

# Clumio Enterprise Backup for Microsoft SQL Server

Clumio provides an authentic SaaS experience for backup:

### *SaaS Simplicity for Database Protection*

No more babysitting backup hardware and software whether SQL Servers are in data centers or in the cloud. Set it and forget it SaaS offering with self-managing edge connectors in SQL Server hosts

### *Cost-effective Database Protection*

One backup copy does it all. Use it for recovering from operational glitches, compromised sites, accounts, and natural disasters. Reduce the costs of extended retention to comply with regulatory requirements.

### *Platform Independent Data Retrieval*

Clumio stores backups in the cloud and liberates the data from the infrastructure. No maintenance of old database engines required. Search and instantly retrieve records directly from backups to comply with audits, legal hold and eDiscovery.

### *Rapid Self-service Database Recovery*

Database administrators can recover databases rapidly to a specific point in time or restore to alternate sites and cloud accounts.

## **The Challenges in Microsoft SQL Server database protection in hybrid cloud IT**

The traditional agent-based backup solutions from yesteryears pose a significant challenge as enterprises are adopting hybrid cloud strategies. IT managers are now asked to extend pre-existing data centers into public clouds to meet seasonal spikes in

data processing, to perform testing and development and to run on-demand analytics . As production data spans multiple data centers and cloud accounts, the need for a holistic approach in protecting SQL Server data has arrived.

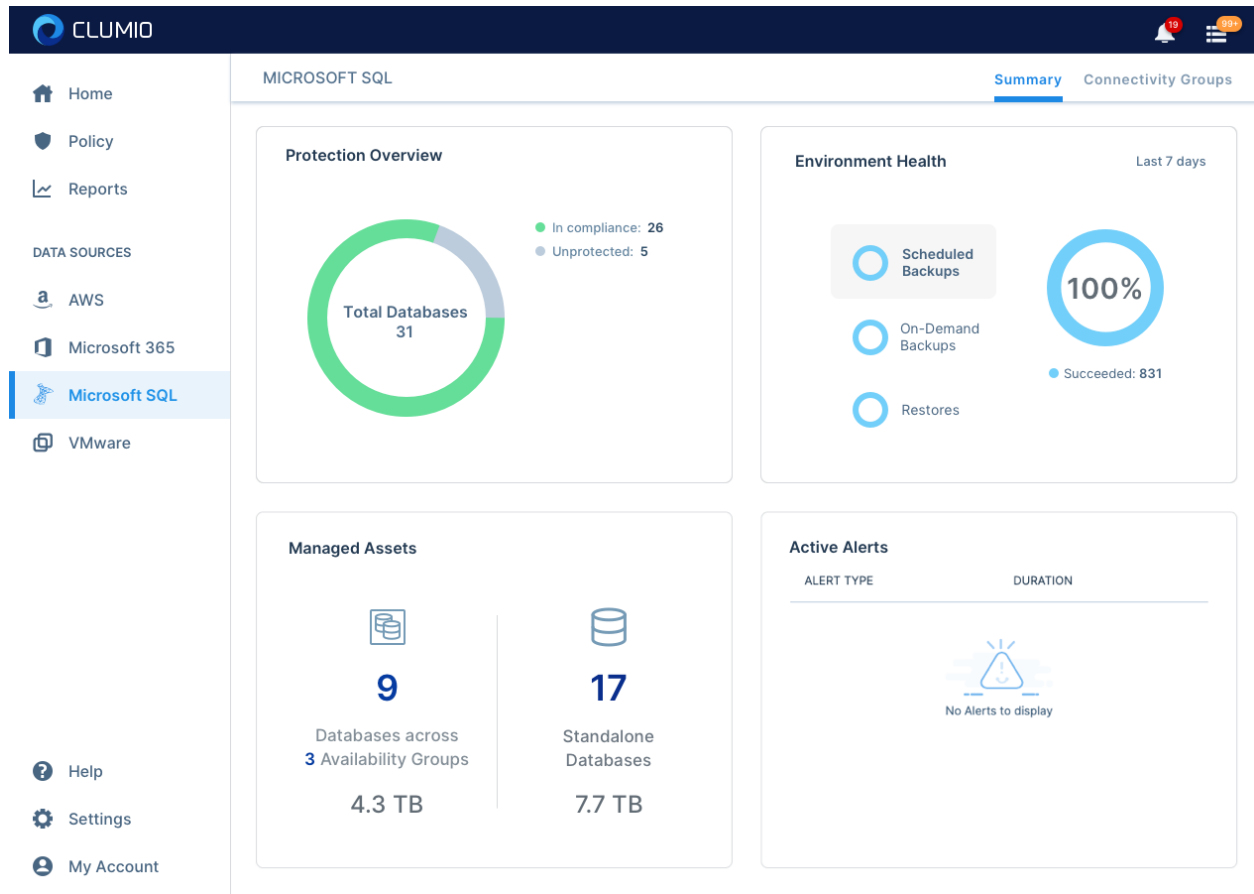
Data from business applications outlive the infrastructure where they currently reside. Enterprises want to ensure that the data is always in their control and is retrievable even when the infrastructure where it originated is no longer available. This is one of the key inhibitors in sticking to legacy backup solutions for protecting business critical applications. Those backups are tied to database engine type, version and often to the platform in which it originated, thus making it extremely difficult to retrieve records when compliance audits occur several years from now.

## **How Clumio Works**

Built as a cloud-native SaaS solution, Clumio requires zero management of software components in order to protect Microsoft SQL Server databases. A stateless, self-managing, lightweight edge connector service is deployed in SQL Server host to perform inventory of availability groups, instances and databases. The edge connector service does incremental forever backups of databases and database log backups to deliver point in time recoveries. The data stream from edge connector is passed onto Clumio cloud connectors deployed as offhost, stateless and scalable virtual appliances or serverless cloud functions that perform global deduplication, compression and FIPS 140-2 validated encryption before being sent to Clumio SaaS Backup dataplane.

