
AWS
re:Invent
NOV. 28 – DEC. 2, 2022 | LAS VEGAS, NV

STG329

AWS Transfer Family: The future of managed file transfer

Mat Mathews
General Manager
AWS

Russ Boyer
Principal Product SA
AWS

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Agenda

Understand managed file transfer (MFT) versus cloud MFT

Articulate common use cases

Demonstration of cloud-native MFT

Learn how AWS Transfer Family features enable cloud-native MFT

Wrap-up

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

What is managed file transfer (MFT)?



Built for business-to-business file exchange



Secure, automated, and monitored file transfers



Builds on top of secure protocols: FTP, FTPS, SFTP, AS2, etc.



Helps IT teams to govern, automate, and monitor

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Common use cases for MFT

Regulated document exchange

Financial services, health care, pharma and more

Trading partner transactions

POs, shipment notifications, inventory reports and more

Content distribution

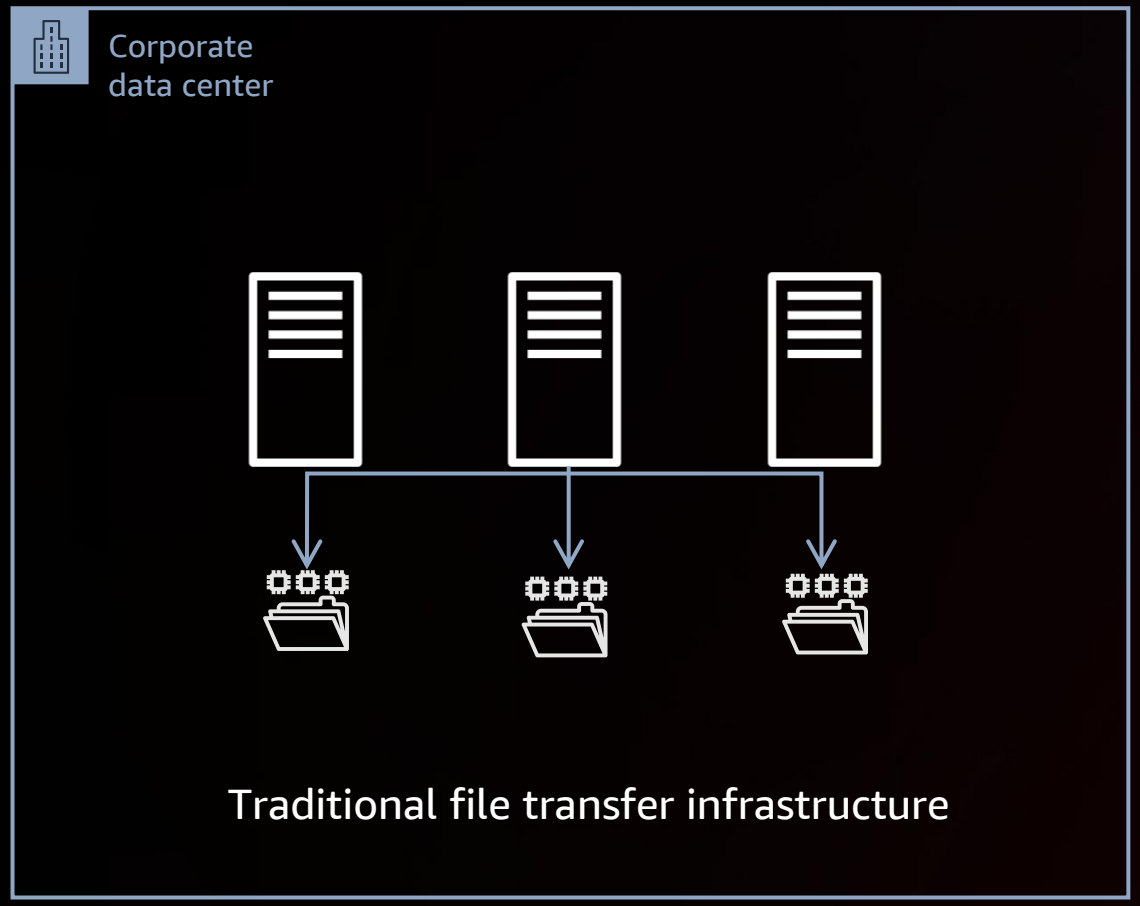
Software, videos, market data and more

MFT is found across industries and is here to stay

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

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

aws

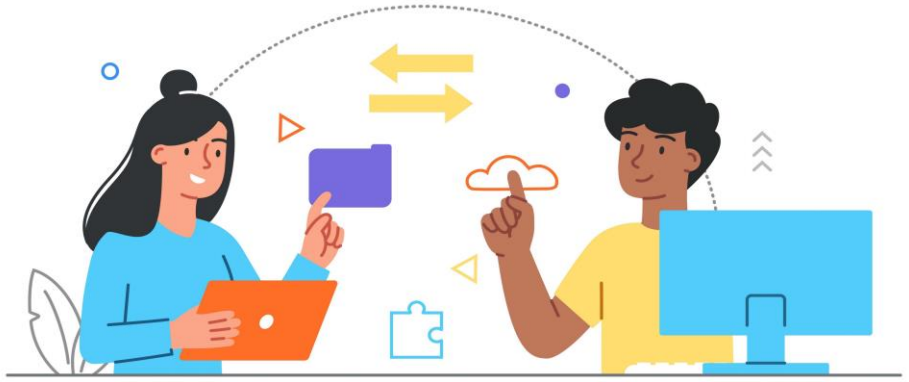
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Why Cloud MFT?

Helps IT deliver MFT without operational burden while meeting security and compliance requirements

Leverages cloud scale, availability, and security

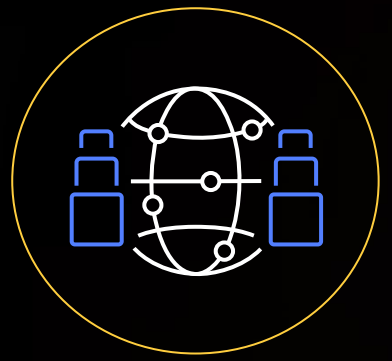
Integrates with cloud storage, dev/data tools for application and analytics integration





aws © 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Cloud MFT benefits



Scales with business



Operational visibility



Secure and compliant



AWS integrated

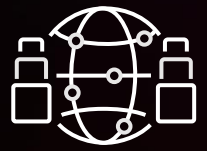
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

