

IBM Spectrum Protect

Trusted backup and recovery software solutions

Highlights

- Multi-workload data protection lowers operational costs
 - Tremendous scalability to support massive data growth
 - Storage efficiency with incremental forever backups and compression
 - Cyber resiliency support provides always-on data monitoring
 - Data retention options including cloud and on-premises storage
 - Leverage for data retention and disaster recovery
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It can be challenging for organizations to manage the cost, complexity and capabilities of their backup systems, especially when they collect, process and store more information than ever before. Backup administrators feel the pressure of increasingly stringent compliance demands such as growing infrastructure complexity, flat IT budgets, and increasing regulation and compliance requirements, such as those stemming from the Sarbanes-Oxley Act (SOX), the Health Insurance Portability and Accountability Act (HIPAA), and the General Data Protection Regulation (GDPR).

IBM Spectrum Protect provides scalable data protection for physical file servers, applications, and virtual environments. Organizations can scale up to manage billions of objects per backup server. They can also reduce backup infrastructure costs with built-in data efficiency capabilities and store data on tape, on-premises object storage as well as public cloud services. IBM Spectrum Protect can also be a data offload target for IBM Spectrum Protect Plus, providing ability to leverage your existing investment for long-term data retention and disaster recovery.

Simplified backup administration

Backups can be managed by IBM Spectrum Protect Operations Center, VMware vSphere Client or third-party software. IBM Spectrum Protect Operations Center delivers breakthrough visibility and ease of use for backup administrators, reducing the level of expertise required. Server administrators can restore individual virtual machines from the VMware vSphere Client or launch the IBM Spectrum Protect VMware graphical user interface to schedule, monitor and perform backups.

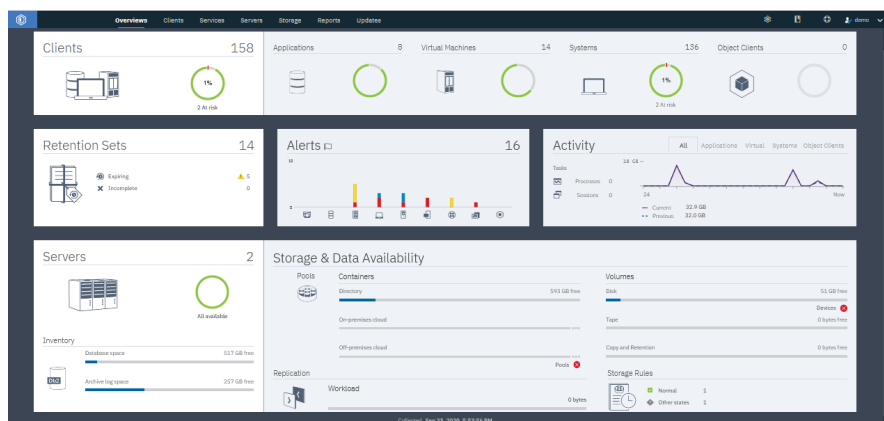
IBM [Spectrum Protect blueprints and configuration scripts](#) are designed to help reduce deployment time and guesswork by automating deployment steps and integrating best practices for small, mid-sized and large environments.

Simplified solution bundles—such as IBM Spectrum Protect Suite and IBM Spectrum Storage Suite—help clients get up and running fast with easy-to-manage licensing for IBM Spectrum Protect that includes snapshots and popular backup agents for virtual environments, databases, email and enterprise resource planning.

Built-in cloud integration

Backup to the cloud or backup in the cloud is simple, secure and cost-effective with IBM Spectrum Protect. IBM Spectrum Protect container storage pools enable external cloud and object storage without additional hardware or gateways on popular cloud environments such as IBM Cloud, IBM Cloud Object Storage, Amazon Simple Storage Service (Amazon S3), Google Cloud Storage, Microsoft Azure Blob storage, and other validated S3 object storage services. These container storage pools include in-line deduplication for efficient use of space and bandwidth as well as encryption to ensure that your data is secure.

