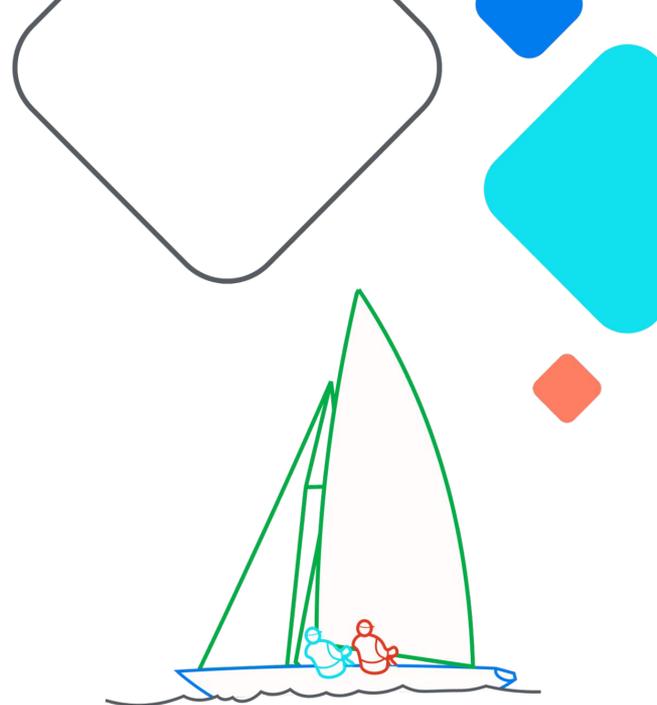


# How to build a system test dashboard

... and why you should do it

Vincent Beck



 **Airflow Summit**  
Let's flow together

September 19-21, 2023,  
Toronto, Canada

# About me

- Software developer engineer for AWS
- Apache Airflow committer



# Apache Airflow - Amazon Provider Package Health

## View the health of AWS service integrations for Apache Airflow

This live dashboard displays the current health of AWS service integrations available in the [Amazon Provider package](#) of Apache Airflow. The following table shows data for all runs from the past 7 days of the [AWS System Tests](#) using the latest [Apache Airflow codebase](#).

System test	Invocations	Successes	Failures	Duration	Last 10 runs (latest on the right)
example_appflow_run	68	68	0	00h00m48s	
example_athena	68	68	0	00h00m47s	
example_batch	68	68	0	00h02m49s	
example_cloudformation	68	68	0	00h03m02s	
example_datasync	68	68	0	00h00m44s	
example_dynamodb	68	68	0	00h01m17s	
example_dynamodb_to_s3	68	66	2	00h15m28s	
example_ec2	68	68	0	00h02m41s	
example_ecs	67	67	0	00h01m14s	
example_ecs_fargate	68	68	0	00h01m39s	
example_eks_with_fargate_in_one_step	68	68	0	00h17m40s	
example_eks_with_fargate_profile	68	68	0	00h17m35s	
example_eks_with_nodegroup_in_one_step	68	68	0	00h16m42s	

What is a *system*  
test?

# What is a system test?

- Executable DAGs
- Runnable with a **pytest** command
- Integration tests for operators and sensors

How to build a  
system test  
dashboard?

# How to build a system test dashboard?

1. How to execute system tests frequently?
2. How to generate a dashboard from system test results?
3. How to notify on system test results?

