Data Protection Modernization

Highlights

- Lower storage costs
- Reduce burden on IT staff
- Realize better performance
- Benefit from simplicity and a better user experience
- Achieve seamless integration with multiple Cloud services
- Enable greater business agility with self-service
- Leverage backup data to accelerate and improve Devops and analytics
- Maximize business uptime
- Build a data backup environment that is more resilient to cyber attacks
- Implement a holistic data protection platform

Multiple IT trends are driving modern data protection requirements. With data growing at an explosive rate, businesses need ways to lower storage and operational costs. Organizations also need continuous uptime, so rapid data recovery is critical. Moreover, data protection needs to align with cyber security goals such as secure data retention.

Businesses can't afford to have an insurance policy (backup) that doesn't help them accelerate processes, make better decisions and make money. Therefore, modern businesses are leveraging secondary data for competitive advantage by enabling agility with quick self-service access to data and driving value with data copy management that makes it easy to repurpose backup data for analytics and reporting.

Key Aspects of Modern Data Protection

Modern data protection solutions have five key characteristics that help clients quickly back up and recover their data and maximize the value of their backup data, all while reducing costs. These five key characteristics are:

Lower costs. The storage and operating costs of data protection solutions have come down significantly, largely because new data protection solutions are simpler, more efficient and more flexible. Additionally, modern data protection solutions provide self-service and support multiple functions, reducing the burden on IT staff and the need for additional point solutions.

Better performance. Modern solutions provide better performance. In the data protection world, this is not just getting data from point A to point B. Performance is all about RPOs/RTOs. Newer technologies are providing faster, simpler and more flexible recovery with the capabilities such as the ability to instantly mount data, version recovery objectives (VROs) and geographic recovery objectives (GROs).

Simplicity and a better user experience. Newer, modern solutions are very simple to use. Data protection management has gotten a lot easier based on a number of capabilities including intuitive UIs, virtual deployments, agentless solutions with REST API integration and self-service capabilities.

Seamless integration with the Cloud. Today's data protection solutions are able to extend into hybrid, multicloud environments simply and easily, while enabling backup-as-a-service, DR-as-a-Service and long-term data retention, as well as the ability to protect applications and/or data in the cloud. And what's more, the cloud provides data access in multiple places, which means it is easier to leverage data copies when and where they are needed.

Business agility with data reuse. Today's next generation solutions provide the ability to quickly, simply and securely access and reuse data in the backup repository for multiple business use cases that enable lines of business and project teams to gain insights, accelerate business processes and meet the demands of the market.

IBM Solutions for Modern Data Protection

The IBM Modern Data Protection portfolio includes IBM Spectrum Protect, IBM Spectrum Protect Plus and IBM Spectrum Copy Data Management (CDM). Together, these solutions offer clients holistic and modern data protection that delivers simplicity, scalability, data reuse and replication for hybrid, multicloud environments.

IBM Spectrum Protect - IBM Spectrum Protect provides scalable data protection that spans multiple platforms (AIX, Linux on x86, Linux on Power, Linux on System z, and Windows) and a large array of applications. IBM Spectrum Protect also provides hypervisor-based, agentless protection for virtual environments. In addition, IBM Spectrum Protect reduces backup infrastructure costs with built-in data efficiency capabilities, and IBM Spectrum Protect offers multiple options for disaster recovery and long-term data retention, including data replication and the ability to leverage tape, public cloud services and on-premises object storage.

IBM Spectrum Protect Plus - IBM Spectrum Protect Plus is a modern data protection solution that simplifies rapid VM, file, database, and application recovery. It unlocks the value of your data to facilitate data reuse and accelerate DevOps, analytics and much more. Spectrum Protect Plus is easy to deploy as a virtual appliance and the agentless architecture is easy to maintain. Management simplicity is enabled with a centralized dashboard, and policy-based templates enable self-service, streamlined operations and help ensure SLA compliance. Automation is accomplished using REST APIs to integrate with third party tools and solutions, such as Puppet and ServiceNow. Cost-effective long-term data retention, data compliance and disaster recovery are achieved via data offload to multiple cloud services, as well as IBM Spectrum Protect.