IBM Spectrum Protect also provides Representational State Transfer (REST) application programming interfaces (APIs). IBM Resiliency Services and IBM Business Partners offer a number of cloud-based data protection solutions for pay-as-you-go backup and recovery in the cloud.¹



IBM Spectrum Protect Operations Center provides an advanced visual dashboard, built-in analytics and integrated workflow automation features to dramatically simplify backup administration.

Reduced backup infrastructure costs

IBM Spectrum Protect can help users save in backup infrastructure costs. Savings are typically found in storage media, backup servers, data center floor space, power and cooling. IBM Spectrum Protect high-performance deduplication, compression and incremental forever capabilities work together to reduce backup storage requirements.

IBM Spectrum Protect efficiency capabilities are enabled entirely in software. Additional hardware-based appliances aren't needed for deduplication, encryption, network acceleration or cloud access.

For maximum cost flexibility, IBM Spectrum Protect enables a broad choice of storage options for backup data, including flash, disk, tape, object stores and public clouds.

Scalable performance

Organizations of all sizes need advanced data-protection capabilities. Organizations with fewer than 50 managed servers or less than 100 terabytes of backup data can choose specially priced IBM Spectrum Protect entry-level solution bundles.

IBM Spectrum Protect servers can expand to manage billions of objects per server, so there is less disruption and complexity as backup workloads grow.

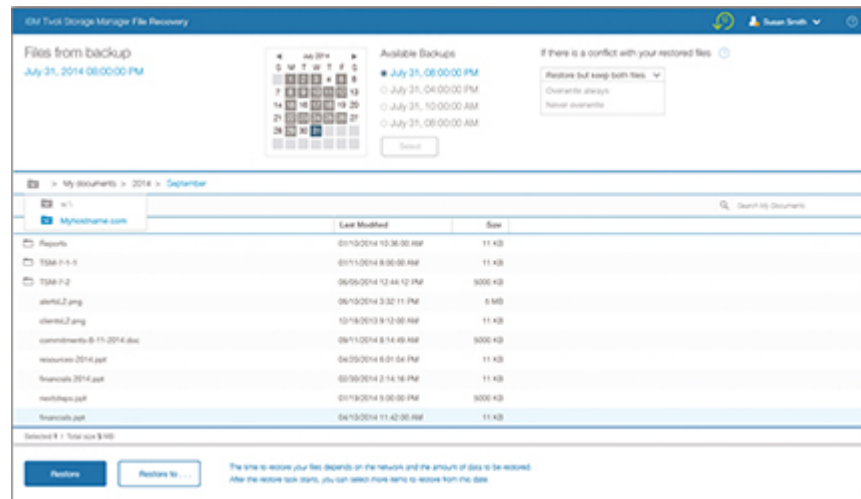
As data grows, IBM Spectrum Protect backups can be augmented with advanced agents and snapshots that can reduce backup and restore times for large applications and virtual machines.

Backup information can also be replicated between IBM Spectrum Protect servers, either on-premises or hosted in the cloud. IBM Spectrum Protect Extended Edition includes policy-driven remote replication, which can significantly reduce storage space requirements at primary backup sites. Organizations needing faster data transfer can enable the IBM Spectrum Protect High Speed Data Transfer option, which uses patented IBM Fast, Adaptive and Secure Protocol (IBM FASP) technology to transfer data faster than TCP over high-latency or high-loss networks.

Optimized data protection

IBM Spectrum Protect is a complete solution. It enables advanced data protection for current and next-generation environments, including cloud, virtualized and software-defined environments; core applications; and remote facilities. In addition, applications that are capable of writing to S3 targets can also leverage the automated and flexible policy management of IBM Spectrum Protect. And, data managed by IBM Spectrum Protect is easily replicated to off-site recovery facilities for safekeeping.

Backups are important, but restores are essential. IBM Spectrum Protect solutions enable fast, flexible restores from primary and remote recovery sites. IBM Spectrum Protect helps recover individual items, complex systems and entire data centers. Recovery simulators provide assurance that systems can be recovered as expected.



