Amazon Managed Workflows for Apache Airflow:

What's New

3.0

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What you will learn today:

- AWS involvement in Apache Airflow project
- Core features of Amazon Managed Workflows for Apache Airflow (MWAA)
- Recent and upcoming MWAA feature releases
- How customers use MWAA today
- Resources for getting started with MWAA

AWS involvement in Apache Airflow

AWS and Open-Source Apache Airflow

AWS OSS team dedicated to furthering the development of Apache Airflow

- Recent contributions:
  - ☐ Testing, bug fixing for AF 3.0, 3.1
  - ☐ Event Driven Scheduling
  - ☐ Simple Auth manager
  - ☐ Deadline alerts

- WIP contributions:
  - ☐ Deadline alerts in 3.2 w/custom callback
  - ☐ Multi-team

Overview of MWAA

3.0

Amazon MWAA

Performance & scalability

- Native AWS integrations
- Auto scaling
- Supports complex, high-concurrency DAGs
- Isolated environments

High availability & enterprise security

- Multi-AZ , high availability
- AWS-managed security updates
- IAM controls, KMS
- Built-in security and compliance

Lower overall cost of ownership

- Reduced operational costs
- Auto scaling to prevent overprovisioning
- Pay-as-you-go pricing

Fully-managed, open-source compatible

- Full access to Apache Airflow features
- Cloud agnostic
- Available on-premise
- image development on Github

MWAA core features

Run 100% OSS Apache Airflow (no forks)

Fully Managed

Multi AZ with automated failover

Auto-scaling

Granular monitoring & observability

Multi-cloud ready

Compatible with on-premise environments

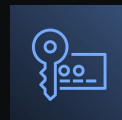Integrated with 1P & 3P services

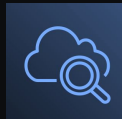Secure & Compliant, RBAC, HIPAA, SOC 1,2,3, PCI, DSS
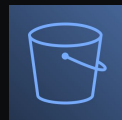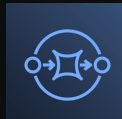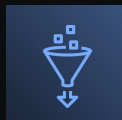
Amazon S3
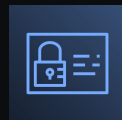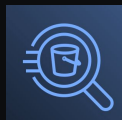
Amazon IAM

Amazon KMS

Amazon CloudWatch

Amazon SQS

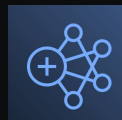Amazon Sagemaker AI

AWS Glue

Amazon Athena

Amazon EMR

A live dashboard monitors the health of AWS integrations available in the Amazon Provider Package

> *With Amazon MWAA, we can focus on building reliable data pipelines that achieve business goals rather than patching and securing instances.*

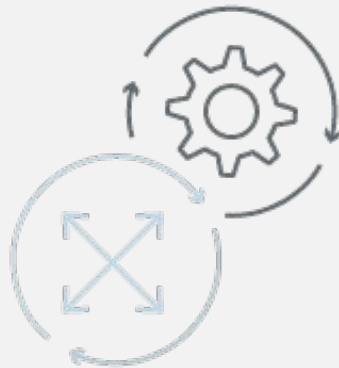Eric Smith
Data Platform Engineer

The Pokémon Company
INTERNATIONAL

MWAA used across a variety of use cases
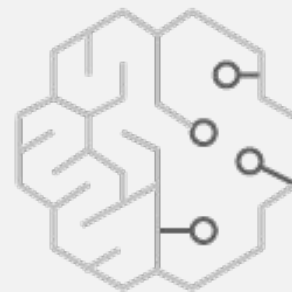
MWAA orchestrates complex workflows

ETL
Automate ETL and data workflows across AWS & 3P services
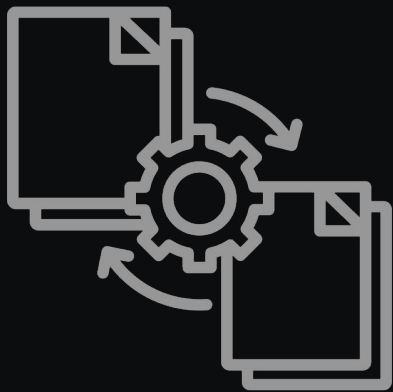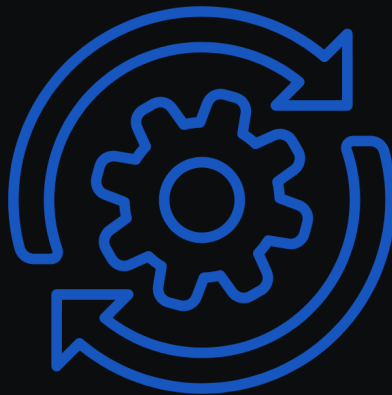
DevOps/LLMOps
Automate operational tasks

