

AWS re:Invent

NOV. 28 – DEC. 2, 2022 | LAS VEGAS, NV

ENT313-R

AWS Migration and Modernization GameDay

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AWS



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Agenda

Intro and how to play ~ 15 mins

Game on ~ 90 mins

Summary of best practices ~ 10 mins

Awards ~ 5 mins

Disclaimer

AWS GameDay is a light-hearted adventure into the world of cloud technology and DevOps; the content is intended to be humorous and playful in nature

Names, characters, businesses, places, events, and incidents are either the products of the developers' imaginations or they are used in a fictitious manner; any resemblance to actual persons, living or dead, or actual events is purely coincidental and unintentional

If you have played before, by staying in the room, you are **legally obligated** to laugh at repeated jokes

Team, team, team

Team size: 3

During the game – raise your hand in case of **any challenges!**

The challenge

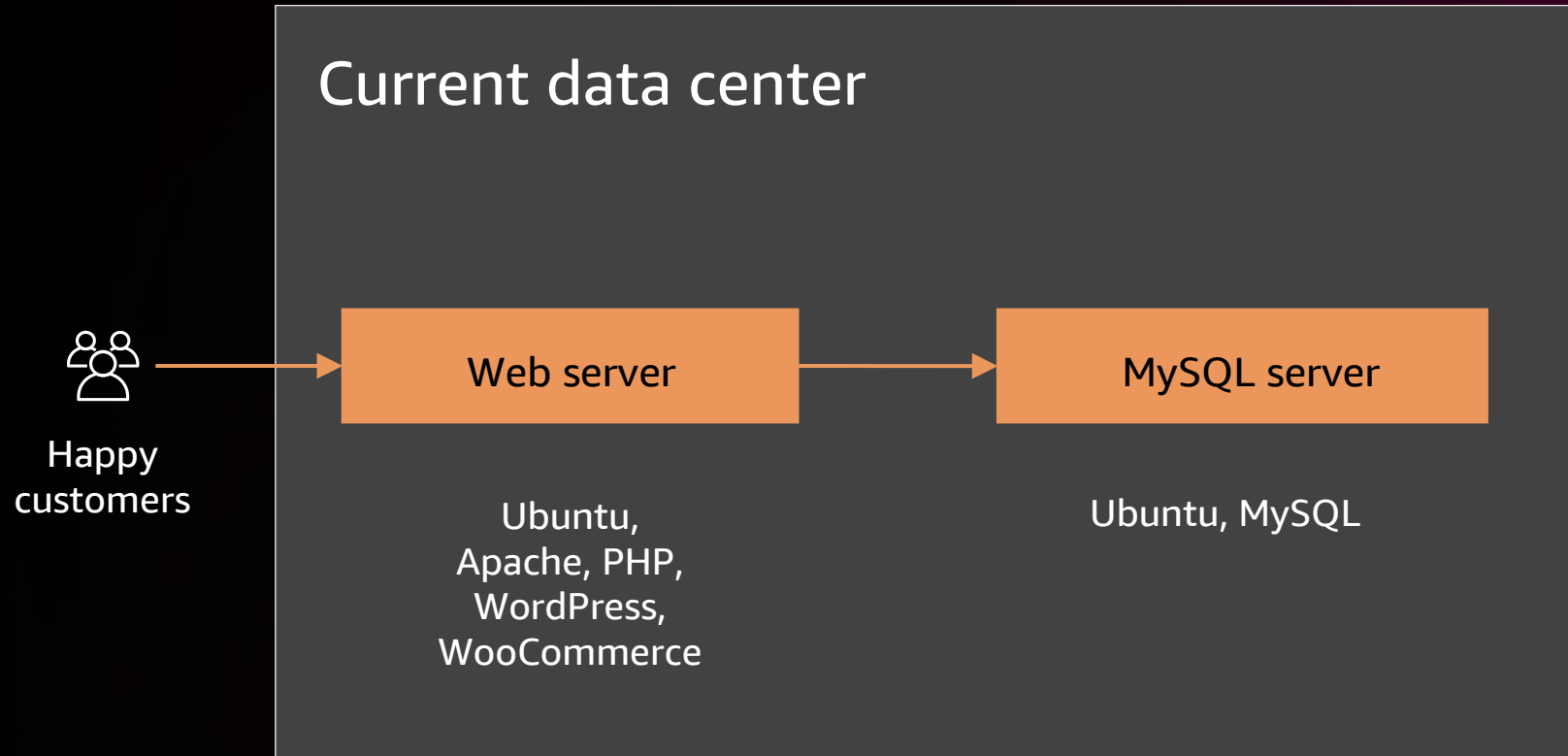




Where are we now?