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

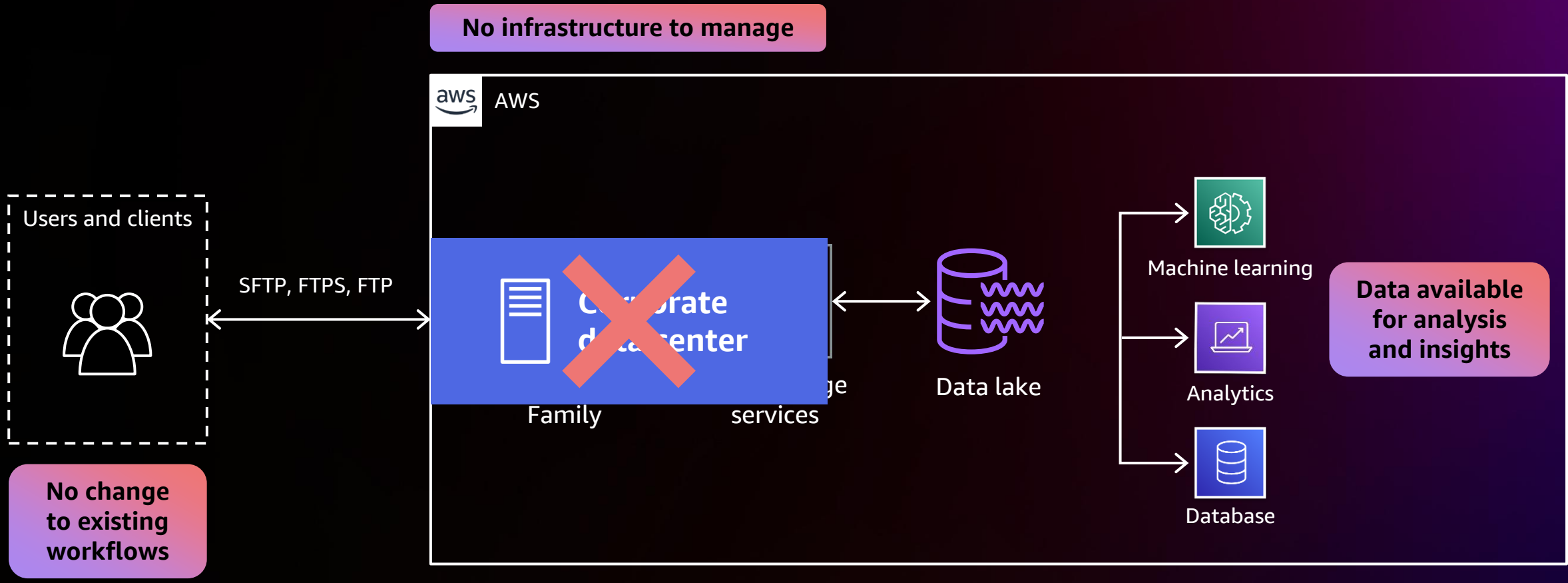


Simple to use

aws

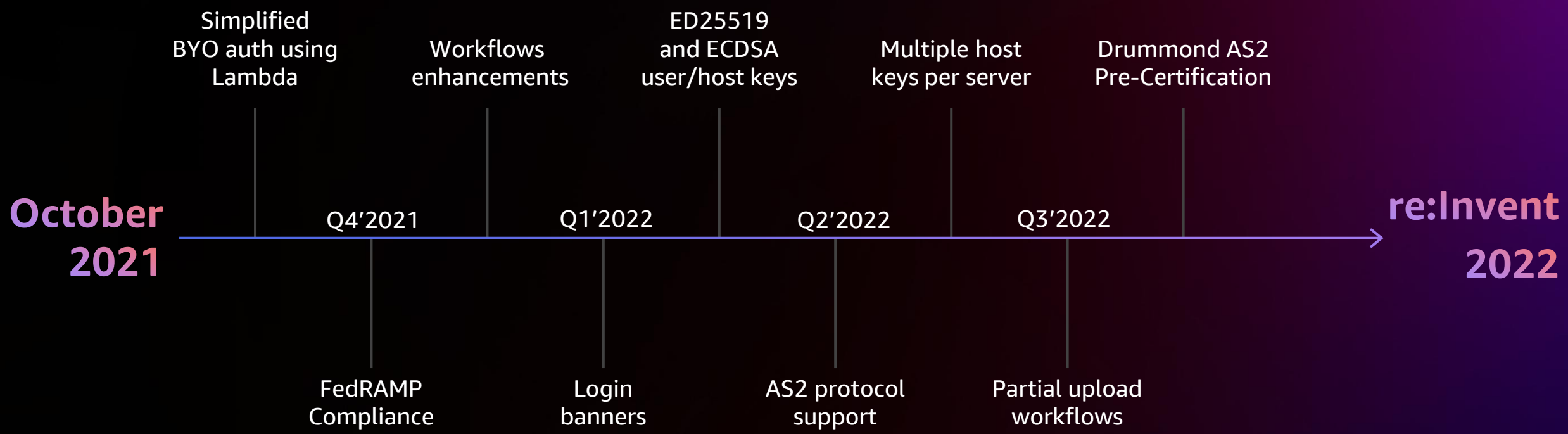
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Migrate without impacting your existing integrations



© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

New features since last October



© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

AWS Transfer Family Service Delivery Program

Validated for following best practices with AWS Transfer Family

beSharp. we make IT run.

cloudar

CLOUD NATION

Ibexlabs

opsguru A CARBON60 COMPANY

TriumphTECH

VERSENT

T··Systems·

Deloitte.

DXC TECHNOLOGY

[AWS Transfer Family Partners]

[Blog: Introducing AWS Transfer Family Service Delivery Partners]

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Case studies

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

FINRA uses AWS Transfer Family to provide secure access to their data lake on Amazon S3



Regulated document exchange

"AWS Transfer for SFTP is helping us reduce our operational burden, keeping S3 as our data lake, while maintaining critical connection to our existing authentication systems for external users – so they don't experience any disruption as we complete our migration of SFTP services to AWS. "

Ranga Rajagopal,
Senior Director, FINRA

Problem

High operational burden for file transfer environment handing **1,000** external users, **6 million** file transfers per month.

Solution

New "FileX" platform centralizing all file transfers for clients, with Amazon S3 as data lake.

Leverages AWS Transfer Family as Cloud MFT for secure SFTP access directly to S3.

Outcome

No maintenance/upkeep for SFTP access.

Natively leverage S3 as data lake.

Allow external users to leverage existing mechanisms for access and authentication.

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Whole Foods Market built a broad solution to securely transfer data with AWS Transfer Family



Trading Partner Transactions

"SFTP servers enable Whole Foods internal business partners to access data storage, securely transfer data between on-premises data centers and the cloud including large data loads, and seamlessly integrate with our SaaS partners including Coupa, Workday, and Adaptive. AWS Transfer Family allowed us to build a broad solution to securely transfer our data between our on-premises and cloud environments with a highly available and scalable service."

- Peter Rahmanifar-
- Software Development Engineer

Problem

On-premises SFTP environments for integrating data from internal business partners to SaaS platforms had become very costly to scale, maintain, and secure.

Solution

Cloud MFT using AWS Transfer Family in "Infra as Code" model - programmatic creation of SFTP servers, rotation of public/private key pairs, and much more using the AWS Transfer API.

Outcome

Increased security while reducing operations overhead for key internal business process.

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Walla News uses AWS Transfer Family's FTP support to transfer data from data center to S3



Content Distribution

"After the announcement of AWS Transfer Family's support for FTP, we quickly changed our setup to adopt this fully managed AWS service. We put an intense load on the service in order to stream multiple live broadcast channels, but since we made the switch to use AWS Transfer Family, we are no longer experiencing connectivity issues, our live stream works great, and our customer experience is greatly improved. "

Elad Eizner,
DevOps Team Leader

Problem

Sending HTTP Live Streaming (HLS) files from on-premises encoder to streaming platform was experiencing latency and connectivity issues.

Solution

Created Cloud MFT for fully managed FTP to get data from data center to S3, and Amazon CloudFront for delivery.

Outcome

Scalable, performant, and stable access to S3 with no FTP infrastructure to manage.

Customers receive real-time delivery of news feeds while saving Walla News both time and money.

