



Modernizing data archiving

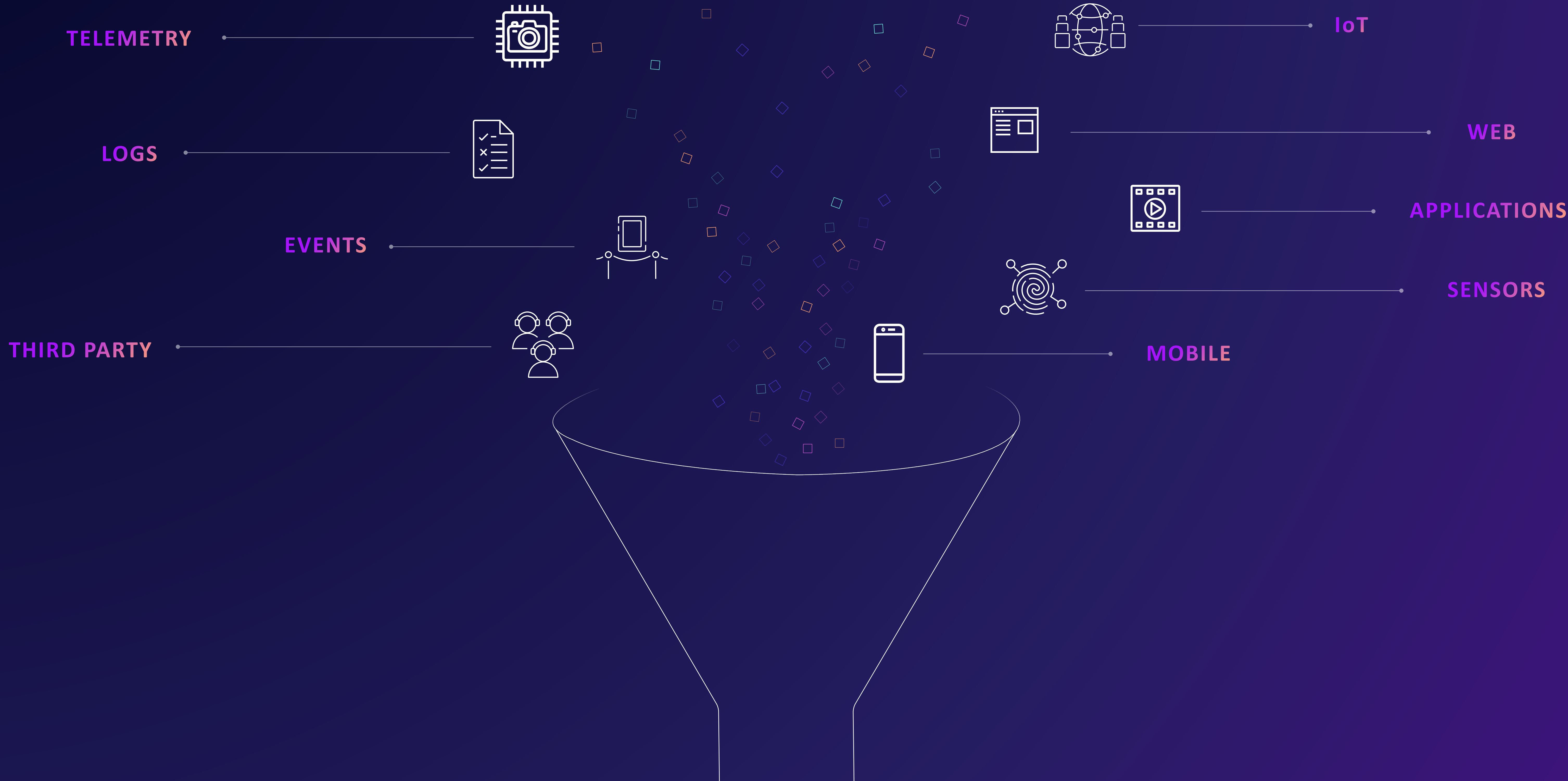
Andrew Pohl

Principal Product Manager, Amazon S3

Agenda