# How to execute system tests frequently?

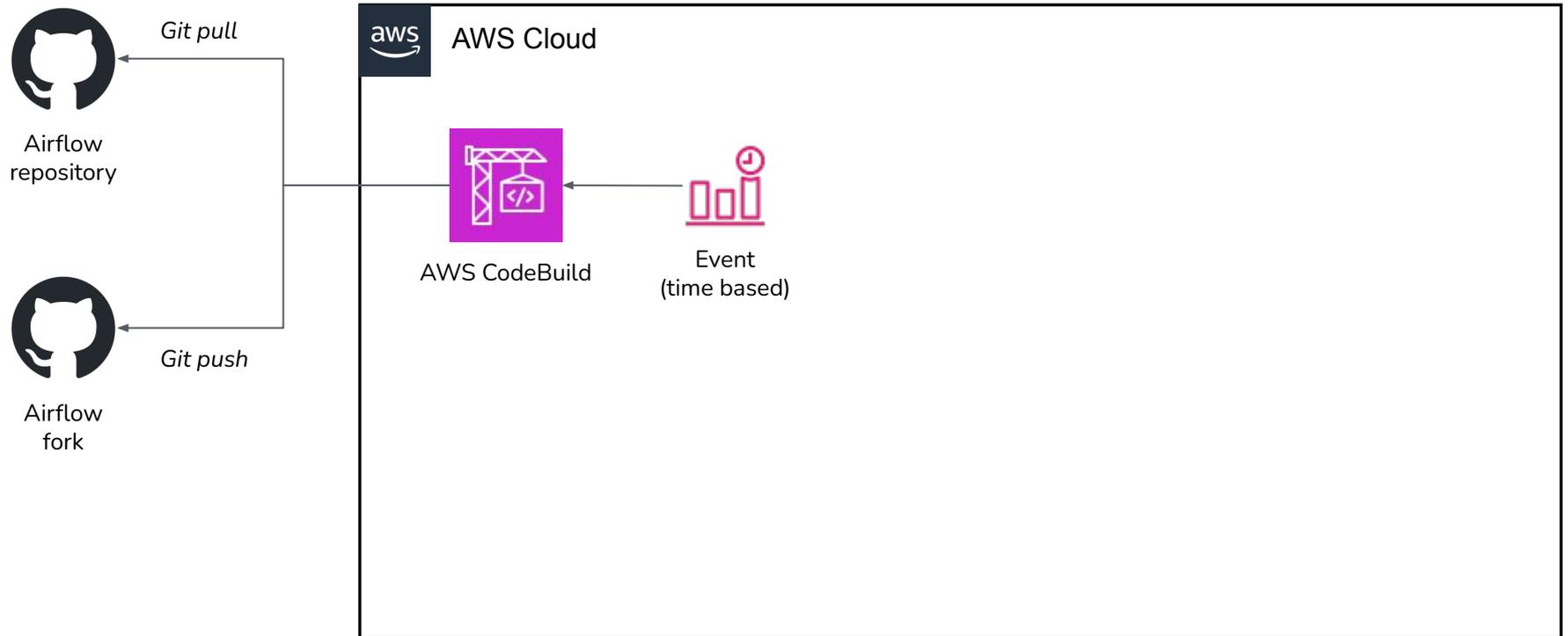


Airflow  
repository