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Tens of thousands of customers around the world use Transfer Family

































KONTOR
NEW MEDIA







aws
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

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

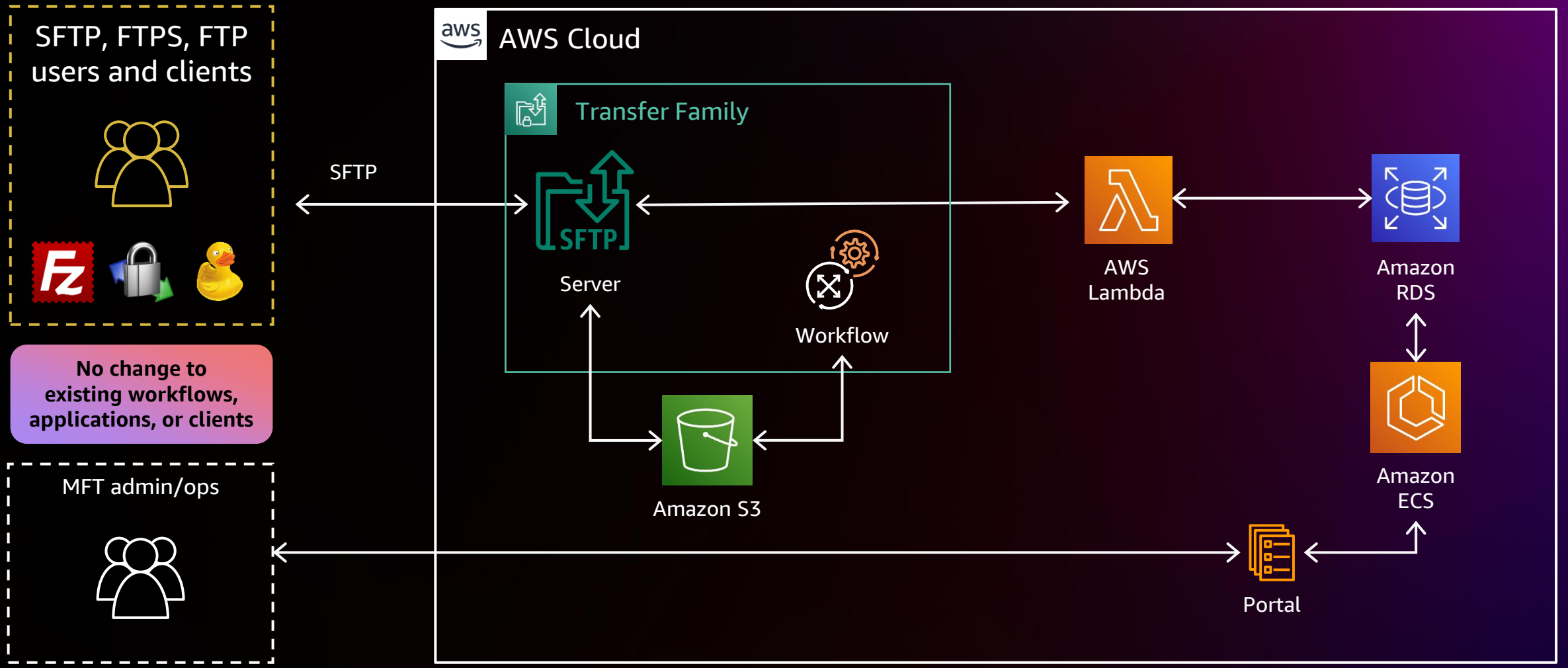
Yoga Thirumalasetti

Cloud Solutions Architect
Liberty Mutual Insurance

[Blog: Liberty Mutual and AWS Transfer Family]

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Transfer Family MFT demo architecture

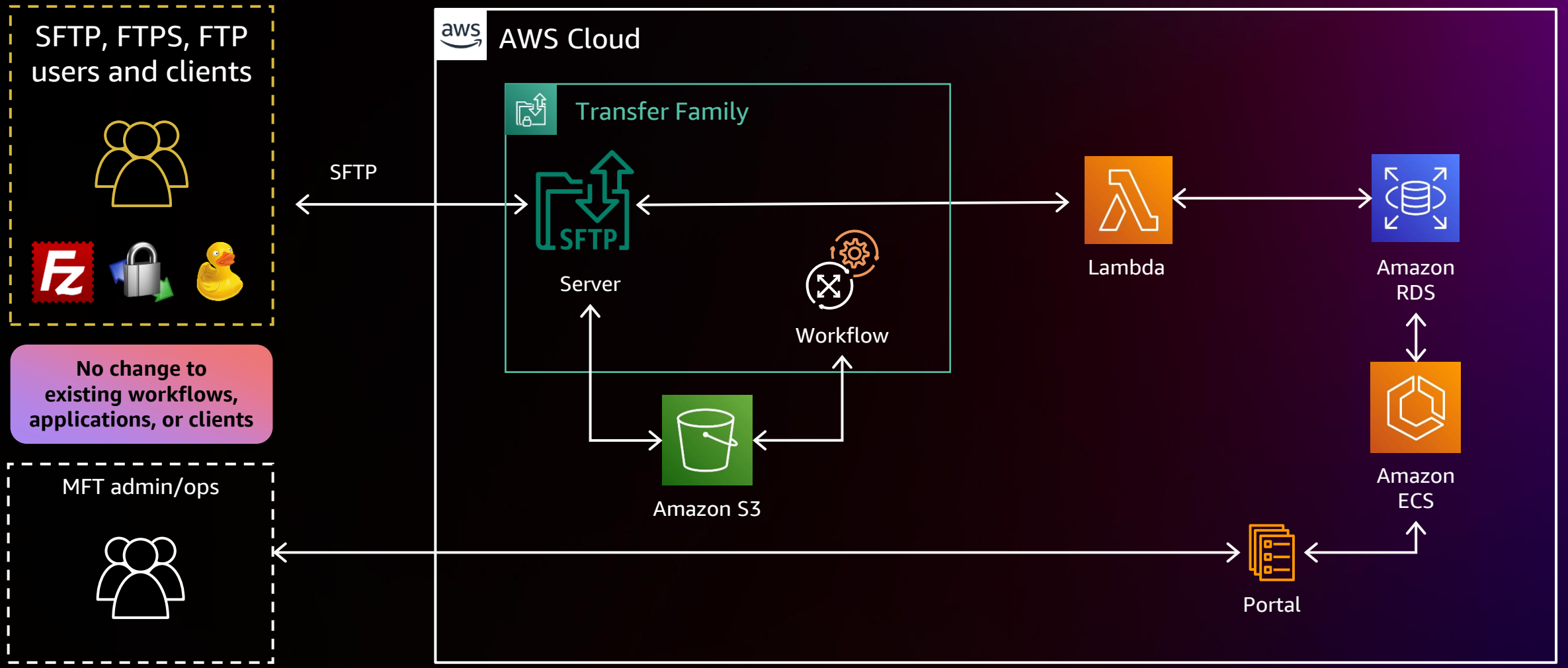


© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Feature deep dive

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Transfer Family MFT demo architecture



© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

AWS Transfer Family identity management



AWS Transfer Family
service managed



AWS Directory Service
AWS-managed Microsoft AD



Amazon API Gateway
custom identity provider



AWS Lambda
custom identity provider

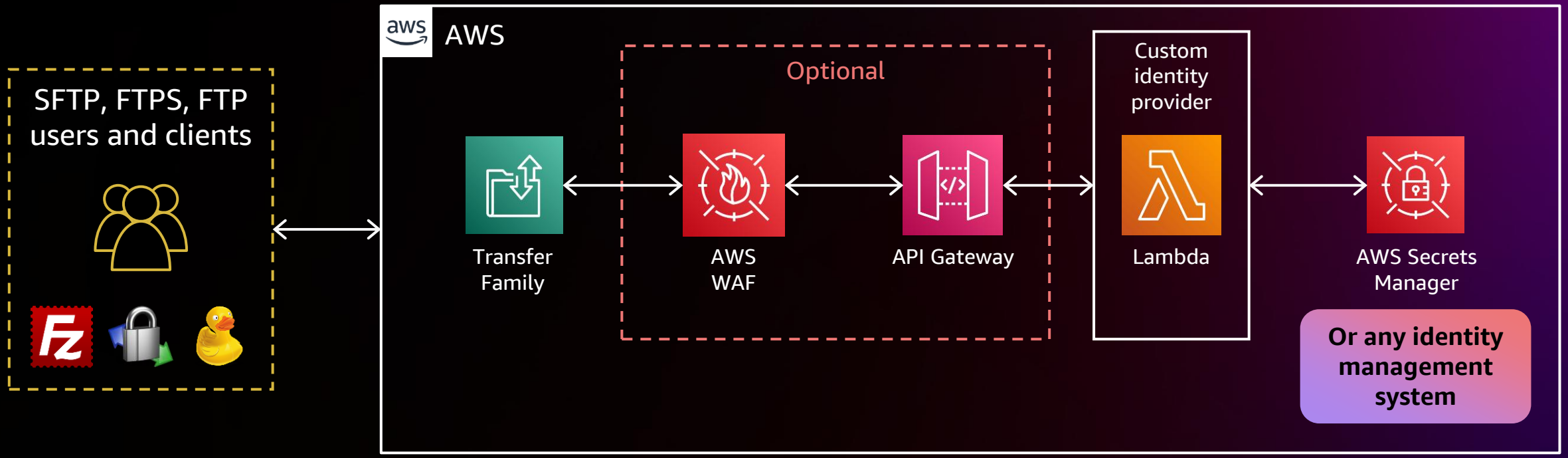
Action	Service managed	Directory service	Custom IdP
Logical home directory	Yes	Yes	Yes
IAM and POSIX	Yes	Yes	Yes
Ad hoc access structure	Yes	No	Yes
Password authentication	No	Yes	Yes
Rate limiting built-in	No	Yes	Yes
Key-based authentication	Yes	No	Yes