- IT team **is missing**
- **DC lease expires** today with no renewal, so we must bring everything ASAP into our existing AWS environment

Source environment



Landing zone on AWS



Scoring

Receiving points

- Migrate web application to AWS
- Successfully handle customer transactions after cutover
- Follow AWS best practices

Losing points

- Fail to handle customer transactions after migration
- Long response time after migration

Awards?



How-to



Open GameDay dashboard

Use OTP as the
sign-in method

Sign in with

Pick the sign-in method you prefer

Email One-Time Password (OTP)

Enter your personal or corporate email to receive a one-time password

Login with Amazon

Login with your Amazon.com retail account

Amazon Employee

(For Amazon Employees Only) Login with your Amazon Corporate account

[Get help signing in](#)



Player dashboard



Who are you?

Terms & Conditions:

1. By using the Event Engine for the relevant event, you agree to the Event Terms and Conditions and the AWS Acceptable Use Policy. You acknowledge and agree that are using an AWS-owned account that you can only access for the duration of the relevant event. If you find residual resources or materials in the AWS-owned account, you will make us aware and cease use of the account. AWS reserves the right to terminate the account and delete the contents at any time.
2. You will not: (a) process or run any operation on any data other than test data sets or lab-approved materials by AWS, and (b) copy, import, export or otherwise create derivate works of materials provided by AWS, including but not limited to, data sets.
3. AWS is under no obligation to enable the transmission of your materials through Event Engine and may, in its discretion, edit, block, refuse to post, or remove your materials at any time.
4. Your use of the Event Engine will comply with these terms and all applicable laws, and your access to Event Engine will immediately and automatically terminate if you do not comply with any of these terms or conditions.

123456789101

This is the 12 digit hash that was given to you or your team.

✓ Accept Terms & Login

<https://dashboard.eventengine.run>



Score, trend, rank

[Dashboard](#)

Dashboard Guide

Logout

Help

Player Dashboard

SCORE

104653.634

TREND

168.386

RANK

1

Game

Set Team Name

Score Events

Scoreboard

Chat Invite

AWS Console

Game: Crackdown-II

Team Name: The best team

Game ID: 78a6c9d896934ca5a91b119071b0fe47

Team ID: 1ea70f6e537f43b9acd12c407bcffd5b

Modules

GameDay for Migrations

Readme

Outputs:

Source Webserver URL

ec2-54-82-63-61.compute-1.amazonaws.com

Source Webserver IP

54.82.63.61

Source Database Server IP

35.172.200.69

Source Database Server Username

centos

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Your first task when we start – Name your team!

Dashboard Dashboard Guide Logout Help

Player Dashboard

SCORE TREND RANK

104653.634 168.386 1

Game

Set Team Name [Score Events](#) [Scoreboard](#) [Chat Invite](#) [AWS Console](#)

Game: Crackdown-II
Team Name: The best team

Game ID: 78a6c9d896934ca5a91b119071b0fe47
Team ID: 1ea70f6e537f43b9acd12c407bcffd5b

Modules

GameDay for Migrations [Readme](#)

Source Webserver IP
54.82.63.61

Source IP
35.172.2

Source IP
centos

Minimum of 5 characters

Only basic ASCII (English)

Be creative!

Score events

[Dashboard](#)

Dashboard Guide

Logout

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Player Dashboard

SCORE	TREND	RANK
104653.634	168.386	1

Game

[Set Team Name](#)

[Score Events](#)

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centos


Access your AWS account

[Dashboard](#)

[Dashboard Guide](#) [Logout](#) [Help](#)

Player Dashboard


SCORE	TREND	RANK
104653.634	168.386	1

 **Game**

[Set Team Name](#) [Score Events](#) [Scoreboard](#) [Chat Invite](#) [AWS Console](#)

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 **Modules**

GameDay for Migrations [Readme](#)


Outputs:
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ec2-54-82-63-61.compute-1.amazonaws.com [🔗](#)
Source Webserver IP
54.82.63.61 [🔗](#)
Source Database Server IP
35.172.200.69 [🔗](#)
Source Database Server Username
centos [🔗](#)


Access your AWS account – Pop-up

AWS Console Login

Remember to only use "us-west-2" as your region, unless otherwise directed by the event operator.