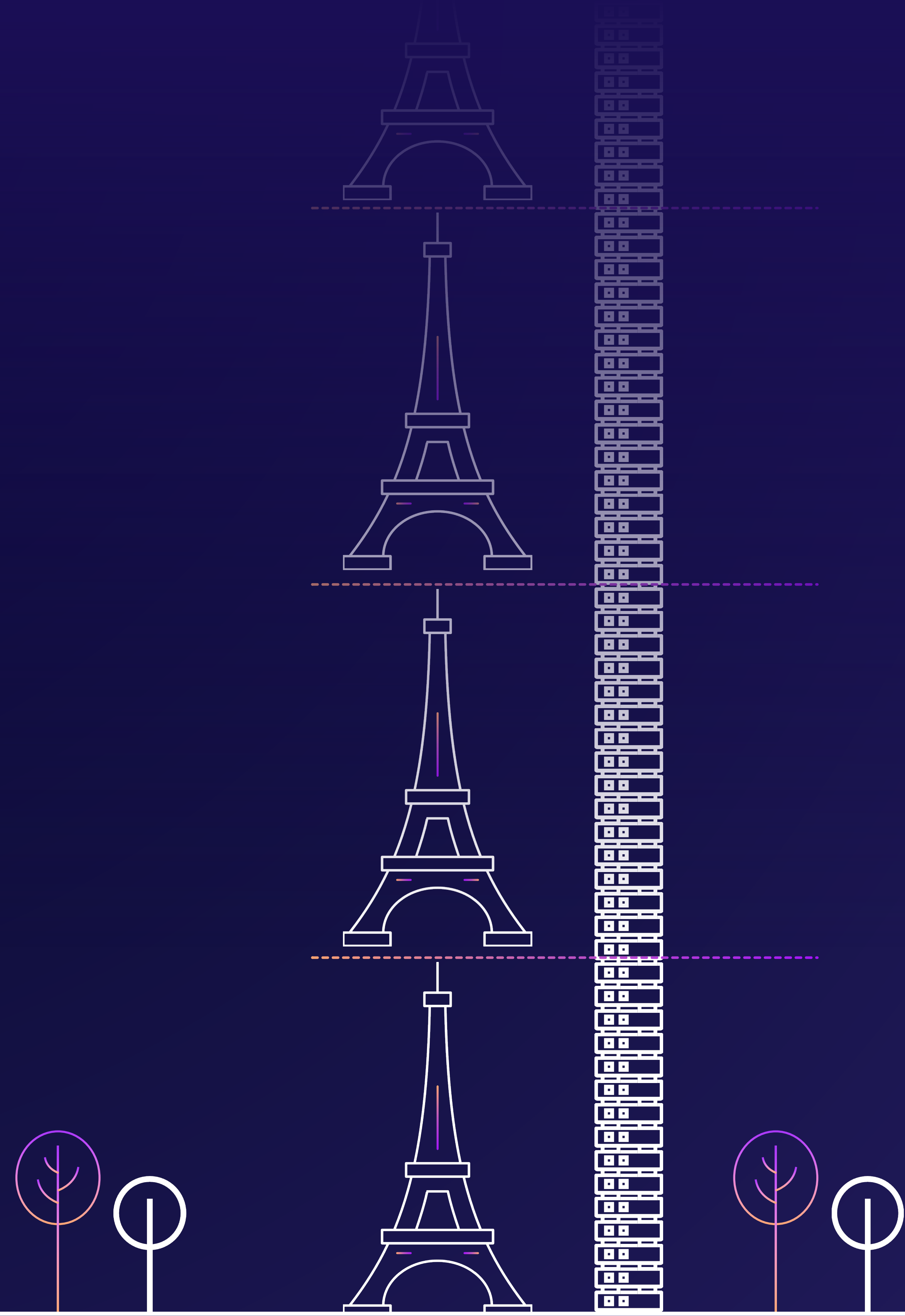
- **Importance of a modern data strategy**
- **Why archive data**
- **Benefits of archiving in AWS**
- **Key takeaways**

