

IBM Spectrum Control

Monitoring and analytics for data and storage infrastructure optimization

Highlights

- Take control with integrated monitoring and analytics
 - Consolidate management for file, block, object, software-defined storage
 - Improve performance and reduce storage costs
 - Streamline performance troubleshooting and problem resolution
 - Improve consistency and control for storage operations
 - Choose from a range of licensing plans
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IBM Spectrum Control is a comprehensive solution that can significantly improve monitoring and analytics capabilities in multi-vendor storage environments. IBM Spectrum Control helps manage storage systems, software-defined storage, storage-area network (SAN) fabrics and devices. Storage can be seen from multiple perspectives, including departmental, application and server views.

The mission: Simplify data and storage management

While storage environments continue to grow in capacity and complexity, many organizations are scaling back on dedicated storage experts. It is, therefore, imperative that storage become easier to manage by IT administrators who may also be responsible for servers, networks and applications.

Organizations tend to acquire collections of multi-vendor storage systems due to application requirements, multiple buyers, mergers, staff turnover and other factors. Adoption of cloud and software-defined storage creates more to manage. Each brand of storage system has its own administration interface, which can increase complexity and opportunities for error.

In addition, user expectations are increasing. Businesses collect, store, process and use more information than ever before. At the same time, there is low tolerance for downtime, unpredictable performance or provisioning delays. To satisfy these increased demands, organizations need more comprehensive monitoring and analytics capabilities—so they can proactively resolve issues before users are impacted.

The solution: IBM Spectrum Control

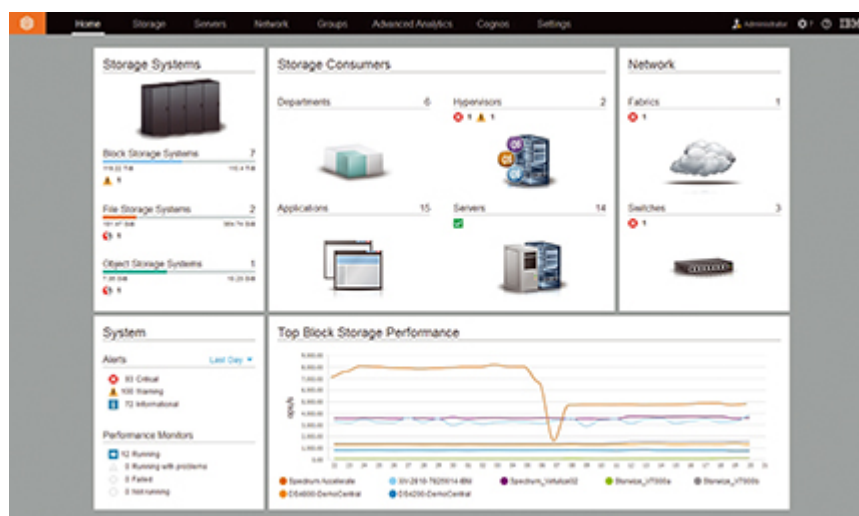
IBM Spectrum Control is a comprehensive, end-to-end data and storage management solution that monitors and analyzes multi-vendor storage environments.

IBM Spectrum Control provides a single point of control that helps administrators manage every aspect of the storage infrastructure—between the hosts, through the fabric, and down to the physical drives—across multi-site storage environments. IBM Spectrum Control helps consolidate management of file, object, block, server-based and software-defined storage.

In fact, IBM Spectrum Control helps you see storage as others see it—with application, departmental and server views of storage. Storage administrators can use IBM Spectrum Control for their everyday tasks, leveraging a consistent dashboard for managing the broader storage environment.

IBM Spectrum Control enables you to manage storage your way. Optimized interfaces are included for storage specialists, VMware vCenter users, and remote management using interfaces such as OpenStack, REST, IBM Tivoli Application Dependency Discovery Manager (TADDM) TPC Sensor and IBM Cloud Orchestrator.

IBM Spectrum Control is on-premises software with agent-based and agent-less monitoring. A range of licensing plan options are available to fit environments of all sizes. [IBM Storage Insights](#) provides comparable capability as a cloud-based service. IBM Storage Insights For IBM Spectrum Control provides all the function of IBM Storage Insights Pro at no additional charge for clients licensing IBM Spectrum Control.



IBM Spectrum Control features a fully-integrated, web-based user interface.

See your storage like you've never seen it before

IBM Spectrum Control enables comprehensive monitoring of the entire data path—including storage systems, software-defined storage, devices and SAN fabric components from multiple vendors—providing a more complete view of the storage infrastructure. Views of applications, departments or other collections are easy to create, so data owners can see customized views of their domains.

Heterogeneous storage systems, ports and switches

IBM Spectrum Control provides device-level, integrated storage infrastructure management capabilities for managing both IBM and non-IBM storage systems. Agent and agentless options are available. Heterogeneous storage support is offered via the Storage Networking Industry Association (SNIA) Storage Management Initiative Specification (SMI-S) standard. Management capabilities include operational control and provisioning of heterogeneous storage platforms, including storage systems from Dell-EMC, NetApp, Hitachi, Pure Storage, and HPE. IBM Spectrum Control also enables performance management at the port and switch levels for platforms from Broadcom and Cisco Systems.

