AWS re:Invent

NOV. 29 – DEC. 3, 2021 | LAS VEGAS, NV

STG 208

AWS Transfer Family: The future of managed file transfer

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Agenda

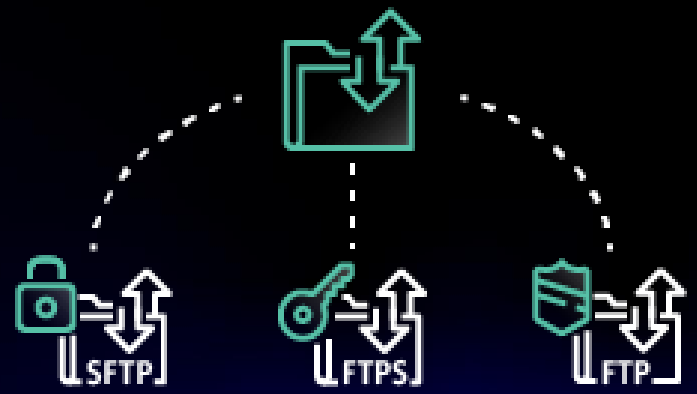
Service overview

Common use cases

Feature deep dive

Customer spotlight with Goldman Sachs

Demo



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File transfers are everywhere



Do you need to move data or files from external sources or subscriptions into a data lake or storage system?



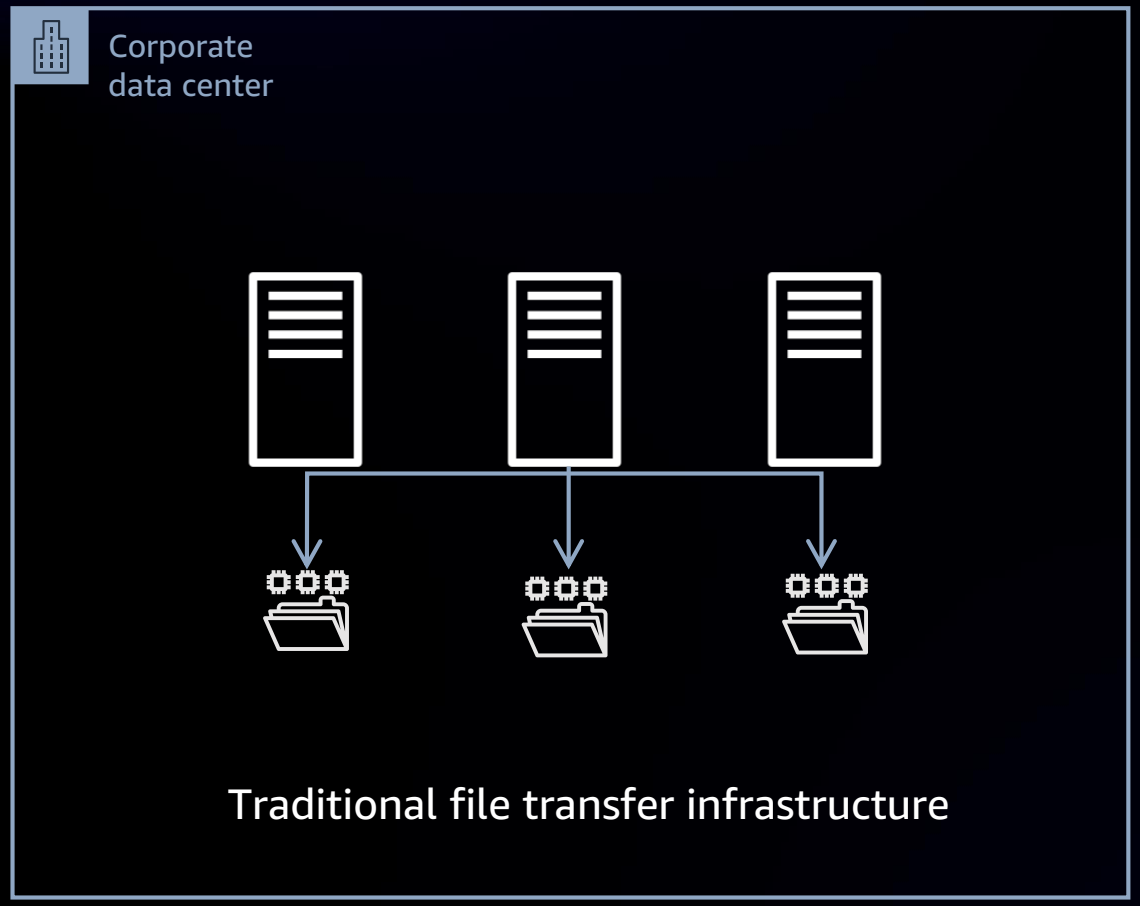
Do you need to securely share files with external customers or clients on a frequent basis?

Managed file transfer (MFT) workflows are complex to manage on scale

aws

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MFT can be challenging



Traditional file transfer infrastructure

- 24/7 operations
- Infrastructure management for connectivity, storage, and partner configuration
- Data stored on premises is inaccessible to data science and BI tools
- Patching for compliance requirements

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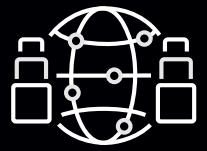
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AWS Transfer Family

FRICTIONLESS FILE TRANSFERS ENABLING BUSINESS-TO-BUSINESS (B2B) CONNECTIVITY



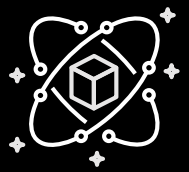
Seamless migration of file transfers using SFTP, FTPS, and FTP



