

AWS re:Invent

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ENT314

Accelerate your application modernization with containers

Semih Duru (he/him)

Sr. Specialist Solutions Architect
Migration & Modernization
AWS

Gustavo Etchudez (he/him)

Sr. Specialist Solutions Architect
Migration & Modernization
AWS

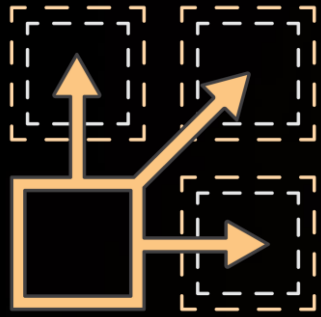


Today's agenda

- Modernization overview
- Containerization benefits and challenges
- AWS App2Container (A2C) overview
- Workshop

Pillars of modernization

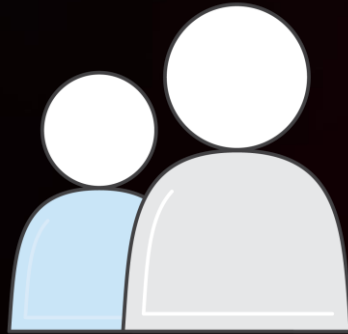
1



Technology and
architecture

Independent business
functions

2



People, process,
and culture

Organized for value

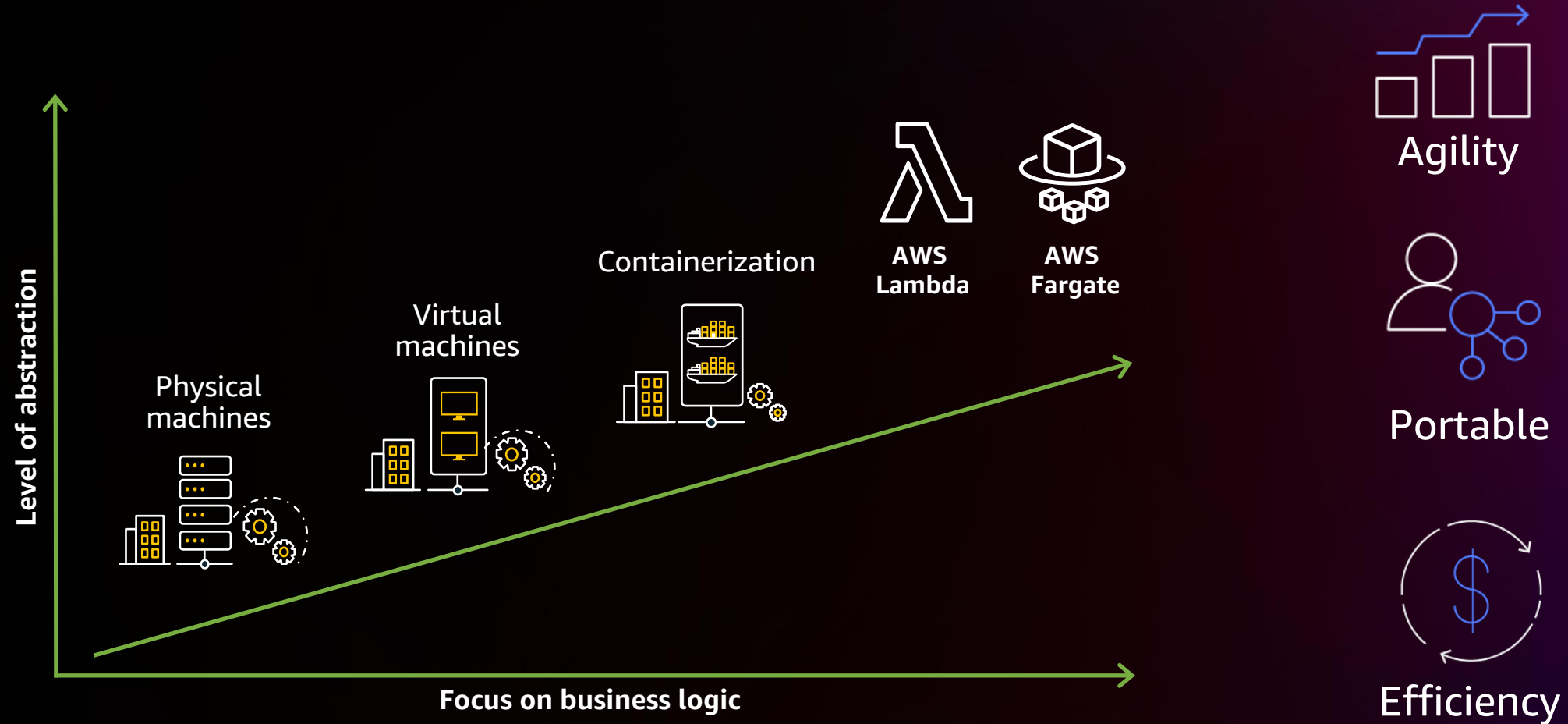
3



Ops and governance
at scale

Automated, enabled,
and self-service

Why our customers adopt containerization



Multiple steps for containerization



Discover

Third-party libraries,
dependencies,
network dependencies



Prepare

- Source code prep
- Examples
 - No passwords
 - No database connection strings



Build

