



# Modern Data Management at Exabyte Scale - With Visibility, Efficiency, and Control

Presented by:

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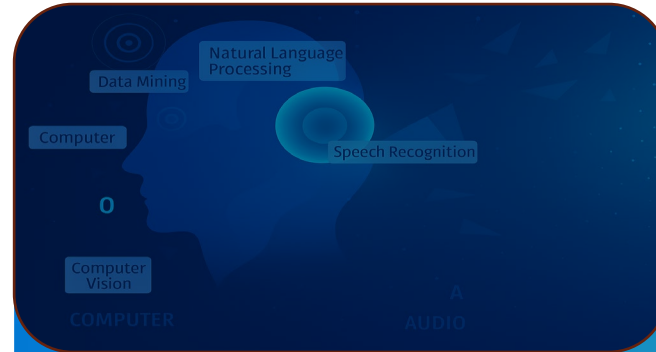
Preethi Thippeswamy - Product Manager, Azure Storage



# Unstructured Data is growing rapidly ...



Forecasts project that unstructured data will grow from 5.5 zettabytes in 2024 to 10.5 zettabytes by 2028<sup>1</sup>



90% of data is unstructured, with over 80% consisting of images, videos, audio, and text documents<sup>2</sup>



95% of businesses acknowledge that unstructured data management is a significant problem for them<sup>3</sup>

# Key Drivers Accelerating Growth of Unstructured Data



**AI and  
Automation**



**Proliferation of  
IoT Devices**



**Digitization of  
Business Processes**



**Hybrid Work and  
Cloud Adoption**



**Lack of Governance  
and Ownership**



**Economic and  
Strategic Value**



**Behavioral and  
Cultural Shifts**



**Social Media and User-  
Generated Content**

# Typical Challenges in Managing Massive Data



# Voice of the Customer

Which are my fastest growing subscriptions and storage accounts?

I want a way to cross-charge business units within my org for storage spend.

How can I visualize the distribution of my data across subscriptions and regions?

I need a way to understand the usage pattern, how much data is used, what data is not accessed

I want a co-pilot like interface where I can ask questions in natural language.

I want to use AI to forecast the future storage growth.

# Needs of IT admins in Cloud Data Management



**Unified Visibility Dashboard**



**Actionable Insights & Alerts**



**Policy & Governance Controls**



**Efficiency with Automation**



**Cost & Usage Analytics**



**Security Oversight**

# Manage Data at Scale



Move



Analyze



Act

# Azure Storage Data Management

Simplify data management across the data estate



## Move

### Vision

An end-to-end experience to discover, plan, move or connect data into Azure in a performant, cost effective, secure, and reliable way

### Offerings



Storage Mover



Data Box and Gateway



Azure File Sync



## Analyze

### Vision

Store and manage metadata and metrics to provide comprehensive insights into the storage estate, supporting cost efficiency, data protection, security, and governance initiatives.

### Offerings



Storage Discovery

Preview



Blob Inventory



## Act

### Vision

Utilize a flexible, scalable, and serverless platform to enrich, retrieve, and process data, empowering your AI agents and workloads effectively.

### Offerings



Storage Actions

# Azure Storage Discovery - Overview



Home > DiscoveryDemoWorkspace

## DiscoveryDemoWorkspace | Reports

Storage Discovery workspace

Search

Capacity Activity Errors Configurations Security Consumption

- Overview
- Activity log
- Access control (IAM)
- Tags
- Reports**
- Scopes
- Resource visualizer
- Monitoring
- Automation
- Help

