM Storage Insights

Available at no charge, cloud-based IBM Storage Insights provides a single dashboard that gives you a clear view of all your IBM block storage. You'll be able to make better decisions by seeing trends in performance and capacity. Storage health information enables you to focus on areas needing attention and when IBM support is needed, Storage Insights simplifies uploading logs, speeds resolution with online configuration data, and provides an overview of open tickets all in one place. IBM Storage Insights Pro is an upgrade that provides more detailed information and additional capabilities.

IBM Spectrum Copy Data Management

IBM Spectrum Copy Data Management orchestrates and automates in-place copy management for cloud-based and on-premises data, using a simple, template-based point-and-click interface or API calls. Learn more [on the web](#) or download the [data sheet](#).



IBM Spectrum Storage family

Simplifying storage to speed data-driven innovation for the cloud era

IBM Spectrum Virtualize

IBM Spectrum Virtualize helps make IBM and non-IBM storage more efficient, agile and cloud-ready with functions like compression, deduplication, automated tiering, encryption, and support for containers and hybrid cloud capabilities. IBM Spectrum Virtualize is at the heart of [IBM SAN Volume Controller](#), the [IBM Storwize® family](#), [IBM FlashSystem® 9100](#), [IBM FlashSystem V9000](#) and [VersaStack™](#), and is available separately as [IBM Spectrum Virtualize software](#) and [IBM Spectrum Virtualize for Public Cloud](#).

IBM Spectrum Scale

IBM Spectrum Scale makes data management at scale easier, efficient and intelligent. Global shared access to data with unified file (NFS/SMB), object (S3/Swift) and Hadoop (HDFS) support enables unprecedented savings and agility for big data analytics, AI and traditional workloads, whether on-premises or in multicloud environments. Learn more [on the web](#) or download the [data sheet](#).

IBM Spectrum Accelerate

IBM Spectrum Accelerate, the software also used for IBM FlashSystem A9000 and IBM FlashSystem A9000R, is enterprise-class software-defined storage based on proven IBM XIV® technology. It deploys rapidly on- or off-premises, including as a service; adds extreme flexibility to cloud deployments; and offers superb savings, including through simplicity and license transferability. Learn more [on the web](#) or download the [data sheet](#).

IBM Spectrum Archive

IBM Spectrum Archive enables you to automatically move infrequently accessed data from disk to tape so you can lower costs while retaining ease of use and without the need for proprietary tape applications. Learn more [on the web](#) or download the [data sheet](#).

IBM Spectrum Connect

Today's organizations demand easy and fast integration of storage in multiple cloud environments. [IBM Spectrum Connect](#) empowers storage teams and other stakeholders by enabling provisioning, monitoring, automating and orchestrating of IBM block storage in containerized, VMware and Microsoft PowerShell environments. It offers the same UI for many solutions and environments, for a consistent experience. It helps organizations simplify cloud complexity—and is available at no charge to every IBM block storage customer.

IBM Spectrum NAS

IBM Spectrum NAS software-defined storage offers agility and management simplicity for network-attached storage (NAS) workloads. It helps reduce capital expenditure by working with industry-standard x86 servers to form high-performance scale-out storage clusters. The system is self-balancing with a symmetric architecture that reduces the incidence of bottlenecks or hotspots. This architecture, along with data redundancy and protection, enhances reliability by avoiding any single point of failure. [IBM Spectrum NAS](#) can be quickly and easily installed and can be upgraded over the network transparently without any service interruption.

IBM Spectrum Discover

IBM Spectrum Discover is modern metadata management software that provides data insight for petabyte-scale unstructured storage. IBM Spectrum Discover easily connects to IBM Cloud Object Storage and IBM Spectrum Scale to rapidly ingest, consolidate and index metadata for billions of files and objects. This provides a rich metadata layer that enables storage administrators, data stewards and data scientists to efficiently manage, classify and gain insights from massive amounts of unstructured data, which enhances storage economics, improves data governance, and accelerates large-scale analytics to create competitive advantage and speed critical research. Learn more [on the web](#) or download the [data sheet](#).