- Create Dockerfile
- Build and upload container image
- Create CI/CD processes



Launch

- Create target infrastructure Amazon ECS/Amazon EKS
- VPC, security groups, Auto Scaling, load balancer
- AWS CloudFormation templates

Challenges of containerization



Technology

Legacy OS,
platform, applications,
and architecture



Staff

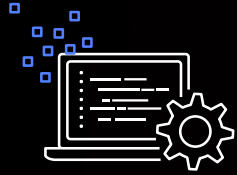
Busy day-to-day,
lower priority



Operations

Change in deployment,
development and
support model

AWS App2Container (A2C) – What is it?



Command line tool

Java
.NET



Containerization
with minimal effort



Doesn't need
source code



Portable



On-premises



AWS



Containerization
at scale

Standard steps for all apps



AWS
deployment
best practices

AWS App2Container – How does it work?



Discover
and analyze

Application inventory;
analyze dependencies



Extract and
containerize

Containerize with Docker



Create deployment
artifacts

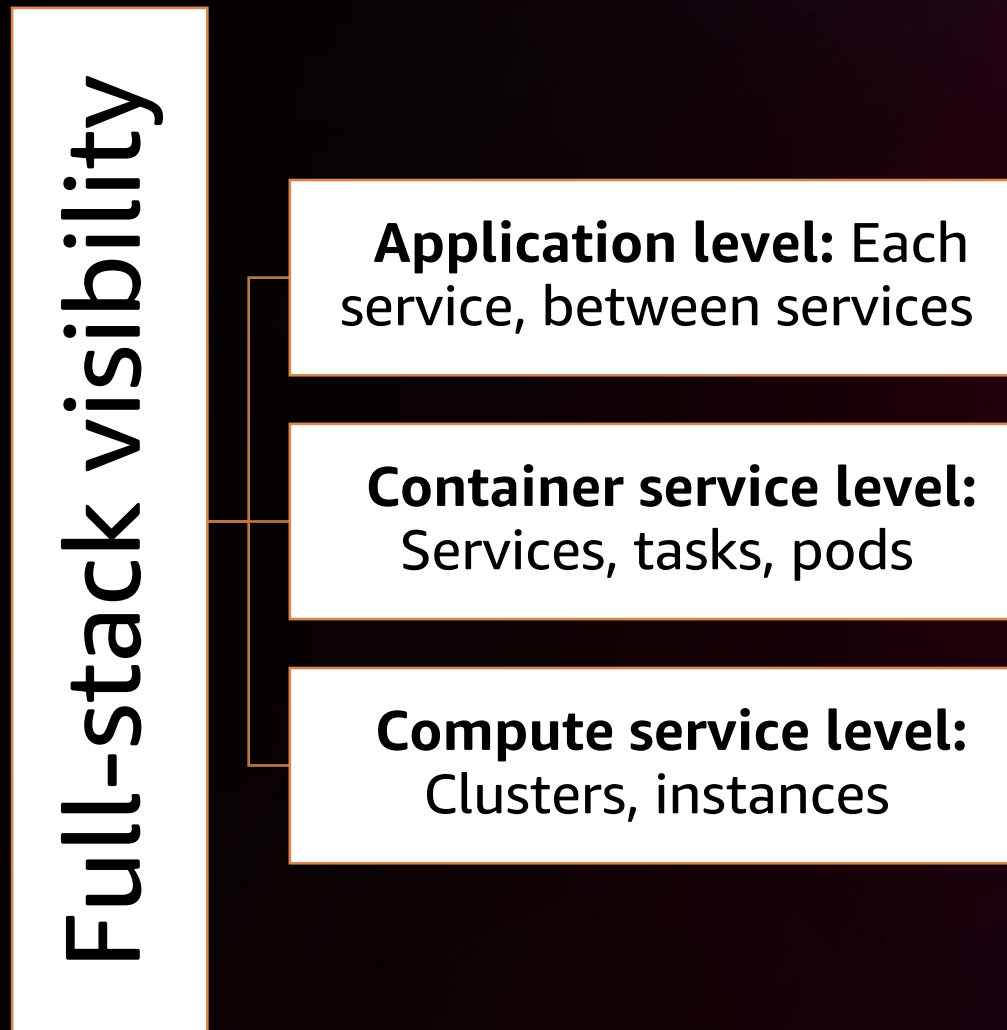
Amazon ECS task
definitions, Kubernetes
pod definitions, and
CI/CD pipelines