We support all authentication methods required for migration and compliance needs

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

BYO identity management system

INTEGRATE YOUR IDENTITY PROVIDER WITH TRANSFER FAMILY



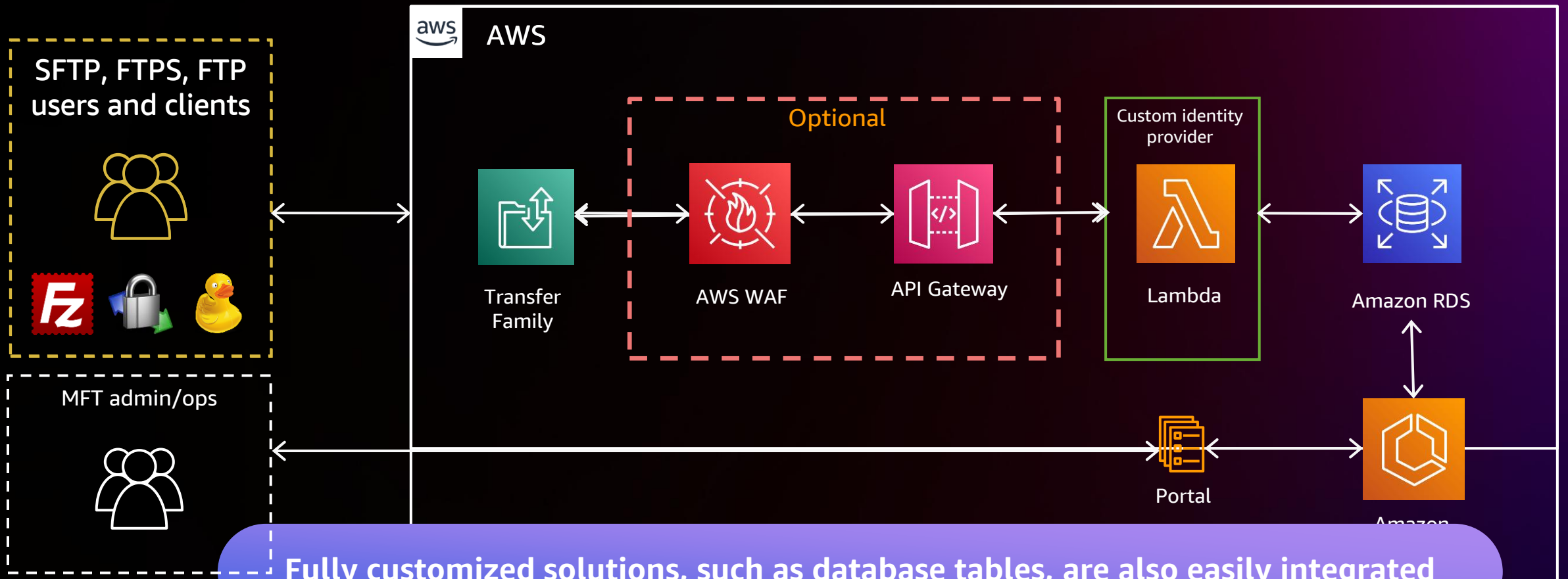
Supports existing authentication, including Okta, Amazon Cognito, Secrets Manager, and others!

Okta: https://go.aws/3F6wznU; Secrets Manager: https://go.aws/3Hcb7jb;
Amazon Cognito: https://aws.amazon.com/blogs/storage/enabling-user-self-service-key-management-with-aws-transfer-family-and-aws-lambda/

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

BYO identity management system

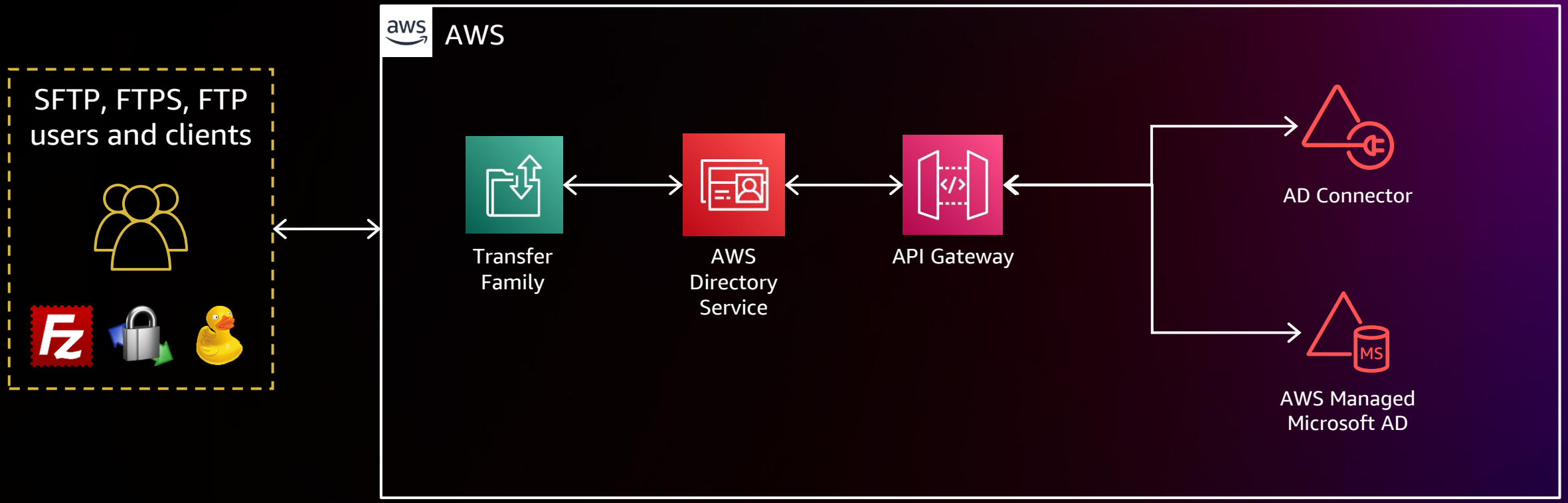
INTEGRATE YOUR IDENTITY PROVIDER WITH TRANSFER FAMILY



© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Microsoft AD as an identity provider

