Enterprise Strategy Group™
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Clumio: Cost-optimized Backup and Recovery for Data in AWS

Clumio and AWS: Better Together

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Abstract

This White Paper from TechTarget's Enterprise Strategy Group documents our evaluation of the Clumio Cloud Backup and Recovery platform available in the [AWS Marketplace](). We evaluated how Clumio identifies, protects, and reports on data in the cloud.

Challenges

The volume of data produced by organizations continues to increase, along with the value of that data. It can be used to make critical business decisions, optimize operations, and provide a better customer experience. However, managing data storage and backup has become challenging. Consolidating and automating backups becomes much more difficult and expensive as data grows and is stored in various locations.

Storing data in the cloud has become more ubiquitous as the cloud model provides time and money savings, while increasing business agility and scalability. However, the amount of data and the various locations it can be stored in across the cloud makes it more difficult to identify storage and backup costs. To identify these costs, organizations must make sense of various billing statements and consolidate them to know their total cost.

Additionally, secondary data stored for protection purposes, such as backups and snapshots, can be many times the size of production data, driving up storage costs. Figure 1 shows the amount of secondary data required by surveyed organizations for every TB of production data. 85% of respondents indicated that they require at least double the amount of production data for data protection services, with many requiring several times more than that.[1] Organizations need a solution that helps to find all their data, securely backs it up while reducing costs, and provides clear reporting for data governance.

Figure 1. Data Required for Backups Has Outpaced Production Data

For every 1 TB of production data, how many TB of secondary/protection data do you typically require for data protection purposes, including backups (including dailies, weeklies, monthlies, etc.), snapshots, replicas, archives, etc.? (Percent of respondents, N=360)
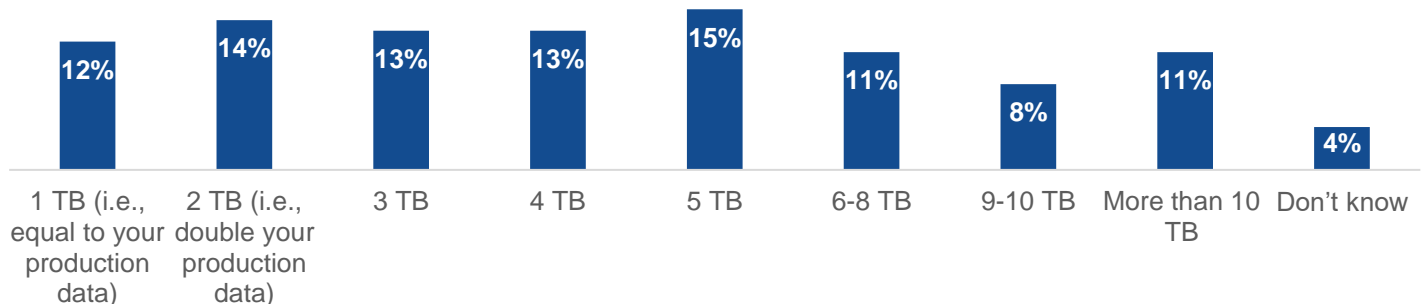
Source: Enterprise Strategy Group, a division of TechTarget, Inc.

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[1] Source: Enterprise Strategy Group Complete Survey Results, *From Data Backup to Data Intelligence*, January 2022.

Clumio Cloud Backup and Recovery

Clumio Cloud Backup and Recovery provides cloud data protection at scale in collaboration with AWS. Clumio provides protection against accidental data loss, ransomware, and cyberthreats. It also improves compliance and reduces AWS backup costs.

Clumio helps organizations complete three critical steps in optimizing their cloud storage and backup costs:

1. **Identify**: Clumio helps to optimize backup spending with cost tracking and identifies top consumers and outliers. This helps organizations to know where data lives and how much exists to help them manage and optimize storage costs.

2. **Backup**: Clumio offers air-gapped, immutable, encrypted, and secure backups. These backups are cost-optimized for operational recovery and compliance-driven, long-term data retention. Organizations save management time and costs using Clumio's automation and proactive support.