IBM Cloud Object Storage

Implement data storage that is scalable, flexible and simple—using the same platform across your enterprise—on-premises, in the cloud or both

Family features

- **Flexibility:** Choose deployment options that meet your needs—dedicated and private cloud or public and shared cloud, implemented within a region or across multiple regions
- **Scalability:** Achieve massive scalability for any volume of data, and any business need with IBM Cloud data centers worldwide
- **Simplicity:** Enhance efficiency and reduce costs by using an intuitive, single pane of glass for storage management

Today, data is your business, and it's growing exponentially at an accelerated pace. How you store, secure and access your data is important. You need a solution that scales, with a high-efficiency cost model. IBM Cloud Object Storage can be deployed on-premises or in a hosted IBM Cloud (IBM SoftLayer®) environment, providing you with an ideal object-based storage platform for hybrid cloud. IBM Cloud Object Storage is also an integral part of the IBM storage family, delivering a broad range of storage options to satisfy the most demanding requirements—all from a single, trusted vendor.

Enhance flexibility

Workloads, applications and data are defined by diversity—diversity in performance, compliance, proximity to compute resources, capital expenditure versus operating expenses, and more. That is why a one-size-fits-all approach is suboptimal. With IBM Cloud Object Storage, choose from private on-premises, dedicated, public—or any combination of the three—to match your unique requirements.

Private on-premises

Deploy IBM Cloud Object Storage in your private on-premises cloud for maximum control, reliability and performance. IBM Cloud Object Storage software runs on industry-standard hardware for flexibility. It also helps simplify management while enabling you to use your established processes. Explore on-premises object storage [on the web](#).

Dedicated

Do you need isolation in the cloud? Select a single-tenant system that uses dedicated bare metal servers in the IBM Cloud to optimize control, reliability and performance. Customize by selecting the IBM data centers that meet your needs. Manage the system on your own, or let IBM experts do it for you. Explore dedicated object storage [on the web](#).

Public

Choose a public cloud deployment to prepare for unpredictable data growth. The IBM Cloud offers multiple classes of object storage in a shared multi-tenant infrastructure. Pay for only what you use. Explore public object storage [on the web](#).

Hybrid

Expand the object storage system in your data center through integration with the worldwide network of IBM Cloud data centers. Customize the cloud environment to meet your precise requirements. Pay by the month—no fixed or capital expenditure costs are required at any point. Explore hybrid object storage [on the web](#).



IBM Spectrum LSF

Powerful workload management for demanding high-performance computing environments

Family features

- Manage complexity, optimize resource utilization and reduce costs
- Increase throughput for faster time to results with better, faster and smarter computing
- Reduce operational and infrastructure costs, and improve user and administrator productivity
- Utilize a comprehensive set of add-on capabilities designed to grow with your organization

IBM Spectrum LSF

A powerful workload management platform for demanding HPC environments. It provides a comprehensive set of intelligent, policy-driven scheduling features that enable you to utilize all of your compute infrastructure resources and ensure optimal application performance. Learn more [on the web](#) or download the [data sheet](#).

IBM Spectrum LSF Analytics

An advanced analysis and visualization tool for analyzing massive amounts of IBM Spectrum LSF workload data. It enables you to correlate job, resource and license data from multiple clusters for data-driven decision making. Learn more [on the web](#) or download the [data sheet](#).

IBM Spectrum LSF Application Center

Provides an easy-to-use, intuitive and self-documenting standardized interface for IBM Spectrum LSF users and administrators. Learn more [on the web](#) or download the [data sheet](#).

IBM Spectrum LSF Data Manager

A data management framework and intelligent cache for scheduling and moving data out-of-band within clusters, between clusters and to-and-from the cloud. Learn more [on the web](#) or download the [data sheet](#).

IBM Spectrum LSF Explorer

A powerful, lightweight reporting solution for IBM Spectrum LSF clusters. Learn more [on the web](#) or download the [data sheet](#)

IBM Spectrum LSF License Scheduler

A license management tool that enables license sharing between global project teams. It ensures that license availability is prioritized by workload, user and project, and that licenses are optimally used. Learn more [on the web](#) or download the [data sheet](#).

IBM Spectrum LSF Process Manager

Simplifies the design and automation of complex computational processes, capturing and protecting repeatable best practices. Learn more [on the web](#) or download the [data sheet](#).

IBM Spectrum LSF RTM

An operational dashboard for IBM Spectrum LSF environments that provides comprehensive and integrated workload monitoring, reporting and management. Learn more [on the web](#) or download the [data sheet](#).

