Advanced CodePipeline Practices

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Overview

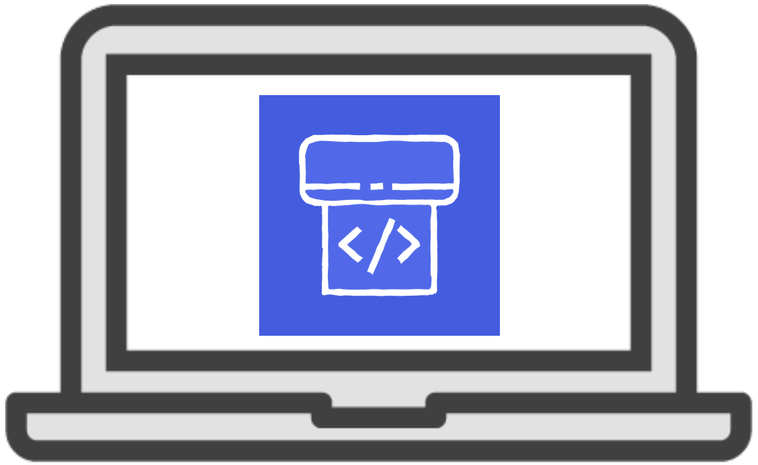
Making Lambda magic happen

Exit stage transition

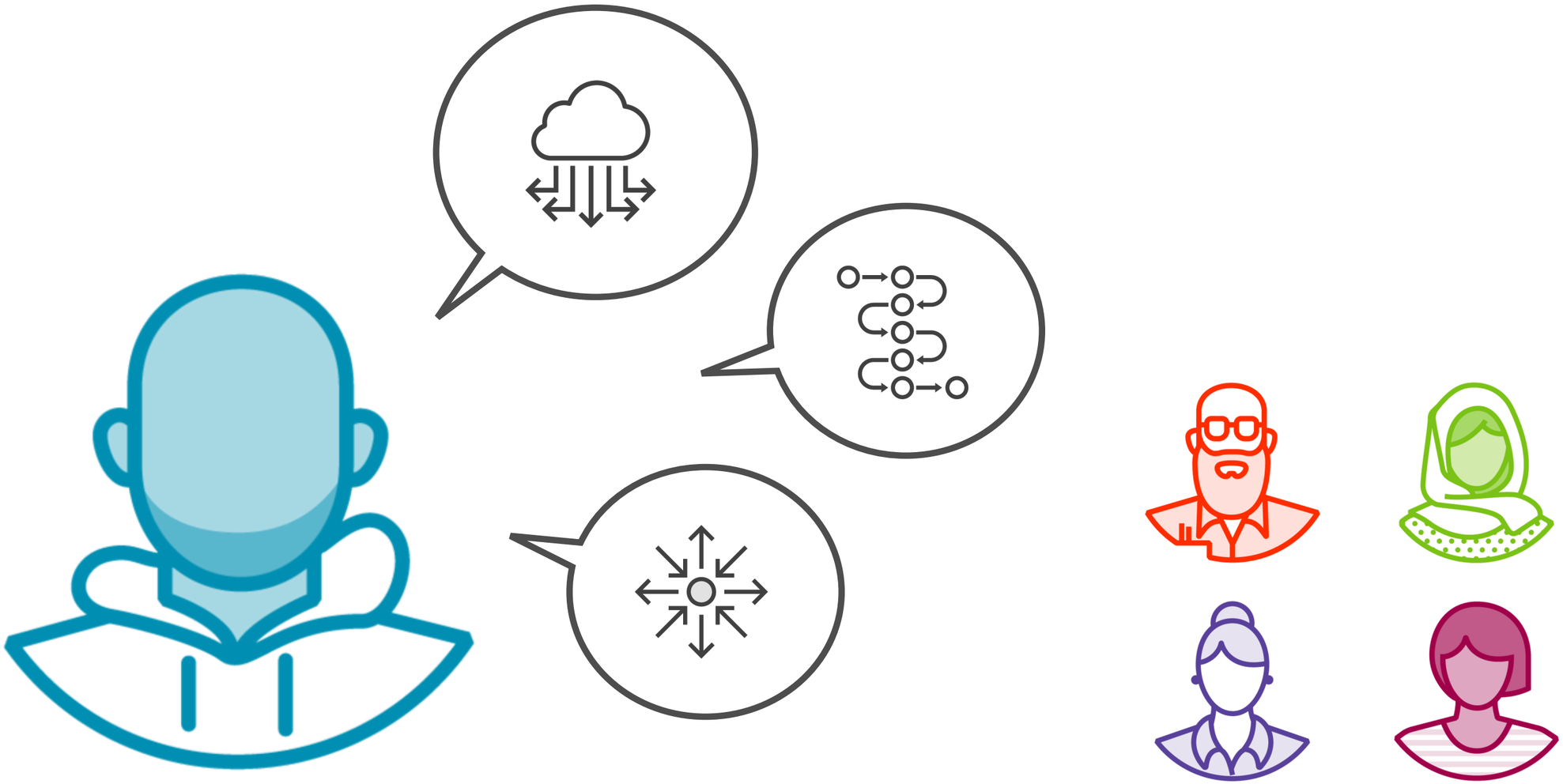
CloudWatching your pipeline changes

Your pipeline is calling

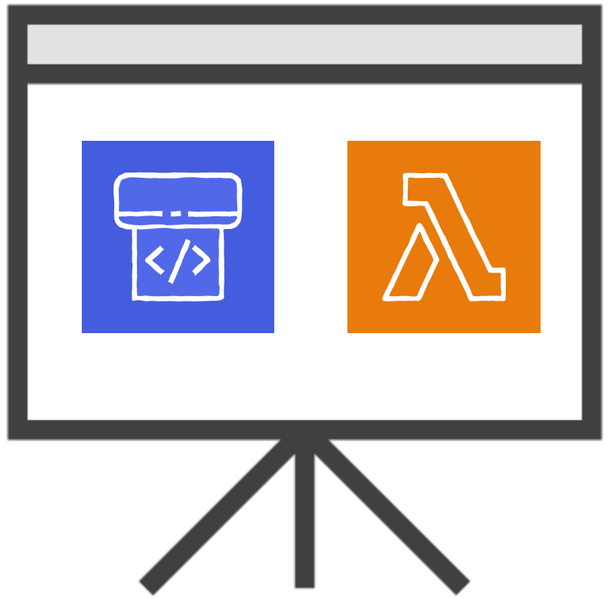
Pipeline Complete



Can Pipeline Do More?



Use Lambda with CodePipeline



Use the Lambda invocation action type to invoke Lambda functions

Lambda Invocation Configuration Options

Input Artifacts

Artifacts to be passed to the Lambda function

User Parameters

Pre-configured string data to be passed to the Lambda function

Continuing a Pipeline Execution

Lambda functions must use the AWS SDK to explicitly tell the pipeline execution to continue. It won’t continue on its own.

putJobSuccessResult

Marks Lambda invocation action result as **Success** and continues the pipeline execution

`putJobFailureResult`

Marks Lambda invocation action result as **Failure** and stops the pipeline execution

`startPipelineExecution`

Starts a new pipeline execution

`getPipelineState`

Returns the current state of a pipeline, including any executions and the state of stages and actions

Demo

Add a Lambda invocation action to our pipeline

Lambda functions need additional IAM permissions to report back to CodePipeline

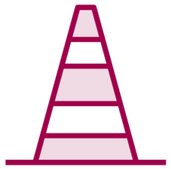
```
event = {
  'CodePipeline.job': {
    id: '1234abc',
    accountId: '5678def',
    data: {
      actionConfiguration: { … },
      inputArtifacts: [
         { location: … }
      ],
      artifactCredentials: {
        secretAccessKey: '…',
        sessionToken: '…'
      }
    }
  }
}
```

