Data Protection Challenges

As organizations are redistributing and extending their data to the cloud or to multiple clouds, protection of that data becomes critical. In today’s data-driven world, data loss is unacceptable and quick access to information is at the core of decision making. Effective data protection is a critical component of every successful business.

Yet, data protection comes with a unique set of challenges because the public cloud providers leave the responsibility of protecting the data up to the user. Users who often have applications deployed across one or multiple public clouds must manage multiple data protection solutions across those clouds. The confusion around data protection solutions grows larger when these approaches do not align with an existing on-premises data protection strategy.

Data protection solution proliferation creates an opportunity for a true multi-cloud data protection solution with a common protection service. Otherwise, multiple solutions can drive up resource costs and lead to inefficient backup processes with low reliability. The migration of data from one cloud to another is also subject to high egress costs.

Additionally, ransomware and other sophisticated cyber attacks threaten to steal or compromise a businesses’ most critical asset – its data. Protecting critical data and recovering it with validated data integrity is key to resuming normal business operations post-attack. As more workloads and data move to the cloud, it’s imperative to invest in a cyber protection solution for critical data, wherever the data originates and regardless of its recovery destination, across all on-premises and public cloud locations.

Solution Overview

By implementing a multi-cloud data protection solution, users and developers can avoid cloud vendor lock-in by keeping data independent of the cloud and reduce worry about high egress charges, migration risk and time required to move data. Data Protection with Dell Technologies APEX Multi-Cloud Data Services supports a data centric approach for users, allowing them to spread their data and cloud management strategies across public cloud providers. Data Protection with APEX Multi-Cloud Data Services is a managed service that provides a single target for backup and recovery for data that originates on-premises and in Amazon Web Service (AWS), Microsoft Azure, Google Cloud and Oracle Cloud.
The multi-cloud capability is enabled by low latency, high throughput connections from the service location to the public cloud providers. This architecture enables dynamic connectivity between backup source locations in the cloud and Data Protection Services with APEX Multi-Cloud Data Services. The service gives the customer end-to-end flexibility to adjust throughput and backup windows to meet data protection policies as part of an overall IT strategy without resource underutilization and management overhead. This cost-effective solution offers customers $0 egress fees from Microsoft Azure and takes advantage of the highly efficient deduplication capability of PowerProtect DD, providing customers with a cost-effective solution that allows them to meet stringent SLAs.

Data Protection Services with APEX Multi-Cloud Data Services can be the repository for a Cyber Recovery solution. The secure data vaulting is a logically air-gapped vault built upon secure, multi-cloud-enabled infrastructure that safeguards critical data from cyber attacks. When data recovery is required, data can be restored from the vault to AWS, Microsoft Azure, Google Cloud, Oracle Cloud, or back to an on-premises environment. CyberSense intelligent analytics are fully integrated with this Cyber Recovery service to provide an additional layer of assurance by validating the integrity of the data protected within the off-premises Cyber Recovery vault.

**Data Protection Services With APEX Multi-Cloud Data Services – Uses and Applications**

Data Protection Services for APEX Multi-Cloud Data Services is a managed service that gives organizations a single destination across on-premises and public clouds to protect their data and applications, allowing organizations to manage their data separate from the public cloud. Leveraging a single destination for backup, archive and long-term retention, Data Protection Services with APEX Multi-Cloud Data Services offers organizations the ability to protect data originated in the cloud provider of their choice with one copy of their data deduplicated across all clouds. It also protects on-premises applications and simplifies their networking and operations. Now organizations can have one consistent data protection storage strategy instead of managing data separately in each public cloud.

**Backup and Replication**

Data Protection Services with APEX Multi-Cloud Data Services provides the ability to protect on-premises data and applications in a cloud-adjacent location by leveraging familiar and trusted array-based replication from on-premises PowerProtect DD appliances replicating to the target location for multi-cloud service. Using the off-premises target for basic backup operations reduces the burden on on-premises activities. Data Protection Services with APEX Multi-Cloud Data Services can also be a replication target for PowerProtect DD Virtual Edition (DDVE) software running in one or more public clouds.
Cloud Disaster Recovery
Data Protection Services with APEX Multi-Cloud Data Services allows organizations to restore point-in-time data to the public cloud provider of their choice at any time. In the event of data failure or data loss, the multi-cloud attachment allows customers to spin up their data on-demand in any public cloud, avoiding cloud vendor lock-in.

Long Term Retention and Archive
Data Protection Services with APEX Multi-Cloud Data Services provides the backup administrator a remote site to protect and store data, originated on-premises and/or in the cloud, that needs to meet governance and compliance for regulatory processes in an as-needed fashion. This lessens the under-utilization of on-premises storage. Quality assurance and test/dev teams can also benefit by moving workloads between endpoints to and from cloud targets to assure that production copies will work, decreasing software errors and creating more agile practices.

Multi-Cloud Cyber Recovery Options
1. Protection for existing Data Protection with APEX Multi-Cloud Data Services deployments
2. Protection of data originated on customer premises
3. Protection of data originated in the public cloud

Cyber Recovery
The secure vault environment uses Data Protection Services with APEX Multi-Cloud Data Services to serve as the replication target for the primary PowerProtect DD or PowerProtect DD Virtual Edition (DDVE) data sources. Dedicated compute resources run the Cyber Recovery Management tools and any CyberSense analytics tools. Combined with the physical security and isolation of the vault, this solution includes an operational air gap which enables access to the vault only long enough to replicate data from the primary. At all other times, the vault is disconnected from the production environment. Once a copy of the selected data is safely within the secure, isolated vault, the data cannot be altered, deleted, or otherwise changed for a prescribed duration. CyberSense analytics, with its machine learning and full-content indexing capabilities, can analyze each data set within the security of the vault.
Dell Technologies Data Protection Solutions – Leading Your Way To The Cloud

As applications move to the cloud, flexible, simple backups and restores of data hosted in the public cloud, as well as the ability to move workloads across clouds, becomes extremely valuable and allows organizations to select the right place for their workloads to run. Data Protection Services for APEX Multi-Cloud Data Services protects data hosted on-premises and in multiple public clouds from a single destination with confidence and at a low cost-to-protect.