Clumio's unified policy framework lets you easily and consistently apply protection across multiple data sources across sites and cloud accounts. For example, you can protect both backend SQL Server databases and frontend virtual machines of a distributed application from a single policy. Global policy compliance status and actionable alerts can be monitored from a single dashboard for all data sources, sites, accounts and platforms.

### Compliance Dashboard



Unlike legacy and appliance centric backup solutions, Clumio for Microsoft SQL Server is the only backup solution that provides touch-free management, engine independent backups, and instant data retrieval that is built for enterprises operating in hybrid cloud environments. Above all, the data is stored in a searchable time-series data lake from which records can be retrieved using familiar ANSI SQL queries by authorized database administrators, data scientists and developers.

## Granular Record Retrieval

The screenshot shows the 'Granular Record Retrieval' interface. On the left is a 'SCHEMA BROWSER' with a 'Database Name' dropdown set to 'adventureworks\_caec9cb0\_rds\_90'. Below it, a list of '69 Database Tables' is shown, with 'salesreason\_ee6248c3\_20...' expanded to show columns: 'salesreasonid (int)', 'name (string)', 'reasontype (string)', and 'modifieddate (bigint)'. On the right, the 'SQL QUERY FOR RETRIEVAL' section shows a 'Selected Backup' of '5/31/2020 - 5:02:38 PM' and a 'Default Database Name' of 'adventureworks\_caec9cb0\_rds\_907517458102\_uw\_2\_cluster...'. The SQL query is: 

```
select salesreasonid, name, reasontype from salesreason_ee6248c3_20200601_346a8052a39b11eaa624be36ec90e2d8
```

 Below the query is a 'Preview' button. Underneath, it says 'Previewing 10 records' and shows a table with 4 rows. At the bottom right is an 'Initiate Record Retrieval' button.

| SALESREASONID | NAME                     | REASONTYPE |
|---------------|--------------------------|------------|
| 1             | Price                    | Other      |
| 2             | On Promotion             | Promotion  |
| 3             | Magazine Advertisement   | Marketing  |
| 4             | Television Advertisement | Marketing  |

### Unique Benefits of Clumio Backup for Microsoft SQL Server

Clumio offers four key benefits to enterprises that deliver value for Microsoft SQL Server data protection:

#### Always-On Security

- Backups are securely written directly into Clumio, safely stored outside of the production sites or cloud accounts. Thus, a single backup copy not only serves for operational recovery, but helps you recover from sites or accounts compromised by natural disasters and ransomware.
- All data transfers are safeguarded with in-flight encryption and end-to-end integrity checks. The data leaves the production site or account only after it is encrypted via a FIPS 140-2 validated encryption engine, thus meeting even stringent standards required by many government agencies.
- Clumio's access credentials are separate from site or cloud account credentials, facilitating a layered security model. Customer's on-premises and cloud account credentials are not stored in Clumio.

- Backup data is written to a durable object store in an immutable format, creating an air-gapped security layer for additional peace of mind.

#### SaaS Simplicity for Database Protection

- Unified policy framework to easily and consistently apply protection across multiple sites and cloud accounts.
- No hardware to install and refresh, no software to manage. Set it and forget about it style SaaS offering with self-managing edge connectors in SQL Server hosts.
- Global policy compliance alerts from a single dashboard.

#### Cost-effective Database Protection

- One backup copy does it all. Use it for recovering from operational glitches, compromised sites and accounts, and natural disasters.
- Reduce the costs of extended retention to comply with regulatory requirements and company policies by eliminating database engine or format version dependent legacy backups.

- Store directly in Clumio service with a predictable pricing model that is based on protected terabytes and retention needs.
- Data is stored in a time-series data lake, guaranteeing retrieval even after the originating sites, accounts and engines have reached end-of-life.

#### Platform Independent Data Retrieval

- Enable migration across database engines and versions from backed up data.
- Clumio separates the data from the infrastructure to enable data mobility for SQL Server
- Search and retrieve records directly from backups to comply with audits, legal holds and eDiscovery needs without the undue burden of error-prone, time-consuming restore processes onto sandboxed environments.

#### Rapid Self-service Database Recovery

- Create organization units for database administrators and delegate protection and recovery responsibilities if needed
- Restore to SQL Server running in different environments - SQL Server on-prem, SQL on VMware Cloud. And soon SQL server on Amazon EC2.
- Database administrator can recover production databases rapidly to a specific point in time

#### SaaS Protecting Microsoft SQL Server: Simple, Secure and Cost-effective

Clumio simplifies data protection with unified protection policies to ensure consistent compliance across Microsoft SQL Server as well as other related data sources of modern, distributed, enterprise applications in the hybrid cloud. By enabling centralized management and on-demand scaling for hundreds of sites and thousands of cloud accounts with no hardware to install, and no software to manage, Clumio facilitates a data protection approach that is immediate, secure, and reliable. Databases can be rapidly recovered to an operational point in time, and records can be directly searched and retrieved from extended retention copies via an intuitive, searchable interface. A Clumio subscription is priced per protected terabyte for a given retention period, thereby offering a cost-effective model with no hidden costs that are typically found with other snapshot management-based backup solutions.

Clumio takes Microsoft SQL Server to hybrid cloud world with our authentic SaaS platform, breaking down the barriers enterprises had faced in migrating mission critical databases to cloud, while mitigating the risk of data loss and non-compliance.