Deploy to
AWS Cloud

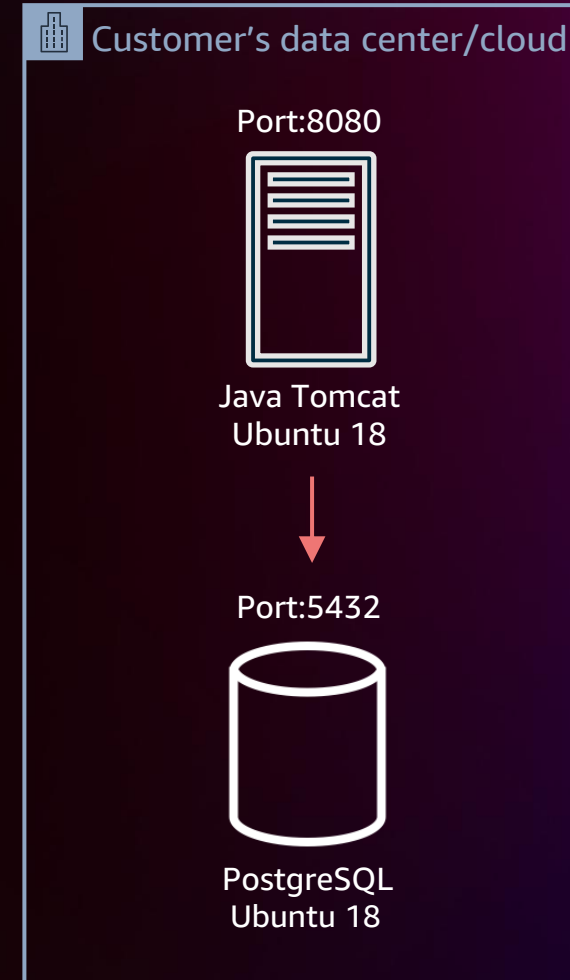
Amazon ECS, Amazon EKS,
AWS App Runner, and
AWS CodePipeline

Layers of observability in containers



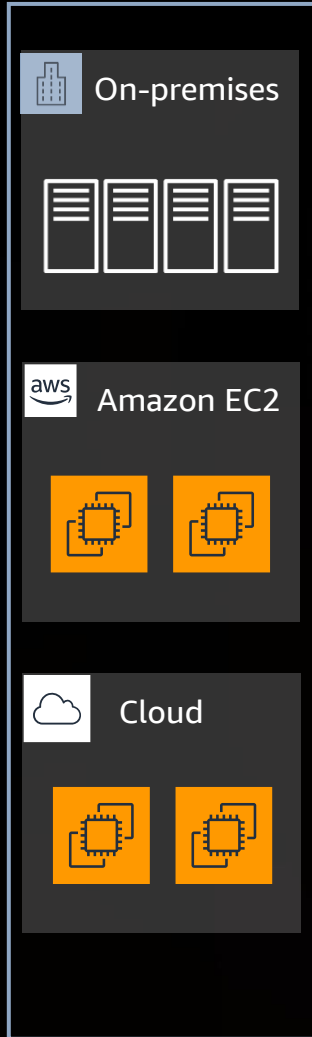
Meet your Java application

- Developed years ago;
no proper documentation
- There is no CI/CD pipeline today
- You are not comfortable with
containerization and AWS deployment
best practices
- You have questions about how to make
changes after containerization
- You don't have time