TRANSFER FAMILY INTEGRATES WITH AWS DIRECTORY SERVICE

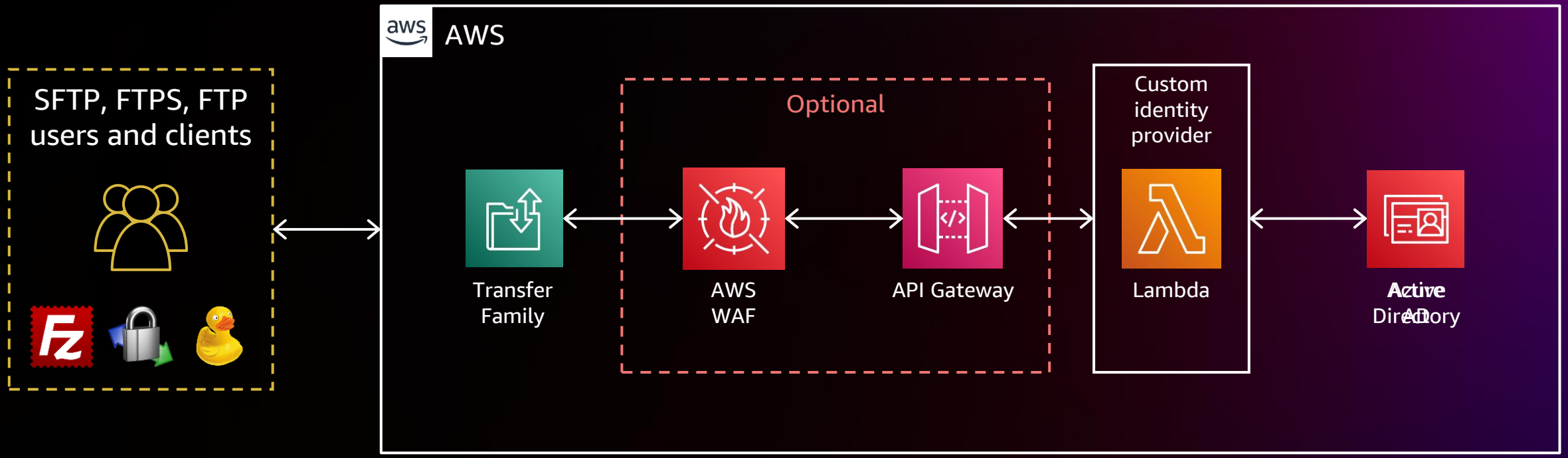


Set up individual access by username and associate access using AD groups

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Microsoft AD BYO identity management

INTEGRATE YOUR IDENTITY PROVIDER WITH TRANSFER FAMILY



Connect to AD over Lambda for more complex authorization scenarios

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Advanced access controls by storage service



Amazon S3

- IAM policies

  Each user mapped to IAM role/policy that sets initial scope of bucket access

- S3 Access Points

  S3-specific tool further refines to asymmetrical access per folder

- Logical directories

  Transfer Family–specific tool for refining namespace and chroot



Amazon EFS

- IAM policies

  Each user mapped to IAM role/policy that sets initial scope of filesystem access

- POSIX

  Amazon EFS POSIX controls can be combined with POSIX profile for granular control per file

- Logical directories

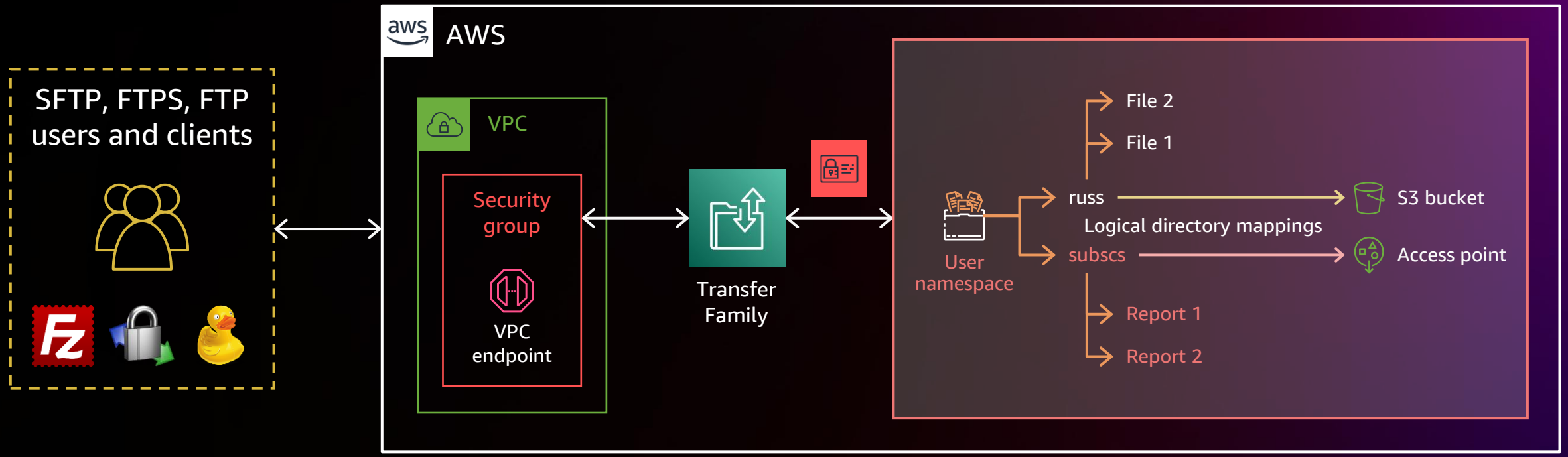
  Transfer Family–specific tool for refining namespace and chroot

