

Service Name

AWS Transfer Family

Service Overview

AWS Transfer Family is a fully managed file transfer service that enables secure transfer of files into and out of AWS storage services including Amazon S3 and Amazon EFS. The service supports multiple protocols including SFTP, FTPS, FTP, AS2, and web browser-based transfers. It maintains existing client-side configurations for authentication, access, and firewalls, ensuring seamless migration of file transfer workflows without requiring changes for customers, partners, or applications. The service provides elastic infrastructure with automatic scaling, high availability across multiple Availability Zones, and integration with native AWS services for security, monitoring, and compliance.

Key Use Cases

- Data lakes: Ingesting external data into Amazon S3 for analytics and machine learning
- B2B file exchanges: Secure business-to-business document exchange using AS2 protocol with trading partners
- Content management: Web serving applications and content distribution workflows
- Compliance-driven workflows: Meeting regulatory requirements for secure file transfers with audit trails
- Supply chain management: Automated file processing and distribution across business units
- Internal data transfers: Moving files between on-premises systems and AWS cloud storage
- Subscription-based data distribution: Automated delivery of data to multiple subscribers

Features

- **Multi-protocol Support:** Supports SFTP, FTPS, FTP, AS2, and web browser-based transfers
- **Managed Workflows:** Automates file processing tasks like decryption, tagging, and Lambda function execution
- **Multiple Authentication Methods:** Service Managed, AWS Directory Service, custom identity providers via Lambda/API Gateway
- **Storage Integration:** Native integration with Amazon S3 and Amazon EFS
- **High Availability:** Multi-AZ deployment with automatic failover and elastic scaling

- **SFTP Connectors:** Bidirectional file transfers between AWS and remote SFTP servers
- **Web Applications:** Browser-based file transfer interface for end users
- **Security Features:** Encryption in transit and at rest, PGP encryption, malware protection

Value Proposition

AWS Transfer Family eliminates the need to manage and operate file transfer infrastructure while providing enterprise-grade security and compliance. It offers seamless migration with zero application changes required, maintaining existing client configurations and workflows:

- The service provides automatic scaling to handle dynamic workloads, 24/7 availability with multi-AZ redundancy, and integration with AWS native services for monitoring, security, and compliance
- Customers benefit from reduced deployment time, eliminated infrastructure costs, simplified management through a single pane of glass, and pay-as-you-use pricing with no upfront costs
- The fully managed nature means no server patching, maintenance, or capacity planning is required

Service Integration

AWS Transfer Family deeply integrates with core AWS services for comprehensive functionality. Primary storage integration includes Amazon S3 for object storage and Amazon EFS for file systems:

- Security integrations encompass AWS IAM for access control, AWS KMS for encryption key management, AWS Secrets Manager for credential storage, and AWS Directory Service for Active Directory integration
- Monitoring and logging leverage Amazon CloudWatch for metrics and alarms, and AWS CloudTrail for API auditing
- Automation capabilities integrate with AWS Lambda for custom processing, Amazon SNS for notifications, and AWS Step Functions for workflow orchestration
- Additional integrations include Amazon API Gateway for custom identity providers, Amazon Cognito for user authentication, and AWS B2B Data Interchange for EDI workflows

Onboarding and Offboarding

Getting started with AWS Transfer Family involves creating an Amazon S3 bucket or EFS file system, configuring an IAM role with appropriate permissions, and creating a Transfer Family server through the AWS Console or APIs. Users must select protocols (SFTP, FTPS, FTP, AS2), configure authentication method (Service Managed, Directory Service, or

Custom), set up user access and home directories, and optionally configure managed workflows for file processing automation:

- The service provides tutorials for common scenarios including SFTP server setup, AS2 configuration, and web application deployment
- No infrastructure provisioning or server management is required, enabling rapid deployment within minutes of configuration completion

Getting Started Guide: <https://docs.aws.amazon.com/transfer/latest/userguide/tutorials-transfer.html>

Data Removal

Data removal involves deleting Transfer Family servers, users, and associated resources through the AWS Console or APIs. Files stored in Amazon S3 or EFS remain until explicitly deleted by the customer. Managed workflows, connectors, and certificates must be removed separately. Complete offboarding requires deleting IAM roles, policies, and any custom identity provider configurations. CloudWatch logs and metrics can be retained or deleted based on customer requirements. All server endpoints are immediately decommissioned upon server deletion.