In addition, it includes advanced monitoring and performance reporting for IBM storage systems, including IBM FlashSystem, Storwize and DS8000 families, IBM Cloud Object Storage System, IBM Elastic Storage System, and IBM XIV Storage System; VersaStack systems based on these systems; as well as software-defined storage offerings, including IBM Spectrum Virtualize and IBM Spectrum Scale. IBM Spectrum Control even supports cloud storage managed by IBM Spectrum Virtualize for Public Cloud. A complete list of supported storage products is available from the [IBM Support portal for IBM Spectrum Control](#).



An application-oriented view of storage.

Application	Cost	Total (TiB)	Block Capacity (TiB)						Tier 1	
			Block	Primary	vDisk Mirrors	FlashCopy	Remote Mirrors	FromAG	Copy	
Cifs	27.73	0.28	0.28	0.00	0.00	0.13	0.13	0.00	0.28	
Connections Nodes	7.19	0.11	0.11	0.11	0.00	0.00	0.00	0.00	0.00	
DB2 Database Servers	32.13	0.44	0.44	0.29	0.00	0.00	0.15	0.13	0.15	
DemoCentral virtualware Farm	10037.61	200.75	200.75	200.75	0.00	0.00	0.00	0.00	0.00	
Epic Database	26.18	0.55	0.55	0.42	0.00	0.00	0.14	0.16	0.14	
Epic Reporting	16.99	0.29	0.29	0.29	0.00	0.00	0.00	0.13	0.00	
Exchange	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Exchange Mail Box End to End view	12.51	0.28	0.28	0.28	0.00	0.00	0.00	0.29	0.00	
Web Servers	29.18	0.41	0.41	0.16	0.00	0.00	0.16	0.06	0.18	
Perkin Ols Server	143.73	1.50	1.50	1.50	0.00	0.00	0.00	1.42	0.00	
Sharepoint Servers	14.88	0.29	0.29	0.29	0.00	0.00	0.00	0.10	0.00	
SQL Server Databases	19.04	0.37	0.37	0.37	0.00	0.00	0.00	0.13	0.00	
Standard Reporting	96.19	1.04	1.04	1.04	0.00	0.00	0.00	0.96	0.00	
Web Servers	66.82	0.81	0.81	0.28	0.10	0.14	0.29	0.14	0.47	

Integrated chargeback reporting.

Device performance

IBM Spectrum Control helps monitor and manage performance and measure service levels by storing received performance statistics into database tables for future use. Administrators can set performance thresholds for devices based on selected performance metrics, generating alerts when those thresholds are exceeded. These capabilities help the solution simplify the complex monitoring of multiple SAN-attached storage devices.

IBM Spectrum Control device management capabilities include:

- Proactive performance management from a single, integrated console for monitoring storage devices
- Monitors key metrics, such as I/O rates and cache utilization
- Preserves historical performance statistics for service-level analysis and report generation
- Generation of timely alerts that enable event action by setting performance thresholds based on business policies



Consolidate file, object, flash, block and software-defined storage management with one console.

SAN fabric management

IBM Spectrum Control supports multi-vendor SAN monitoring and alert management. IBM Spectrum Control diagnostic capabilities show which resources are impacted by an availability or performance issue in the SAN.

IBM Spectrum Control SAN fabric monitoring capabilities include:

- Multiple SAN views, including physical, logical and zone
- Diagnostic capabilities that pinpoint resources impacted by an availability or performance issue
- Performance monitoring at the port and switch level
- Enterprise scalability that enables upgrading from SAN islands to enterprise SANs

Automate data and storage management tasks

IBM Spectrum Control solutions help automate storage provisioning and event processing tasks.

Event processing

Event processing in IBM Spectrum Control can help administrators identify and resolve storage problems faster. Event processing supports multiple thresholds, severity levels and suppression settings, which can greatly reduce the complexity of managing alerts in large storage environments. Policy-based automation enables automated responses based on business policies.

Load balancing

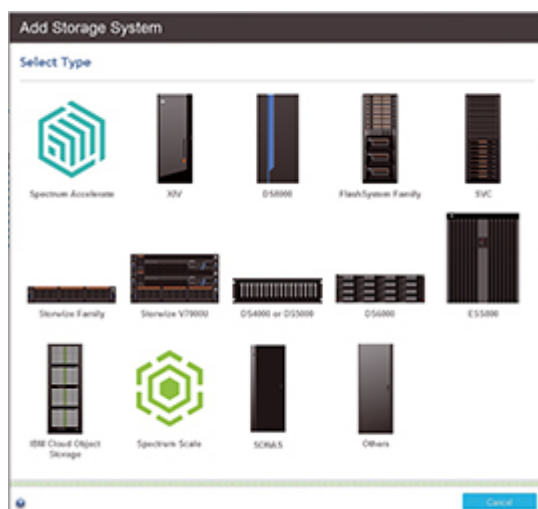
IBM Spectrum Control makes it easy to balance performance within storage tiers. Simply select two or more pools on the same tier in a virtualized storage environment, and click 'Balance Pools.' Analytics in IBM Spectrum Control and automation in IBM Spectrum Virtualize work together to complete the task. Complexity and the risk of errors are greatly reduced.