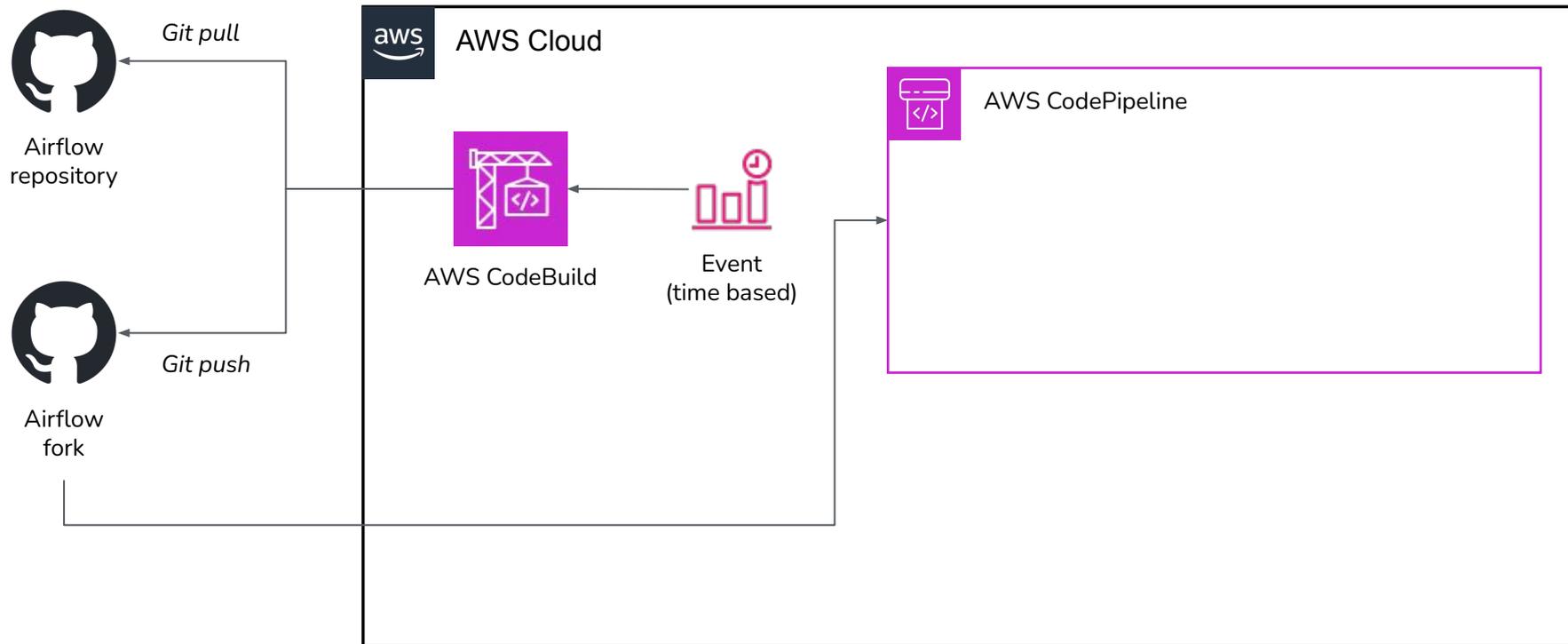


Airflow  
fork

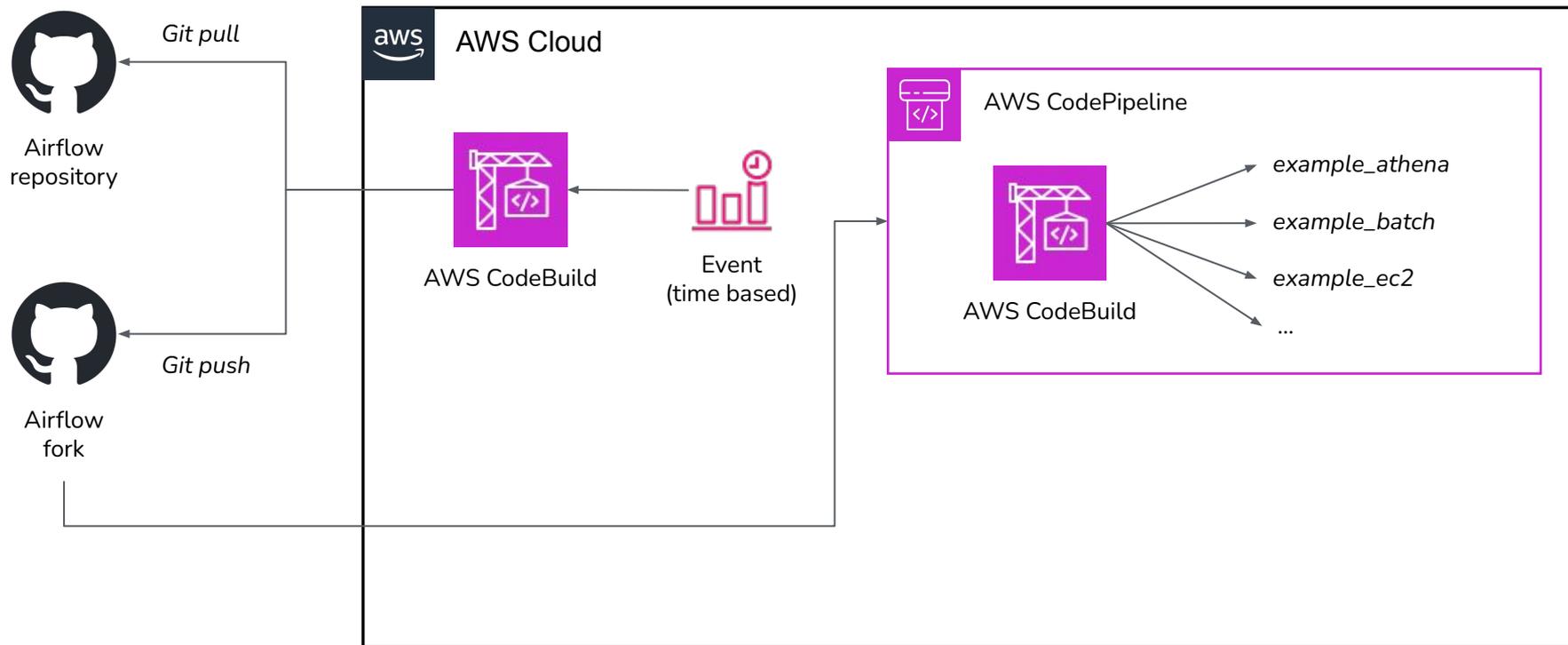
# How to execute system tests frequently?