Backup/Restore and Disaster Recovery

AWS Transfer Family leverages underlying AWS storage services for backup and disaster recovery. Amazon S3 provides built-in durability with cross-region replication and versioning capabilities. Amazon EFS supports automatic backups and point-in-time recovery. Multi-AZ deployment ensures high availability within regions. Customers can implement cross-region disaster recovery by replicating data and recreating Transfer Family servers in alternate regions. Server configurations can be backed up through Infrastructure as Code templates for rapid recovery.

Backup Capabilities

Transfer Family itself does not provide native backup capabilities but relies on underlying storage services. Amazon S3 offers versioning, cross-region replication, and integration with AWS Backup for centralized backup management:

- Amazon EFS provides automatic backups, point-in-time recovery, and AWS Backup integration
- Server configurations and managed workflows can be exported and version-controlled through CloudFormation or Terraform templates for configuration backup and recovery

Disaster Recovery

AWS Transfer Family supports disaster recovery through multi-AZ deployment within regions and cross-region replication capabilities. The service integrates with AWS Application Recovery Controller for automated failover orchestration:

- Customers can implement warm standby or active-active architectures across regions
- Server endpoints can be quickly recreated in alternate regions using Infrastructure as Code
- DNS routing with Route 53 enables automatic traffic redirection during regional failures

Recovery Objectives

AWS Transfer Family helps meet RPO objectives through real-time data replication to Amazon S3 and EFS, with cross-region replication available for near-zero RPO. RTO objectives are supported through multi-AZ availability ensuring minimal downtime during failures, automated failover capabilities, and Infrastructure as Code for rapid server recreation. Managed workflows can be configured for immediate processing, and the elastic infrastructure eliminates capacity constraints that could impact recovery times.

Service Constraints

Service Quotas: <https://docs.aws.amazon.com/general/latest/gr/transfer-service.html>

FAQ: <https://aws.amazon.com/aws-transfer-family/faqs/>

Technical Requirements

Service Documentation: <https://docs.aws.amazon.com/transfer/latest/userguide/what-is-aws-transfer-family.html>

User Guide: <https://docs.aws.amazon.com/transfer/latest/userguide/what-is-aws-transfer-family.html>

API Reference: <https://docs.aws.amazon.com/transfer/latest/APIReference/api-welcome.html>

Pricing Overview

Please see the AWS UK G Cloud 15 Pricing Document accompanying this service in the Digital Marketplace.

Public Pricing: <https://aws.amazon.com/aws-transfer-family/pricing/>

Cost Optimization

AWS Transfer Family offers several cost optimization strategies including protocol-based pricing allowing selection of only needed protocols to minimize hourly charges. Pay-as-you-use model eliminates infrastructure costs and capacity planning expenses:

- SFTP connectors reduce data transfer costs by enabling direct server-to-server transfers without intermediate storage
- Managed workflows eliminate custom infrastructure for file processing
- Multi-protocol support on single servers reduces endpoint proliferation
- Data compression and efficient transfer patterns can reduce data transfer charges
- Integration with S3 Intelligent Tiering and lifecycle policies optimizes long-term storage costs

Savings Considerations

Primary cost savings come from eliminating dedicated file transfer infrastructure, reducing operational overhead through fully managed service model, and avoiding server maintenance costs. Pay-per-use pricing means costs scale with actual usage rather than provisioned capacity:

- Integration with AWS native services eliminates third-party software licensing
- Automated workflows reduce manual processing costs and improve operational efficiency
- Multi-AZ redundancy is included without additional infrastructure investment
- Free tier provides 12 months of limited usage for testing and small workloads
- Data transfer optimization through direct AWS integration reduces bandwidth costs compared to traditional FTP servers