Modern apps store massive amounts of data



96 ZB

of data created
in 2022



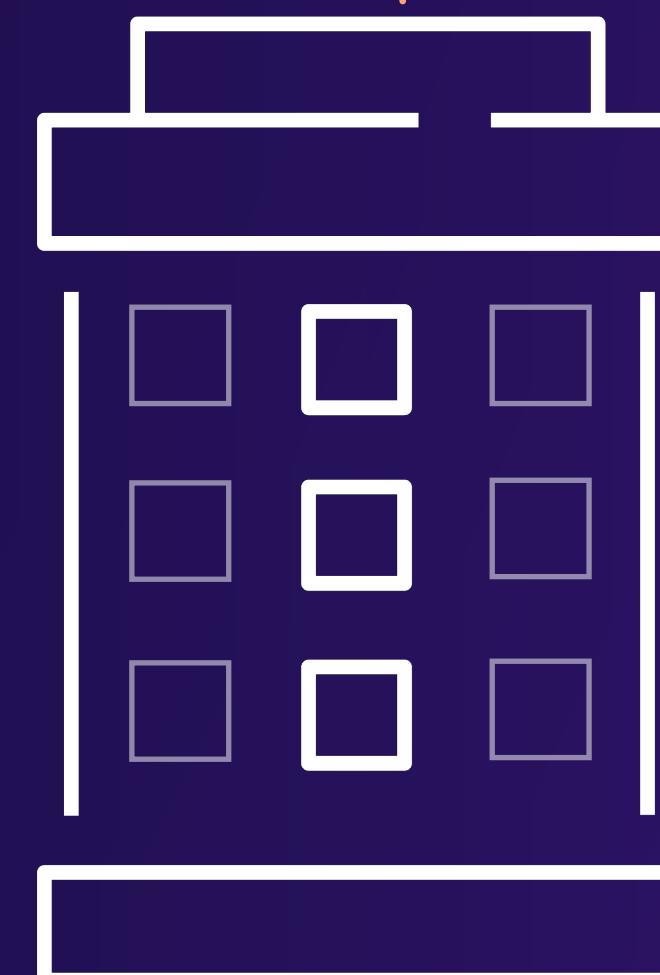
x 18 million



Archive data is just data
not in use at the moment

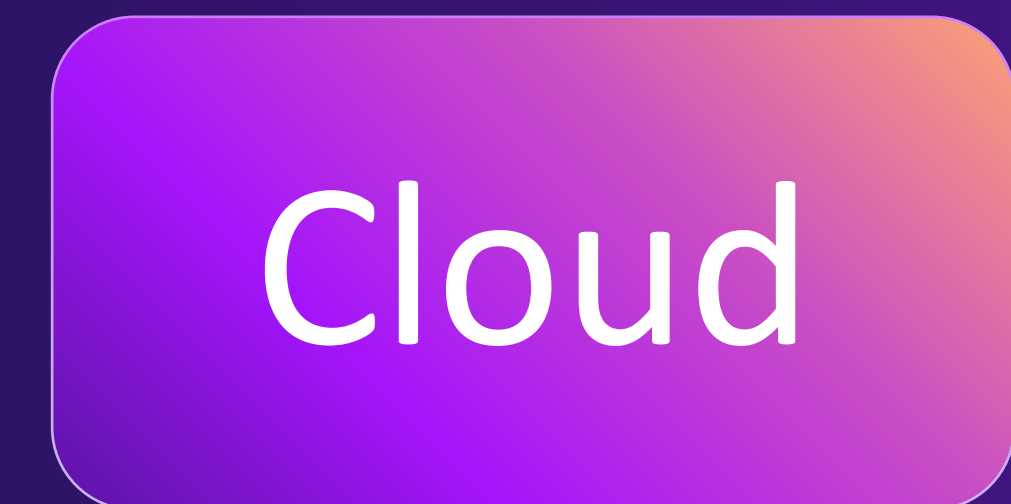
COMPANY 1

On-prem

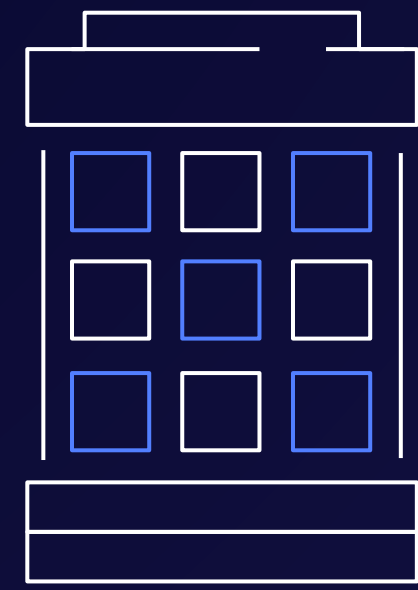


COMPANY 2

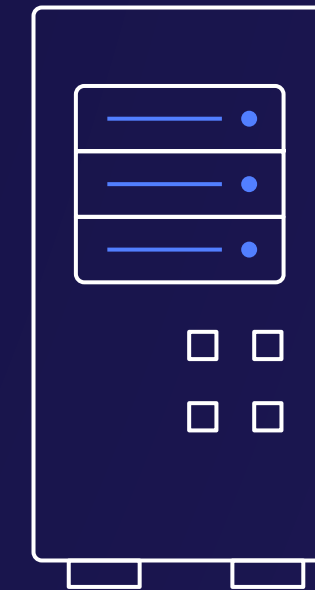
Cloud



On premises archival challenges



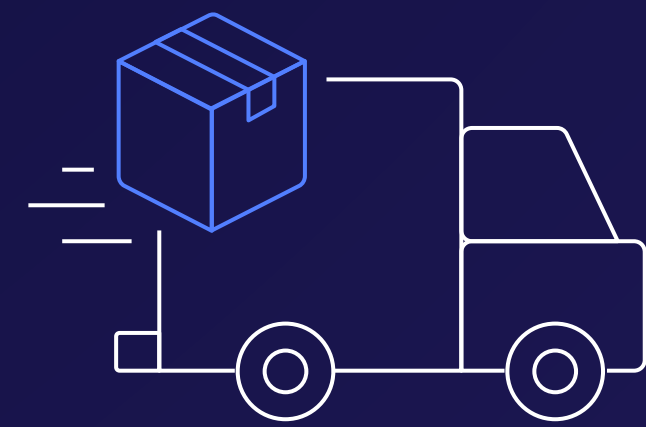
Hosting – space, power,
cooling, network