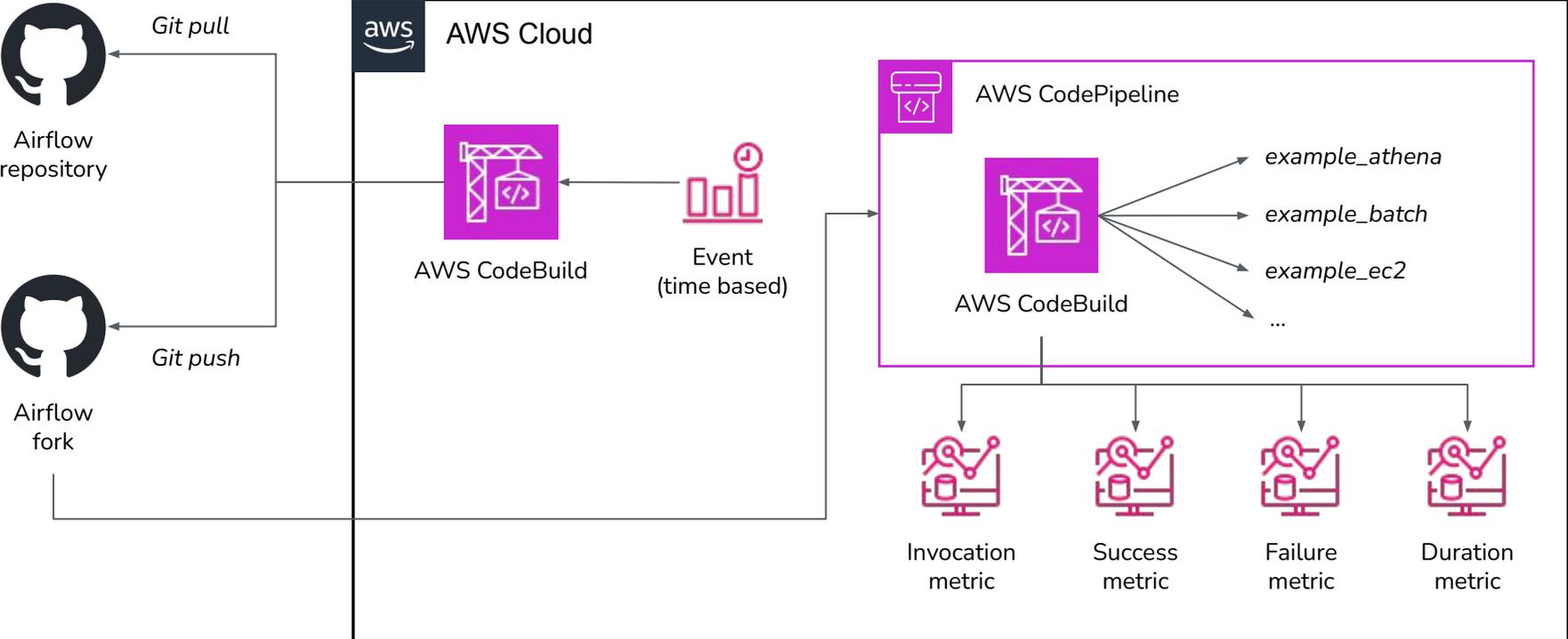
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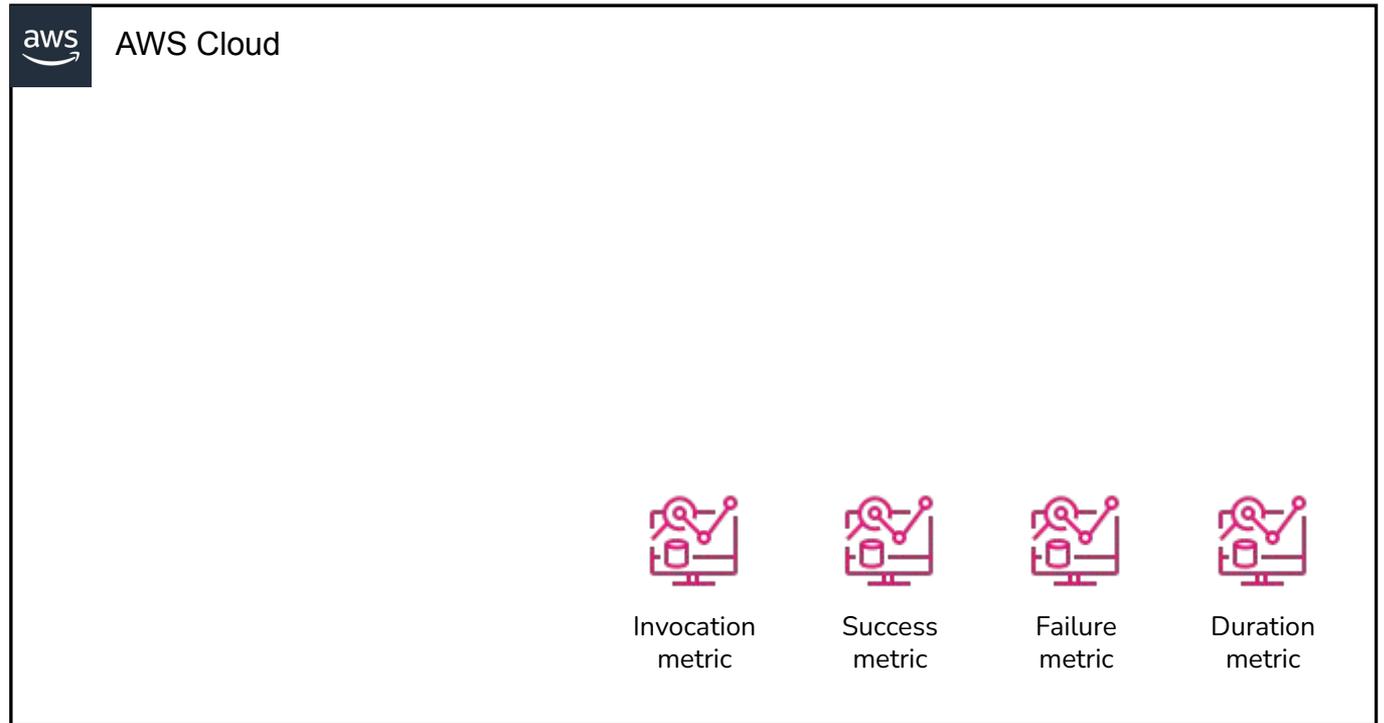
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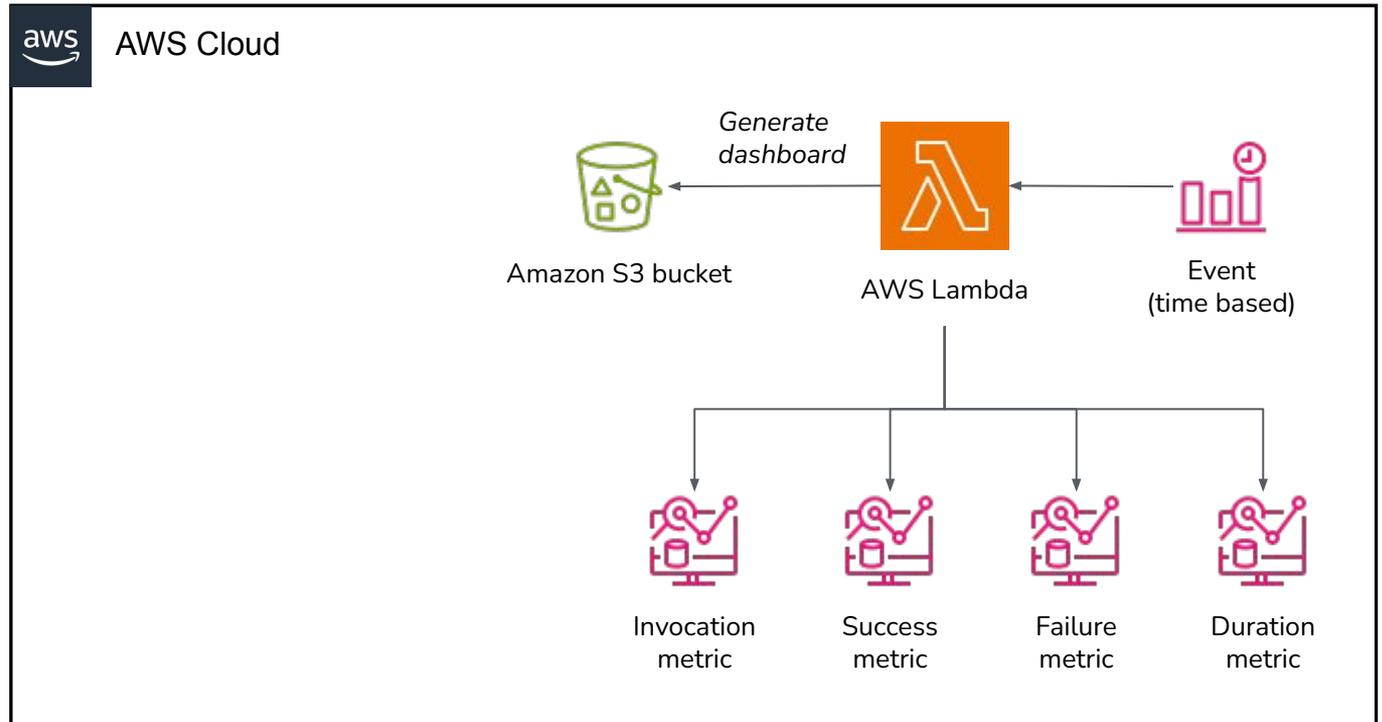
# How to execute system tests frequently?