IBM Spectrum LSF Session Scheduler

A high-throughput, low-latency scheduling solution for IBM Spectrum LSF environments. Learn more [on the web](#) or download the [data sheet](#).

IBM Spectrum LSF Suites

IBM Spectrum LSF Suite for Workgroups and IBM Spectrum LSF Suite for HPC are complete HPC management solutions featuring:

- Cluster deployment, management and monitoring
- Powerful yet simple workload management
- Web-enabled job management
- Support for Linux on ARMv8, IBM POWER8® (Little Endian) and x86

Learn more [on the web](#) or download the [data sheet](#).



IBM Spectrum Computing High Performance Analytics, AI and Deep Learning

High-throughput, low-latency workload and resource management for compute- and data-intensive applications, as well as accelerating deep-learning workloads

Family features

- Improve time to results through efficient resource scheduling and shared infrastructure
- Provide the agility to respond instantly to real-time demands
- Help reduce infrastructure and management costs
- Lower application development and maintenance costs
- Cut cost and increase resource utilization with granular, dynamic allocation
- Eliminate resource silos tied to multiple instances and different application and framework versions (including deep-learning frameworks, Spark, Hadoop and others)
- Enhanced security with role-based access controls

IBM Spectrum Conductor with Spark

IBM Spectrum Conductor with Spark helps organizations deploy and manage Apache Spark, application frameworks and other long-running services efficiently with an integrated solution backed by IBM services and support. This multitenant solution supports multiple instances and versions of Spark on shared resources, eliminating silos that would be tied to individual Spark implementations, speeding time to results and providing easier Spark lifecycle management. Faster time to results is also supported by proven, high-efficiency resource scheduling technology that is incorporated in the offering. The shared infrastructure maximizes efficient use of resources, reducing the demand for capital and operational expenditures. IBM Spectrum Conductor with Spark includes a Spark distribution for easy deployment. Learn more [on the web](#) or download the [data sheet](#).

IBM Spectrum Conductor Deep Learning Impact

IBM Spectrum Conductor Deep Learning Impact is an add-on module to IBM Spectrum Conductor and is designed to quickly put deep learning to work with an easy-to-install, end-to-end, enterprise solution. This is accomplished by addressing the deep-learning lifecycle with a focus on the steps that are the most time-consuming or that require highly specialized knowledge—whether the iterative and time-consuming nature of the workflow, the lack of skills to train and tune models, the need to implement open-source frameworks, the high demands for computing capacity or the challenges of scale. Learn more [on the web](#) or download the [data sheet](#).

IBM Spectrum Symphony

IBM Spectrum Symphony is a low-latency service-oriented architecture (SOA) grid middleware and management solution that runs on your choice of hardware and operating environments. You can run pre-integrated applications available from a variety of independent software vendors (ISVs), or you can easily adapt and accelerate your own compute- and data-intensive parallel workloads on a grid, helping to make them fast and flexible. Learn more [on the web](#) or download the [data sheet](#).

Specialized add-on software for IBM Spectrum Symphony harvests idle cycles adding them to the grid:

- [IBM Spectrum Symphony Desktop Harvesting](#) harnesses idle cycles from desktops.
- [IBM Spectrum Symphony Server and VM Harvesting](#) harnesses idle cycles from a variety of server and virtual machine (VM) environments. Download the [data sheet](#).
- [IBM Spectrum Symphony GPU Harvesting](#) harnesses idle cycles from general-purpose GPUs. Download the [data sheet](#).
- [IBM Spectrum Symphony Co-Processor Harvesting](#) harnesses idle cycles from Intel Xeon Phi CPUs. Download the [data sheet](#).



IBM Spectrum Cluster Foundation

Comprehensive set of cluster provisioning, monitoring and reporting capabilities to automate the deployment and management of clusters

Family features

- Deliver faster time to cluster readiness
- Provide a unified administrative interface
- Utilize integrated and extensible monitoring, reporting and alerting capabilities
- Reduce infrastructure and management costs
- Improve administrator productivity
- Support mixed computing environments
- Support multiple business needs with a single infrastructure



IBM Spectrum Cluster Foundation

IBM Spectrum Cluster Foundation optimizes compute-intensive environments with self-provisioning and management capabilities, enabling users to request a custom cluster, specifying size and type. The Advanced Edition also provides the ability to rapidly deploy clusters and grids on a shared pool of cloud resources, including a mix of technologies such as IBM Spectrum LSF, IBM Spectrum Symphony, Hadoop and most other third-party workload managers. Learn more [on the web](#) or download the [data sheet](#).