Capital – servers,
libraries, tapes



Administration
& operations



Off-site storage
& transportation



Opportunity
cost

Benefits of archiving in AWS



Easier to move data
out of archival storage
and into distribution



Increase value
of data



Zero hardware
to manage



Lowest
Cost

Content is growing rapidly, your storage costs don't have to



Media



User data



Files





Connected devices

AWS Storage Portfolio

Disaster Recovery & Backup

Data Movement

-  AWS BACKUP
-  AMAZON EBS SNAPSHOTS

BLOCK



AMAZON EBS

OBJECT



AMAZON S3 & S3 GLACIER

FILE



AMAZON FSX FAMILY



AMAZON EFS

AWS DATASYNC



AWS STORAGE GATEWAY



AWS SNOW FAMILY



AWS TRANSFER FAMILY





Amazon S3

Unmatched durability, availability, and scalability

Adapts to customer data lake needs

Best security, compliance, and audit capabilities

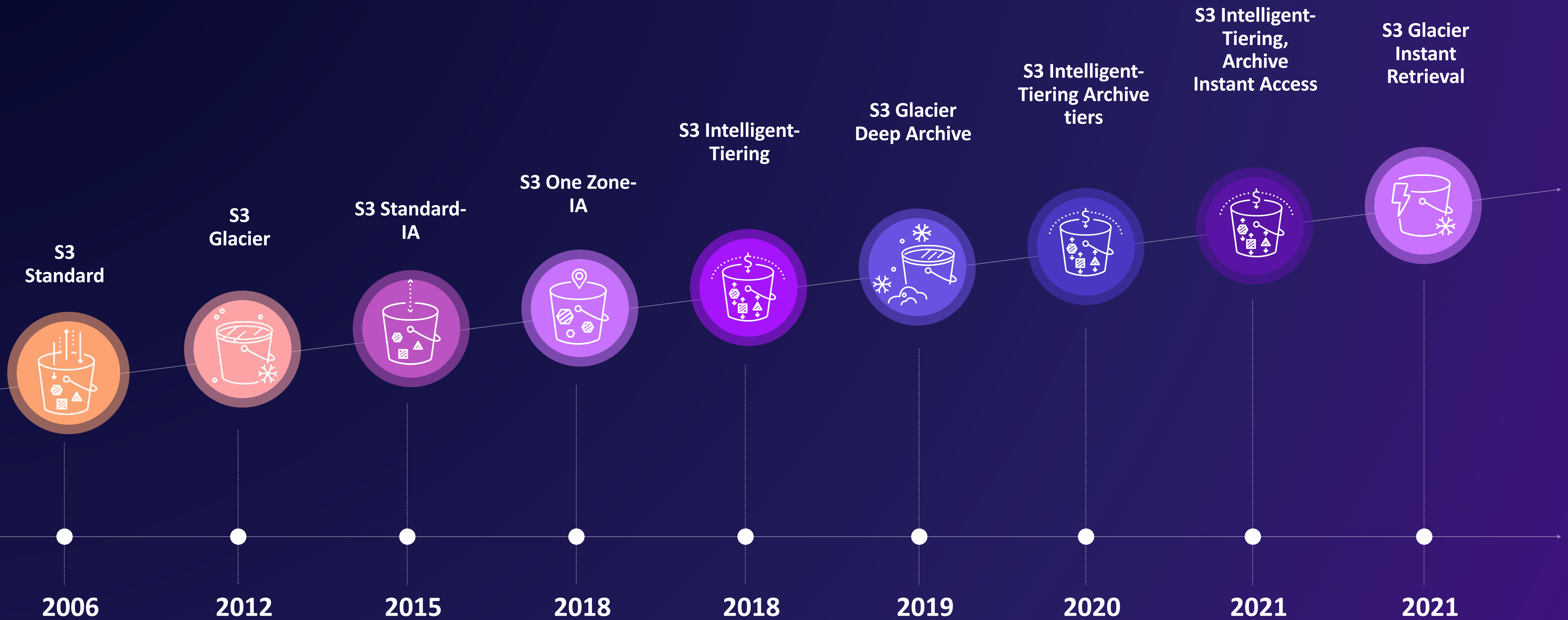
Broadest portfolio of analytics tools

Automatic cost optimization:
Intelligent-Tiering

Cold storage, replication, and archive capabilities

Features to fit any enterprise's object-level control needs

