

Pipeline Monitoring

Airflow can surface metrics and emails to help you stay on top of pipeline issues.

SLAs

Airflow DAGs may optionally specify an SLA, or “Service Level Agreement”, which is defined as **a time by which a DAG must complete**. For time-sensitive applications these features are critical for developing trust amongst your pipeline customers and ensuring that data is delivered while it is still meaningful. Slipping SLAs can also be **early indicators of performance problems**, or a need to scale up the size of your Airflow cluster

Emails and Alerts

Airflow can be configured to send emails on DAG and task state changes. These state changes may include successes, failures, or retries. Failure emails can allow you to easily trigger alerts. It is common for alerting systems like PagerDuty to accept emails as a source of alerts. If a mission-critical data pipeline fails, you will need to know as soon as possible to get online and get it fixed.

Metrics

Airflow comes out of the box with the ability to send system metrics using a metrics aggregator called statsd. Statsd can be coupled with metrics visualization tools like **Grafana** to provide you and your team high level insights into the overall performance of your DAGs, jobs, and tasks. These systems can be integrated into your alerting system, such as pagerduty, so that you can ensure problems are dealt with immediately. These Airflow system-level metrics allow you and your team to stay ahead of issues before they even occur by watching long-term trends.