3. **Report**: Consumption reports highlight where organizations are spending the most for their backups within AWS. Organizations can view data location, volume, and compliance status to help manage and optimize storage costs.

Figure 2 shows Clumio's high-level architecture. Clumio's Cloud Connector connects with the various AWS services and uses serverless functions (i.e., AWS Lambda) to ingest, process, and index data. These functions also provide recovery capabilities. The increased scale provided by serverless architecture allows Clumio to back up and restore data quickly, regardless of the amount.

When business applications are using the data being backed up (e.g., data in an Amazon S3 bucket), Clumio will automatically distribute and schedule backup functions to make sure applications remain available to end users. Clumio will intelligently detect any API throttling and focus resources on backing up other data while waiting for the data in use to become available.

Figure 2. Clumio Cloud Backup and Recovery Architecture
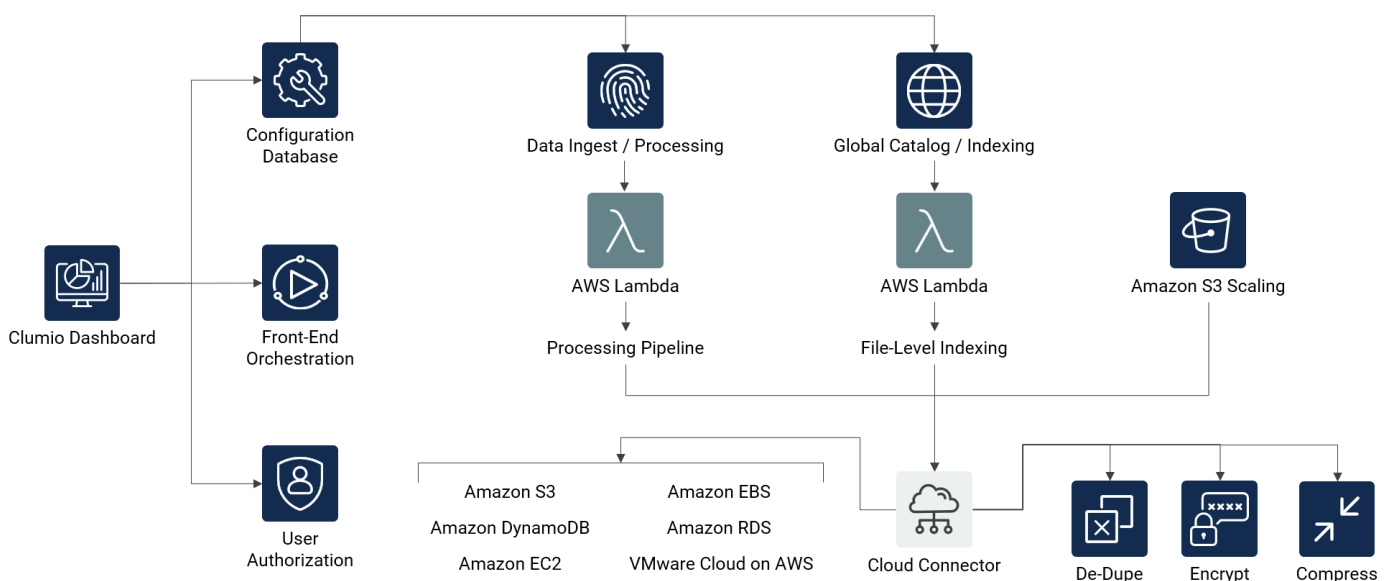
Source: Enterprise Strategy Group, a division of TechTarget, Inc.
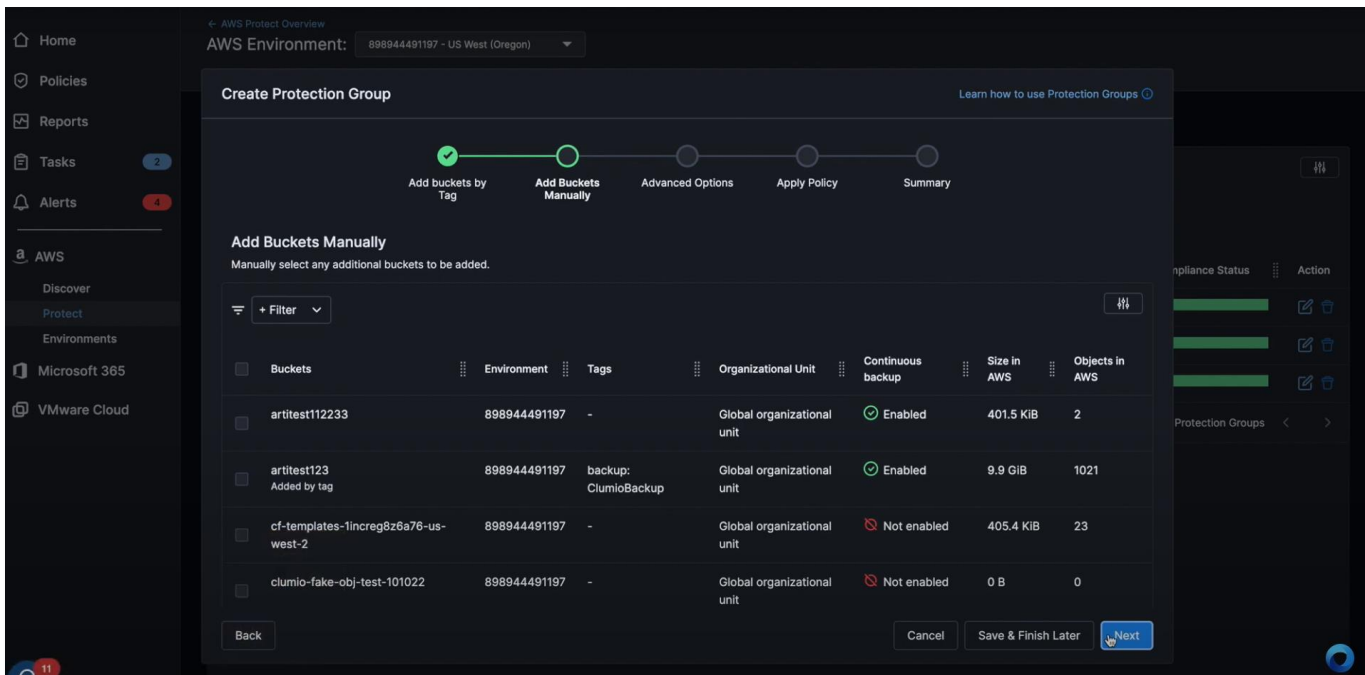
Enterprise Strategy Group Validated