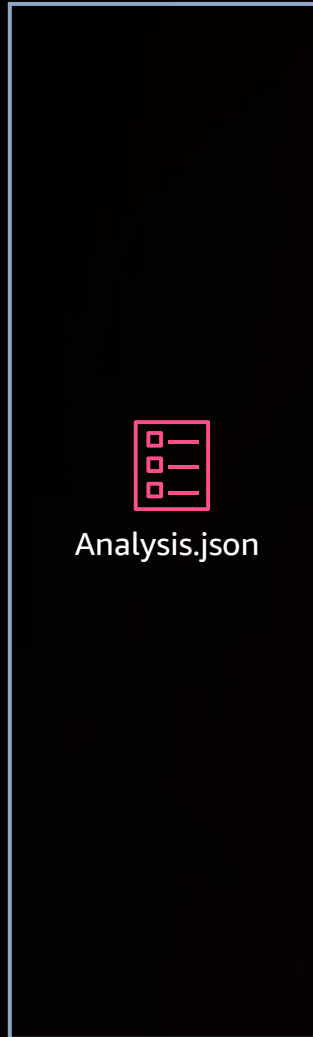


Replatforming with A2C

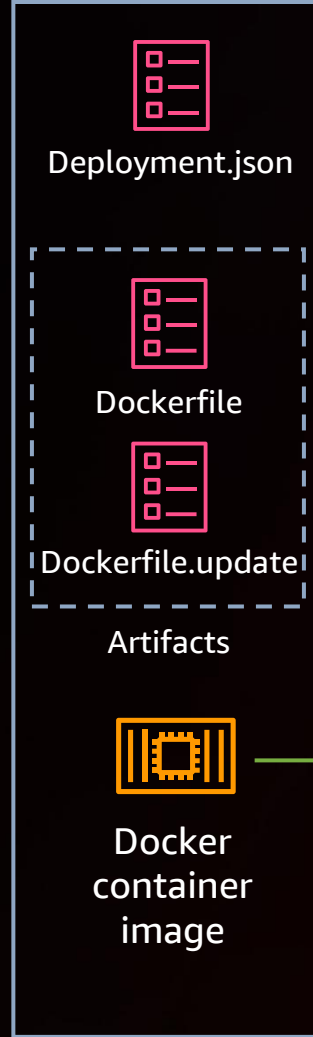
Install and initialize



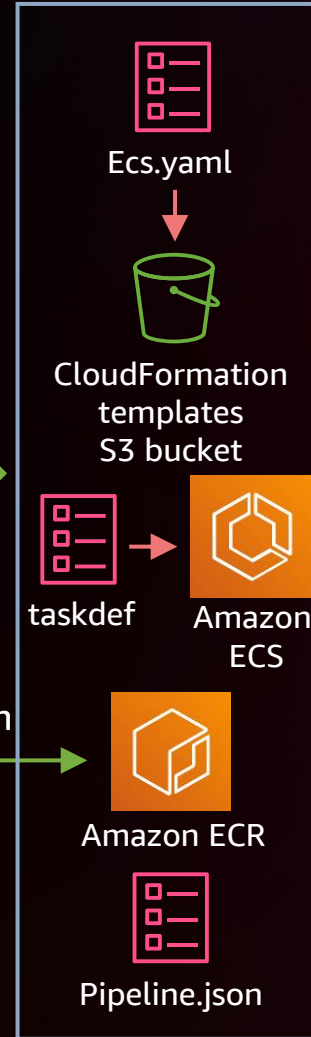
1. Analyze



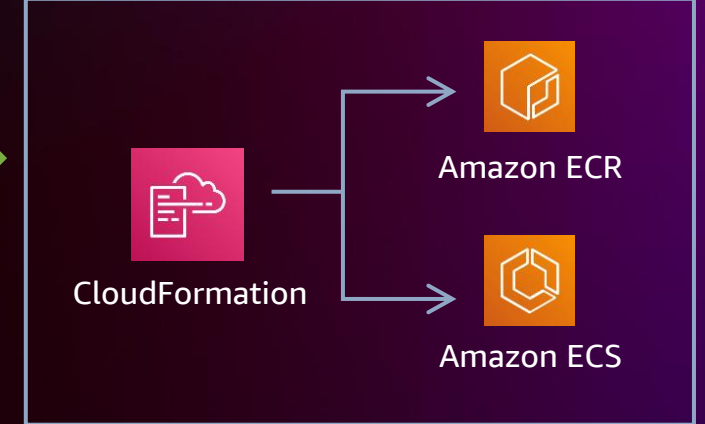
2. Containerize



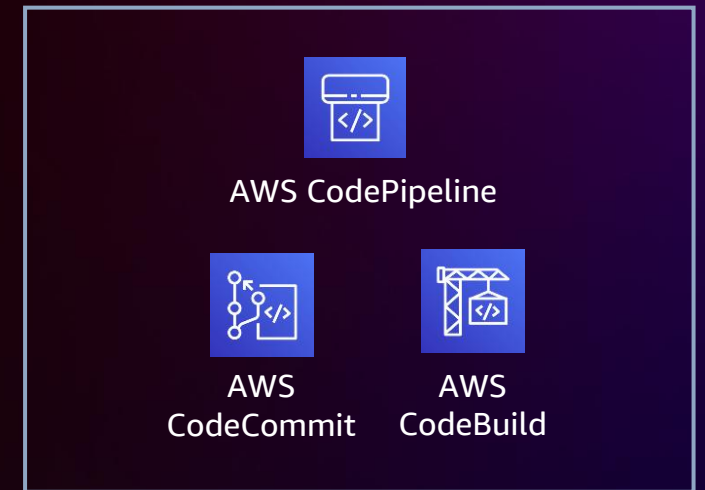
3. Create deployment artifacts



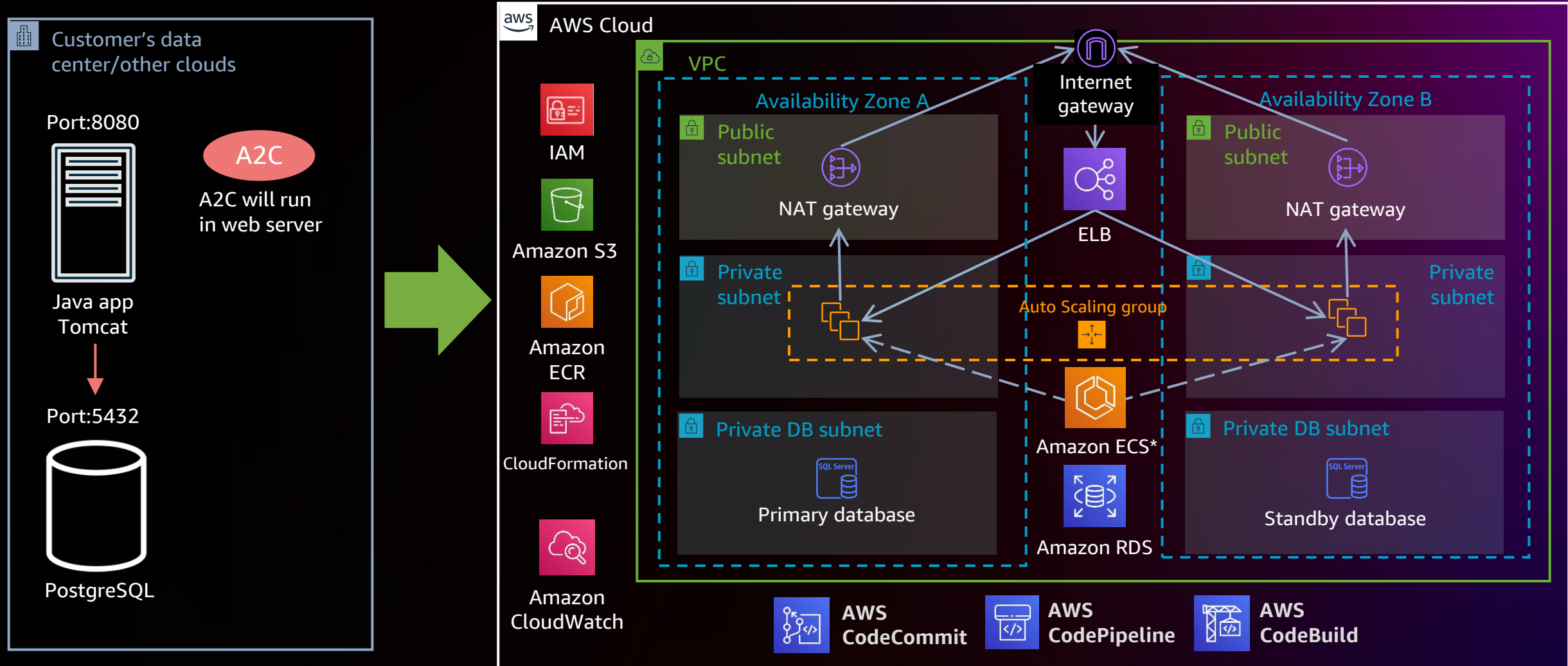
4. Deploy to AWS