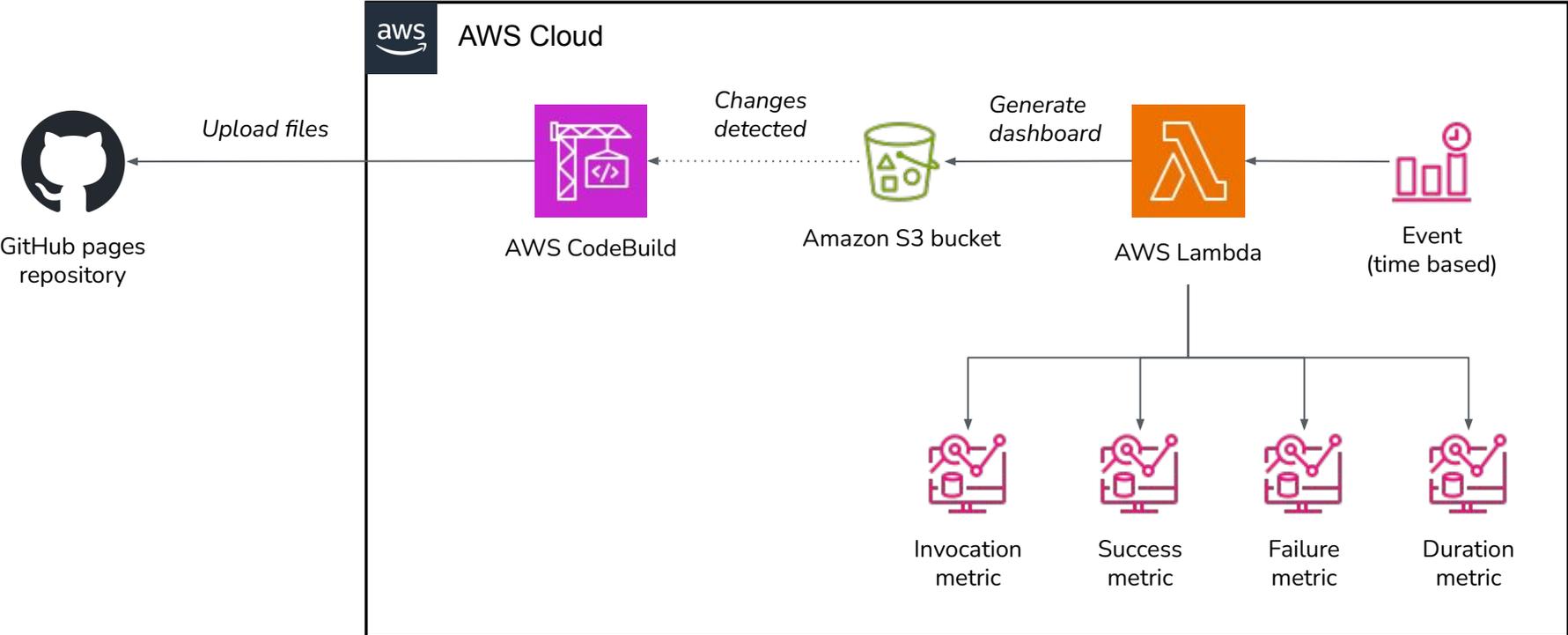
# How to generate a system test dashboard?



