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## Highlights

- Rapidly deploy enterprise-scale block storage and hyper-converged infrastructure using any x86 server
  - Deliver tuning-free consistent performance to diverse workloads
  - Adopt cloud agile solutions for containerised, VMware, OpenStack and Microsoft environments
  - Scale storage management under one pane of glass across deployment models
  - Protect data with data-at-rest encryption, multi-tenancy, quality of service (QoS) and disaster-recovery (DR) solutions
  - Consume storage flexibly: own it, lease it – or get it as a service on IBM® Cloud.
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# IBM Spectrum Accelerate

*Enterprise-class software-defined block storage deployed fast, anywhere*

In the face of today's explosion of data, the right storage infrastructure will let you launch, optimise and grow your hybrid cloud with the least cost and effort.

## IBM Spectrum Accelerate

IBM Spectrum Accelerate is a software-defined block storage solution designed for rapid deployment across heterogeneous infrastructure for hybrid cloud and delivering consistent service levels to a dynamic workload mix. It is based on proven grid-architecture, enterprise-scale IBM XIV technology in use today on more than 100,000 servers worldwide. IBM Spectrum Accelerate can be deployed, including as hyper-converged infrastructure, on any x86 server, on pre-installed third-party appliances or on public cloud infrastructure and is available as a service on IBM Cloud infrastructure. It can be delivered easily to your private cloud environments and supports solutions for Kubernetes and IBM Cloud Private containers, as well as VMware, OpenStack and Microsoft environments, at no additional cost. As part of a same-technology family, it offers flexibility, simplicity and cost savings through license mobility and unified management with integrated systems [IBM FlashSystem A9000](#), [IBM FlashSystem A9000R](#) and/or [IBM XIV Storage System](#).

IBM Spectrum Accelerate delivers the block storage component of [IBM Spectrum Storage](#), a comprehensive portfolio of flexible and efficient storage capacity and services.



## IBM Systems Data Sheet

Use IBM Spectrum Accelerate to speed and empower your cloud deployment.

**Born for the cloud.** Its grid architecture helps deliver predictable, consistent service levels at all times to a dynamic workload mix – with no tuning. It offers extreme ease of use and task automation, reducing administrative overhead and can scale management to almost 70 petabytes of usable capacity in a single pane.<sup>1</sup>

**All-inclusive capabilities.** It delivers mature enterprise features and management tools at no extra charge, including remote replication, snapshots, encryption, multi-tenancy, advanced QoS and monitoring. It offers automation and orchestration through OpenStack, Representational State Transfer (REST) and VMware and in cloud-native container environments through IBM Cloud Private and Kubernetes.

**Ultra-flexible consumption free of hardware lock-in.** You can consume storage based on need: buy it, lease it monthly and/or subscribe to it as a cloud service. Owned licenses are hardware-independent and reusable across your IBM Spectrum Accelerate environment and IBM Spectrum Storage Suite, offering optimal investment protection and operational flexibility. Manage your licenses easily online via IBM Passport Advantage.

### How IBM Spectrum Accelerate works and excels

IBM Spectrum Accelerate runs as a virtual machine (VM) on the VMware vSphere ESXi hypervisor. It converges compute and storage, enabling customer-built, hyper-converged solutions based on proven XIV technology. It enables a server-based storage area network (SAN) to be created from commodity hardware – x86 servers, Ethernet switches, solid-state drives (SSDs) and high-density disk drives – and uses the existing data centre (DC) network for inter-node and host connectivity. Its unique grid architecture groups virtual nodes with the underlying physical disks and spreads the data evenly across the nodes.



IBM Spectrum Accelerate: An enterprise-class, software-defined block storage solution deployed rapidly on heterogeneous infrastructure and managed from a single pane of glass, including with integrated systems, on- and off-premises

Scaling of nodes is linear and non-disruptive. It delivers hotspot-free performance derived from architectural features that include massive parallelism and optimal data distribution. Its smart use of cache is designed to provide an excellent cache hit ratio – and it uses flash media, when deployed, as extended cache, boosting performance without any need to manage tiers. It delivers high availability (HA) through self-healing, world-class disk rebuild technology and robust QoS.

### Do it yourself

Use IBM Spectrum Accelerate to help transform industry-standard infrastructure into a cost-saving environment for flexibly deployed and simply managed enterprise-class software-defined storage—with global IBM software support at your back.