IBM Spectrum Copy Data Management (CDM) - IBM Spectrum Copy Data Management is designed to leverage storage hardware snapshots, cloning and replication to enable data reuse

in-place and provide data copies for DevOps, reporting, and analytics. IBM Spectrum Copy Data Management rapidly deploys as an agentless VM for faster time to value, and IBM Spectrum Copy Data Management provides enterprise-wide data visibility by cataloging copy data across a hybrid multicloud environment. Data consumers can use the self-service portal to create the copies they need, enabling business agility. Copy processes and work flows are automated to ensure consistency and reduce complexity.

IBM Modern Data Protection Advantages

Data management starts with how data protection solutions recognize workloads within your environment. Traditional backup catalogs only catalog the data when the backup job runs. With this model, it is easy to have things that don't get backed up. If a System, VM or application gets created and no one informs the backup team, then the data doesn't get protected and this could be a major issue.

With modern solutions such as IBM Spectrum Protect Plus, once installed, applications and/or vCenters are registered with IBM Spectrum Protect Plus. Once this is done, Spectrum Protect Plus knows about all the data in the environment and shows what is and isn't protected. The backup admin can ask questions, such as "Does that system need to be protected or not?" Sometimes new systems, VMs or applications don't need to be backed up. As a result, users have confidence their data is always protected.

IBM Spectrum Protect Plus centralizes management and provides data visualization with built-in reporting and a drilldown dashboard. In addition, alerts automatically notify administrators if VMs and/or applications in their environment aren't protected, so they can proactively take action if needed.

Backup administrators then create backup SLAs that can be assigned to the different virtual centers, individual VMs, databases or applications. Importantly, backup admins can ask the VM admin which policy they want to assign to their virtual center. All VMs in that virtual center will take on the profile of that SLA. If a different SLA policy is needed for a different VM this can be accommodated as well.

Additionally, as new systems or applications are added to the environment, they take on the SLA of the overall virtual environment or application. There is no need to specifically go in and set it up or tell someone that a new system or application has been create and needs to be backed up. Some systems may need a different policy, but clients are never in a position where their data isn't protected.

IBM Modern Data Protection Supports a Cyber Resiliency Strategy

While there is no one product that is the magic bullet that solves cyber resiliency, the right process for building an environment that is resilient to cyber-attacks includes the ability to **detect** an attack, the ability to **protect** data that can be attacked and the ability to **recover** data that is attacked

These principals follow the National Institute of Standards and Technology (NIST) cyber resiliency process standard and IBM modern data protection products have features and capabilities that help with each of these needs.

IBM Spectrum Protect can help clients detect data that may have been hit by a cyber-attack by automatically detecting workload anomalies, such as a large increase in backup data or a reduction in the deduplication ratio since the last backup. These can be a signs of a cyber-attack.

In terms of the ability to protect data, all of IBM's data protection solutions help to create copies of the data that that can be replicated to secondary locations for disaster recovery. Also, secure long-term data storage can be achieved using IBM Cloud Object Storage immutable object storage features, such as retention enabled buckets. Data stored in retention enabled buckets cannot be deleted or changed during a specified retention period.

Additional steps can also to be taken to put the data in an air-gapped location and create separation, such as off-line on tape to ensure an attack doesn't prevent data recovery.

Summary

Today, IT groups are faced with increasing amounts of data and the need to deliver more business value, yet they often need to reduce or maintain staffing levels and manage their environment with a reduced budget. Maximizing business uptime and reducing risk of cyber-attacks are also key objectives. Yet they are constrained by barriers that manifest themselves in many ways: rising costs, siloed applications and the inability to easily leverage their secondary data sets.

As a result, companies are seeking modern data protection solutions that offer high performance, lower storage and operating costs, and inherent data security. They also want a holistic, single vendor data protection platform that offers ease of deployment, ease of management, storage efficiency, and the flexibility to leverage a multicloud environment.

Finally, they also realize they must move beyond the boundaries of standalone backup applications that don't help them accelerate processes, make better decisions and make money. Therefore, they are prioritizing data protection solutions that support service-level orchestration and automation, as well solutions that help them gain competitive advantage by leveraging their data to accelerate and improve DevOps, analytics or reporting.

Why IBM?

IBM offers a vast portfolio of hardware, software and services, including industry-leading data storage products and solutions. Innovative technology, open standards, excellent performance and a broad portfolio of proven storage offerings—all provided by IBM, a recognized industry leader—are just a few of the reasons to consider the IBM Modern Data Protection portfolio.

For more information

To learn more about IBM Modern Data Protection Portfolio, please contact your IBM representative or IBM Business Partner, or visit: https://www.ibm.com/it-infrastructure/storage/data-protection

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