5. Create CI/CD pipeline



Java app target architecture



*Deployment target will be similar for Amazon ECS, Amazon EKS, or AWS App Runner

How you can accelerate your journey



Jump-start
containerization



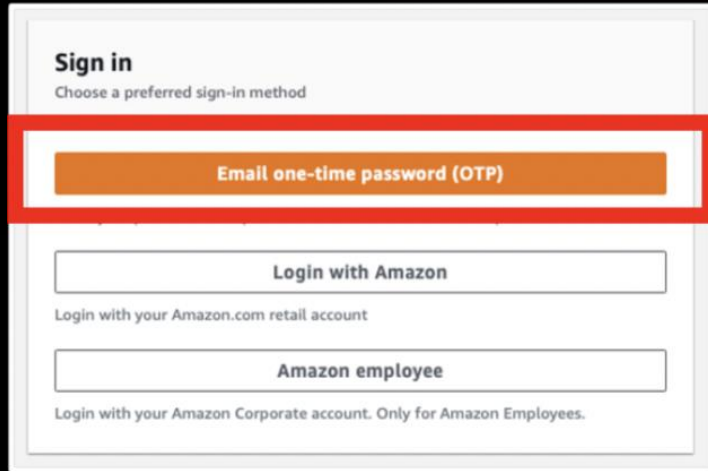
Adopt DevOps
principles with CI/CD



Operational excellence
through observability

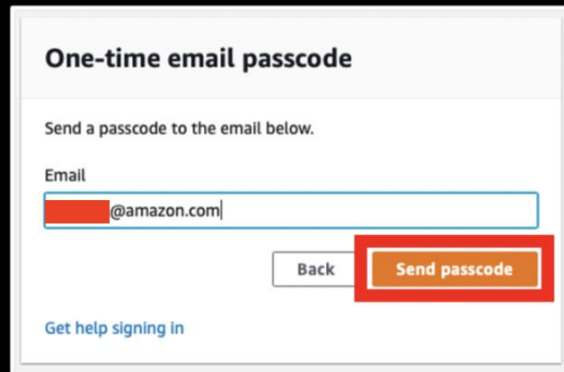
Let's get started: <https://s12d.com/ENT314>

1. Email one-time password

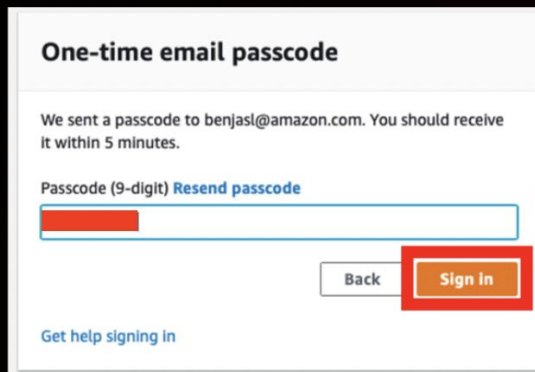


The screenshot shows the AWS 'Sign in' page. At the top, it says 'Sign in' and 'Choose a preferred sign-in method'. Below this, there are three options: 'Email one-time password (OTP)', 'Login with Amazon', and 'Amazon employee'. The 'Email one-time password (OTP)' option is highlighted with a red rectangular box.

