
AWS
re:Invent

ENT310

Your guide to migrating your first application to AWS

Ahmed Omran

Senior Solutions Architect, Migrations

AWS

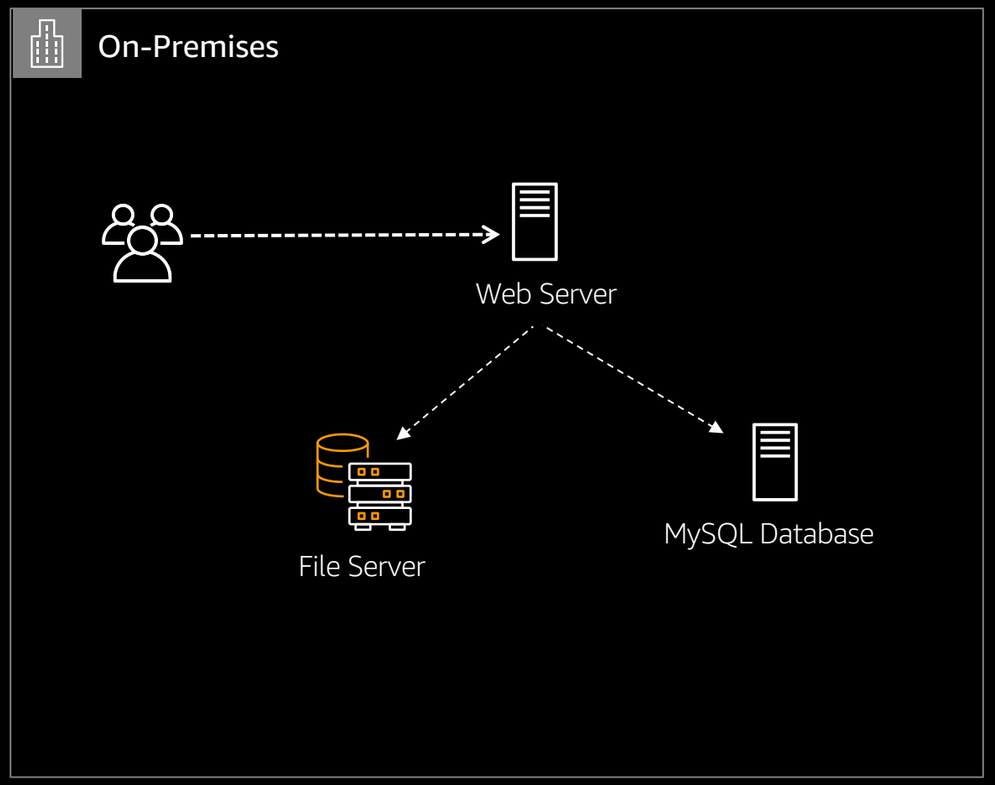
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What to expect

- This is a hands-on, 300-level session
- Learn the different migration options
- Learn how to use different migration tools
- Learn how to migrate a web application to AWS managed services