AIML & GenAI
Orchestrate end-to-end AI/ML pipeline

What's New

MWAA team has delivered some key features in 2025

In place version downgrades

Graceful updates

Amazon Sagemaker Unified Studio Integration

Try it today!

Airflow 3.0
On MWAA

- Improved Security with new REST API

- Event-driven scheduling for increased agility

- Execute tasks securely in any environment

- MWAA AF3 OSS Image publicly available for local testing

Team also working on these features…

Region expansion

Maintenance window

AF 3.1 support

Wrap Up

Catch these sessions to learn more

Data & AI Orchestration at GoDaddy

📅 10/9/2025

🕐 11:30 am

📍 Columbia C

AWS Lamba Executor: Speed of local Execution with advantages of Remote

📅 10/9/202 5

🕐 5

📍 3:00 pm

Beckler

Get Started with MWAA

- **MWAA Product Page:** https://aws.amazon.com/managed-workflows-for-apache-airflow/

- **MWAA Resources:** https://aws.amazon.com/managed-workflows-for-apache-airflow/resources/

- **#airflow-aws Slack Channel:** https://apache-airflow.slack.com/

Thank you!

Krystal Nzeadibe
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Questions?

Amazon MWAA + Amazon EMR + Amazon Athena
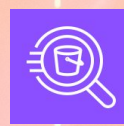
"Amazon MWAA has made our workload management system scalable as we accomplish our business goals."