2. Enter email and wait for passcode

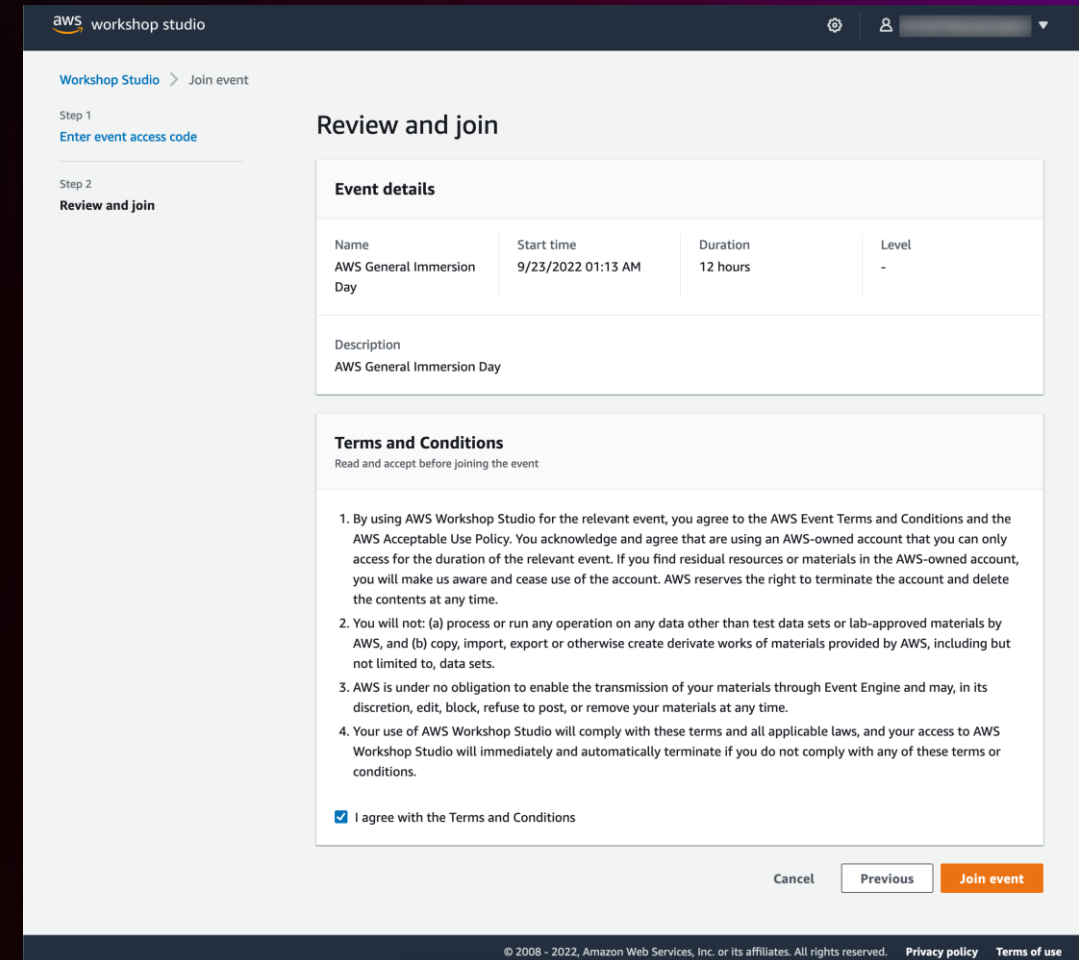


The screenshot shows the 'One-time email passcode' page. It asks the user to 'Send a passcode to the email below.' and provides an email input field with the text '@amazon.com|'. Below the input field, there are two buttons: 'Back' and 'Send passcode'. The 'Send passcode' button is highlighted with a red rectangular box.



The screenshot shows the 'One-time email passcode' page after the passcode has been sent. It says 'We sent a passcode to benjasl@amazon.com. You should receive it within 5 minutes.' Below this, there is a 'Passcode (9-digit)' input field and a 'Resend passcode' link. At the bottom, there are two buttons: 'Back' and 'Sign in'. The 'Sign in' button is highlighted with a red rectangular box.

3. Review terms and join event



The screenshot shows the 'Review and join' page in the AWS Workshop Studio. The page is divided into two main sections: 'Event details' and 'Terms and Conditions'. The 'Event details' section includes a table with the following information:

Name	Start time	Duration	Level
AWS General Immersion Day	9/23/2022 01:13 AM	12 hours	-

Below the table, there is a 'Description' section with the text 'AWS General Immersion Day'. The 'Terms and Conditions' section includes a list of terms and conditions, and a checkbox labeled 'I agree with the Terms and Conditions' which is checked. At the bottom right, there are three buttons: 'Cancel', 'Previous', and 'Join event'. The 'Join event' button is highlighted with a red rectangular box.

Thank you!

Semih Duru

semid@amazon.com

www.linkedin.com/in/semihduru

Gustavo Etchudez

etchudez@amazon.com

www.linkedin.com/in/etchudez



Please complete the session survey in the **mobile app**