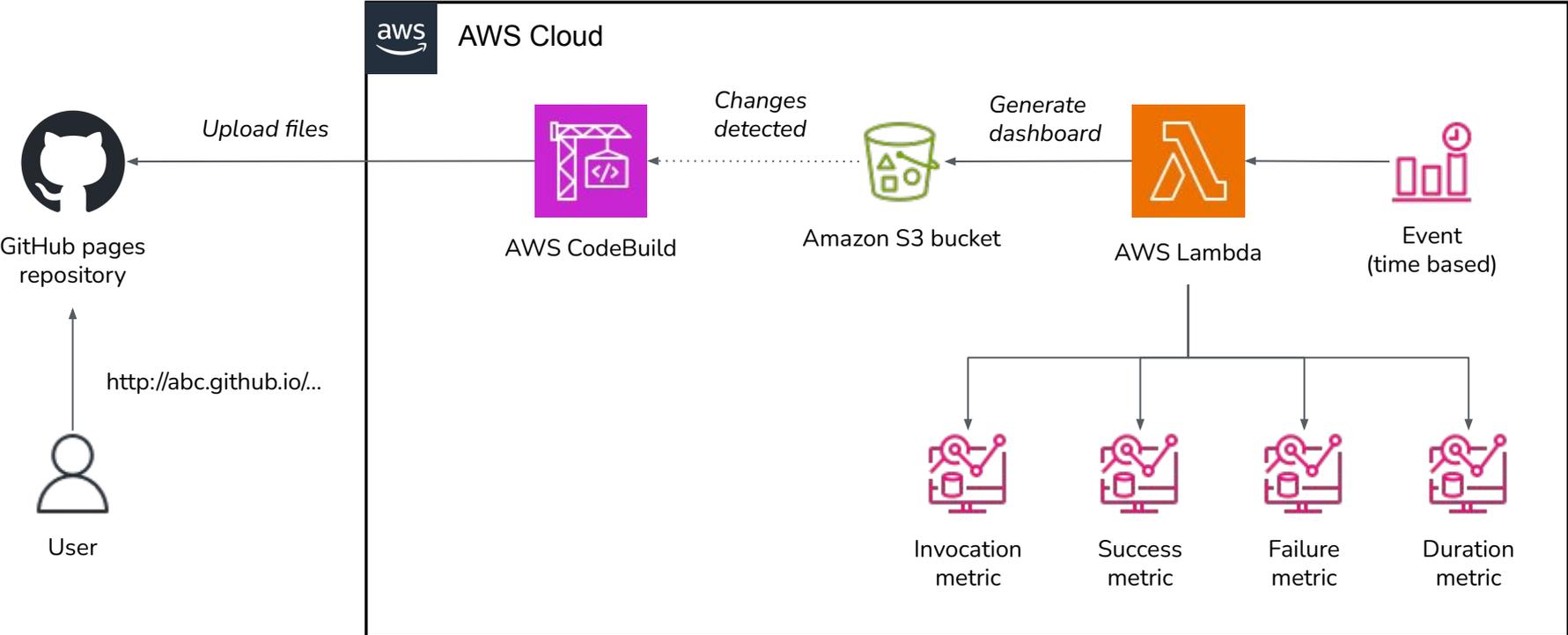
# How to generate a system test dashboard?



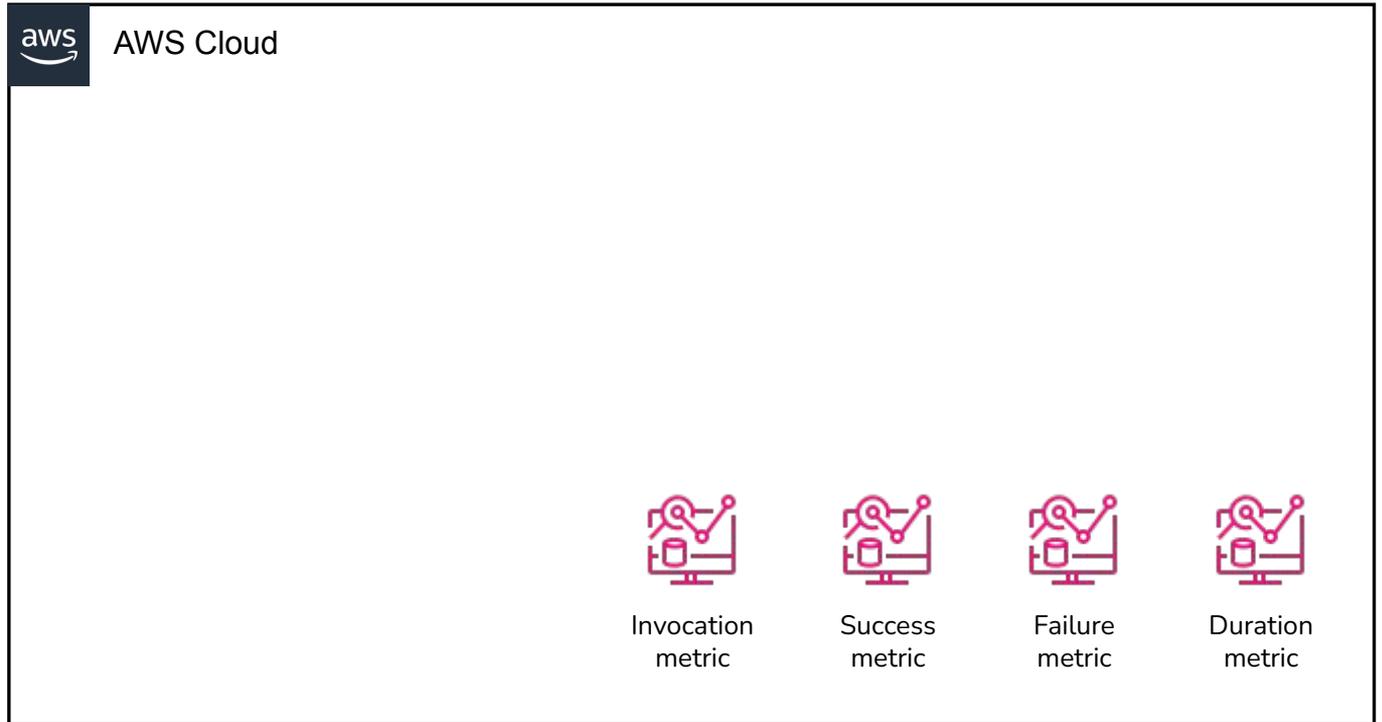
# How to generate a system test dashboard?