Fully managed, highly available across the globe



Secure and compliant



Native integration with AWS services



Cost-effective

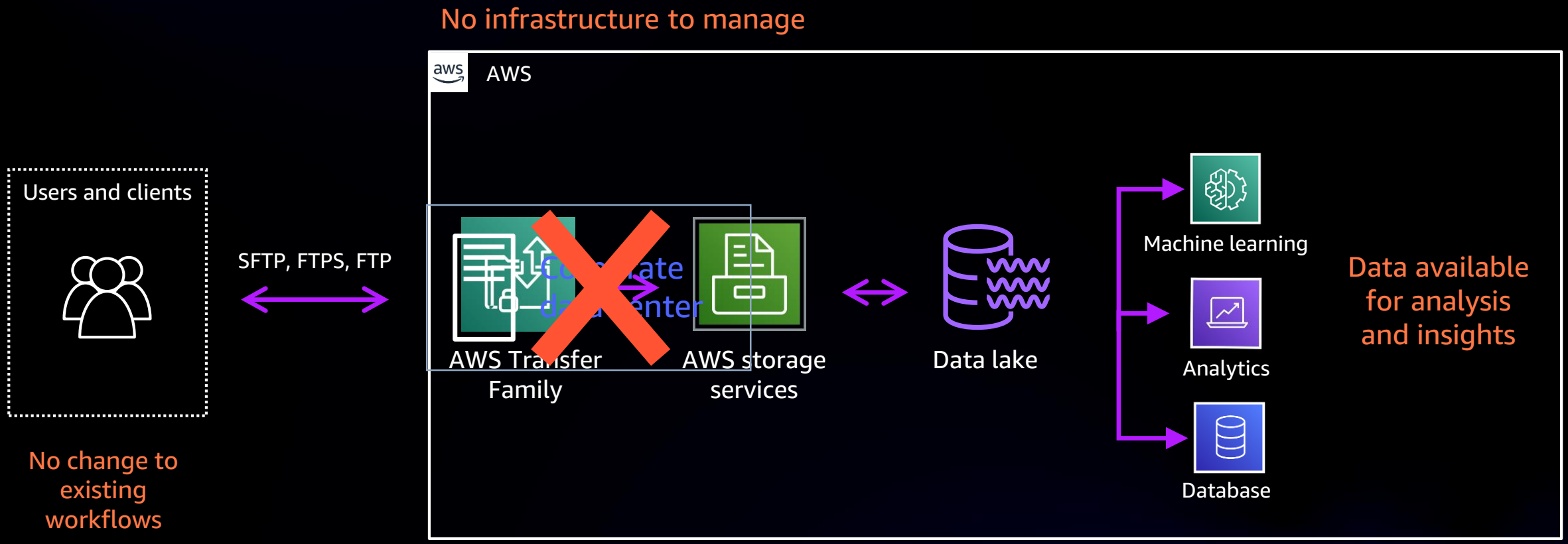


Simple to use

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Migrate without impacting your existing integrations



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AWS Transfer Family customers

































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NEW MEDIA







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“AWS Transfer Family does the heavy lifting…is easy to deploy and provides countless advantages from an operational perspective.”

Yoga Thirumalasetti

Cloud Solutions Architect
Liberty Mutual Insurance

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AWS Partner Network

T · ·Systems·

"...T-Systems helped us build a solution to enable low-effort data migrations to AWS for applications. Key was to combine AWS Transfer Family for the widely supported SFTP protocol with AWS Private Link for on-premises applications with limited internet access...allowing our migration factory team to spend less time on data migration assistance and more on helping optimize the application itself. "

Jeremias Reith

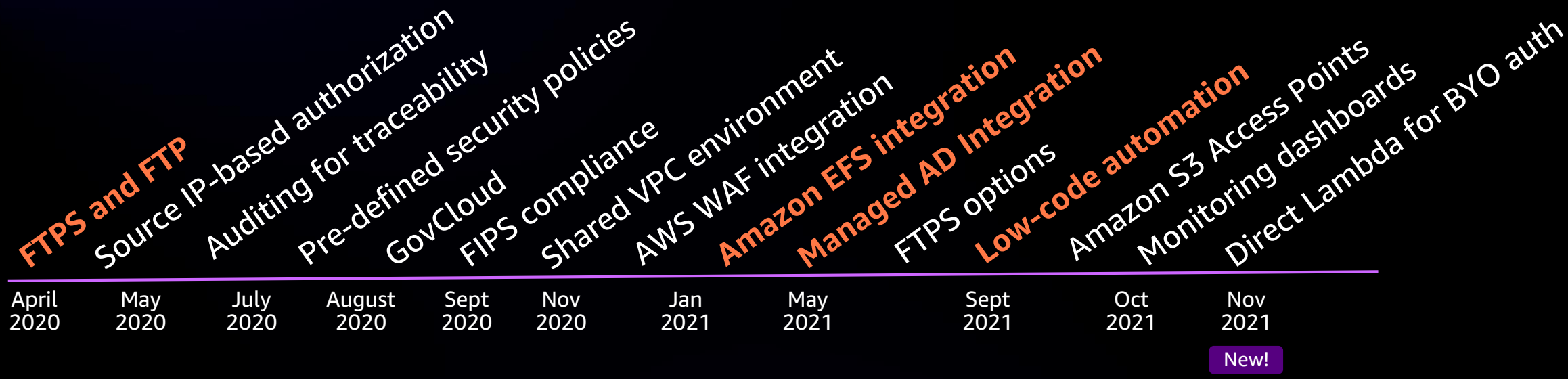
Head of CCoE, Deutsche Telekom IT



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AWS Transfer Family pace of innovation



20 commercial AWS Regions, China, and GovCloud

PCI HIPAA Health Insurance Portability & Accountability Act AICPA SOC

Check services in scope for more
aws.amazon.com/compliance/services-in-scope/

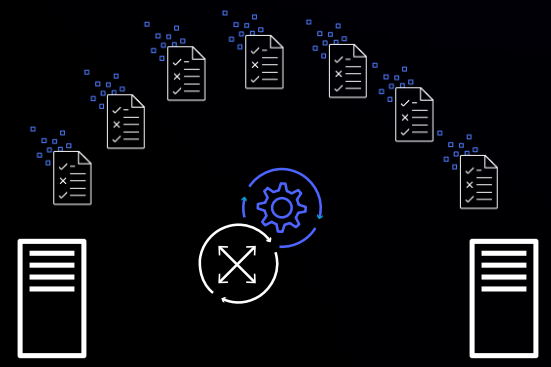
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Common use cases for file transfers