Login Link


 Open AWS Console

 Copy Login Link

Credentials / CLI Snippets

Mac / Linux

Windows

Mac or Linux 

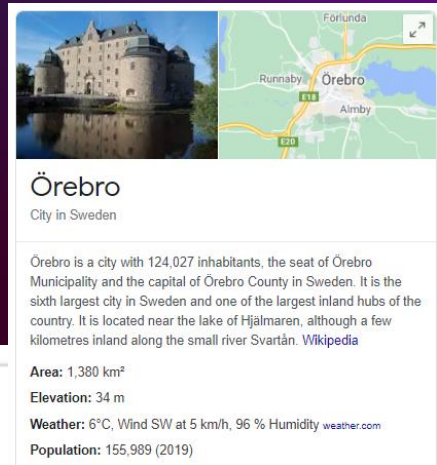
```
export AWS_DEFAULT_REGION=us-west-2
export AWS_ACCESS_KEY_ID=ASIAQLMK3WIIQQ2QUHLUS
export AWS_SECRET_ACCESS_KEY=9JRLGnN7uDCZYQMu9483Njpu2gCmhe5vvVENjtvh
export AWS_SESSION_TOKEN=FwoGZXIvYXdzENf////////wEaDMjNmUHP5ucmNl2mESKuAXLbWP17Hys/Z1W4sO42iN6oLJl79Utl/GxNw/Jmf
```

How do I use the AWS CLI?

Checkout the AWS CLI documentation here: <https://docs.aws.amazon.com/cli/latest/userguide/cli-chap-welcome.html>

OK

RTM and check your website domain



Migration GameDay

Outputs:

Migration and Modernization Hints <https://migration-gameday.workshop.aws>

Your website URL

<http://orebro.buymyunicorns.com>

This is the URL that is used by your customers (and by us to verify if your migration succeeded). DNS is automatically updated when you provide URL in the proper input field.

Source environment details

Source Environment

Webserver IP: 54.167.0.134

Webserver Username: ubuntu

Webserver SSH key (.pem): [download here](#)

If you're using Microsoft Windows OS, please convert the SSH key .pem file to ppk using PuttyGen and then use Putty to connect (more details [can be found here](#)).

Database Server IP: 3.87.61.246

Database Server Username: ubuntu

Database SSH key (.pem): [download here](#)

If you're using Microsoft Windows OS, please convert the SSH key .pem file to ppk using PuttyGen and then use Putty to connect (more details [can be found here](#)).

Database Username: wordpress-user

Database Password: AWSRocksSince2006

Database Port: 3306

Database 'root' Password: AWSRocksSince2006 (this user is accessible only from the localhost)

Input – Cutover

DNS name (remove http/s) of the EC2 instance (or ALB, etc.) where the webapplication is running AFTER the migration to Oregon. Make sure that it really works. As soon as you press the [Update] button, the DNS of your Official Website URL will be updated.

Put here DNS name of webserver in AWS when you want to start sending customers to your AWS environment

Update

Do's

- Read the provided Migration and Modernization guide
- Work within the provided AWS account in the Oregon Region (us-west-2)
- Be frugal (don't use instances larger than *.large)
- Search the internet

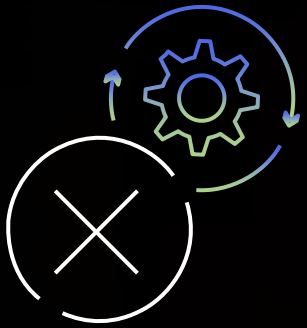
Game on!

1. Go to <https://dashboard.eventengine.run>
2. Enter **team hash** provided **on the table**
3. Set a team name (there are points awarded for the best one 😊)
4. Start migrating webserver and database
 1. Webserver – AWS Application Migration Service
 2. Database – AWS Database Migration Service (AWS DMS)
5. When replication is taking place – improve architecture (Well-Architected Framework)