Enterprise Strategy Group evaluated Clumio's ability to help organizations discover, protect, report on, and optimize their cloud data environment.

Discover and Protect the Data Environment

Clumio provides global visibility into what data is in the cloud and where in the cloud it resides. The Discover module within Clumio provides a centralized view of data across all connected accounts and regions so that organizations can see their overall AWS footprint. Clumio also segments and filters this information based on accounts (i.e., production versus development accounts). This holistic view makes it simpler for customers to identify where their data resides. In many cases, Clumio has discovered snapshots that customers no longer need to keep, helping them to see immediate return on investment by removing those snapshots.

Clumio offers another way to optimize costs with Protection Groups that allow organizations to pinpoint the exact data that needs to be protected, eliminating duplication of non-critical data. Enterprise Strategy Group walked through a Protection Group creation workflow where specific Amazon S3 buckets were chosen for backup and protection. We added buckets to a Protection Group via tags or manually via a filter (see Figure 3).
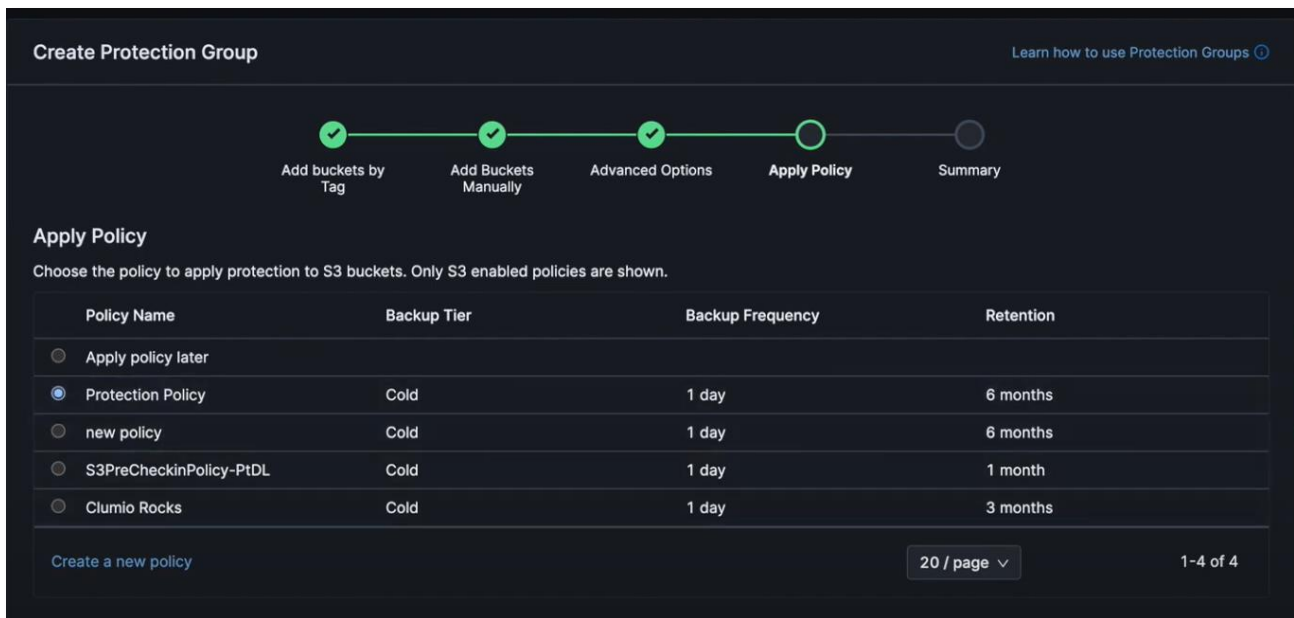
Figure 3. Adding Amazon S3 Buckets to a Protection Group

Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Next, we applied a policy to the Protection Group. As shown in Figure 4, policies dictate the backup tier, backup frequency, and retention policy.

Figure 4. Adding a Policy to a Protection Group

With the Amazon S3 buckets chosen and the requisite policies added to the Protection Group, Clumio is ready to back up only what is necessary, providing cost savings over backing up everything in an environment. Clumio provides continuous backup capabilities for Protection Groups to meet recovery point objectives for critical data.

Clumio SecureVault provides air-gapped, cost optimized backup with easy automation and management for Amazon AWS. Clumio features Protection Groups, giving organizations fine-grained control over what gets backed up. SecureVault also provides support for quick operational recovery and long-term archiving. SecureVault is available for the following AWS services:

- Amazon Simple Storage Service (S3)
- Amazon Elastic Compute Cloud (EC2)/ Elastic Block Store (EBS)
- Amazon Relational Database Service (RDS)
- SQL Server on Amazon EC2
- Amazon DynamoDB
- VMware Cloud (VMC) on AWS

Clumio SecureVault Lite provides cost-efficient backups ideal for long-term retention (Amazon EC2 & Amazon EBS) with no file-level indexing for Amazon EC2 instances. This offering is a great fit for test and development environments and long-term archiving.