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Modernizing file exchanges with your financial and healthcare institutions



Secure transactions

- Data security and encryption options
- No changes to endpoint configurations and credentials
- Compatibility with legacy systems
- PCI-compliant and HIPAA-eligible

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Business application integrations with data lakes in AWS



Data lakes and analytics platforms

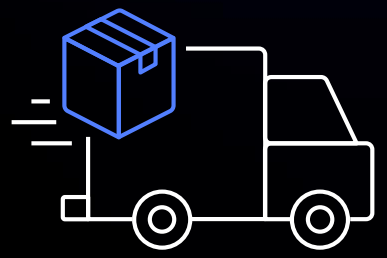
Easy connectivity with common business applications such as ERP, CRM, accounting, and human resources systems

Controlled input to downstream systems through message queuing

Event-driven architectures for automating data science pipelines

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Collaboration between supply chain trading partners



Supply chain and logistics networks

Secure business-to-business communication with your trading partners

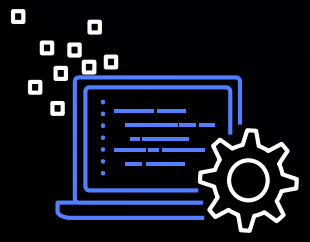
Source data across disparate sources including system of record

Session STG329: Migrate business-to-business gateway traffic for real-time insights

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Migrating content distribution platforms



Subscription based data products

- Seamless migration without impacting subscribers
- Multiple protocol options to increase subscriber reach
- Fine-grained access controls to selectively share data and protect revenue

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Feature deep dive

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AWS Transfer Family: MFT

THE YEAR OF MANAGED FILE TRANSFERS



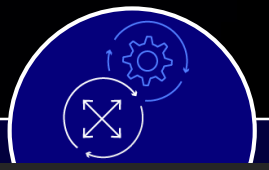
Multiple protocols

- SFTP
- FTP/s
- Open-source web client browser



Enterprise authentication

- Advanced access controls
- AWS directory services
- Bring-your-own identities



Automation

- Event-driven
- Low-code workflows
- External connectors



Security and compliance

- Network security
- Logging and auditing
- Data pre-processing

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Advanced access controls for MFT



Amazon S3

Logical directories
- 3rd party IdP
- Chroot

IAM Policies
- Prefix
- Tag

Access Points
- Asymmetrical access



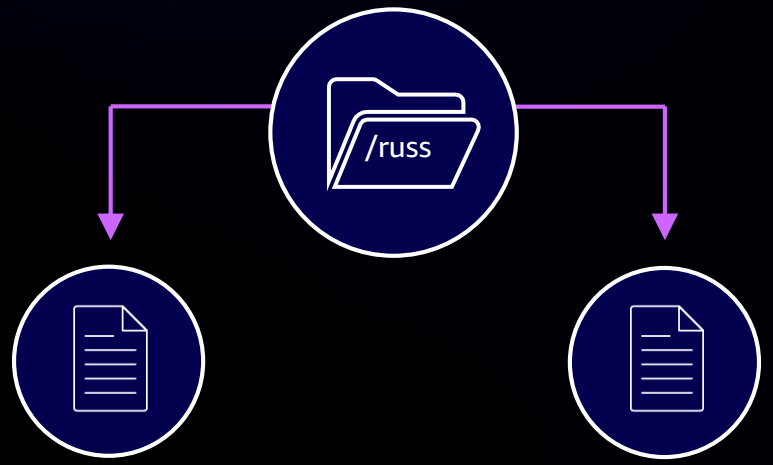
Amazon EFS

Logical directories
- 3rd party IdP
- Chroot

POSIX
- POSIX profile
- Root controls
- Group access
- Advanced: hard links

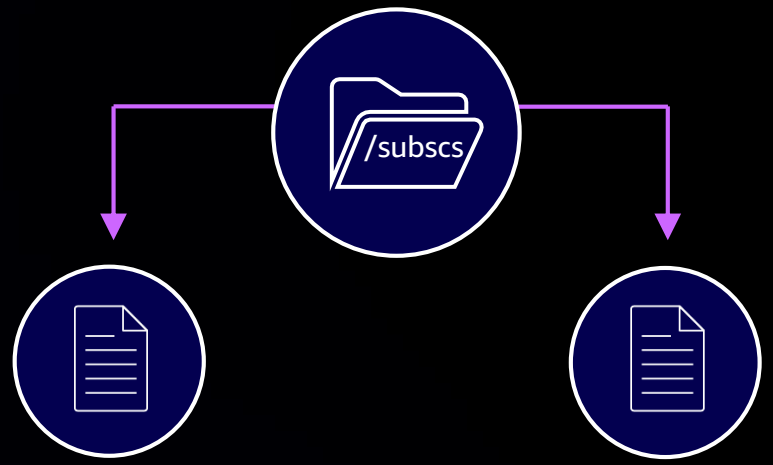
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MFT access controls: Logical directories