Michael Bennett
Distinguished Software Engineer

Self-managing Apache Airflow can be tedious

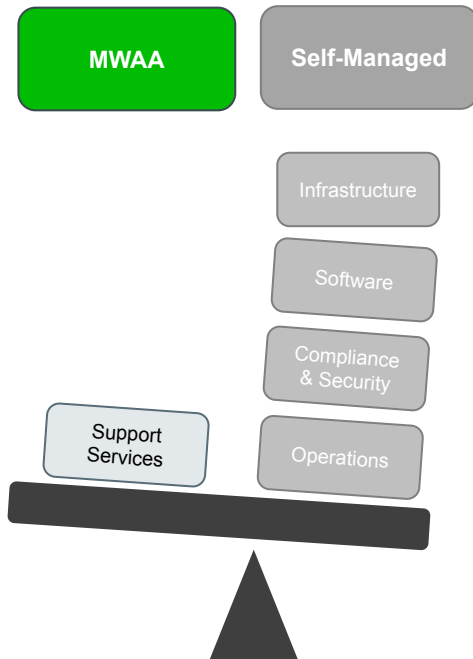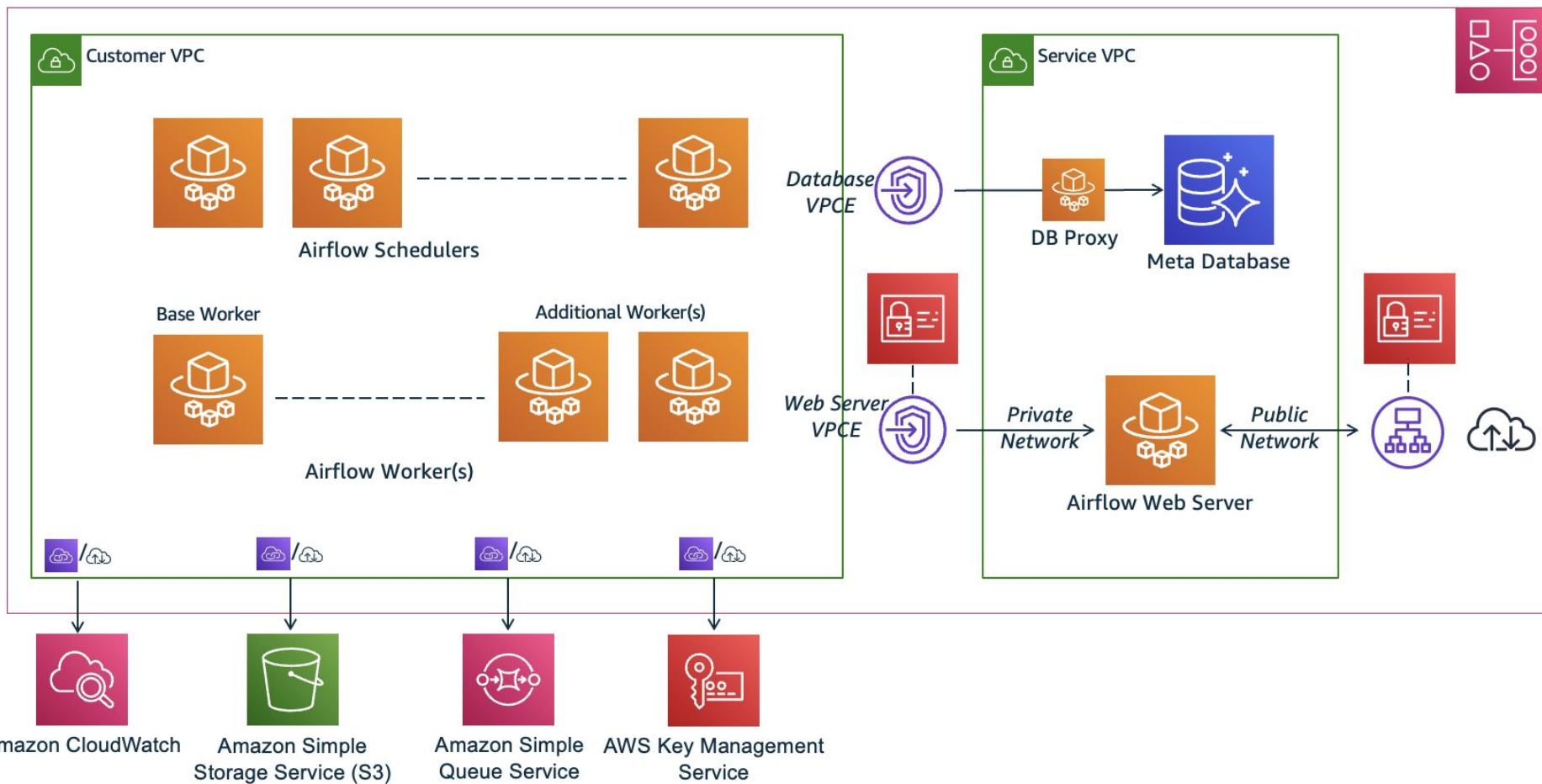|	Self-managed Apache Airflow	Amazon MWAA
Availability	∼ Manual set up & maintenance of availability	✓ Multi-AZ w/ automated failover, managed redundancy
Built-in Compliance	✗ Additional price & effort	✓ Built-in compliance, automated encryption
Enhanced Security	✗	✓ IAM Auth, KMS encryption, VPC network isolation
Monitoring & Observability	✓ Manual configuration of tools & dashboards	✓ CloudWatch integration
Enhanced Performance	✗	✓ Autoscaling, celery executor
Reliability	∼ Manual patching	✓ Automated recovery, maintenance, managed upgrades
Setup & Maintenance	∼ Manual set up and maintenance	✓ automated upgrades, managed patching
Cost Management	∼ Prone to overprovisioning	✓ Pay-as-you-go pricing, AWS billing native integration
Integration Scope	✓ Manual configuration, custom connectors	✓ Native AWS integrations & operators
Serverless	✗	✓

Example Workload

MWAA   **Self-Managed**

Infrastructure

Software

Compliance & Security

Support Services

Operations

Amazon MWAA Architecture

Environment capabilities

	mw1.micro	mw1.small	mw1.medium	mw1.large	mw1.xlarge	mw1.2xlarge
Recommended Workflow Capacity	Up to 25 DAGs	Up to 50 DAGs	Up to 250 DAGs	Up to 1000 DAGs	Up to 2000 DAG	Up to 4000 DAG capacity
Scheduler vCPU	1	1	2	4	8	16
Worker vCPU	1	1	2	4	8	16
Web Server vCPU	1	1	1	2	4	8
Concurrent tasks	3 (by default)	5 (by default)	10 (by default)	20 (by default)	40 (by default)	80 (by default)
RAM	3 GB	2 GB	4 GB	8 GB	24 GB	48 GB