Moving to a new backup vendor can be challenging due to existing backups that have to be maintained for a specific time. **Clumio Convert** moves up to three years of existing Amazon EBS snapshots to Clumio, appearing to the company as if they had been using Clumio all along. Once the snapshots are moved over with one full backup, the backups become incremental forever without impacting their retention.

Report On and Optimize Backup Costs

Once an organization has discovered where its data resides within AWS, begun backing up that data with Clumio, and migrated all existing backups, it is then essential to continuously monitor and optimize backup costs.

Clumio helps organizations do this via its Consumption Report, which offers organizations a view of how their Clumio spending trends over time. This view tracks the cost of Clumio-managed backups within the AWS environment and across all AWS accounts. In addition, proactive alerting measures warn when any Clumio credits are expiring faster than they should.

Clumio's Consumption Report provides the exact cost of an organization's backups on any given day of the week. Figure 5 shows an example of the report. It provides breakdowns for all AWS objects and data managed by Clumio and the cost of storing this data. This single view allows organizations to monitor how much they spend on backups and optimize where needed.

Figure 5. Clumio Consumption Report

Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Conclusion

Companies are gathering more data than ever, and that data is becoming more valuable. Companies use data to improve the user experience, optimize business processes, and make better business decisions. How data is handled can also be dictated by government and industry regulations. Moving many business operations to the cloud has only increased data management complexity. According to Enterprise Strategy Group research, most companies need at least double the space used for production systems for data backups.[2] These factors make data backup management more complex and expensive as data grows.

Enterprise Strategy Group validated that Clumio Cloud Backup and Recovery simplifies data management in the cloud through their AWS Marketplace offering. Clumio Discover provides a view into what data is currently in use and where organizations are spending the most money for data storage. Clumio's protection offerings, such as SecureVault and SecureVault Lite, provide air-gapped, secure backups for Amazon S3, Amazon EC2, Amazon EBS, Amazon RDS, SQL Server on Amazon EC2, Amazon Dynamo DB, and VMC on AWS, with the ability to

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[2] Source: Enterprise Strategy Group Complete Survey Results, *From Data Backup to Data Intelligence*, January 2022.

migrate existing backups and quickly recover from operational incidents. Clumio's reporting capabilities help organizations keep an eye on data backup costs across all their AWS accounts and regions.

Clumio offers fast and reliable data protection and recovery for any AWS environment. Clumio's rapid deployment and holistic view of resources enable organizations to see fast benefits. In addition, organizations don't need to keep two vendors at once due to Clumio's Convert offering, which migrates existing backups and treats them as if they were always in Clumio. Clumio automatically deduplicates, compresses, and encrypts data to keep it safe while saving storage space and lowering costs. According to a use case published by Clumio, one client saw a 48% reduction in the total cost of ownership by switching to Clumio.[3] Clumio was deployed quickly and helped them meet their DevOps and infrastructure-as-code goals without affecting service-level agreements.

If your organization is looking to better discover, protect, and optimize cloud data and backups, Enterprise Strategy Group recommends you give a serious look at Clumio Cloud Backup and Recovery on AWS Marketplace.

AWS Marketplace

AWS Marketplace is a curated digital catalog that organizations can use to find, buy, deploy, and manage third-party software, data, and services that they need to build solutions and run their businesses. AWS Marketplace includes thousands of software listings from popular categories such as security, networking, storage, machine learning, IoT, business intelligence, database, and DevOps. Additionally, organizations can browse and subscribe to data products. AWS Marketplace makes it easy to launch pre-configured software with just a few clicks and choose software solutions in Amazon Machine Images (AMIs), software as a service (SaaS), as well as other formats. AWS Marketplace also simplifies software licensing and procurement with flexible pricing options which include free trial, hourly, monthly, annual, multi-year, and a Bring Your Own License (BYOL) model.

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[3] Source: Clumio, *Customer Stories: Operix*.

About Enterprise Strategy Group
TechTarget's Enterprise Strategy Group provides focused and actionable market intelligence, demand-side research, analyst advisory services, GTM strategy guidance, solution validations, and custom content supporting enterprise technology buying and selling.

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