

Explore the key differences between Astro and Airflow, along with a comprehensive comparison of their features

Elastic Infrastructure at Scale	Ā	$\mathbb{Z}$
High Availability Ensure the dependable delivery of mission-critical data pipelines with high availability schedulers.	<b>~</b>	_
Scale to 0 Deployments Schedule zero-cost downtime to optimize development deployment cost savings.	<b>~</b>	_
Tasked-Optimized Worker Queues Schedule zero-cost downtime to optimize development deployment cost savings.	~	_
<b>Dynamic Workers</b> Automatically adjust the number of worker nodes based on workload fluctuations.	<b>~</b>	_
Astro API Enable programmatic interactions and provide schemas for updating infrastructure and managing access control.	<b>~</b>	
Set-up and Teardown Tasks  Manage task resources with setup tasks for preparation and teardown tasks for dismantling, regardless of task success.	<b>~</b>	<b>~</b>
Enhanced Developer Productivity		
Astro CLI Run, parse, debug, and test DAGs on a local machine in a dedicated environment.	<b>~</b>	<b>~</b>
Cloud IDE Enable browser-based DAG writing, testing, and running while automating DAG generation to reduce boilerplate code.	~	_
Branch-Based Deploys Create isolated development environments for running, testing, and deploying your DAGs.	<b>~</b>	_
CI/CD  Automate reliable code deployment, enforce reviews, promote code across environments, and ensure testing. Seamlessly integrated with your favorite CI/CD tools.	Advanced	Limited
The Astronomer Registry Easily explore and use supported providers, modules, example DAGs, and tools within the Airflow ecosystem.	~	<b>~</b>

**Take Apache** Airflow to the next **level with Astro** 

Increased Operational Efficiency	(A	æ
Advanced Connection Management Streamline Airflow connections setup in a centralized location with a built-in, native solution provided by a secrets backend.	<b>~</b>	_
<b>Deployment Rollbacks</b> Easily revert Airflow deployments to a known stable state in case of issues during an upgrade or DAG versioning changes.	<b>~</b>	_
Upgrade Utilities Proactively identify and address common pitfalls and issues post- upgrade.	<b>~</b>	_
In-Place Upgrades Upgrade Airflow while preserving DAGs, configurations, and data to minimize downtime and data loss risks.	<b>~</b>	_
<b>Cosmos</b> Execute dbt Core within Airflow, transforming projects into Task Groups or complete DAGs.	Advanced	Limite
<b>Datasets</b> Create explicit data dependencies, enable data-aware scheduling, and simplify cross-DAG interactions.	<b>~</b>	<b>~</b>
Visibility and Reporting		
Cross Deployment Visibility + Health Gain complete visibility of your DAGs and metadata across all of your Airflow deployments.	~	_
Data-Centric Alerting Configure alerts based on DAG run and task states, receiving real- time notifications for proactive monitoring.	<b>~</b>	_
<b>Lineage</b> Visualize task relationships and track data movement within workflows, including data movement in external systems.	Advanced	Limite
Organizational Dashboards Gain comprehensive insights into your Astro usage, SLAs, deployments, and operations across your organization.	<b>~</b>	

## Astro delivers 10x the performance, 0 hassles

438% return on investment

in less than 6 months

75% reduction

in infrastructure management

1500+ validated integrations

for limitless extensibility

5 minutes to get started,

Airflow experience not required

Robust Enterprise-Grade Security	Ā	æ
Role-Based Access Control (RBAC) Implement granular and customized role-based access control across workspaces, teams, and deployment.	<b>✓</b>	Limited
Multi-Tenancy Utilizing workspaces and deployments, teams collaborate on their DAGs within isolated spaces.	<b>✓</b>	_
<b>Private Networking</b> Establish secure connections by VPC peering directly with your private networks.	<b>~</b>	_
Compliance Readiness Meet SOC 2, GDPR, HIPAA, and PCI DSS security standards compliance.	<b>~</b>	_
Secrets Management Automate secret management across Airflow deployments, ensuring a unified interface for seamless handling of secrets.	<b>~</b>	_
Encryption Automatically encrypts all data, both at rest and in transit, including databases, file systems, and network transmissions.	<b>~</b>	_
Commiter-led Support		
24×7×365 Support Access to the world's leading Airflow experts and committers.	<b>~</b>	_
Professional Services Customized, hands-on engagements to achieve your goals.	<b>~</b>	_
Education, Enablement, and Certification Diverse training and certification options for building Airflow expertise across your organization.	<b>~</b>	_



## Ready to get started?

Try Astro free for 14 days and power your next big data project.

