

# Simplifying Data Management in Research Environments

Commvault + Microsoft: Reduce the cost, risk and effort associated with research data

COMMVAULT  |  Microsoft



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# Challenges With Research Data

Research institutions are generating massive amounts and types of data that are expensive and difficult to manage, use, share and protect. The often-sensitive nature of data and the strict compliance requirements established by funders add to these challenges.

In 2020 alone, universities in the U.S. collectively spent \$86.4B<sup>1</sup> in Research and Development to support academic research. This investment can be better safeguarded with a holistic approach to data management and protection. One that supports institutions' ability to fully understand the data they are accountable for, who has access to it and how to best protect it from loss or leakage in a cost-effective manner.

Overarching data management policies set by IT departments often do not work in research settings due to the dynamic nature of data generated. The type and amount of data is uniquely dependent on the project making it difficult to set standard archiving and retention policies. Manual movement and archiving of data are not only incredibly tedious, complex and time consuming, but leaves institutions vulnerable to ransomware and data breaches. In addition, institutions are facing increasing pressures to meet the National Institutes of Health's new [Data Management and Sharing Policy](#) that goes into effect in January 2023.

Together, Commvault and Microsoft are improving data management and security practices while empowering institutions to accelerate their research.

Microsoft's powerful solutions are built to ingest massive amounts of data with AI and Azure cloud computing capabilities. Commvault's Intelligent Data Management natively integrates with Microsoft Azure, allowing researchers to quickly leverage Microsoft's services and scale up or down as needed while simplifying the management, use, sharing and protection of research data.

Researchers can benefit from an end-to-end data management solution with selfservice capabilities that enable them to inventory, analyze, visualize, tag, protect and share data. While IT departments can gain insight into researchers' project data profiles to better manage and plan institutional costs, security and compliance.

<sup>1</sup>NSF – NCSES Academic Institution Profiles – Rankings by total R&D expenditures

<sup>2</sup>Ransomware Recovery Cost Reaches Nearly \$2 Million, More Than Doubling in a Year, Sophos Survey Shows



Globally, the average total cost of recovery from a ransomware attack has more than doubled from 2020 to 2021, increasing from \$760K to nearly

**\$2 million<sup>2</sup>**



# Enhance Data Management and Bolster Security

## Strengthen data management governance with better controls for researchers

Due to the petabytes or even exabytes of data that researchers are working with, it is paramount that they remain in control of their data at the project and data set level throughout its lifecycle. The sheer size of backing up this data through IT departments is costly. As a result, that data may be backed up inconsistently, if at all, putting the data and a project at higher risk.

The National Institute's new Data Management and Sharing Policy, effective January 2023, will require research institutions to have a documented plan to protect, share and control access to their data. To meet requirements for this policy, institutions need to move beyond manual processes and invest in a unified approach to data management with robust capabilities.

At present, researchers are spreading data across various storage devices while manually managing, moving and backing up that data. This adds risk, complexity and potentially higher storage costs to the data environment. Ultimately, this hampers researchers' ability to confidently access, use or share their data. Equally important, the lack of data management and security leaves institutions more vulnerable to cyberthreats.

Cyberthreats can jeopardize the integrity of a research project's findings or even its completion. Depending on the seriousness of the breach, it can also impact an institution's ability to secure future grants. Cyberthreats continue to target the education sector more than any other industry. The sheer volume of attacks would suggest the question of a successful attack is not a matter of "if," but "when." Research institutions need a comprehensive and configurable platform that enables them to access, share and collaborate with data while remaining secure.

<sup>3</sup> Downtime: The Real Cost of Ransomware | Delphix

# 82.7%

of malware attacks between April and May 2022 targeted education versus other industries.<sup>3</sup>



# Cyber-Readiness Starts With Visibility

Storing data in the cloud has vastly enhanced institutions' ability to take advantage of advanced data capabilities. However, to remain secure from cyberthreats such as ransomware, research institutions need a centralized approach to managing data access, movement and recovery in the cloud. A comprehensive data management solution can be configured in a self-service model that allows the researcher to retain control of their data while ensuring it is automatically backed up and protected to the standards set by funders and the research institute.

For the community of researchers, the benefits of a centralized approach include accessing a dashboard of their data to allow for better oversight and sharing; the ability to index and conduct granular searches on large volumes of data; and the ability to categorize and tag data for bulk management.

Commvault can provide data visualization, tagging and data management by scanning live file systems or Commvault backups.

However, backing up your data is not a pre-requisite for data management and accessing insights.

Customers often use these valuable insights to decide what to backup, archive and what retention policies are needed.



Inventory  
Your Data



Analyze and  
Visualize



Find and  
Access



Tag and  
Categorize



Protect



Move or  
Archive



Share



Delete

# Accelerate Research With Data Management While Controlling Costs

Research institutions invest in Microsoft environments and applications to accelerate their research and trust in Commvault to provide powerful data management capabilities that make data highly portable, searchable and secure. Commvault natively integrates with Azure for faster movement of data while ensuring that research data remains secure from the myriad of cyberthreats with data management throughout its lifecycle. Exploring research data using a unified data management platform allows institutions to employ visualization and analytics of real-time data to drive analysis and action. It also empowers researchers to share data securely with affiliated researchers.

Research institutions can protect their data while leveraging the benefits of Commvault and Microsoft. Automation for duplication and compression each time the data is backed up reduces the overall cost of storage while allowing researchers to focus on what really matters – the research. Additionally, the ability to move and manage data across multiple Azure tiers puts researchers in control of their data and creates cost-saving opportunities.

# 73%

of IT leaders say that thanks to automation success, employees are saving between **10** and **50%** of the time they previously spent doing manual tasks.<sup>4</sup>

<sup>4</sup>Salesforce\_2020-10-06\_IT Leaders Fueling Time and Cost Savings With Process Automation\_v7





# Comprehensive Data Management and Protection with Commvault + Microsoft

Commvault can help you harness the power of your data. Here are a few benefits:

- **Single user interface**  
with self-service, zero-trust, policy-driven access controls reduces the complexity of data management.
- **Comprehensive data protection and disaster recovery**  
designed for cloud and hybrid environments with advanced automation and anomaly detection to ensure business continuity.
- **Complete backup and secure archiving**  
with granular recovery capabilities.
- **Improved regulatory compliance and reporting**  
to help meet regulations such as HIPAA and NIST 800.171
- **Endpoint device protection**  
for remote teams, including protection from cyberthreats like ransomware.
- **Researcher controlled data management**  
empowers use, visualization and collaboration without needing to backup data as a pre-requisite.
- **Visibility into data profiles across workloads and storage locations**  
eliminates data silos and manual data management processes.
- **Substantial cost reductions**  
through advanced deduplication, compression and storage options.
- **Extended Protection for Office 365 applications**  
with air-gapped, immutable copies.



# Built on Trust: Commvault + Microsoft

For over 20 years, Commvault and Microsoft have worked together to develop innovative solutions that solve real business issues surrounding the use, management and protection of data. Built on Microsoft technologies, our Intelligent Data Services support the broadest range of data workloads in any environment. Microsoft relies on Commvault to manage and protect some of its most important internal data and millions of Xbox Live subscriber accounts. Their trust in Commvault demonstrates the strength, reliability and robustness of our Intelligent Data Platform, built on and optimized for Azure.

**Together** we help companies  
do amazing things with their data  
and achieve more.





Contact your Commvault rep to start simplifying data management:

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or visit **MICROSOFT.COM/COMMVault** >

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