Wrap-up



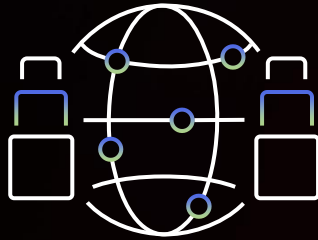
Pillars of Well-Architected Framework



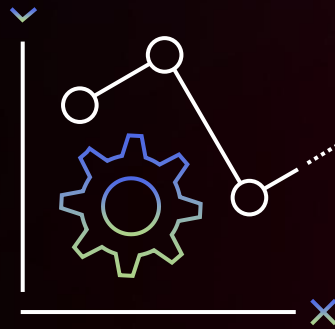
Operational
excellence



Security



Reliability



Performance
efficiency



Cost
optimization



Sustainability


Amazon CloudWatch

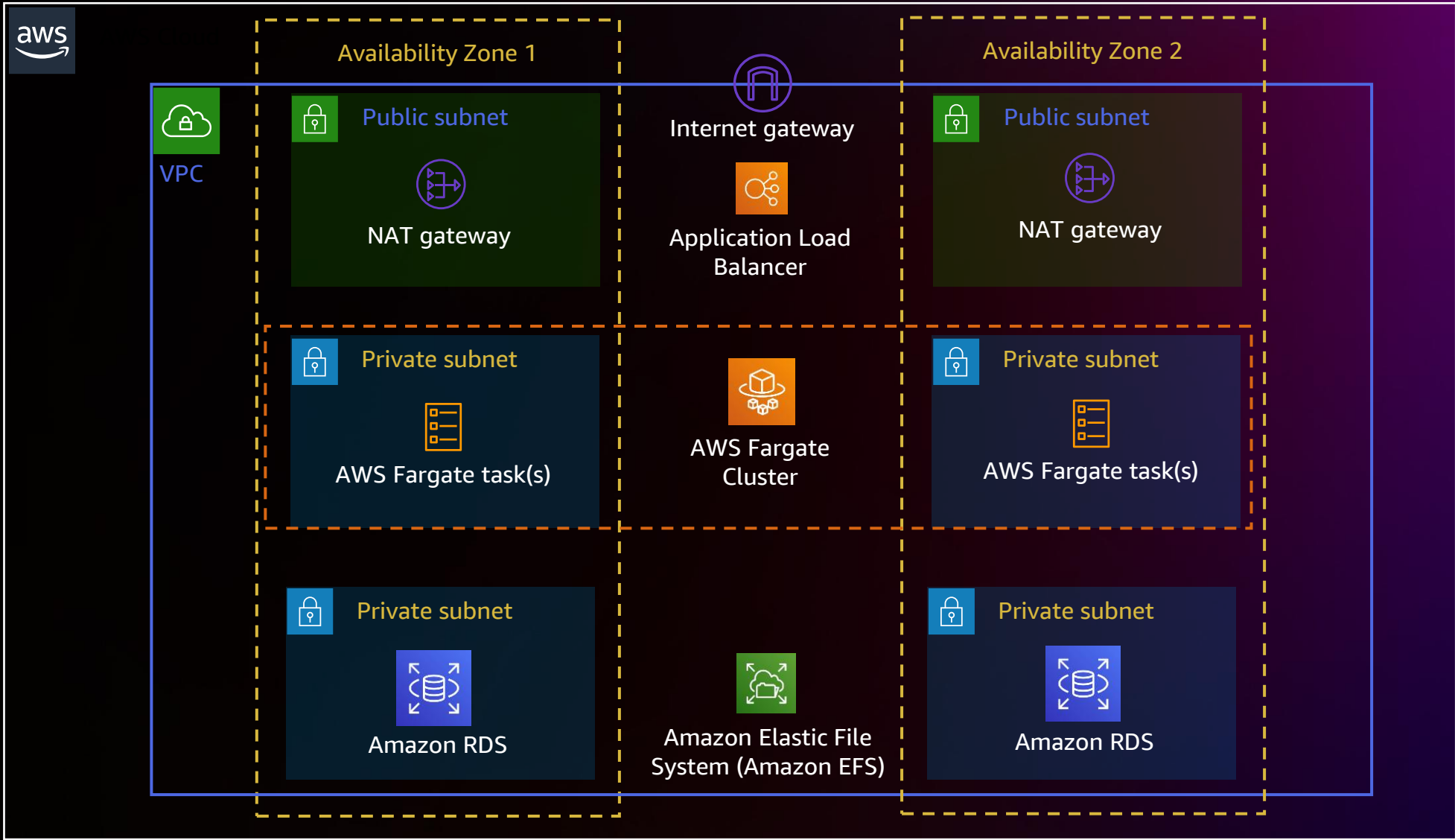

AWS CloudTrail


AWS Config


AWS Certificate Manager (ACM)


Amazon GuardDuty


Amazon Inspector



Awards!



Thank you!

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



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