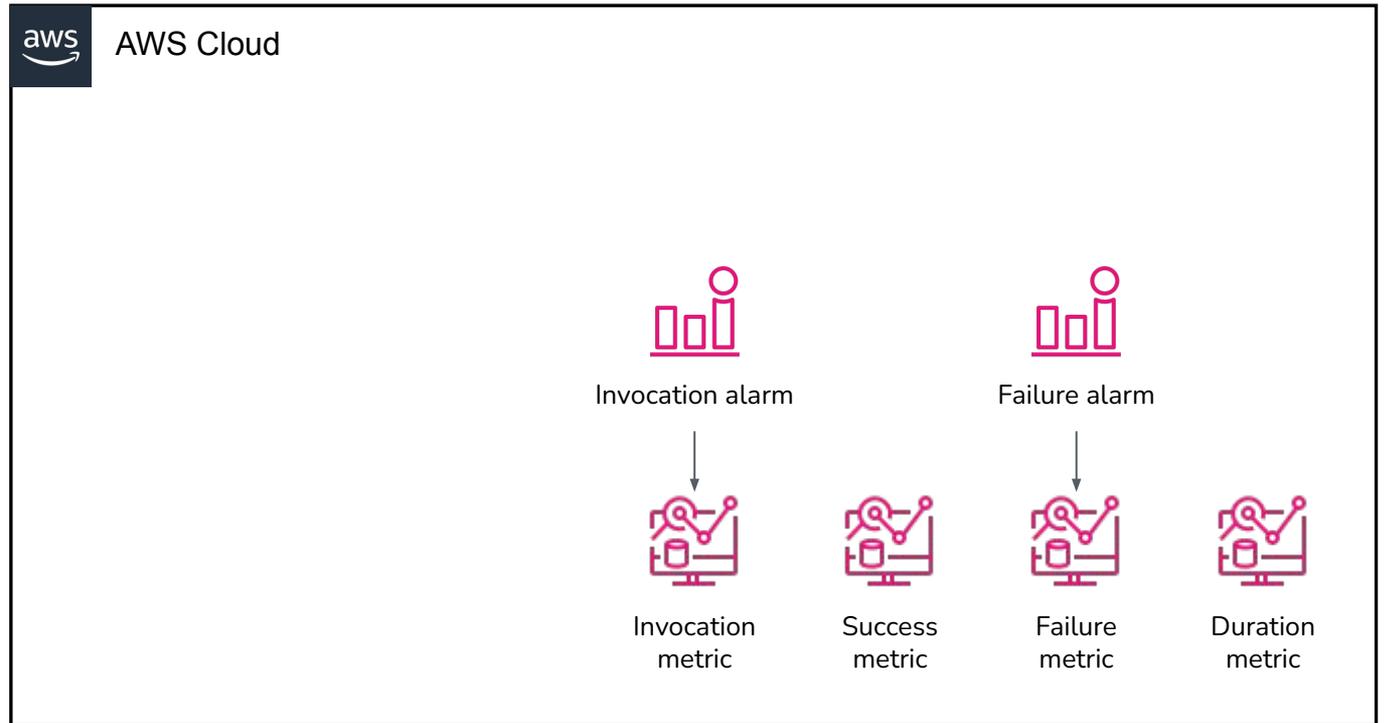
# How to generate a system test dashboard?



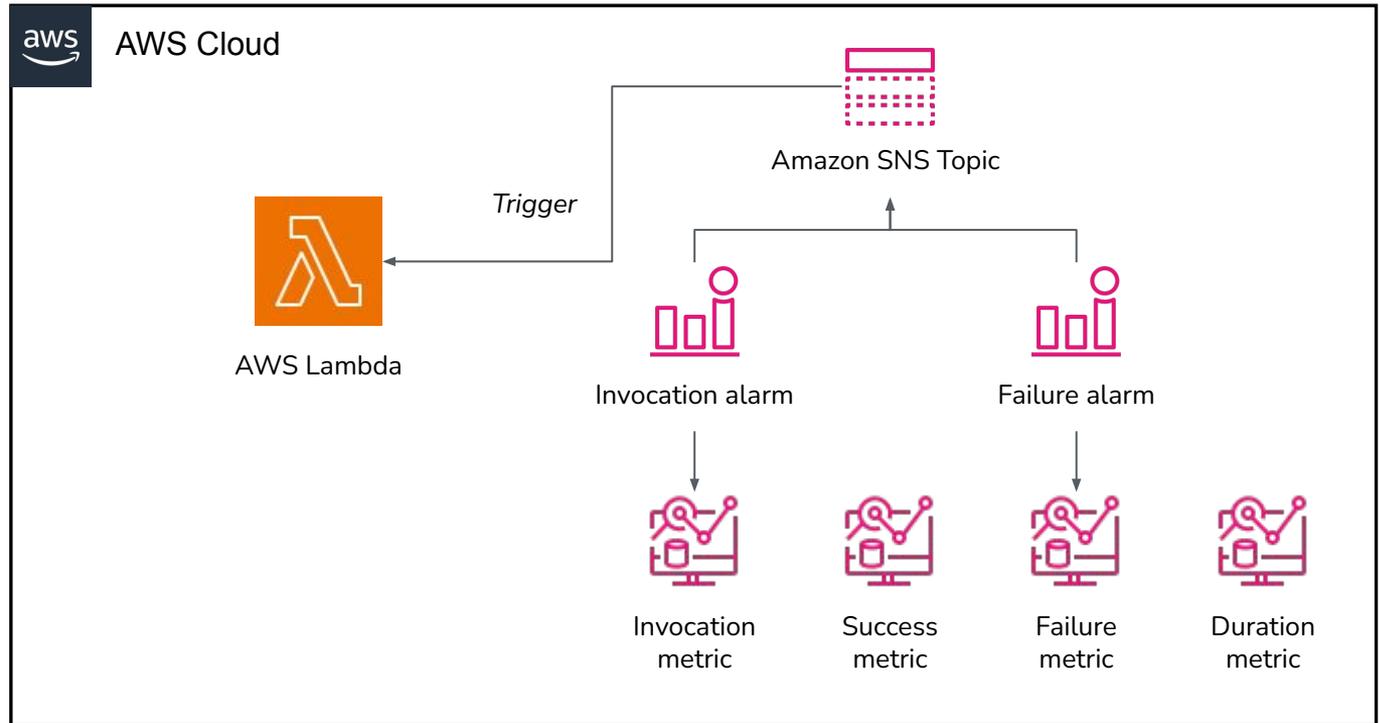
# How to notify on system test results?