Entry: /russ

Target: /bucket1/users/user1



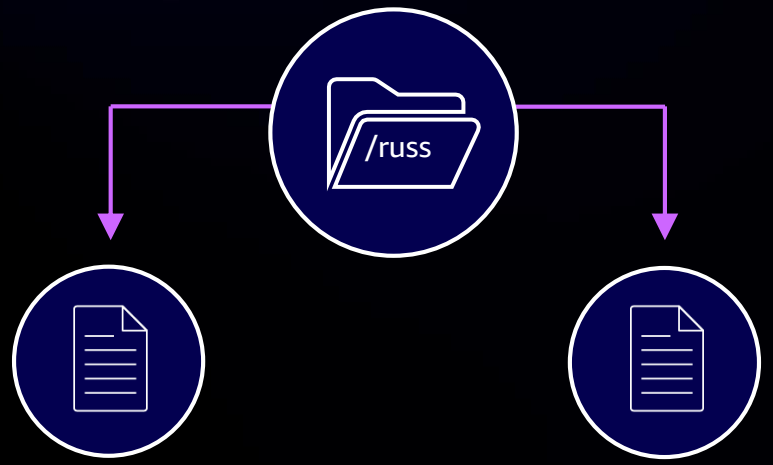
Entry: /subscs

Target: /bucket1/data/subsc1

aws

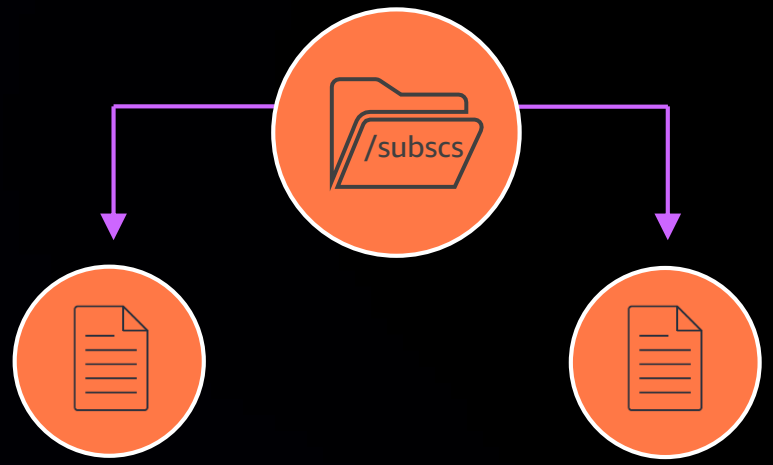
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MFT access controls – asymmetrical



Entry: /russ

Target: /bucket1/users/user1



Entry: /subscs

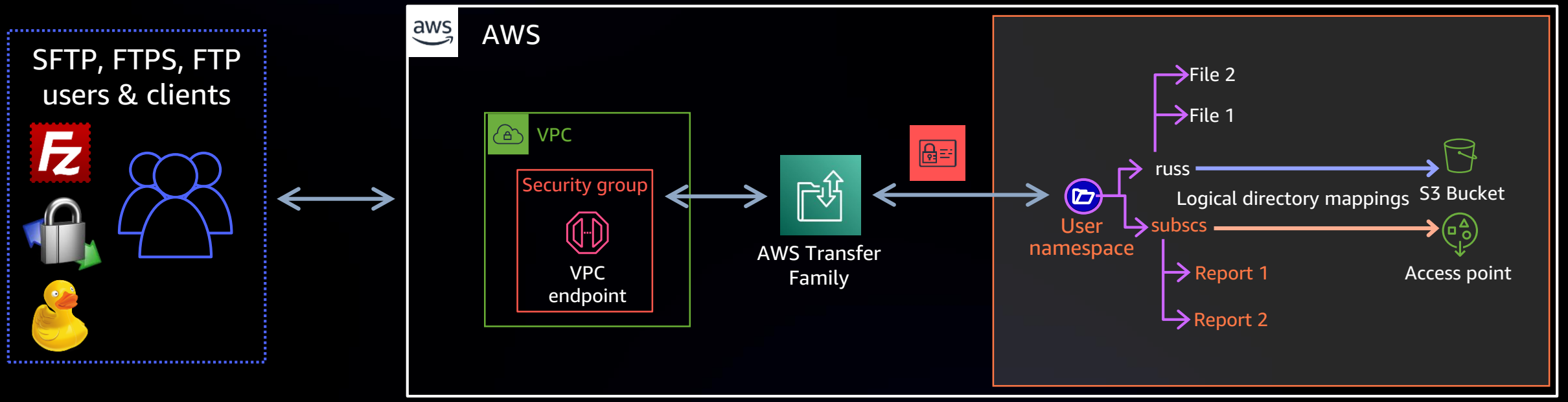
Target: /ro-ap/data/subsc1

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Amazon S3 Access Points

USE AWS IDENTITY AND ACCESS MANAGEMENT (IAM) AND LOGICAL DIRECTORIES

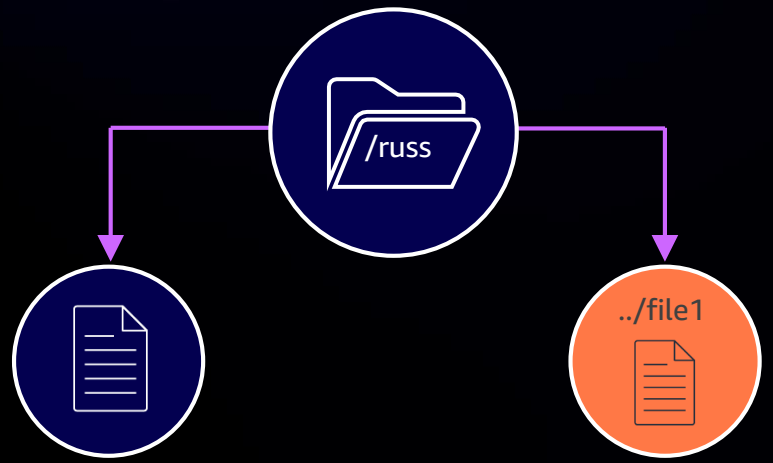


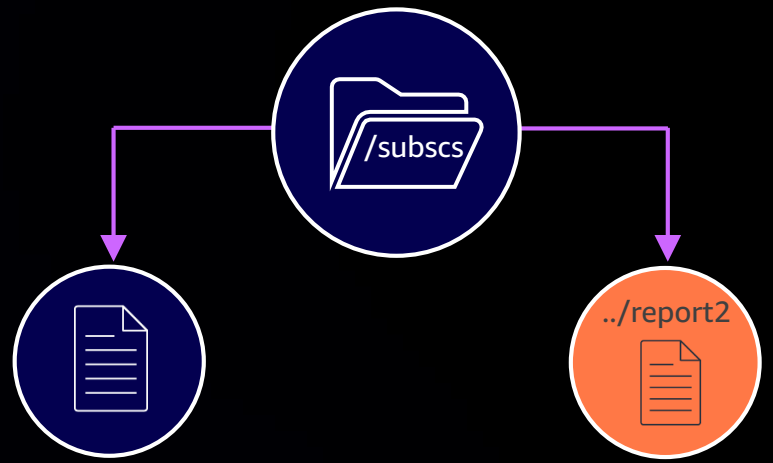
End-user access – least privilege https://go.aws/3DfBClA