Amazon S3 storage classes



Companies in every industry are archiving data in AWS



**Media &
Entertainment**



Gaming



**Healthcare &
Life Sciences**



Financial Services



Power & Utilities



Energy



Manufacturing



Retail



Telecom



Automotive

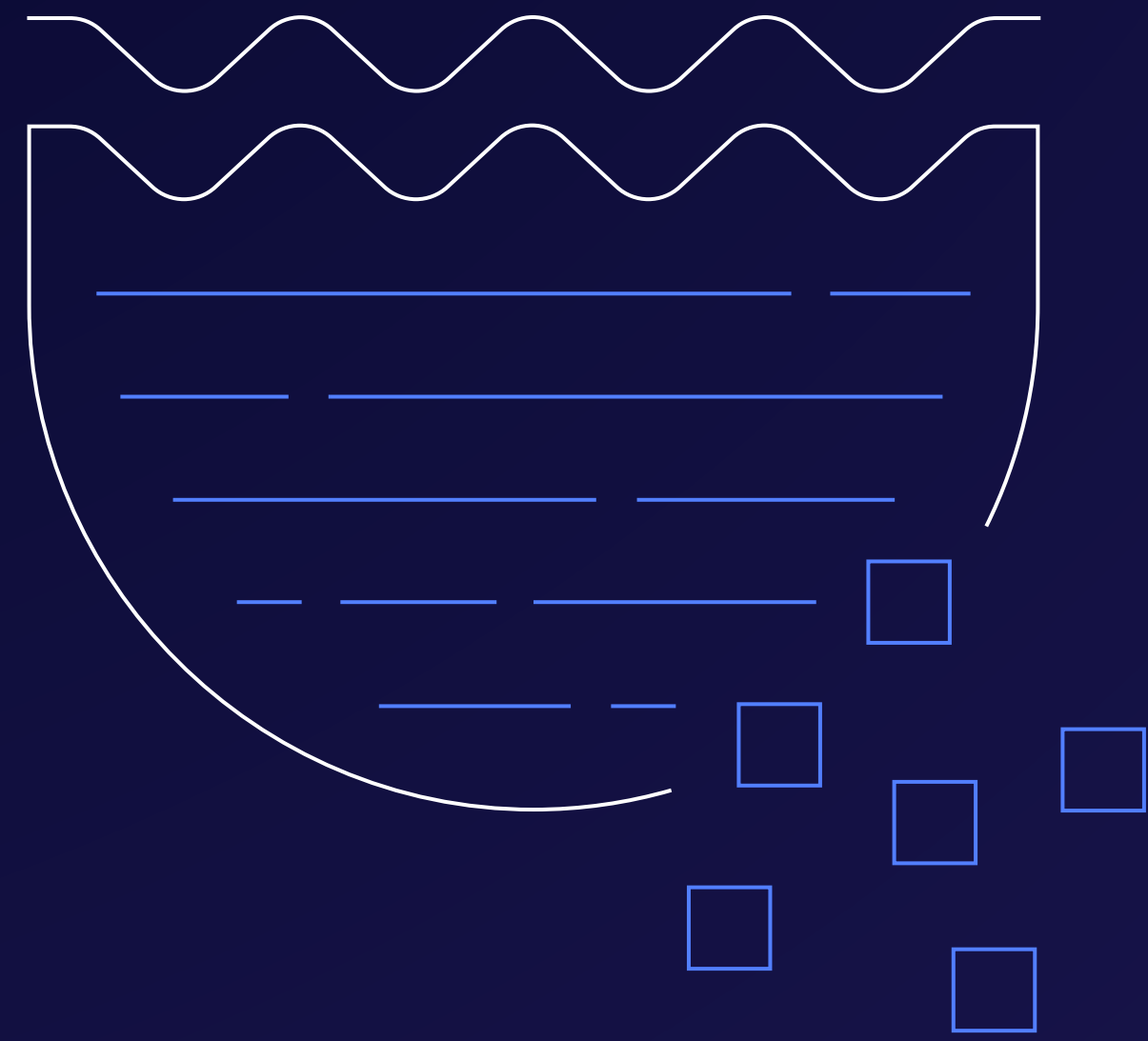


Education

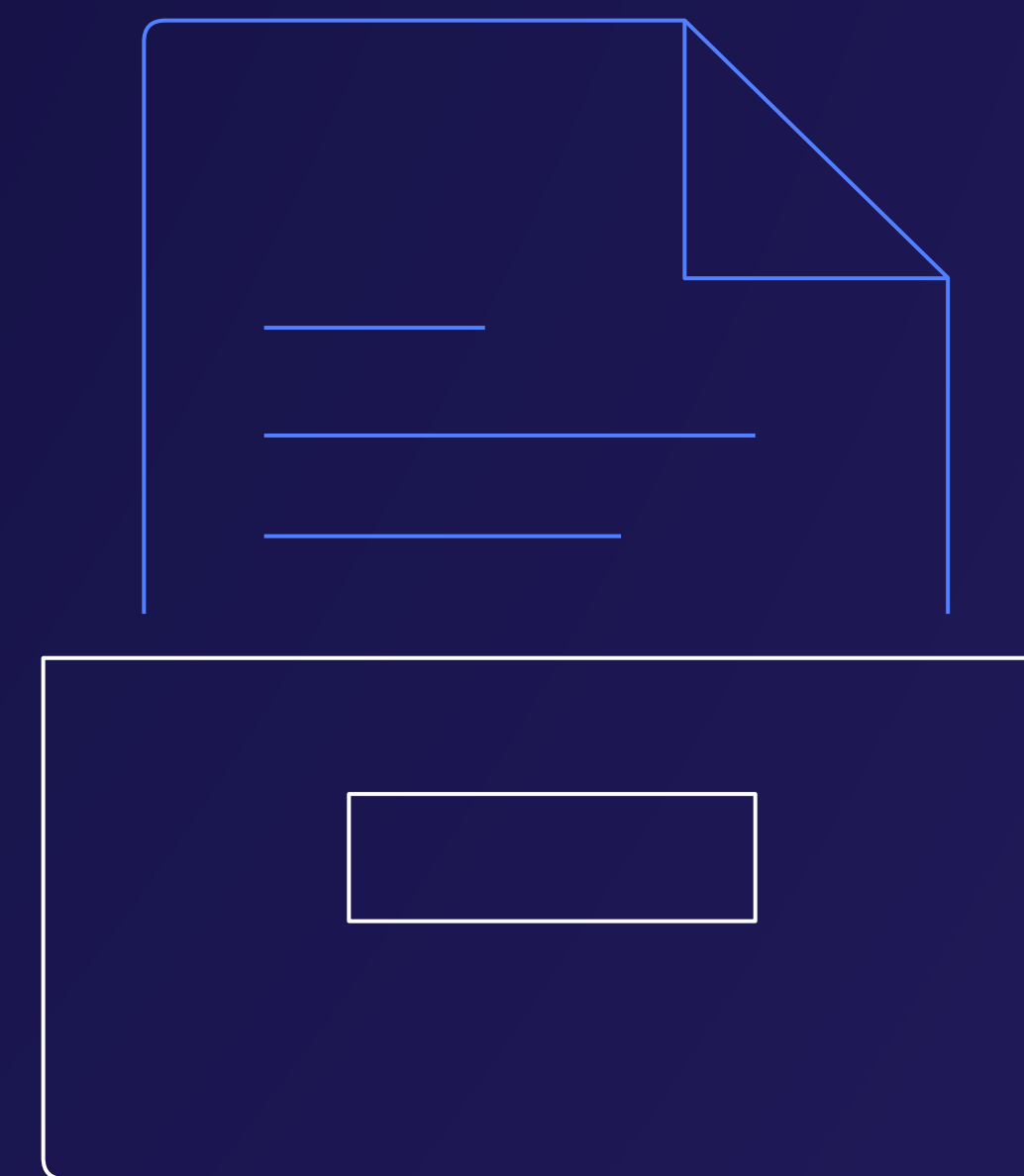


Government

Archival use cases on Amazon S3



Data retention



Compliance



Disaster recovery

Which archive storage class is right for me?