- Pipeline execution ID
- Account ID where the pipeline resides
- Data object with incoming parameters
- Action invocation details
- Input artifact location details
- Artifact access credentials

Working with Stage Transitions in CodePipeline

Stage Transitions in CodePipeline

Connections between stages that can be disabled



Good to avoid unnecessary or disruptive builds while developing

Don’t use for situations where manual approvals are better

Monitoring CodePipeline Changes with CloudWatch

Development without Deployment

Troubleshooting with CodePipeline

Use CloudWatch Events to monitor changes in CodePipeline

CloudWatch Events for CodePipeline

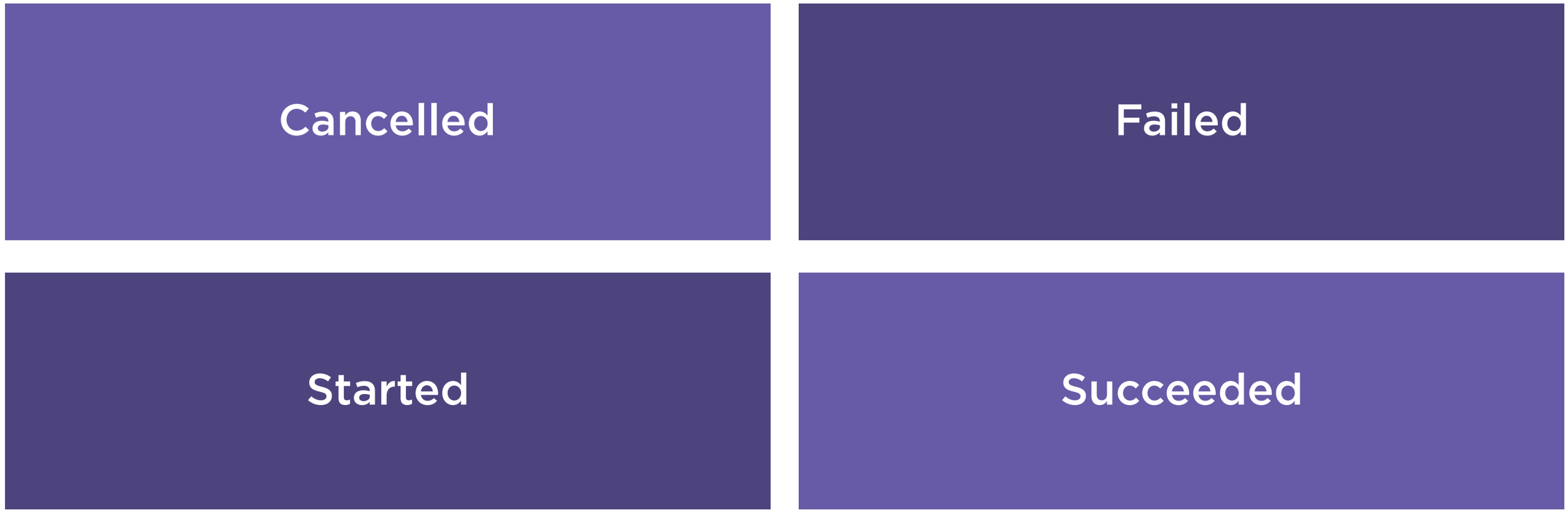
Pipeline Changes

Stage Changes

Action Changes

CodePipeline
API Calls

Changes in CloudWatch Events



Demo

Create a CloudWatch event to notify on pipeline failure

Using Notification Rules in CodePipeline

Like CloudWatch events?

Try notification rules!

CodePipeline Notification Rules

Success

Failure

Starting

Cancelled

More CodePipeline Notification Rules

Resumed

Superseded

Manual Approval Events

Summary

Going the distance with Lambda

Stop the stage transitions

One nosy CloudWatch event

Thank AWS for notification rules

Thank you!

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