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MFT access controls: Per file

AWS Transfer update-user --user-name russ --posix-profile Uid=1234,Gid=45 --server-id s-<server-id>





Entry: /russ

Target: /fs-id/users/user1

- chrgrp –R 45 /fs-id/users/user1
- chmod 640 /fs-id/users/user1/file1

Entry: /subscs

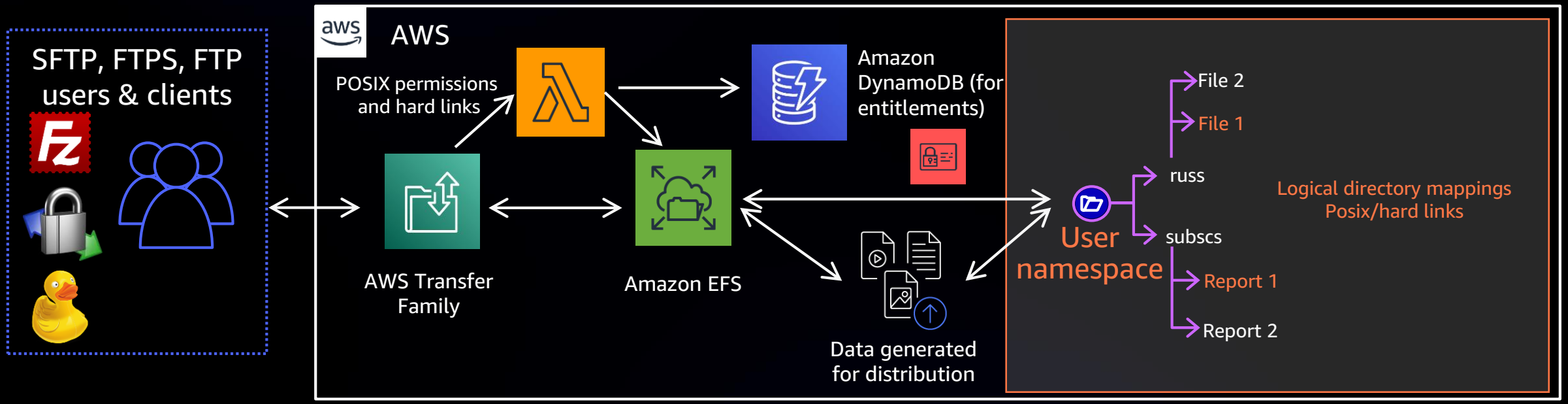
Target: /fs-id/data/subsc1

- chrgrp –R 45 /fs-id/data/subsc1
- chmod 640 /fs-id/data/subsc1/report2

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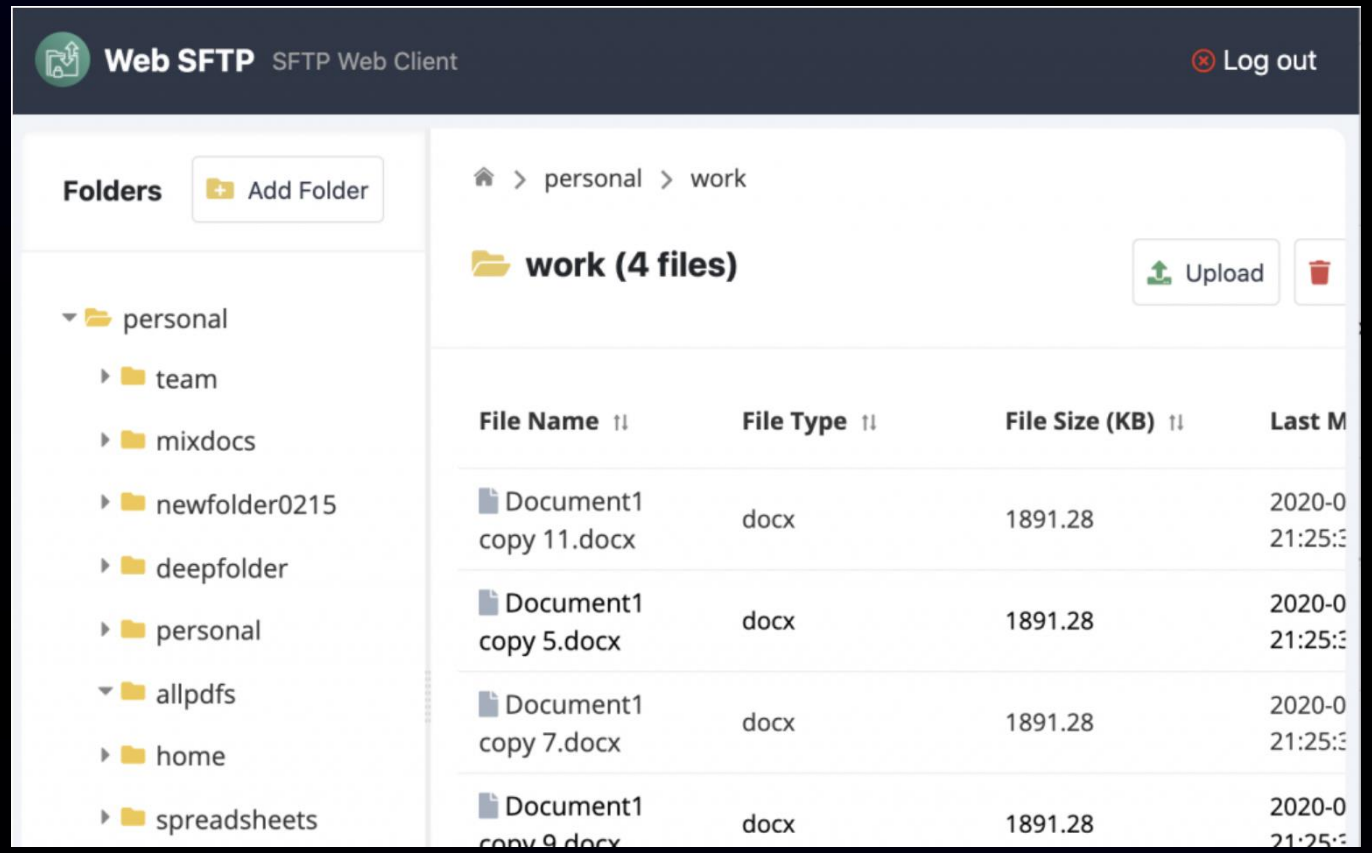
Amazon EFS for per-file access control



