



# AWS Quick Start

**Got Files? Deploy Your File Workloads Quickly  
& Easily with AWS**

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# Considerations when moving file data

1. **Why** are you moving data storage to AWS?
2. **What** is the data you're moving?
3. **Where** is the data going – to which service/for what application & use case?
4. **When** do you need the data off your array/out of the DC/in AWS?
5. **How** much data? How much usable network capacity?

# Why move? The pain of managing on-premises storage



Time



Cost



Complexity

# Why move? The pain of managing on-premises storage



## Time

- Long 3-6-month acquisition
- 30-90 day implementation

# Why move? The pain of managing on-premises storage



## Cost – hidden expenses

- Capex – high up-front capital investment
- Guesswork on how much storage you will need
- Guesswork on types of drives, mix of SSD/HDD
- Expensive add-on software for tiering, snapshotting, HA, DR
- Warranty renewals, EOL, migrations

# Why move? The pain of managing on-premises storage



## Complexity

- Specialized expertise
- Availability – need a second array and datacenter for HA
- Backup – dedicated backup arrays plus offsite copy
- Scalability – difficult to scale: time/cost to order more drives, upgrade controllers, EOL of array – all additional hidden costs

# What? Files.

## Everyone has files

Always growing...  
never shrinking





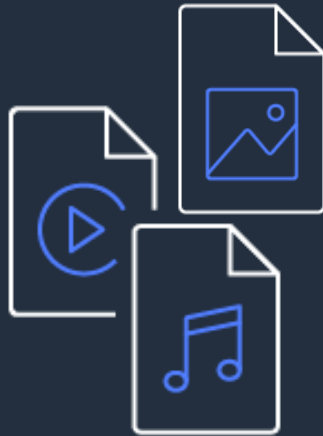
# What? File data

Also referred to as unstructured data



## Productivity Apps

Word processing  
Spreadsheets  
Presentations



## Media Files

Digital photos  
Audio files  
Video files



## Digital Security

Surveillance photos  
Surveillance videos



## Machine Generated

Satellite images  
Weather data  
Seismic imagery  
Atmospheric data



## Sensor Data

Oceanographic  
Weather  
Traffic



## Development Data

Code with CI/CD  
Log files

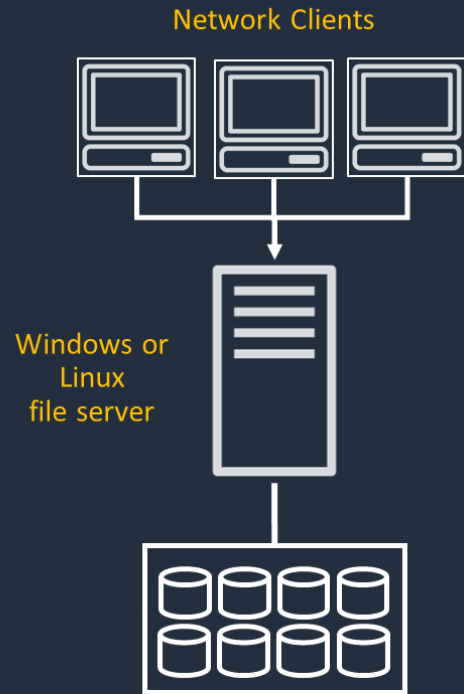


# What? File data sources

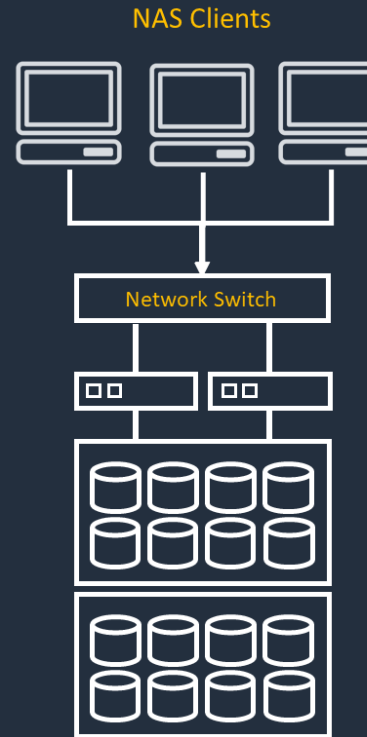
## DAS



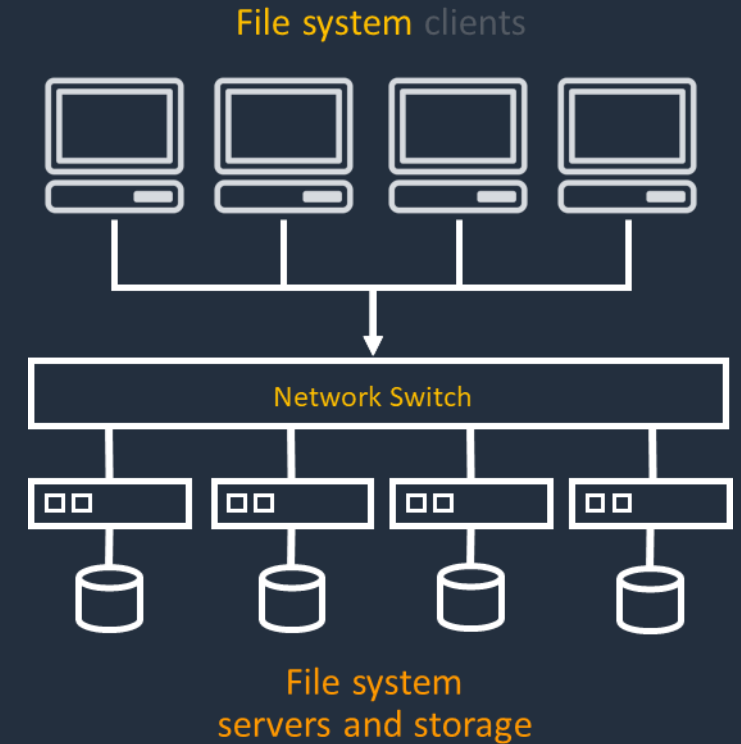
## File Server



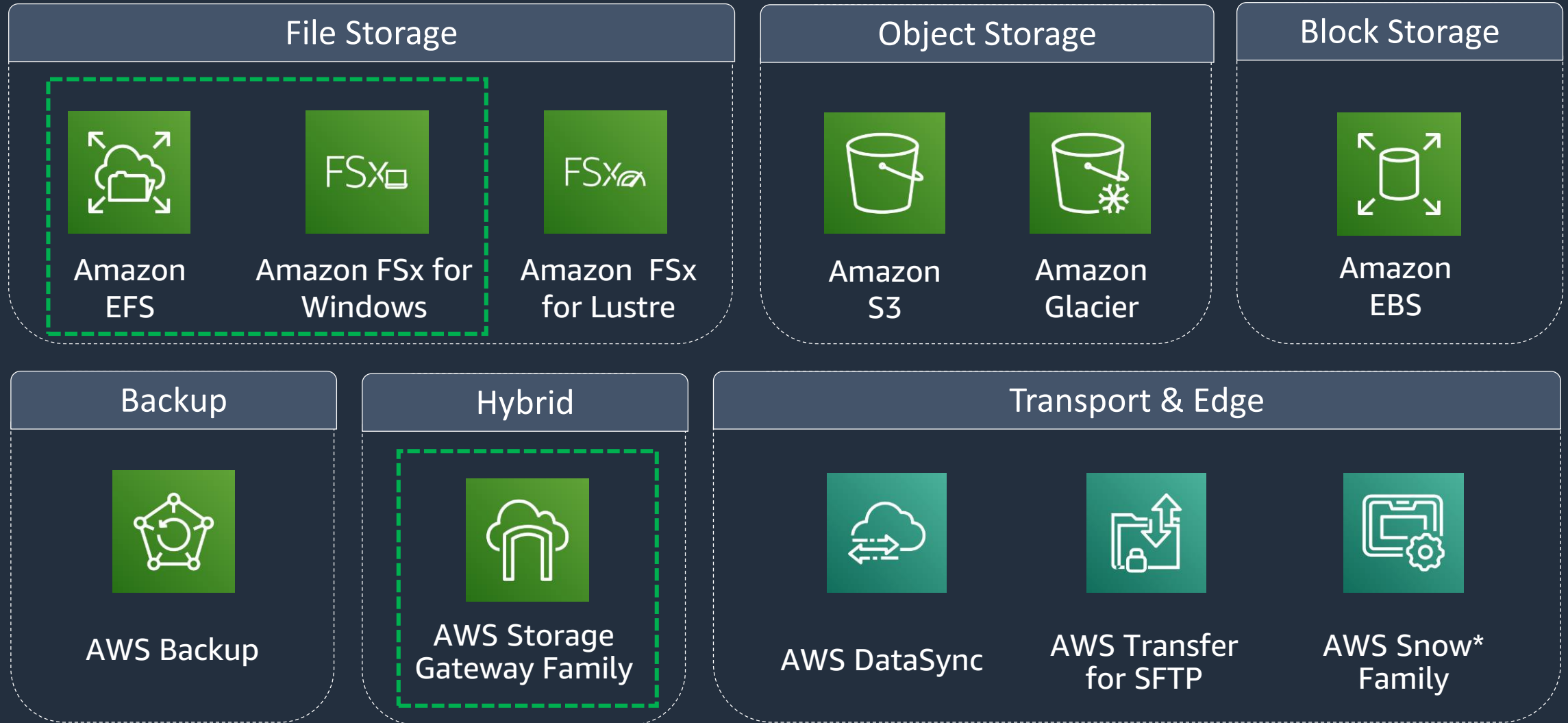
## NAS



## Scale-out NAS or Parallel File systems



# Where? Storage portfolio breadth and depth



# Where? Amazon Elastic File System (EFS)

## Storage for Linux-based applications

**Key Workloads:** Enterprise applications, web serving, content management, in-cloud database backups, container storage, test and development, media workflows