A self-service restore portal enables data, server and application owners to easily recover their data.

Virtualized, software-defined infrastructures

IBM Spectrum Protect for Virtual Environments and IBM Spectrum Protect Snapshot can back up and restore data residing in virtual, software-defined environments without negatively impacting applications and operations that share the underlying physical resources. IBM offers a choice in data protection options, including incremental “forever” backups and hardware-assisted snapshots.

Flexible restores

Flexible recovery options in IBM Spectrum Protect are designed to simplify common restore requests, including:

- Self-service restore portal for VMware data
- Individual item, database, volume-level, and data store restores from snapshots
- Near-instant access to backup data for Microsoft Windows and Linux Intel-based servers and Windows workstations

- Snapshot copying, browsing and recovery
- Automatic restores from an alternate backup server, if the primary backup server is unavailable
- Simplified disaster-recovery audits, recovery simulators and guided recovery from disasters

Data life cycle automation

Retention sets provide data life cycle automation via flexible policy rules that leverage existing operational recovery data to satisfy long-term retention requirements, eliminating the need to ingest additional copies. Also, IBM Spectrum Protect enables clients to automatically move data from higher-cost storage to lower-cost storage as it ages.

Multi-site replication

IBM Spectrum Protect Extended Edition enables backup data to be replicated on an incremental, scheduled or per-client basis from one IBM Spectrum Protect server to another. Replication is policy-driven, so on-site and off-site retention policies can be different. Plus, replication can be performed with deduplicated data, which improves network efficiency. It can also be scheduled during relatively quiet times to help reduce the impact on production applications.

In replicated environments, a remote IBM Spectrum Protect server can be used as a hot standby. Alternatively, two active IBM Spectrum Protect servers can replicate to each other. A single replication target can be used to consolidate data from multiple active IBM Spectrum Protect backup servers.

Secure to the core

IBM Spectrum Protect provides security notifications for potential ransomware attacks. After client backup sessions, statistics are analyzed for signs of ransomware infection, front-end anomaly detection monitors data flow and deduplication patterns for suspicious activity; if signs are present, administrators are notified, and warning message is displayed in the Operations Center. Two key authorization for administrator commands offers tighter security and requires dual authorization to prevent data loss. Also, data encryption and native support for tape enhance protection and ensure cyber resilience.

Integration with IBM Spectrum Protect Plus

IBM Spectrum Protect can also be a data copy target for IBM Spectrum Protect Plus, enabling clients to leverage existing investments for long-term data retention and disaster recovery. Also,

the integration with IBM Spectrum Protect Plus provides near-instant recovery, replication, reuse, and self-service for virtual machines, databases, and applications in hybrid cloud environments.

¹ IBM Cloud Managed Backup services can be found here: ibm.com/services/us/en/it-services/business-continuity/cloud-managed-backup; IBM Business Partners offering IBM Spectrum Protect-based cloud services can be found here: ibm.com/partnerworld/wps/servlet/ContentHandler/isv_com_dvm_techval_tivoli_BackupByTSM