1. **Storage Cost**
2. **Retrieval Speed**
3. **Data Retention**

S3 Glacier is the **best place** to archive data



New

S3 Glacier
Instant Retrieval



S3 Glacier
Flexible Retrieval



S3 Glacier
Deep Archive

Storage cost

\$0.004 per GB-month

\$0.0036 per GB-month

\$0.00099 per GB-month

Data retrieval

Milliseconds retrieval

Expedited: 1-5 minutes
Standard: 3-5 hours
FREE Bulk: 5-12 hours

Standard: Within 12 hours
Bulk: Within 48 hours

Minimum object duration

90 days

90 days

180 days

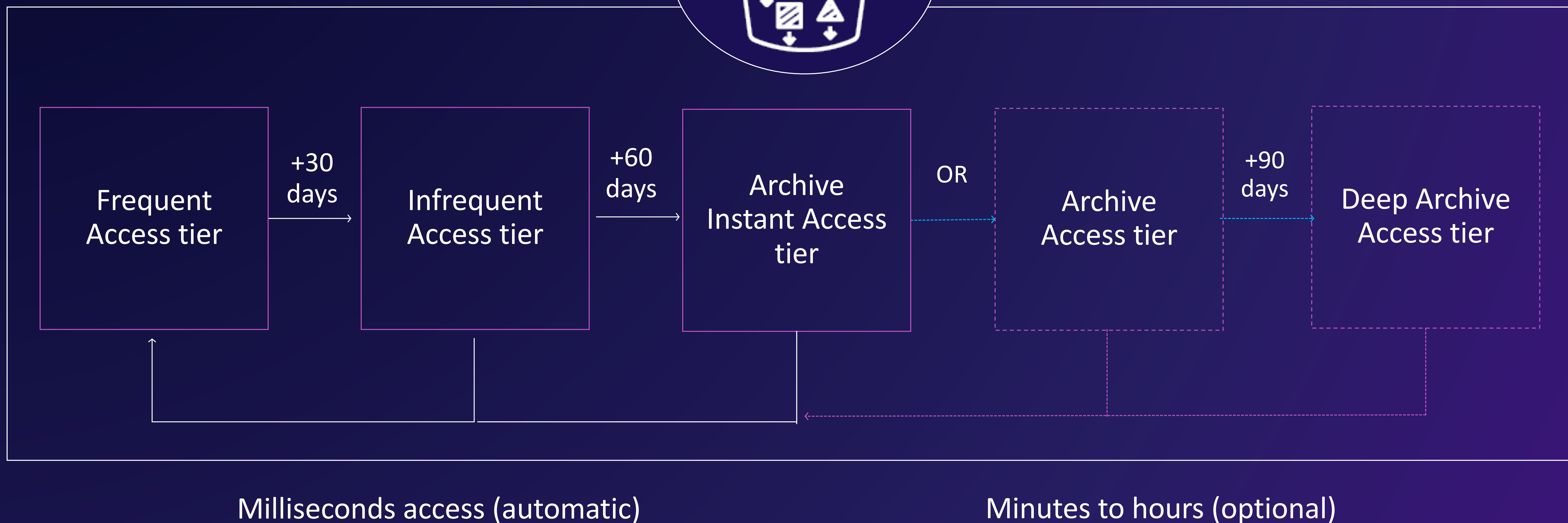
Lifecycle data with predictable access patterns



Get the lowest storage cost in the cloud, automatically



Amazon S3 Intelligent-Tiering





Capital One is a digital banking leader with a goal to help their customers succeed by bringing ingenuity, simplicity and humanity to banking

Services & Features:

Amazon S3

Amazon S3 Glacier Flexible Retrieval

Amazon S3 Glacier Deep Archive

Amazon S3 Lifecycle

Amazon S3 Storage Lens

How Capital One uses S3 Glacier Flexible Retrieval & S3 Glacier Deep Archive to optimize storage costs

Opportunity

- Capital One was looking to maximize resource usage efficiency for their growing storage footprint while applying governance best practices

Solution

- Capital One first enabled versioning to enable recovery in the case of disaster recovery, accidental deletes, or updates to data
- Because over 90% of buckets were version enabled due to business requirements, they configured lifecycle management to delete or archive non-current versions at a prefix level

Benefits

- Enabling S3 Lifecycle Policies to move data to S3 Glacier Flexible Retrieval and S3 Glacier Deep Archive, resulted in archiving PBs of data and substantial cost savings
- Used prefix level lifecycle rules to maintain audit and data retention policies



NASCAR is the sanctioning body for the No. 1 form of motor sports in the United States, and owns 15 of the nation's major motorsports entertainment facilities

Services & Features:

Amazon S3

Amazon S3 Glacier Instant Retrieval

Amazon S3 Glacier Deep Archive

Amazon S3 Lifecycle

How NASCAR modernized their multi-PB media archive

Opportunity

- Generating 1.5 – 2 PB annually, leading to challenges scaling with tape
- Developer time was being spent managing tape