**What OS and Protocol is being used?**

Linux

NFSv4.x



**Where is the data coming from?**

Local file system

File server

NAS filer

Clustered or Scale-out file system



**How can the migrated data be accessed?**

Direct Connect

VPN

Multi-VPC

Multi-account

# Where? Amazon FSx for Windows File Server

## Storage for Windows-based business applications

**Key Workloads:** Home directories, .NET applications, content management, software development environments, media workflows



### What OS and Protocol is being used?

Windows Server 2008,  
2012, 2016

Windows 7, 8, 10

SMB 2.0

SMB 3.x



### Where is the data coming from?

Local Windows  
file system

Windows file server

NAS filer



### How will the migrated data be accessed?

Direct Connect

VPN

Single-AZ

Multi-AZ via DFS-R

# Where? AWS Storage Gateway

Hybrid cloud service enabling on-premises apps to seamlessly use AWS storage



Standard storage protocols



Fully managed cache



Optimized data transfer



AWS integrated

# Where? Hybrid file storage: File Gateway and Volume Gateway

## File Gateway



Store and access  
objects in Amazon S3

## Volume Gateway + File Server



Block storage and file  
systems on-premises

# Where? Hybrid storage w/ Amazon S3 & File Gateway

**Store files as objects in S3 and access via standard file protocols**

**Key Workloads:** File backup, hybrid workflows, active archive, content distribution



**What OS and Protocol is being used?**

Windows

Linux

NFSv3, NFSv4.1

SMB2, SMB3



**Where is the data coming from?**

Local file system

File server

NAS filer



**How will the migrated data be accessed?**

On-premises

Remote location or  
branch office

In AWS



# How? Options for Data Transfer



AWS  
Direct Connect



Amazon  
Kinesis  
Firehose



Amazon Kinesis  
Data Streams



Amazon Kinesis  
Video Streams



Amazon S3  
Transfer  
Acceleration



AWS  
Storage  
Gateway



AWS  
Snowball



AWS  
Snowball Edge  
Storage Optimized



AWS  
Snowball Edge  
Compute  
Optimized



AWS  
Snowmobile



AWS  
DataSync



AWS  
Transfer  
for SFTP

# How? Options for File Data Transfer



**AWS**  
Direct Connect



Amazon  
Kinesis  
Firehose



Amazon Kinesis  
Data Streams



Amazon Kinesis  
Video Streams



Amazon S3  
Transfer  
Acceleration



**AWS**  
Storage  
Gateway



**AWS**  
Snowball



**AWS**  
Snowball Edge  
Storage Optimized



**AWS**  
Snowball Edge  
Compute  
Optimized



**AWS**  
Snowmobile



**AWS**  
DataSync



**AWS**  
Transfer  
for SFTP

# How? AWS DataSync

Online transfer service that simplifies, automates, and accelerates moving data between on-premises storage and AWS



Fast data  
transfer



Easy  
to use



Secure and  
reliable



Cloud  
integrated



Cost-effective

Combines the speed and reliability of network acceleration software with the cost-effectiveness of open source tools

# How? AWS Transfer for SFTP

Fully-managed service enabling transfer of data over SFTP,  
and stored in Amazon S3



Seamless migration of  
existing workflows



Fully managed  
in AWS



Enterprise  
ready



Native integration  
with AWS services



Cost-effective



Simple to use

# Demo



## Amazon FSx for Windows

Storage

### Amazon FSx

Fully managed third-party file systems

#### How it works

Amazon FSx provides fully managed third-party file systems. Amazon FSx provides you with the native compatibility of third-party file systems with feature sets for workloads such as Windows-based storage, high-performance computing (HPC), machine learning, and electronic design automation (EDA).

#### Benefits

##### Simple and fully managed

You no longer have to worry about setting up and provisioning file servers and storage volumes, updating hardware, configuring software, or performing backups. In minutes, you can create a fully managed file system.

##### AWS integrations

Amazon FSx integrates the third-party file systems with cloud-native AWS services, making these file systems useful for an even broader set of workloads.

##### Native compatibility

With fully managed third-party file systems, you get native compatibility that supports the file system features, performance, and security that you rely on today, with no changes needed to your applications.

##### Cost-optimized

Each Amazon FSx file system service is cost optimized for particular workloads, such as short-term compute intensive workloads that don't require FSx to be replicated. You can launch and delete file systems in minutes, making it easy to respond to changing business needs.

#### Get started

Create file system

#### Pricing

[Amazon FSx for Windows File Server](#)

[Amazon FSx for Lustre](#)

With Amazon FSx, you only pay for the resources you use.

#### Amazon FSx for Windows File Server Getting started and documentation

[Getting started](#)

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#### Amazon FSx for Lustre Getting started and documentation

# Summary

- On-premises storage continues to grow
- AWS storage portfolio is growing
- The customer may think of storage as
  - DAS, NAS, SAN
  - Backup/DR, Home directories, Enterprise Apps
  - Application-specific data
- There are many enterprise file-based workloads that can be migrated today
- For Linux-based applications, use EFS
- For Windows-based business applications, use FSx for Windows File Server
- To store data in S3 and access via standard file protocols, use File Gateway

# Thank You for Attending AWS Quick Start

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