IBM Spectrum Cluster Foundation - Community Edition

IBM Spectrum Cluster Foundation - Community Edition is a no-charge lifecycle management solution for scale-out environments. This edition features cluster provisioning, management, monitoring and reporting capabilities for Linux on POWER8 (Little Endian) and x86-64 systems and is limited to a single cluster instance. Download [here](#).

IBM High Performance Services

Ready-to-run hybrid and stand-alone clusters in the IBM Cloud, optimized for technical computing, analytics and high-performance storage

Family features

- Reduce time to results and accelerate time to market with ready-to-use IBM Spectrum LSF and IBM Spectrum Symphony clusters in the IBM Cloud (IBM SoftLayer)
- Achieve seamless data transfer between on-premises and cloud infrastructure with IBM Spectrum Scale
- Optimize application performance and increase security with non-shared physical machines
- Simplify management and the user experience using integrated workload management
- Accelerate deployment of technical computing or analytics workloads in the cloud with comprehensive cloud services
- Reduce administrative overhead with full support from IBM technical computing experts

IBM High Performance Services for HPC

IBM High Performance Services for HPC provides IBM Spectrum LSF clusters in the IBM Cloud as a managed or fully outsourced service. These ready-to-run HPC clusters in the cloud can be integrated with an on-premises IBM Spectrum LSF cluster as a hybrid cloud complete with cloud bursting and data-aware scheduling. Learn more [on the web](#) or download the [data sheet](#).

IBM High Performance Services for Data

IBM High Performance Services for Data provides the IBM Spectrum Scale cluster in the IBM Cloud. This data and file storage management solution adds high-performance storage capacity and sharing data across the cloud. Learn more [on the web](#) or download the [data sheet](#).

IBM High Performance Services for Analytics

IBM High Performance Services for Analytics provides IBM Spectrum Symphony clusters in the IBM Cloud as a managed or fully outsourced service. These ready-to-run clusters are complete and integrated services optimized for the most demanding Hadoop and analytics public and hybrid cloud environments. Learn more [on the web](#) or download the [data sheet](#).



Big Data Storage

Combine massive scalability and in-place analytics to meet the growing big-data storage needs of today's digital enterprises

Family features

- Share data across applications with unified storage for file and object data
- Run Hadoop and other big-data applications directly on enterprise storage
- Scale capacity and/or performance in modular building blocks with automatic load balancing



IBM Elastic Storage Server – GLxS Models

IBM Elastic Storage® Server is a modern implementation of software-defined storage, combining IBM Spectrum Scale software with POWER8 processor-based input/output (I/O)-intensive servers and storage enclosures. IBM Spectrum Scale, formerly known as IBM General Parallel File System (IBM GPFS), is a parallel file system that is at the heart of IBM Elastic Storage Server. IBM Spectrum Scale scales system throughput with each new server while still providing a single name space to the clients. This scale-out capability combined with in-place analytics eliminates data silos and simplifies storage management. The GLxS models are capacity-optimized solutions that leverage nearline-SAS hard disk drives (HDDs) for high-density storage. They support up to 6 JBODs with 84 drives per JBOD. Learn more [on the web](#) or download the [data sheet](#).

IBM All-Flash Elastic Storage Server – GSxS Models

The All-Flash Elastic Storage Server GSxS models are performance-optimized solutions that leverage all solid-state drives (SSDs) for transaction-oriented applications that are latency sensitive. Learn more [on the web](#) or download the [data sheet](#).

IBM Hybrid Elastic Storage Server – GHx4 Models

IBM Hybrid Elastic Storage Server models provide both flash and HDD storage tiers in one IBM Elastic Storage Server building block, combining all-flash performance with GL4S capacity. Use cases include having a single system for both metadata services and high-density storage, and handling multiple kinds of workloads such as video and analytics in the same environment. Learn more [on the web](#) or download the [data sheet](#).