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Amazon S3 Access Points

USE IAM AND LOGICAL DIRECTORIES

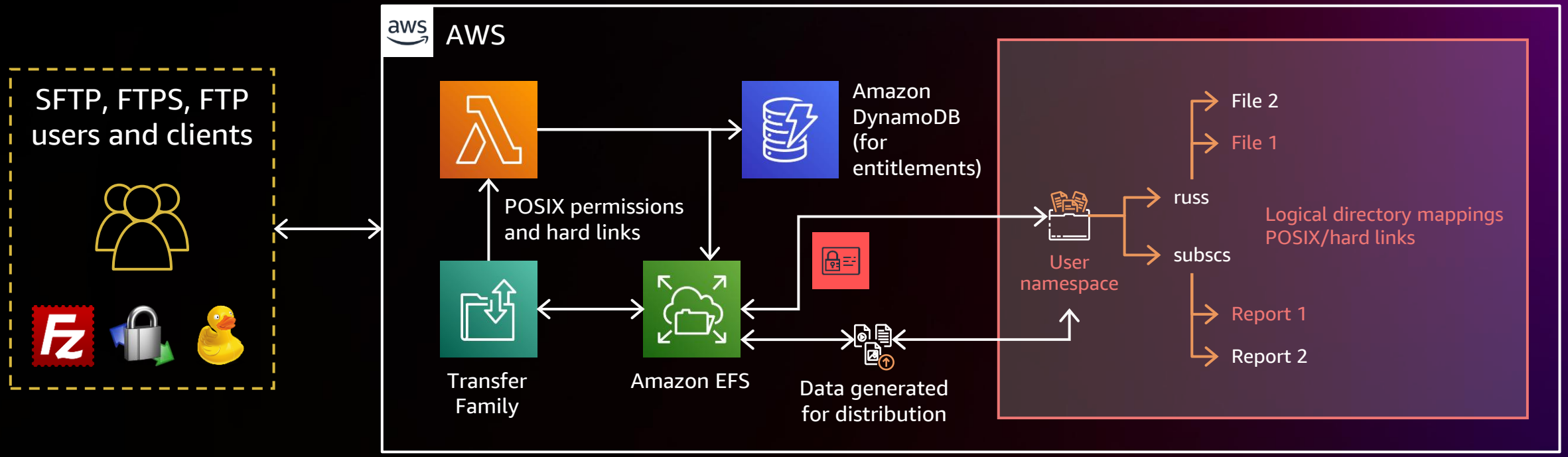


End-user access – least privilege

Transfer Family and S3 Access Points: https://go.aws/3DfBClA

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

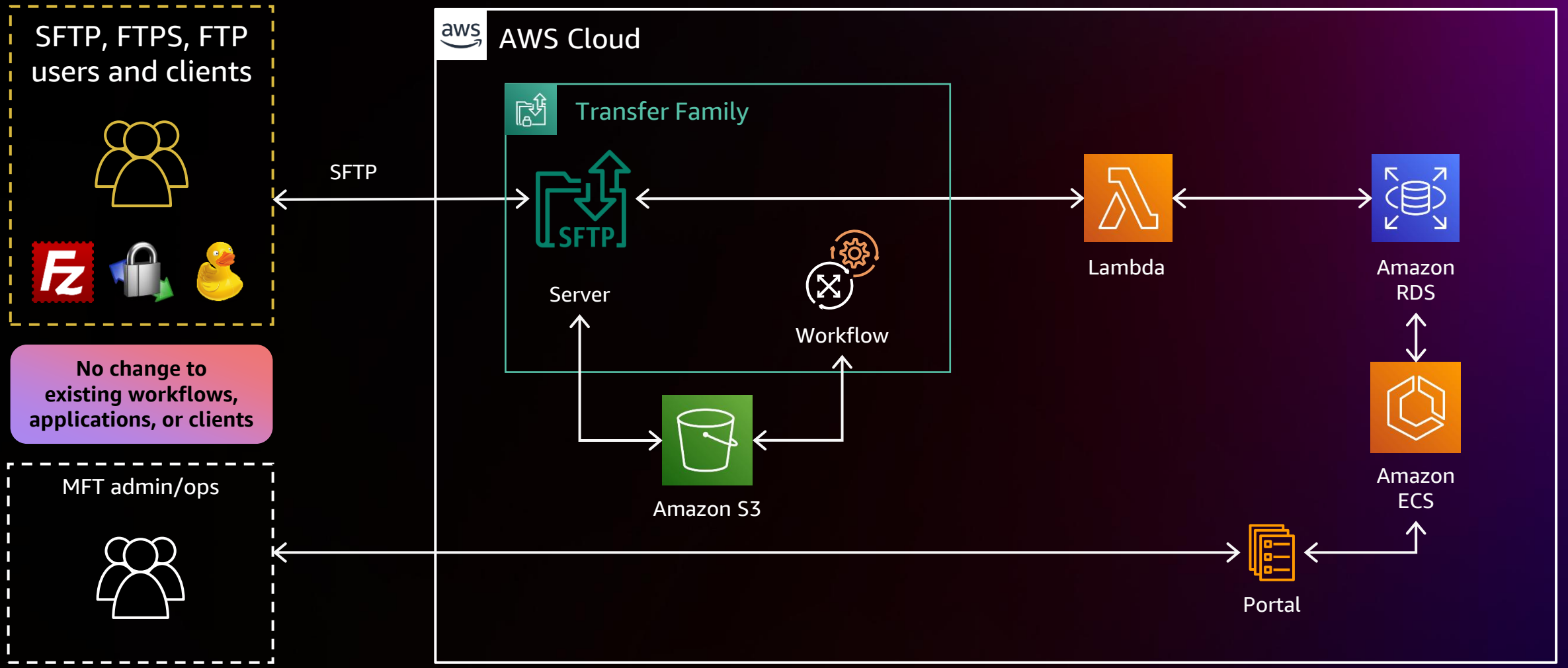
Amazon EFS for per-file access control



End-user access – least privilege

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

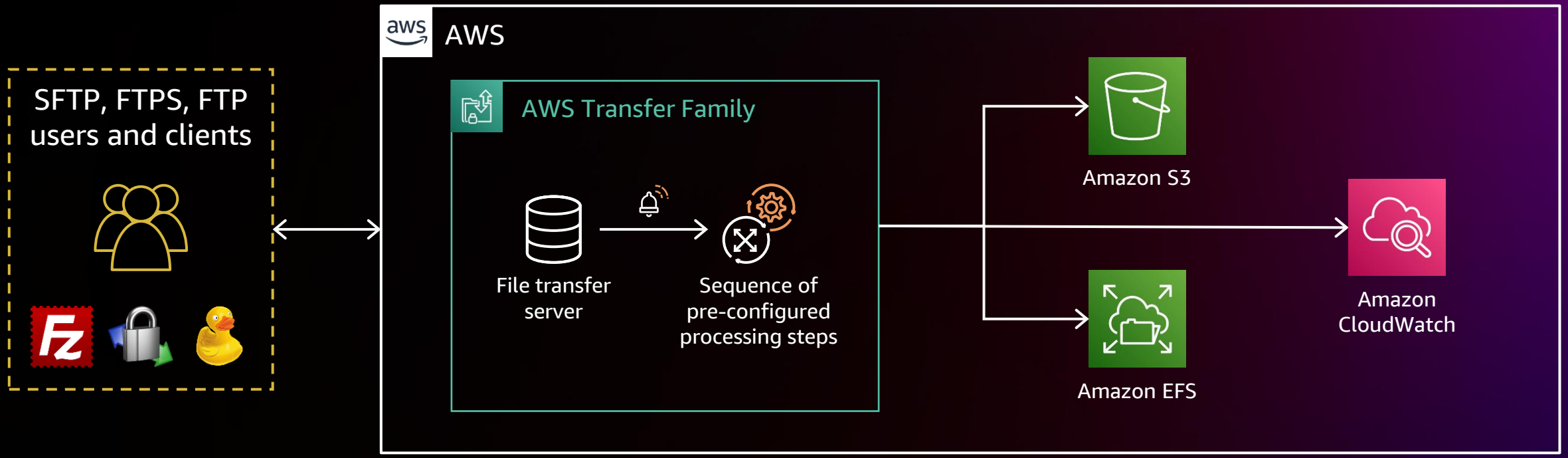
Transfer Family MFT demo architecture



© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Managed workflows for secure file transfers

AWS TRANSFER FAMILY MANAGED WORKFLOWS FOR POST-UPLOAD PROCESSING



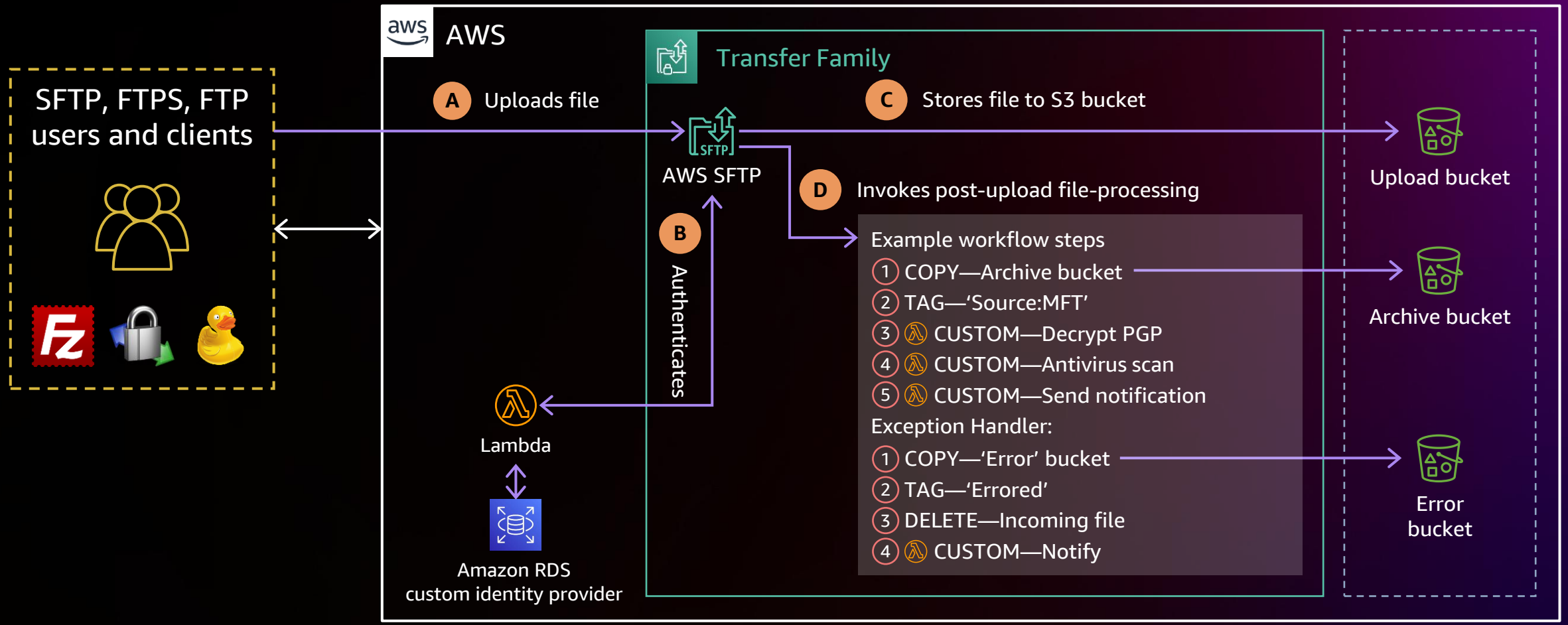
Supported features: Console/API/Cloud Formation, Copy/tag/delete, Custom option for Lamba integration, and more