**Size**  
2.57 PiB  
→ 2.37% / month

**Regions**  
25  
→ 0% / month

**Subscriptions**  
4  
→ 0% / month

**Resource groups**  
95  
→ 0% / month

**Storage accounts**  
1.11K  
→ 0.27% / month

**Containers**  
101M

**Blobs**  
2.27B

Home > DiscoveryDemoWorkspace

## DiscoveryDemoWorkspace | Reports

Storage Discovery workspace

Search

Capacity Activity Errors **Configurations** Security Consumption

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### Redundancy

View resources

Redundancy Type	Percentage
LRS	56.1%
GRS	14.5%
ZRS	8.9%
RAGRS	6.9%
GZRS	13.6%

### Hierarchical namespace (ADLS Gen2)

View resources Ask Copilot

Namespace Type	Percentage
FNS	73.4%
HNS	26.6%

### Secure file transfer protocol (SFTP)

View resources

SFTP Status	Percentage
Disabled	99.9%
Enabled	<0.1%

### Lifecycle management

View resources Ask Copilot

### Change feed

View resources

### Blob inventory

View resources

# Azure Storage Discovery - Powered by AI

Home > DiscoveryDemoWorkspace

**DiscoveryDemoWorkspace | Reports** ★ ...

Storage Discovery workspace

Search

Capacity **Activity** Errors Configurations Security Consumption

- Overview
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Transactions

**30.7M**

↓ -40.11% / month

Egress volume

**47.3 TiB**

↓ -52.41% / month

Ingress volume

**38.4 TiB**

↓ -47.22% / month

**Trends** View resources

View  By

Legend:

- europenorth
- italyn
- uksouth
- francec
- usstagee
- uswest
- uswest2
- frances
- useast2euap
- useast2
- uswestcentral
- uscentral
- uscentraleuap
- norway
- canadacentral
- usnorth
- canadaeast

▲ 1/2 ▼

- 10.1%
- <0.1%
- 6.6%
- 8.7%
- 4.4%
- 10.4%
- 8.9%
- 8.1%
- 5%
- 3.9%
- 6.8%
- 26.4%

**Top 10 items** View resources

**Copilot** ... ✕

Development

Submit

Copilot AI-generated content may be incorrect.

Breakdown of transactions by redundancy type Data from the past 15 days.

Legend: LRS, ZRS, GRS, RAGRS

👍 👎

Show me the top 5 storage accounts by transaction count

Give me a line chart of transactions over the past month

List storage accounts with the highest error rates

I want to ...



# Demo

# Scale with Confidence: Visibility • Efficiency • Control



Modern data management at exabyte scale is tough - but not impossible.  
Our evolving industry services help us turn complexity into clarity and data into opportunity.

# Resources

Simplify data management across the data estate



## Move

[storagemoverpm@microsoft.com](mailto:storagemoverpm@microsoft.com)

### Offerings



[Storage Mover](#)



[Data Box](#)



[Azure File Sync](#)



## Analyze

[storagediscovery@microsoft.com](mailto:storagediscovery@microsoft.com)

### Offerings



[Storage Discovery](#)

Preview



[Blob Inventory](#)



## Act

[storageactions@microsoft.com](mailto:storageactions@microsoft.com)

### Offerings



[Storage Actions](#)