**Deploy fast.** Deploy scale-out storage grids in automated environments in minutes rather than days. Built-in management tools and integration with open industry standards help make IBM Spectrum Accelerate a rapid cloud building block. The architecture simplifies work and minimises training, speeding time to value.

**Gain agility.** Respond swiftly to needs by choosing to deploy across commodity servers and/or cloud infrastructure such as IBM Cloud, with IBM Spectrum Accelerate as the storage component of your self-styled public cloud or purchased as a service.

**Realise simplicity.** Simplify and standardise storage management across the DC through world-class ease of use and built-in IBM Hyper-Scale technologies. Scale storage management without performance tuning and with minimal overhead and training.

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*IBM Spectrum Accelerate is a flexible software-defined block storage solution based on proven enterprise-scale technology that can deploy in minutes and scales as a simply managed environment on- and off-premises.*

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Use cases. Here are some ways you can apply IBM Spectrum Accelerate to benefit your business:

- **Private, public or hybrid cloud.** Include it in your custom-built cloud infrastructure – on- and off-premises – or as part of a hyper-converged solution to meet diverse needs
- **Diverse environments.** Use it for test/development or ad-hoc projects. Mix traditional and new application workloads. Deliver simply provisioned enterprise storage to VMware and cloud-native container environments

- **DR.** Cost-effectively protect your business by mirroring between XIV Gen3, XIV Gen2 or IBM Spectrum Accelerate. Meet backup needs with powerful snapshot technology or with [IBM Spectrum Storage family data protection solutions](#)
- **Remote or branch office.** Provide HA storage to your smaller or distributed offices using existing hardware.

### Get it as a service

Subscribe to IBM Spectrum Accelerate as a service on IBM Cloud – IBM Spectrum Accelerate on Cloud – to enjoy the same enterprise-class storage benefits without hardware acquisition or upkeep.

**Use cases.** Leverage easy to use, advanced cloud storage services to:

- **Deliver high predictability and availability to your public cloud workloads.** Give your workloads the storage they require – and manage, automate and orchestrate it with ease
- **Implement DR capabilities without building a DR site.** Mirror to XIV Gen3, XIV Gen2 or IBM Spectrum Accelerate in the DC, with your primary data storage at either end.

IBM offers capacity- and performance-oriented configurations, billed at a flat monthly rate, with software, advanced features, hardware and unlimited traffic bundled within.

### Why IBM?

Innovative technology, open standards, excellent performance and a broad portfolio of proven storage software and hardware solutions offerings – all backed by recognised leading-edge technology – are just a few of the reasons to consider storage solutions from IBM. In addition, IBM delivers some of the best storage products, technologies, services and solutions in the industry without the complexity of dealing with different hardware and software vendors.



## IBM Spectrum Accelerate at a glance

<p><b>Recommended specifications for do-it-yourself deployments</b></p>	<ul style="list-style-type: none"> <li>• 4 to 15 x86 servers, each with internal disk drives</li> <li>• Each server, using VMware vSphere ESXi 6.0 or 5.5, includes IBM Spectrum Accelerate as a VM configured as follows:             <ul style="list-style-type: none"> <li>– 6 non-virtualised physical cores</li> <li>– 48 gigabyte (GB) RAM or more. Note: Additional Random Access Memory (RAM) must be allocated for the ESXi server</li> <li>– 12 disk drives of up to 6 terabyte (TB) – all the same size</li> <li>– 1 x SSD of up to 800 GB (as cache)</li> <li>– 4 x 10 Gigabit Ethernet (GbE) ports</li> </ul> </li> <li>• Each server is a hyper-converged infrastructure supporting the VMs of IBM Spectrum Accelerate and other applications</li> <li>• High-density disk drives of any kind, various SSD devices and externally attached hard drives are supported</li> </ul>
<p><b>As a service on IBM Cloud – IBM Spectrum Accelerate on Cloud</b></p>	<ul style="list-style-type: none"> <li>• From 50 TB usable; scales in 20 TB usable increments up to 250 TB usable per virtual array*</li> <li>• Runs on IBM Cloud infrastructure</li> <li>• Performance- and capacity-oriented configurations</li> <li>• Support: Software: 24x7, Levels 1 and 2; Hardware: per published IBM Cloud service level agreements</li> </ul>

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\* 1 terabyte (TB) is equal to 2 to the 40th power, or 1,099,511,627,776 bytes.

<sup>1</sup> 63.48 Tebibytes (TiB) usable.

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