IBM Ultra-Dense Elastic Storage Server – GLxC Models

IBM Ultra-Dense Elastic Storage Server uses advanced Seagate helium drives to achieve the highest available storage density—a 24 percent improvement over previous models. These models also provide the fastest drive access in the IBM Elastic Storage Server family. IBM Ultra-Dense Elastic Storage Servers leverage the modular design used for the CORAL project Summit and Sierra supercomputers, and allow for 70 GB/sec speeds and 4.6 PB of usable storage capacity (model GL6C). Learn more [on the web](#) or download the [data sheet](#).

IBM Flash Storage family

Storage Virtualization

Innovative all-flash solutions built with IBM Spectrum Virtualize software

Family features

- Accelerate business execution and modernize your infrastructure with NVMe-oF
- Maximize value with a wide range of data services that can be extended across external storage systems
- Lower storage costs with data reduction pools that include both deduplication and compression
- Optimize tiered storage— with IBM Easy Tier®
- Leverage AI to optimize storage configurations and streamline issue resolution
- Scale capacity quickly and easily into the petabyte range with high-density enclosures
- Address security needs by encrypting data on existing storage
- Enable near-continuous availability of applications through dynamic migration
- Reduce management effort with an advanced graphical user interface and a wide range of affordable, easy-to-deploy storage systems



IBM Storwize V7000F

This all-flash enterprise-class solution is designed to deliver high performance with advanced storage capabilities. Learn more [on the web](#) or download the [data sheet](#).



IBM Storwize V5030F

This all-flash enterprise-class solution is designed to deliver high performance for smaller configurations. Learn more [on the web](#) or download the [data sheet](#).



IBM FlashSystem 9100

IBM FlashSystem 9100 combines the performance of flash and NVMe with the reliability and innovation of IBM FlashCore® technology and the rich features of IBM Spectrum Virtualize—all in a powerful 2U storage system. Providing intensive data-driven multicloud storage capacity, IBM FlashSystem 9100 is deeply integrated with the software-defined capabilities of IBM Spectrum Storage, allowing you to easily add in the multicloud solutions that best support your business. Learn more [on the web](#) or download the [data sheet](#).



IBM FlashSystem V9000

IBM FlashSystem V9000 offers the advantages of IBM Spectrum Virtualize at the speed of flash. These all-flash storage systems deliver the full capabilities of IBM FlashCore technology coupled with a rich set of the features found in the most advanced software-defined storage solutions, including compression, deduplication, dynamic tiering, thin provisioning, snapshots, cloning, replication, data copy services and high-availability configurations. Learn more [on the web](#) or download the [data sheet](#).

Hybrid Cloud Storage

All-flash storage arrays offering scalable performance, agile integration and enduring economics

Family features

- Accelerate critical applications with the scalable performance of IBM FlashCore technology
- Deploy all-flash storage for less than the cost of hard disk drives with comprehensive data reduction
- Accelerate time to value with agile, easy-to-implement, fully-integrated systems
- Leverage macro-efficiency and grid architectures for higher storage density, lower power consumption and greater resource utilization



IBM FlashSystem A9000

IBM FlashSystem A9000 integrates the microsecond performance of IBM FlashCore technology with a highly parallel architecture in one powerful solution that is purpose-built for the cloud. This all-flash storage solution is built with IBM Spectrum Accelerate to provide rich, integrated storage services, including comprehensive data reduction (pattern removal, deduplication and compression), space-efficient snapshots, thin provisioning, quality of service and more. Learn more [on the web](#) or download the [data sheet](#).



IBM FlashSystem A9000R

IBM FlashSystem A9000R is a grid-scale, rack-based solution that is an excellent platform for rapidly growing cloud storage and large, mixed-workload environments. IBM FlashCore technology combines with comprehensive storage services (built with IBM Spectrum Accelerate) in a grid architecture to power consistent and predictable IBM MicroLatency® response times with full data reduction enabled. Learn more [on the web](#) or download the [data sheet](#).

Business-Critical Storage

All-flash data systems efficiently designed to support a wide range of business-critical needs with superior performance and uncompromising availability

Family features

- Accelerate insights to drive real-time decision making with all-flash performance on business analytics, cognitive computing and I/O-intensive workloads
- Improve business efficiency by consolidating all your mission-critical workloads for IBM Z®, IBM Power® Systems and distributed systems under a single all-flash storage solution with more than 99.9999 (“six nines”) availability
- Enable your organization for the cognitive era with advanced functionality and mission-critical capabilities through all-flash data systems efficiently designed to meet a wide range of business needs, from midrange to large enterprises



Enterprise IBM DS8880F

IBM DS8880F is a family of enterprise all-flash data systems designed to manage a broad spectrum of business-critical workloads offering superior performance, better than “six-nines” availability, industry-leading disaster-recovery capabilities and server-less direct data transfer to hybrid cloud environments. Learn more on the [web](#) or download the [data sheet](#).