IBM Spectrum Protect at a glance

Backup server components
<ul style="list-style-type: none"> • IBM Spectrum Protect - Automates data backup and restore functions, supports a broad range of platforms and storage devices, reduces the data storage footprint and maintains a catalog of protected data • IBM Spectrum Protect Plus - Provides near-instant recovery, replication, reuse, and self-service for virtual machines, Windows file systems, databases, applications, and containers in hybrid multicloud environments • IBM Spectrum Protect Extended Edition - Adds disaster-recovery management, node replication, network data management protocol (NDMP) backup and large tape library support • IBM Spectrum Protect Operations Center - Provides an at-a-glance view of the data protection environment, monitors multiple servers, completes administrative tasks, which simplifies day-to-day operations, reporting and enables faster problem resolution. • IBM Spectrum Protect High Speed Data Transfer - Improves replication throughput over high latency, high-packet-loss wide area networks • IBM Spectrum Protect for Data Retention - Enables long-term record retention with flexible hold and release processing • IBM Spectrum Protect for SAN - Enables SAN-attached IBM Spectrum Protect servers and user systems to use Fibre Channel connections to storage systems for data backup
Backup agent for virtual environments and core applications—Enables high-performance, online backups and flexible restores, which can increase application availability
<ul style="list-style-type: none"> • IBM Spectrum Protect for Virtual Environments - Works with VMware and Microsoft Hyper-V virtual servers and hosted applications • IBM Spectrum Protect for Mail - Works with HCL Domino® and Microsoft Exchange • IBM Spectrum Protect for Databases - Works with Oracle and Microsoft SQL Server • IBM Spectrum Protect for Enterprise Resource Planning - Works with SAP and SAP HANA
Snapshot management
<ul style="list-style-type: none"> • IBM Spectrum Protect Snapshot - Enables application-aware, hardware-assisted snapshot backup and recovery management for most major IBM and non-IBM storage systems
Continuous data protection
<ul style="list-style-type: none"> • IBM Spectrum Protect for Workstations - Provides continuous, automated backup of desktop and laptop workstations running Windows operating systems
Hierarchical space management (HSM) - Enables policy-based migration of inactive data to tape, leaving the directory structure on disk so users don't have to change the way they access their files
<ul style="list-style-type: none"> • IBM Spectrum Protect HSM for Windows - Works with Windows data • IBM Spectrum Protect for Space Management - Works with AIX and Linux data

IBM Spectrum Protect solution bundles at a glance

Available components	IBM Spectrum Protect Suite - Front End	IBM Spectrum Protect Suite
IBM Spectrum Protect	Extended Edition	Extended Edition
IBM Spectrum Protect Snapshot	•	•
IBM Spectrum Protect for Virtual Environments	•	•
IBM Spectrum Protect for Mail	•	•
IBM Spectrum Protect for Databases	•	•
IBM Spectrum Protect for Enterprise Resource Planning	•	•
IBM Spectrum Protect backup-archive client for file systems	•	•
IBM Spectrum Protect for Storage Area Networks	•	•
IBM Spectrum Protect for Space Management	•	•
IBM Spectrum Protect Plus	•	•
License plan		
By capacity	License by capacity protected by the products in the bundle. *IBM Spectrum Protect Plus is licensed by either VMs or capacity - A simple conversion ratio to TB is required	License by capacity used for managed backup data, measured after deduplication and other efficiency features are used. *IBM Spectrum Protect Plus is licensed either by VMs or capacity - A simple conversion ratio to TB is required
By model	Perpetual license	Perpetual license / Utility license / Committed Term License
Entry offerings (some restrictions apply)	IBM Spectrum Protect Suite Entry - Front End	IBM Spectrum Protect Suite Entry
Capacity	100 TB of managed backup data, measured by capacity protected by the products in the bundle	100 TB of managed backup data, measured after deduplication and other efficiency features are used

Optional Add on Features / Purchased separately

IBM Spectrum Protect Plus for Microsoft Office 365	Provides backup and recovery for Microsoft Exchange Online and Microsoft OneDrive. It drives operational efficiency and helps ensure compliance by managing and retaining Microsoft Office 365 mailboxes, calendars, contacts, and shared folders as part of an overall data protection solution
IBM Spectrum Protect Suite - Archive Option	Provides a lower price for archive data stored on tape or virtual tape libraries.
IBM Spectrum Protect Suite - Cloud Object Storage Option	Provides a lower price when using IBM Cloud Object Storage as a target for your backup and archive data.

Why IBM?

IBM data protection solutions offer a simplified user experience that helps deliver superior business outcomes. IBM is using applied analytics to make backup and storage management software more intelligent, so users can deliver global data availability. IBM continues to innovate, bringing first-to-market capabilities—built on a solid foundation of trusted technology—to increasingly complex backup and recovery environments.

For more information

To learn more about IBM Spectrum Protect, including platforms supported and system requirements, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/systems/storage/spectrum/protect

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