[Blog: Customize file delivery notifications using AWS Transfer Family managed workflows]

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Managed workflows for secure file transfers

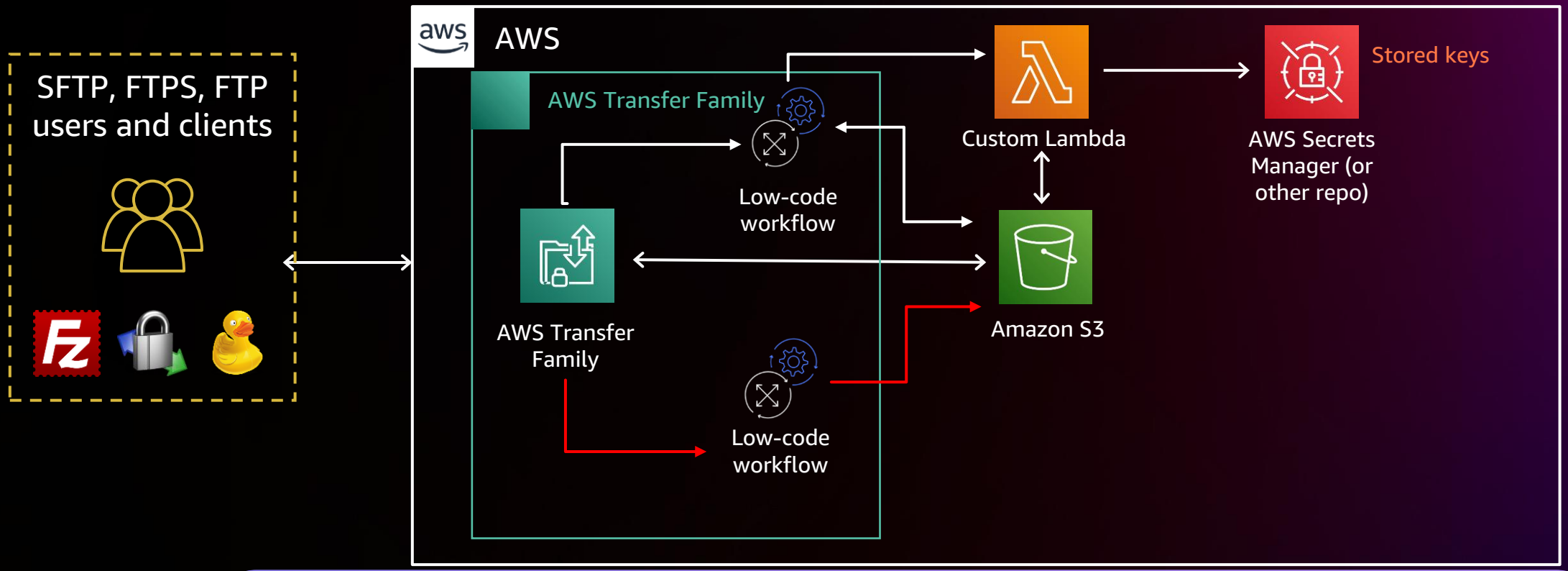
PROCESSING INBOUND FILES FOR DATA SECURITY AND INTEGRITY



© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

PGP decrypt with custom Lambda workflow

MANAGED WORKFLOWS FOR ADVANCED FILE PROCESSING



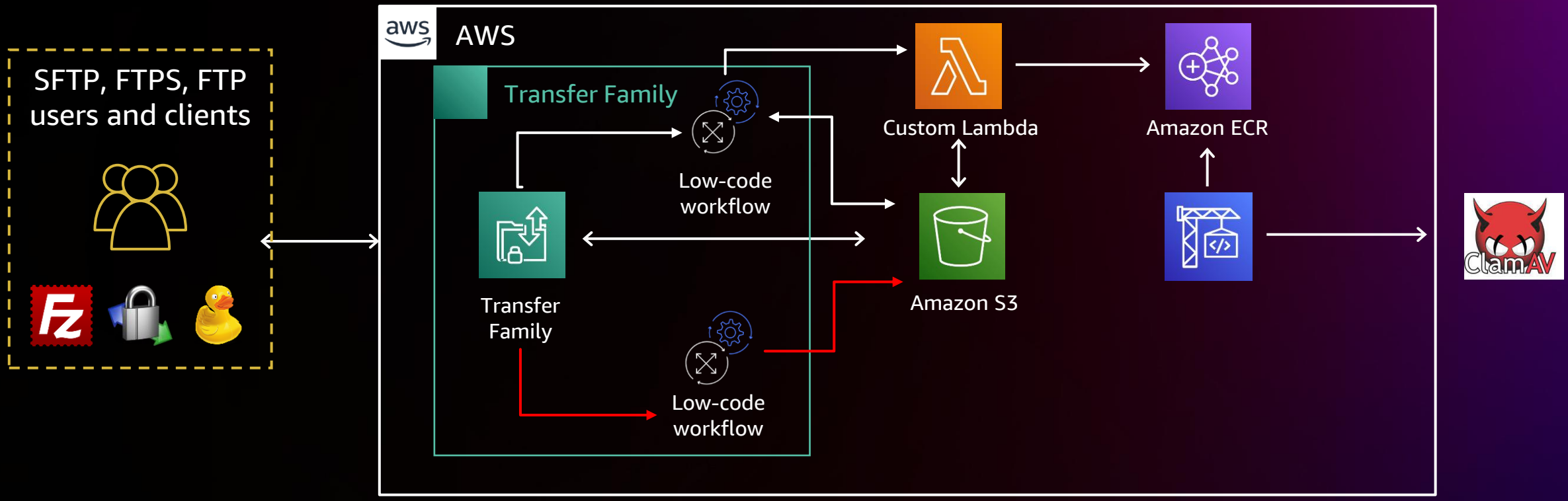
Automate file operations with custom code!