Application Acceleration

Gain faster insights with extreme performance, enterprise reliability and operational efficiency

Family features

- Accelerate critical applications with the scalable performance of IBM FlashCore technology
- Harness the power of ultra-low response times with MicroLatency
- Protect critical assets and ensure enterprise reliability with IBM Variable Stripe RAID



IBM FlashSystem 900

Easy to deploy and manage, IBM FlashSystem 900 is designed with IBM-enhanced 3D TLC and inline hardware data compression to accelerate the applications that drive your business. Powered by IBM FlashCore technology, IBM FlashSystem 900 delivers the extreme performance, MicroLatency, enterprise reliability and operational efficiencies required for gaining competitive advantage in today’s dynamic marketplace. Learn more [on the web](#) or download the [data sheet](#).

Converged Infrastructure

VersaStack solutions can lower costs, simplify IT and enable “converged cloud”

Family features

- Simplify IT with fully integrated compute, storage and networking
- Build powerful converged infrastructure solutions using IBM software-defined storage and Cisco Unified Computing System (UCS) and Enterprise Cloud Suite (ECS) components
- Leverage IBM Spectrum Virtualize and Cisco CloudCenter for high-performance hybrid cloud
- Deploy one platform for hybrid cloud, cognitive and virtualized workloads
- Lower total cost of ownership and accelerate infrastructure return on investment



VersaStack solution

Jointly developed by IBM and Cisco, VersaStack is a converged infrastructure solution of network, compute and storage for quick deployment and rapid time to value. The solution includes Cisco UCS and ECS integrated infrastructure together with IBM storage solutions built with IBM Spectrum Storage to deliver extraordinary levels of agility and efficiency. VersaStack is backed by Cisco Validated Designs and IBM Redbooks® application guides for faster delivery of infrastructure and workload/application deployment. Learn more [on the web](#) or download the [data sheet](#).

VersaStack for Hybrid Cloud

Combining Cisco CloudCenter and IBM Spectrum Protect Copy Data Management technologies in VersaStack implementations creates VersaStack for Hybrid Cloud. These solutions provide a hybrid cloud management layer enabling orchestration, deployment, management, and migration of applications across data center, public cloud and private cloud environments. VersaStack for Hybrid Cloud delivers an agile and easy-to-consume hybrid cloud where enterprises can improve business agility, optimize applications and data with cloud resources, and enable end-to-end data management. Learn more [on the web](#) or download the [data sheet](#).

Hybrid Storage Systems

Delivering efficient, agile storage for a demanding world

Family features

- Simplify storage administration with automated tasks, an intuitive user experience and centralized management of the broad scope of today's workloads
- Boost storage efficiency and performance— from entry- to enterprise-level— using features such as automated tiering, virtualization, remote replication and thin provisioning
- Add flexibility with flash drive support from most systems
- Achieve agility in cloud environments with consistent, high service levels for dynamic, heterogeneous workloads; and products designed for virtualized environments
- Satisfy bandwidth-hungry applications with extreme scale-out performance for both random access and streaming workloads, to accommodate capacity growth
- Support disk-based backup and recovery using point-in-time copy and remote replication software



Enterprise IBM DS8880

IBM DS8880 is a family of hybrid-flash data systems that delivers mission-critical acceleration, uncompromising availability, unparalleled integration with IBM Z and IBM Power Systems, and transformational efficiency through industry-leading capabilities and the highest levels of security. Learn more [on the web](#) or download the [data sheet](#).



Midrange IBM Storwize V7000

This virtualized hybrid storage solution can simplify storage by consolidating workloads into a single storage system. Learn more [on the web](#) or download the [data sheet](#).



Enterprise IBM SAN Volume Controller

SAN Volume Controller (SVC) is designed to deliver the benefits of storage virtualization to large enterprises, small businesses and midmarket companies. Learn more [on the web](#) or download the [data sheet](#).