Source application



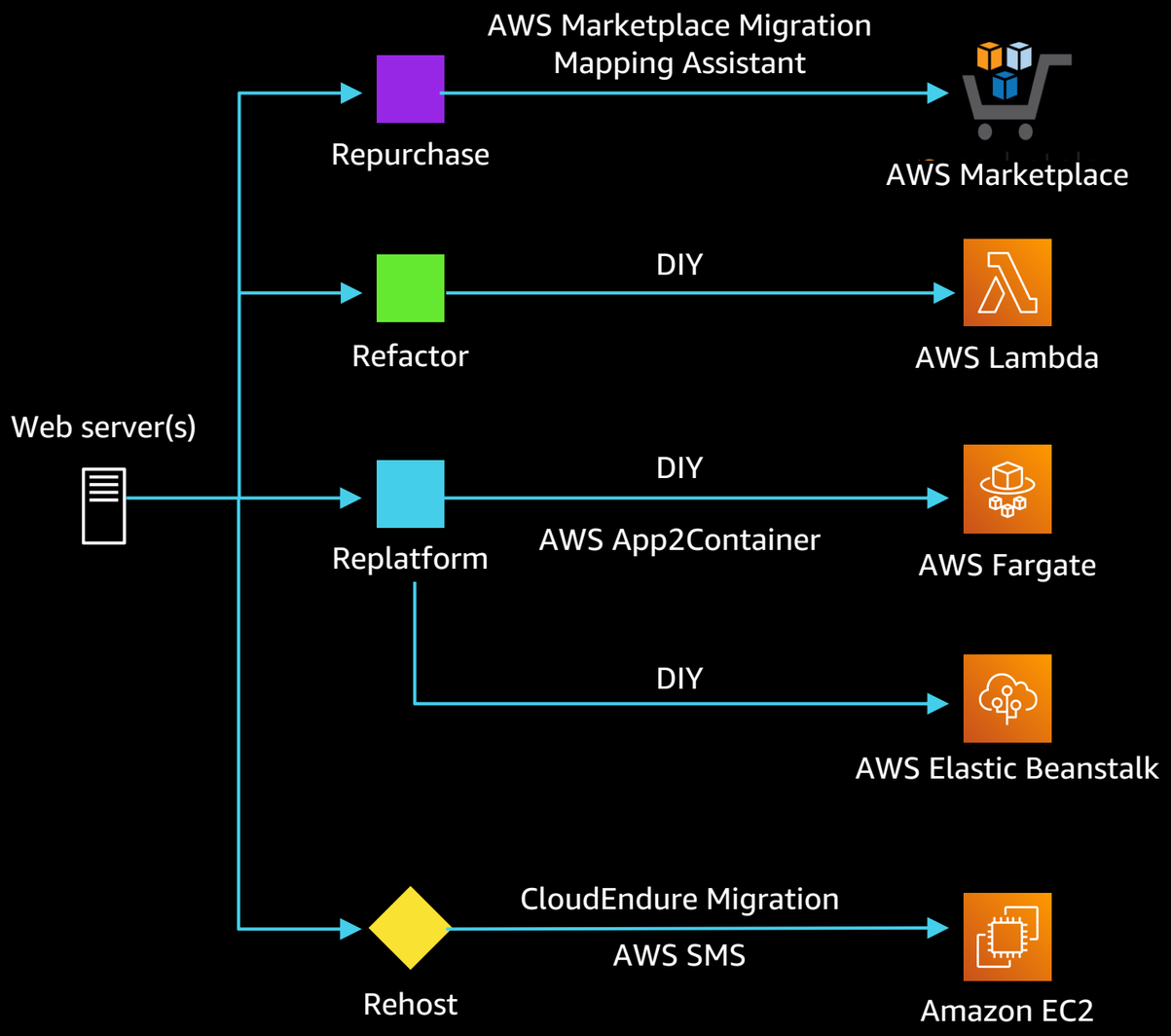
Web server
Apache, PHP, WordPress, WooCommerce