Solution

- Used CloudFirst's Rapid Migrate automation workflow to migrate PBs of data to AWS in just under a year
- Transitioned high resolution video and media files to S3 Glacier Instant Retrieval after 1 day, and then to S3 Glacier Deep Archive after 2 years

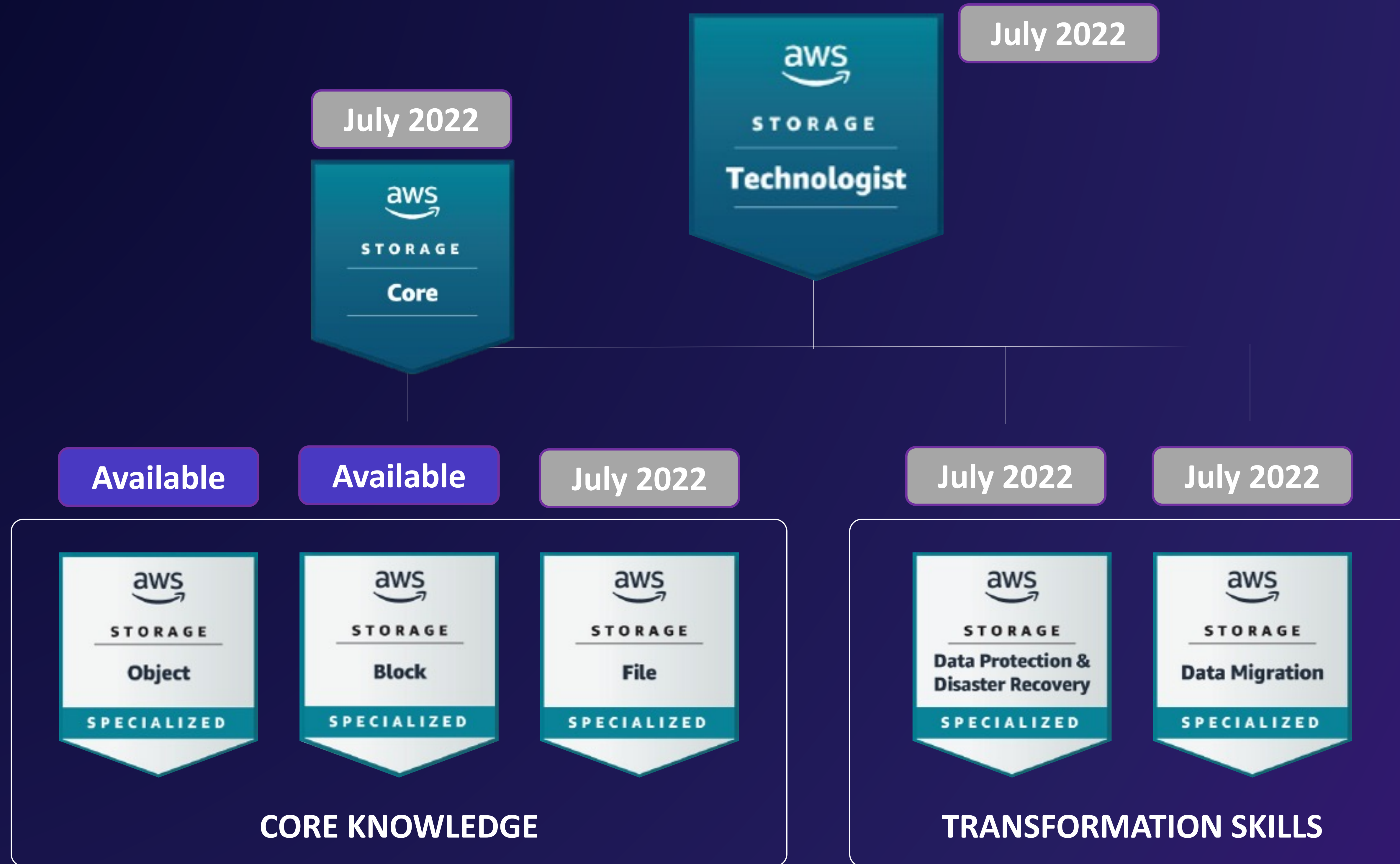
Benefits

- Now that they've migrated from LTO to AWS, NASCAR has more time to spend developing workflows that help their business
- While they still have an LTO library, they no longer have to worry about managing the lifecycle of their tapes

Key takeaways

- Amazon S3 helps maximize value of archival data
- AWS continues to innovate to help optimize storage costs
- **There is no better place to archive data than in the Amazon S3 Glacier storage classes**

AWS Cloud storage learning badges



aws.amazon.com/training/badges/

Thank You

aws.amazon.com/archive/

aws.amazon.com/s3/storage-classes/glacier/