Capacity planning

IBM Spectrum Control uses analytics to predict future capacity needs. Administrators can see, at a glance, when capacity will be needed. Buyers can see how much storage will be needed at a particular future date, so acquisitions can be pooled and aligned with business requirements.

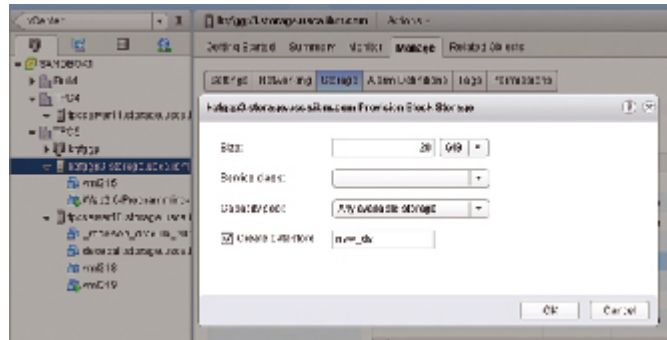
Choose from on-premises and cloud solutions

[IBM Spectrum Control](#) is available in a range of options to fit practically any size environment and budget. In addition, [IBM Storage Insights](#) is an ISO 27001-certified, cloud-based solution that deploys in minutes and includes predictive analytics.



IBM Spectrum Control simplifies management for multiple types of storage.

On-premises solutions are available in capacity or per-enclosure license options. **IBM Virtual Storage Center** combines IBM Spectrum Control with multi-brand storage virtualization and snapshot management.



IBM Spectrum Control and VMware integration simplifies storage management for server and VMware administrators.

IBM Spectrum Control includes:

- Capacity visualization and management
- Performance troubleshooting
- Health and performance alerting
- Showback
- Application modeling
- VMware integration
- Chargeback

IBM data and storage management solutions at a glance

IBM storage software as a service (SaaS)	
IBM Storage Insights	Cloud-based monitoring and analytics for IBM and IBM virtualized storage; free and subscription license (Storage Insights Pro)
IBM storage software license plan options	
IBM Spectrum Control	Monitoring and analytics for storage environments; tiered capacity license
IBM Spectrum Control Select Edition	Monitoring and analytics for storage environments; per-enclosure license
IBM Virtual Storage Center	Solution bundle including IBM Spectrum Control Advanced Edition and IBM Spectrum Virtualize; tiered capacity license
IBM Virtual Storage Center Entry	IBM Virtual Storage Center for sites under 500 TB usable capacity and four I/O groups; capacity license
IBM Virtual Storage Center for Storwize Family	IBM Virtual Storage Center for IBM Storwize environments; per-enclosure license
Supported environments	
IBM all-flash storage systems	IBM FlashSystem family, IBM DS8880F and DS8900F, VersaStack, IBM Storwize family all-flash models
IBM hybrid flash and disk storage systems	IBM SAN Volume Controller, IBM FlashSystem and Storwize families, VersaStack, IBM XIV, IBM DS8000 family
Multi-brand virtualized SAN storage	More than 500 storage systems from IBM and others, using IBM Spectrum Virtualize external virtualization
File and object storage	IBM Cloud Object Storage System, NetApp, Storwize V7000 Unified, IBM Spectrum Scale, IBM Elastic Storage System
Cloud Storage	IBM Cloud and AWS storage managed by IBM Spectrum Virtualize for Public Cloud
Software-defined storage	IBM Spectrum Virtualize SAN and cloud storage, IBM Spectrum Scale file and object storage, IBM Cloud Object Storage software
Non-IBM Storage Systems	Dell-EMC VNX, VMAX, and Unity; NetApp FAS and AFF; Pure Storage FlashArray //X and M; HDS VSP F and G Series
SAN switches	Broadcom and Cisco

For details, please see the [IBM Spectrum Control Interoperability Matrix](#) on the IBM Support Portal.

Why IBM?

IBM Spectrum Control provides monitoring, automation and analytics to help simply and effectively manage complex storage environments. In addition, IBM Spectrum Control helps organizations classify storage, manage storage service levels and reduce storage costs.

For more information

To learn more about IBM Spectrum Control, please contact your IBM representative or IBM Business Partner, or visit: ibm.com/us-en/marketplace/spectrum-control

Additionally, IBM Global Financing provides numerous payment options to help you acquire the technology you need to grow your business. We provide full lifecycle management of IT products and services, from acquisition to disposition. For more information, visit: ibm.com/financing

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