Database server
Linux Ubuntu, MySQL Version 5.7

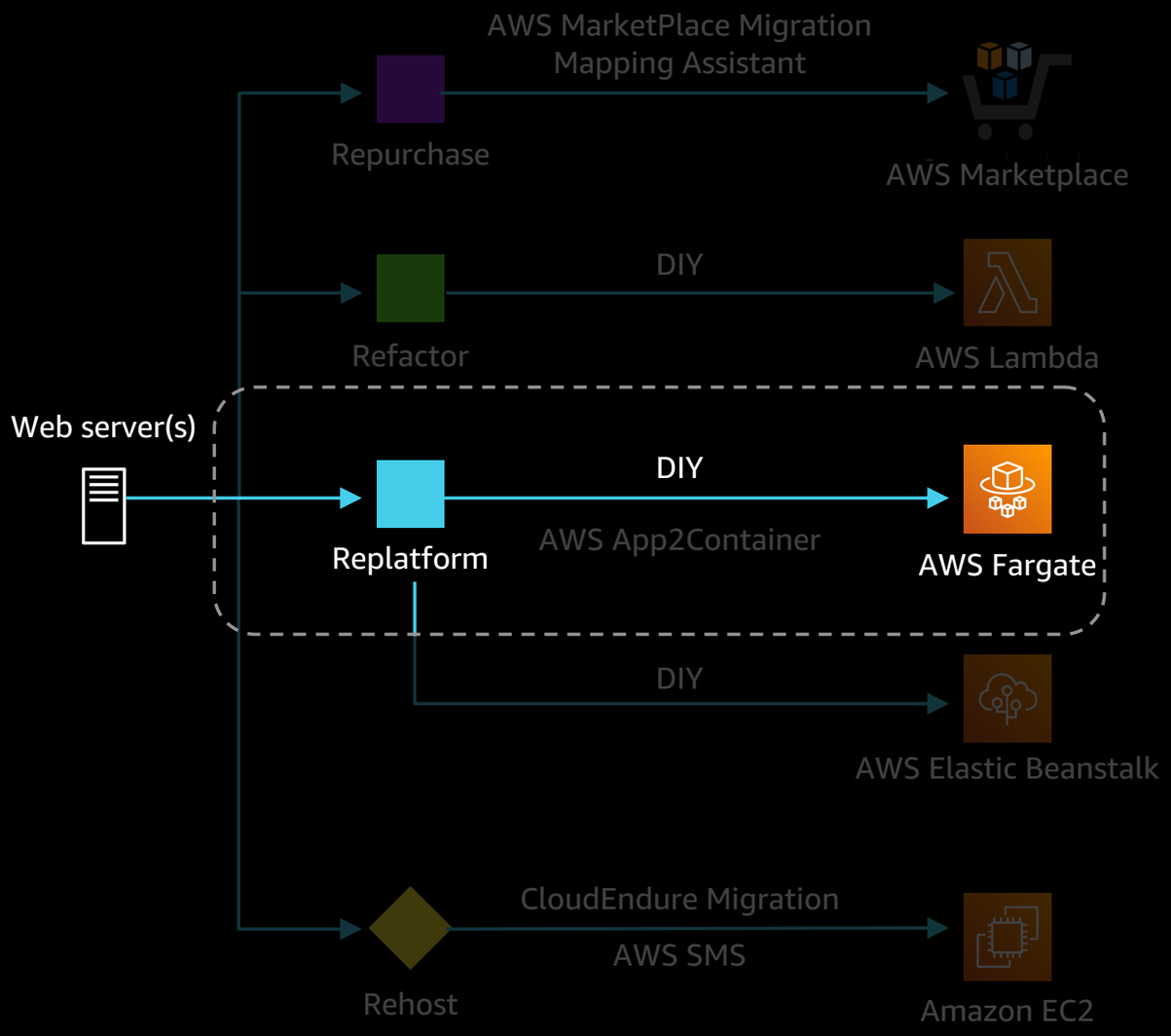
File server
NFS share

Challenges
Single point of failure
Some outages due to heavy web traffic
Not designed for scale