End-user access – least privilege

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HTTPS access for AWS Transfer Family

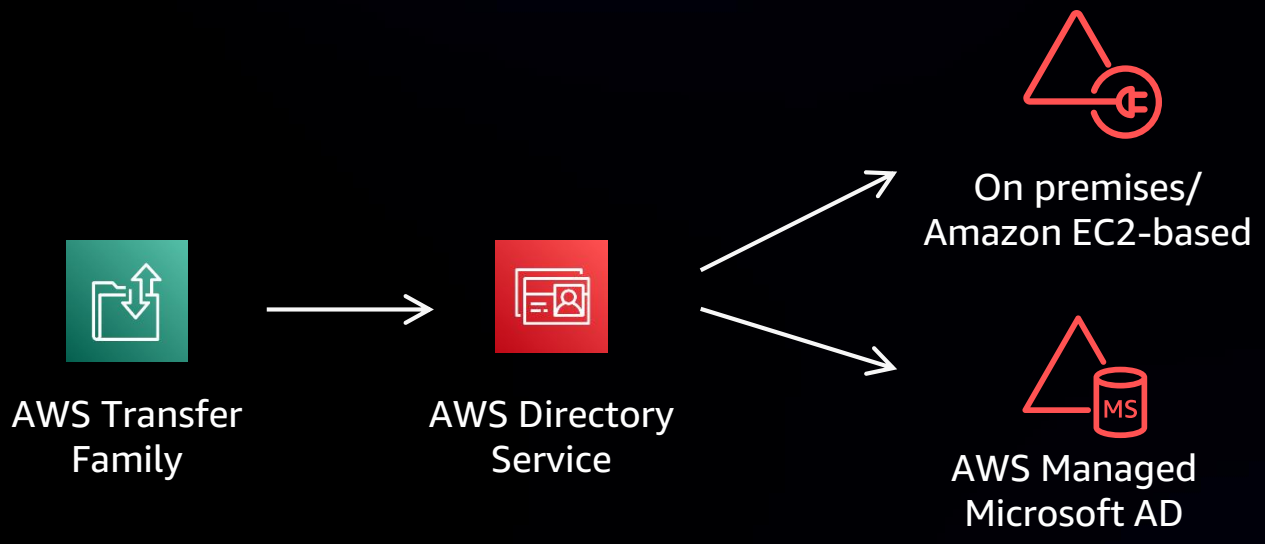


Present your Transfer Family's SFTP endpoint to your users using a browser-based tool –go.aws/3C9QAYX

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Microsoft AD as an identity provider

AWS TRANSFER FAMILY INTEGRATES WITH AWS DIRECTORY SERVICE

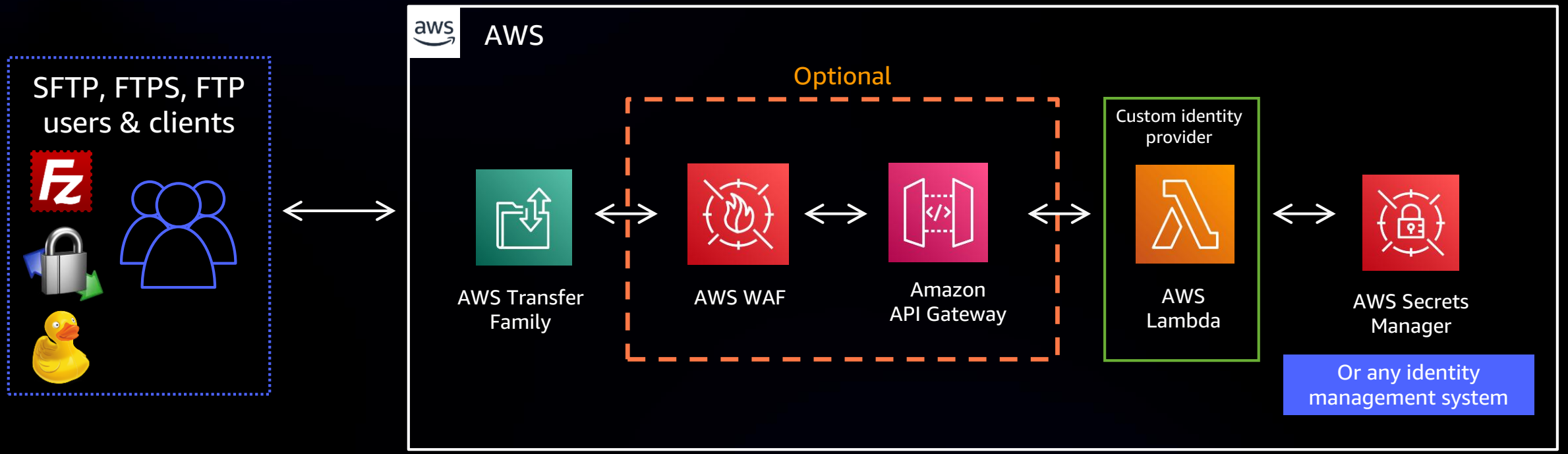


- Associate access using AD groups
- Set up individual access by username
- Enable password authentication
- Supported for SFTP, FTPS, and FTP
- AD Connector for on-premises or self-managed AD (no trust required)

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BYO identity management system

INTEGRATE YOUR IDENTITY PROVIDER WITH AWS TRANSFER FAMILY



Supports existing authentication – including Okta, Secrets Manager, and others!