Midrange and entry IBM Storwize V5000

This highly flexible, easy-to-use, virtualized hybrid storage solution provides advanced functionality that enables organizations with midsized workloads to overcome their storage challenges. Learn more [on the web](#) or download the [data sheet](#).



Enterprise IBM XIV Storage System

XIV Storage System is a high-end, grid-architecture storage system designed to support the diverse and dynamic workloads of open systems with simplicity, resiliency and predictability, making it ideal for cloud and big-data analytics environments. An edition for cloud providers also delivers outstanding flexibility and cloud economics. Learn more [on the web](#) or download the [data sheet](#).

IBM Tape Storage

Tape storage for reliable data protection and long-term retention

Family features

- Provide high-capacity storage backup and long-term data retention with low total cost of ownership
- Store removable cartridges to protect them from viruses, sabotage and corruption; and support scalability by simply adding more tape cartridges, versus drives
- Add data protection by moving portable media off-site; and shorten backup windows and enable rapid data restores with virtual tape
- Address security compliance requirements using encryption and Write Once Read Many (WORM) technologies

Enterprise: IBM enterprise-class tape storage products are designed to offer the high performance, availability, reliability and capacity needed for mass storage, data archiving, backup and disaster recovery.



[IBM TS1160 Tape Drive](#)
[IBM TS1155 Tape Drive](#)
[IBM TS1150 Tape Drive](#)
[IBM TS1140 Tape Drive](#)

[IBM TS4500 Tape Library¹](#)
[IBM TS7760](#)

Midrange: IBM midrange tape storage products provide reliable and flexible data backup, archiving and management—for today and into the future.



[IBM TS4500 Tape Library¹](#)

[IBM TS4300 Tape Library](#)

Entry: IBM entry-level tape products provide reliable, affordable data backup and protection.



[IBM TS2280 Tape Drive](#)
[IBM TS2270 Tape Drive](#)
[IBM TS2260 Tape Drive](#)
[IBM TS2360 Tape Drive](#)

[IBM TS2900 Tape Autoloader](#)
[IBM TS4300 Tape Library](#)

Storage Area Networks (SANs)

Flexible, scalable, open standards-based business- and enterprise-class solutions

Family features

- Choose from a comprehensive portfolio of SAN switches, storage, software and solutions
- Capitalize on enterprise-wide data sharing and collaboration with Fibre Channel connectivity
- Connect servers and storage systems in local, campus, metro and global infrastructures using intelligent SAN switches, directors and routers
- Help drive innovation and create a dynamic, scalable infrastructure, and access information cost-effectively

Enterprise SAN directors

Enterprise SAN directors provide metro and global connectivity in addition to high availability, scalability and performance between sites over different networking protocols.



[IBM Storage Networking SAN512B-6 and SAN256B-6](#)
[IBM System Storage SAN768B-2 and SAN384B-2](#)
[Cisco MDS 9718 Multilayer Director for IBM Storage Networking](#)

[Cisco MDS 9710 Multilayer Director for IBM System Networking](#)
[Cisco MDS 9706 Multilayer Director for IBM System Storage](#)

Midrange SAN switches

Midrange SAN switches can scale to provide solutions for small and midsized businesses up to large enterprises.



[IBM Storage Networking SAN128B-6](#)
[IBM Storage Networking SAN64B-6](#)
[IBM System Networking SAN96B-5](#)

[Cisco MDS 9396S 16G Multilayer Fabric Switch for IBM System Storage](#)
[IBM System Storage SAN48B-5](#)
[Cisco MDS 9148S 16G Multilayer Fabric Switch for IBM System Storage](#)

[Entry SAN switches](#)

These entry-level SAN switches are designed to provide easy-to-use, affordable solutions for small and midsized businesses.



[IBM Storage Networking SAN24B-6](#)
[IBM System Networking SAN24B-5](#)

[IBM System Storage SAN24B-4](#)

[SAN extension switches](#)

These SAN extension switches deliver capabilities ranging from connecting heterogeneous SAN fabrics, to enabling distance extension using Fibre Channel over IP, to converging SAN and Ethernet traffic on a single platform.



[IBM System Storage SAN42B-R](#)
[IBM System Storage SAN06B-R extension switch](#)

[Cisco MDS 9250i Multiservice Fabric Switch for IBM System Storage](#)

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