[Video: Automated PGP Decryption for AWS Transfer Family]

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Malware scan with custom Lambda workflows

MANAGED WORKFLOWS FOR ADVANCED FILE PROCESSING

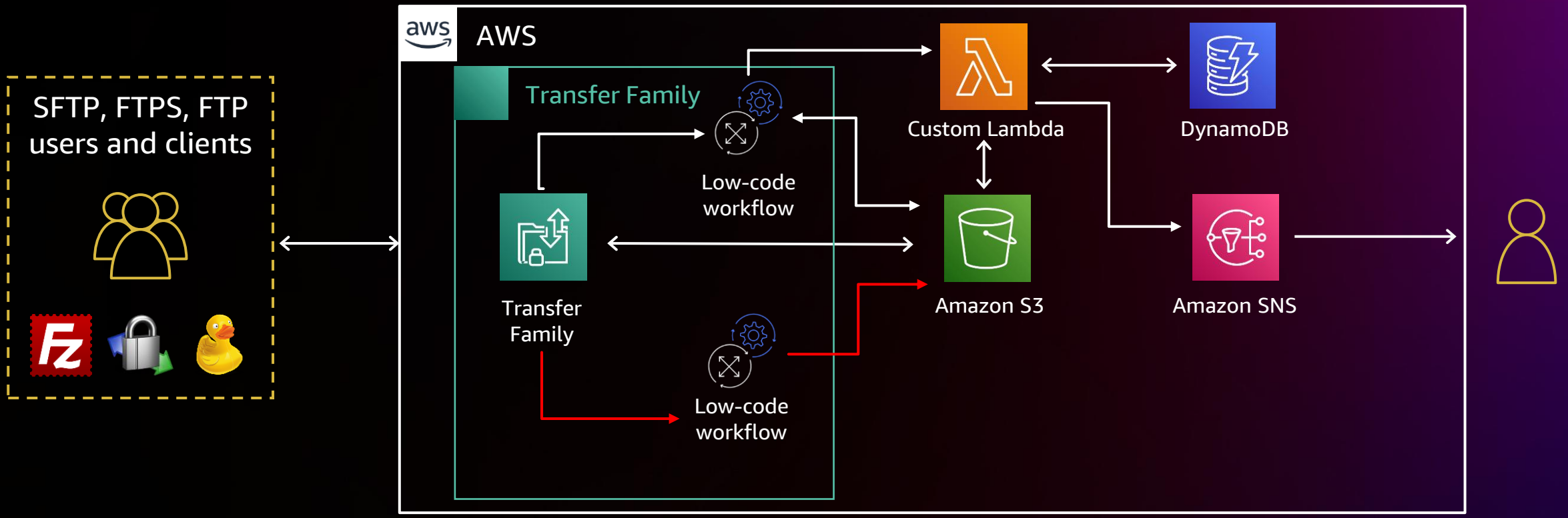


Automate file operations with custom code!

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Notifications with custom Lambda workflows

MANAGED WORKFLOWS FOR ADVANCED FILE PROCESSING

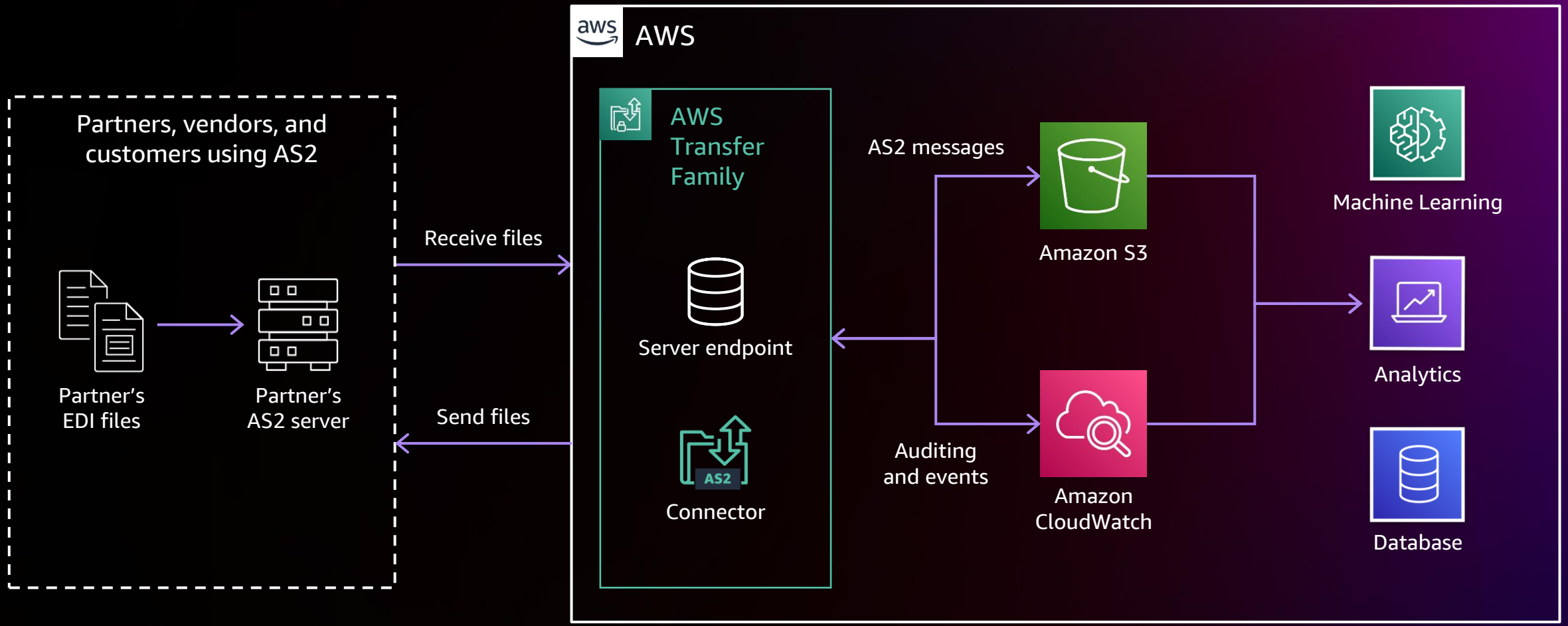


Automate file operations with custom code!

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

AWS Transfer Family (AS2)

Drummond AS2 Pre-certification



Support inbound and outbound AS2 workflows like EDI

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Key takeaways

- MFT is used across a diverse set of industries and use cases
- Cloud-native MFT saves cost and operational overhead
- Transfer Family includes the features needed for cloud-native MFT

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Resources

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Additional Session

Chalk Talk

STG330 - Supercharge managed file transfer with low-code file movement & automation

- 11/28 @ 10:45AM

Builder Session

STG334 - Build data mesh architectures using AWS Transfer Family & AWS Lake Formation

- 11/28 @ 5:30PM && 12/1 @ 4:15PM

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

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

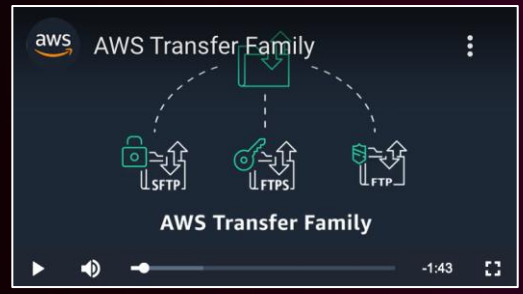
Recent Blogs

NYSE

Foxtal

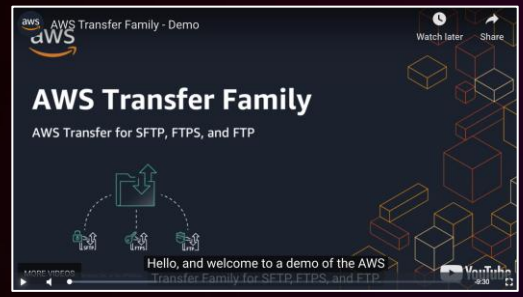
Introductory video

bit.ly/3Dac4Go



Product demo video

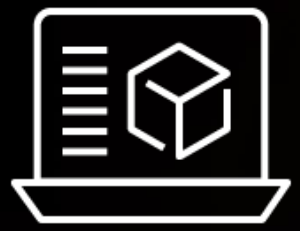
bit.ly/3HcvaOp



© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Continue your AWS storage learning

Build a learning plan



Set your AWS Storage Learning Plans via **AWS Skill Builder**

Increase your knowledge



Use our **Ramp-Up Guides** to build your storage knowledge

Earn AWS storage badges



Demonstrate your knowledge by achieving **digital badges**

aws.training/storage

aws
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Thank you!



Please complete the session survey in the **mobile app**

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.