Okta: https://go.aws/3F6wznU; Secrets Manager: https://go.aws/3Hcb7jb

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Managed workflows for secure file transfers

AWS TRANSFER FAMILY MANAGED WORKFLOWS FOR POST-UPLOAD PROCESSING



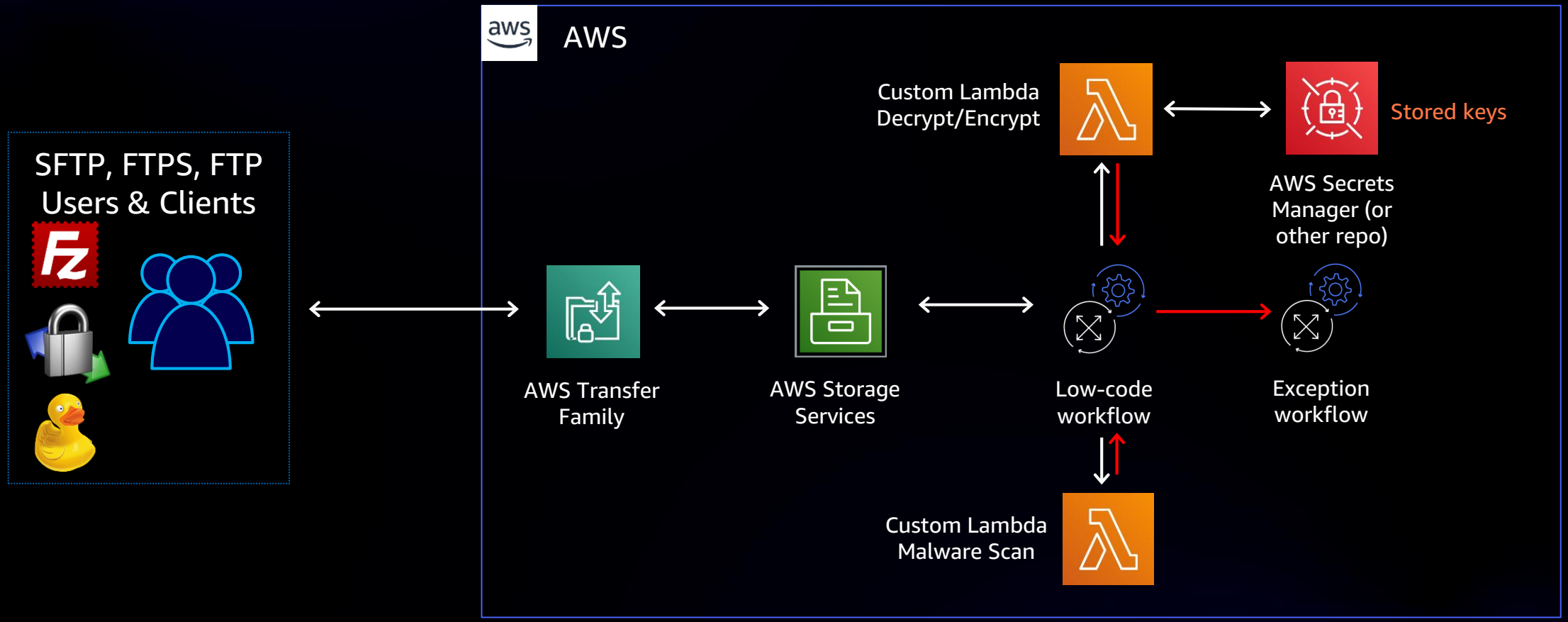
Supported features

- Console/API/CloudFormation for defining steps
- Copy/tag/delete with APIs
- Custom option for Lambda invocation
- Consolidated auditing/logging in CloudWatch

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PGP decrypt or malware scanning on upload

MANAGED WORKFLOWS FOR ADVANCED FILE PROCESSING

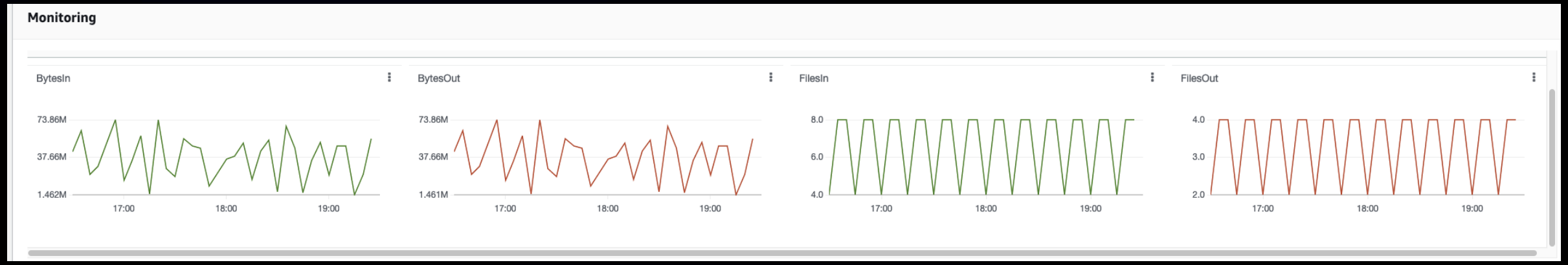


Automate file operations with custom code!

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Monitoring usage within the console