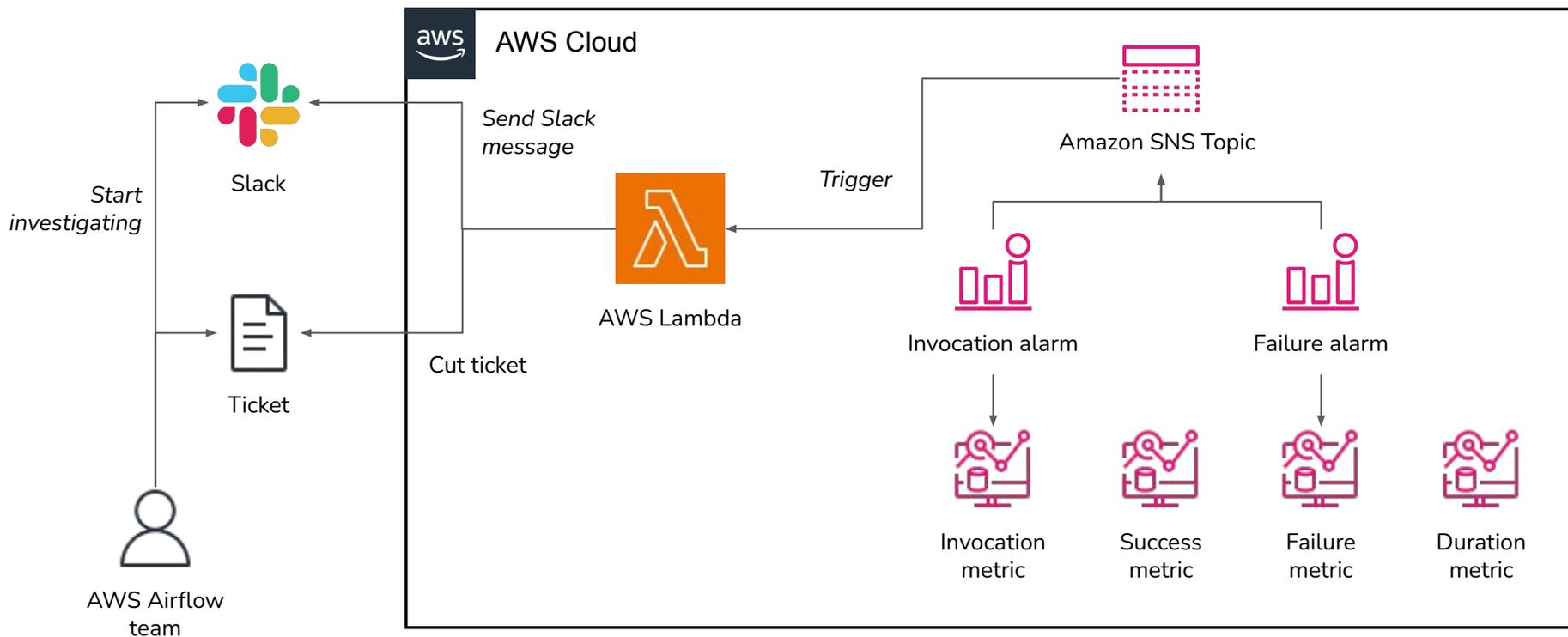
# How to notify on system test results?



# How to notify on system test results?



# How to notify on system test results?



Why you should do  
it?

# Why you should do it?

- Visibility
  - Live (or almost) visibility on health of operators, sensors and system tests
  - Guarantee that system tests are real working DAGs

# Why you should do it?

- Quality
  - Detect fast bugs/regression made in Airflow
    - In the last 2 months, 3 bug fixes in core Airflow
  - Ability to run all system tests against release candidate

# Why you should do it?

- Community
  - Valuable data for the community
  - Encourage people to fix their own bugs

# Questions?