# Other sessions to lookout for...

## Modeling & Simulation

San Tomas + Lawrence - Mon Sep 15 | 3:35pm

### Smarter Cloud Storage—Optimizing Costs with Tiering and Automation



Shruti Sethi  
Senior PM,  
Microsoft



Vignesh Shanbhag  
PM,  
Microsoft

## Cloud Storage

Winchester - Wed Sep 17 | 8:30am

### Cloud Storage Considerations for Retrieval Augmented Generation (RAG) in AI Applications



Scott Hoag  
Principal Product Manager,  
Microsoft

## Cloud Storage

Winchester - Wed Sep 17 | 11:35am

### Enabling Standard Block Protocols on a Distributed Cloud-Native Platform - Azure Storage



Emily Kilian  
Principal Software Engineer,  
Microsoft



Yuemin Lu  
Principal Product Manager/Architect  
Microsoft

## File Systems & Protocols

Lafayette - Wed Sep 17 | 10:35am

### Always-On Diagnostics: eBPF-Powered Insights for Linux SMB and NFS Clients



Meetakshi Setiya  
Software Engineer,  
Microsoft

## File Systems & Protocols

Lafayette - Wed Sep 17 | 9:30am

### Scaling Secure File Access - what's New in Linux SMB3.1.1: Performance, Security, and Beyond



Steven French  
Principal Software Engineer,  
Microsoft

## Sustainability & Green

Winchester - Mon Sep 15 | 10:35am

### Panel: Driving Sustainability in Datacenters – Standardizing Carbon Assessment Methodologies



Shruti Sethi  
Senior PM,  
Microsoft



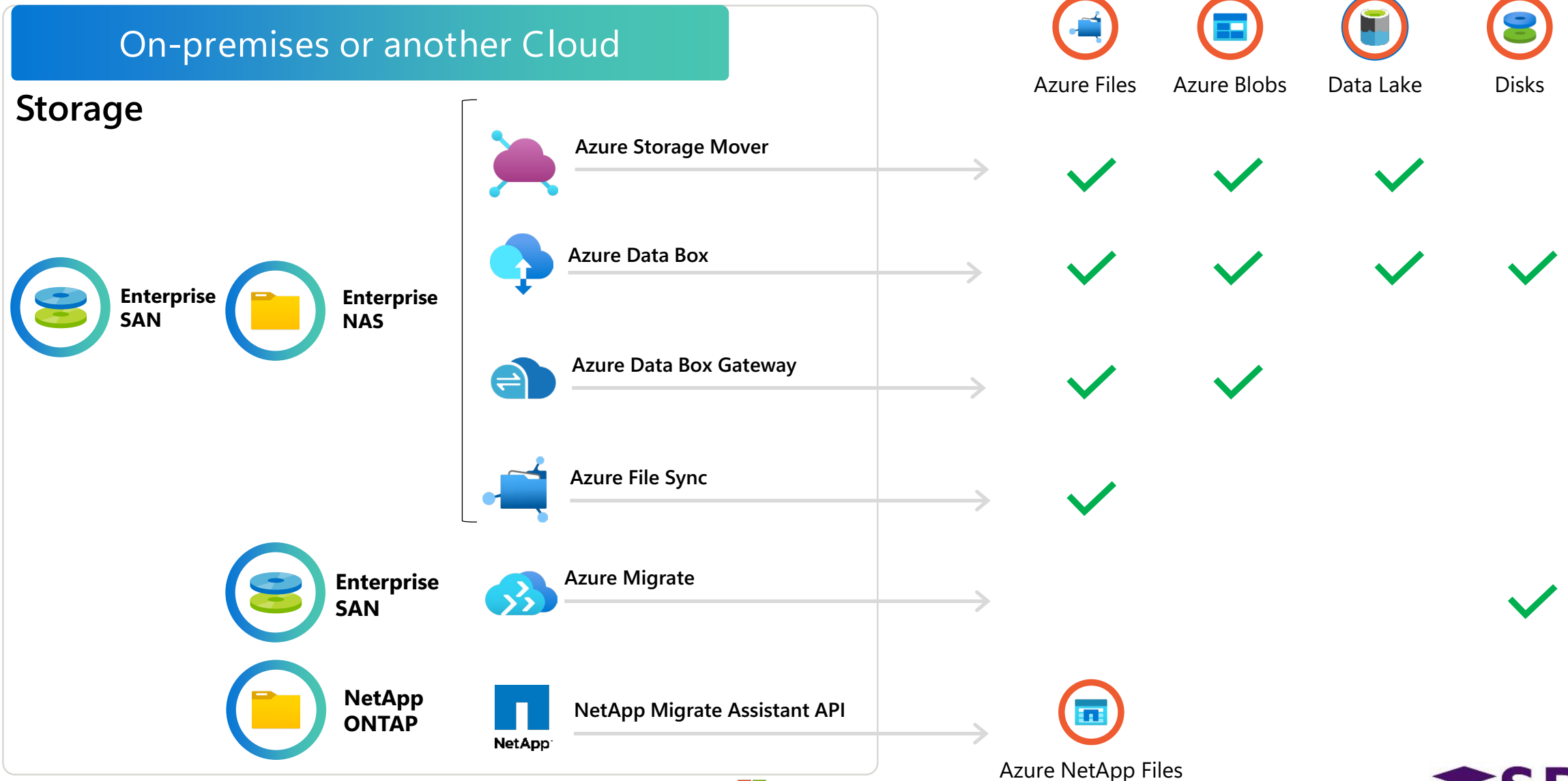
# Thank you for attending!

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<http://sniadeveloper.org/conference>



# Appendix

# Azure Storage Migration solutions



# Storage Actions

## Leverage the full potential of Storage Actions

- 1 Compose once, deploy to multiple storage accounts
- 2 Use dozens of container & object attributes in conditions
- 3 Interactive validation against your data
- 4 Aggregate metrics and reports
- 5 Monitoring views that summarize results at a glance