GET INFORMATION ABOUT YOUR SERVER'S METRICS ON THE SERVER DETAILS PAGE



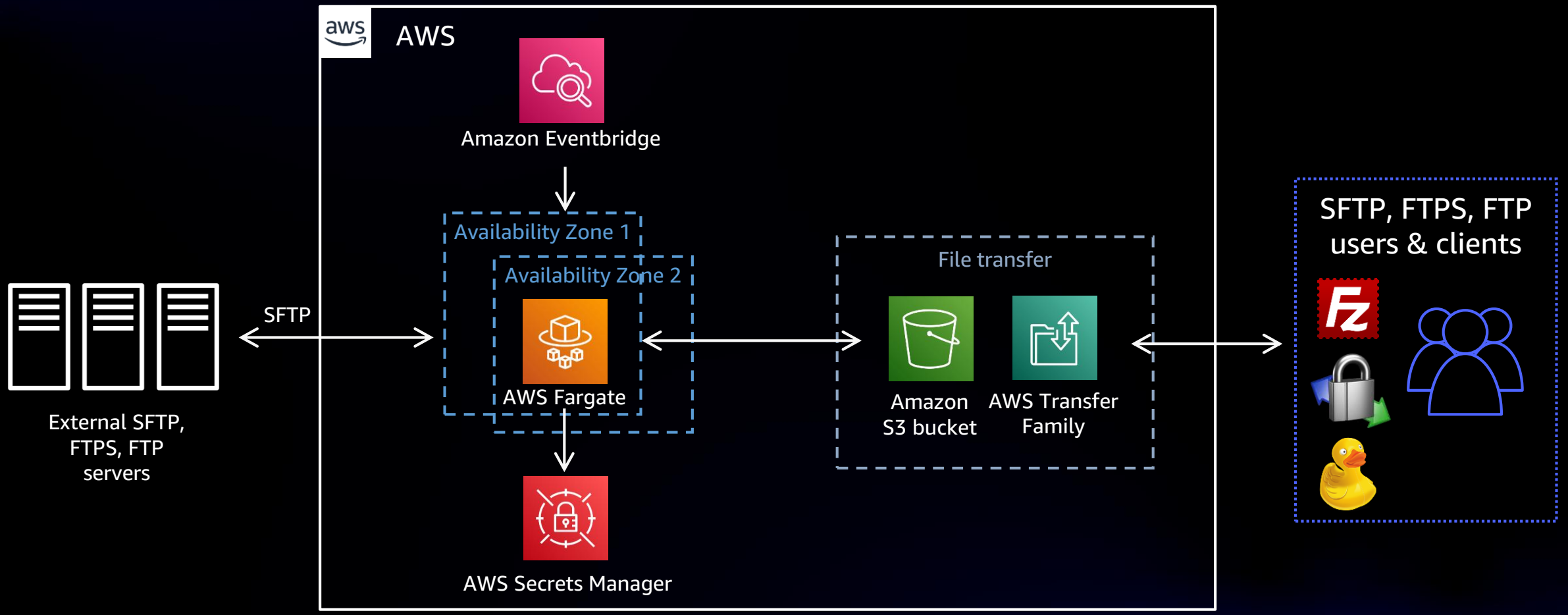
Supported metrics

- BytesIn – total number of bytes transferred in
- BytesOut – total number of bytes transferred out
- FilesIn – total number of files transferred in
- FilesOut – total number of files transferred out

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Outbound connectors to external sites

USING SCHEDULED AND EVENT-DRIVEN CONTAINER WORKFLOWS FOR OUTBOUND TRANSFER



Aggregate data from external sources for processing and analysis on AWS – go.aws/3oovEIz

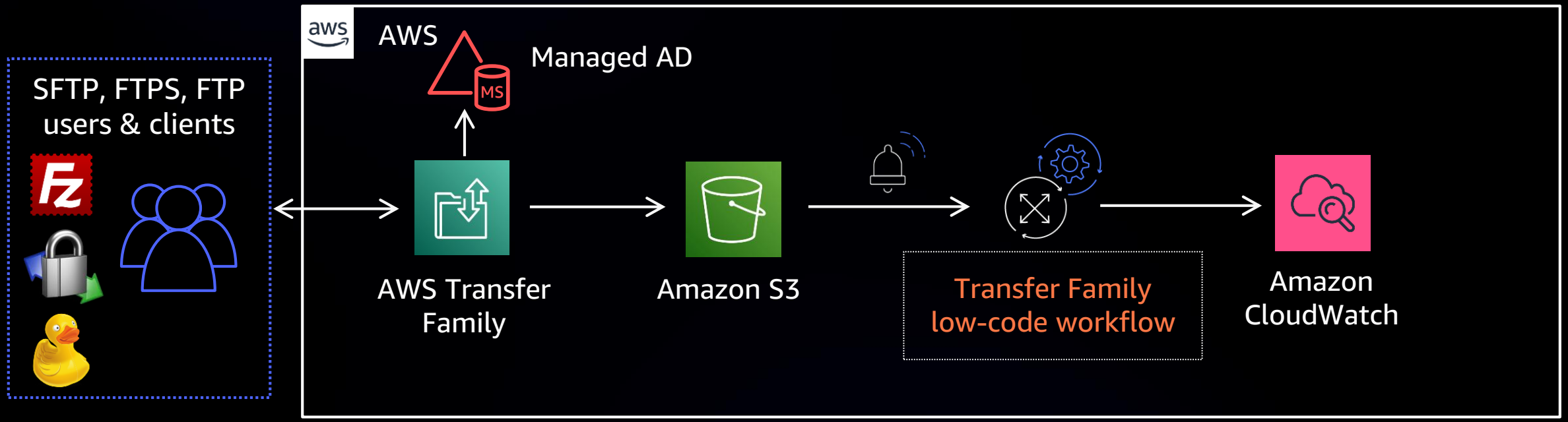
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Customer spotlight

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AWS Transfer Family demo architecture

BRINGING IT ALL TOGETHER – MANAGED MICROSOFT AD AND LOW-CODE WORKFLOWS



Demo steps

- Create low-code workflow
- User mftpublish authenticates with Managed AD
- User mftpublish uploads file uploaddata.csv
- Workflow steps (copy/tag/custom Lambda)
- File filtered and staged
- User mftsubscribe authenticates and downloads report

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Resources

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Additional resources

Product website

aws.amazon.com/aws-transfer-family/

User guide

go.aws/3Doftlb

Customer references

Liberty Mutual – go.aws/3c4bbmN

Discover Financial – go.aws/3D9cpZX

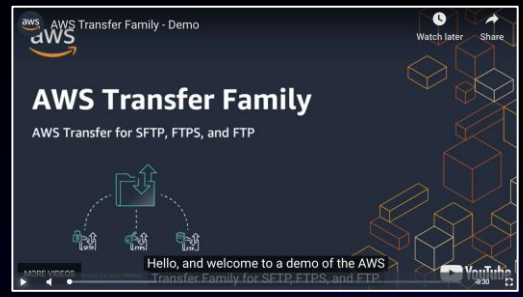
Introductory video

bit.ly/3Dac4Go



Product demo video

bit.ly/3HcvaOp



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