Migration options for web server

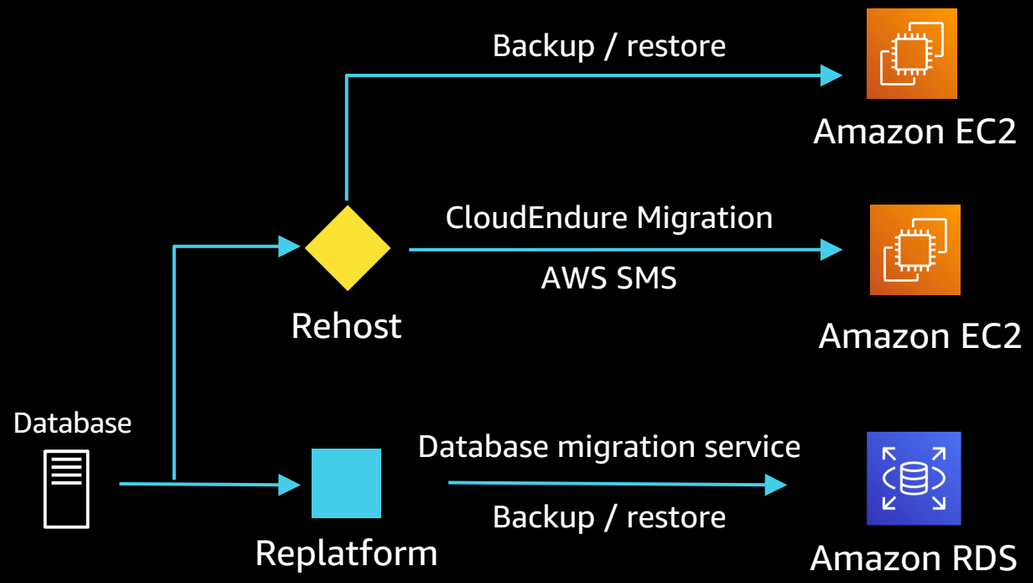


Migration options for web server

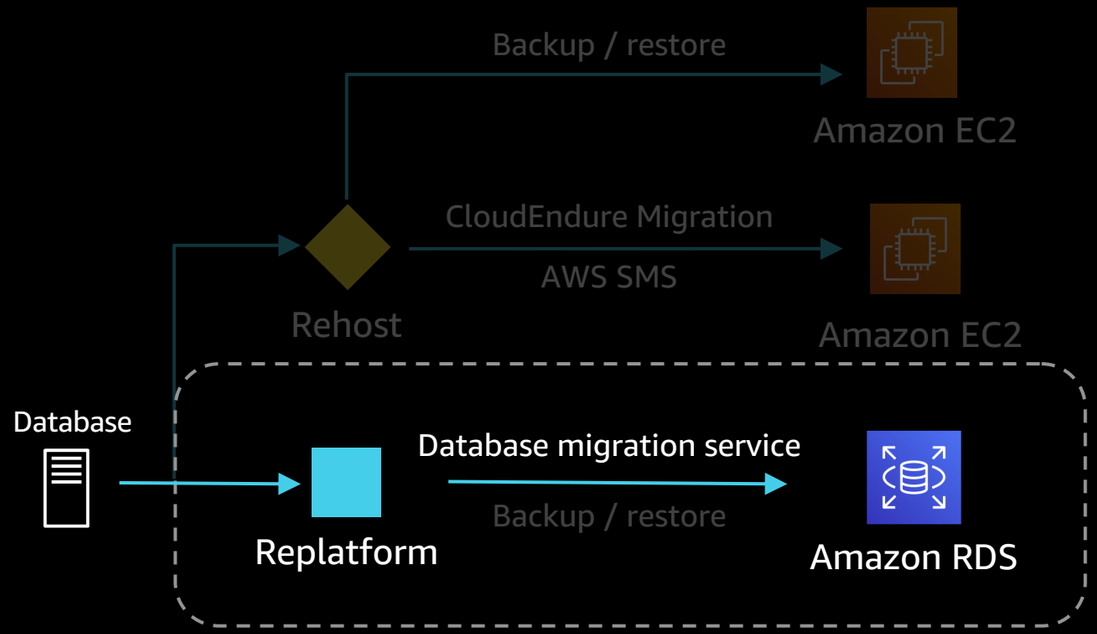


- Manages applications, not infrastructure
- Provides properly sized resources with flexible pricing options
- Improves security through application isolation by design

Migration options for database

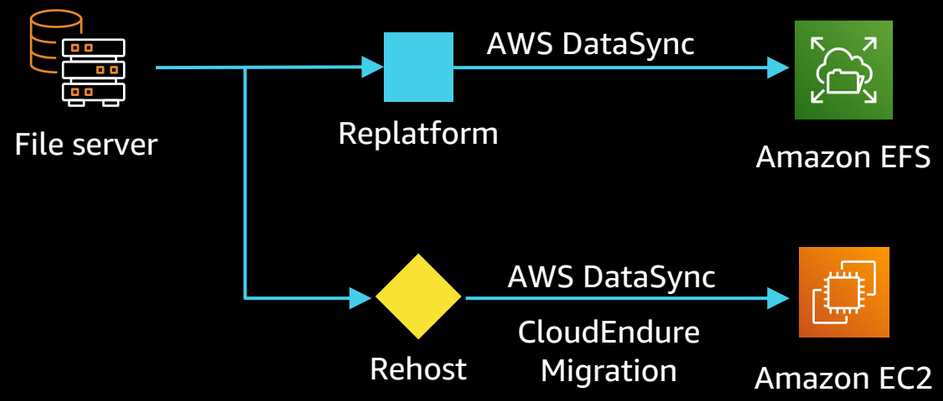


Migration options for database

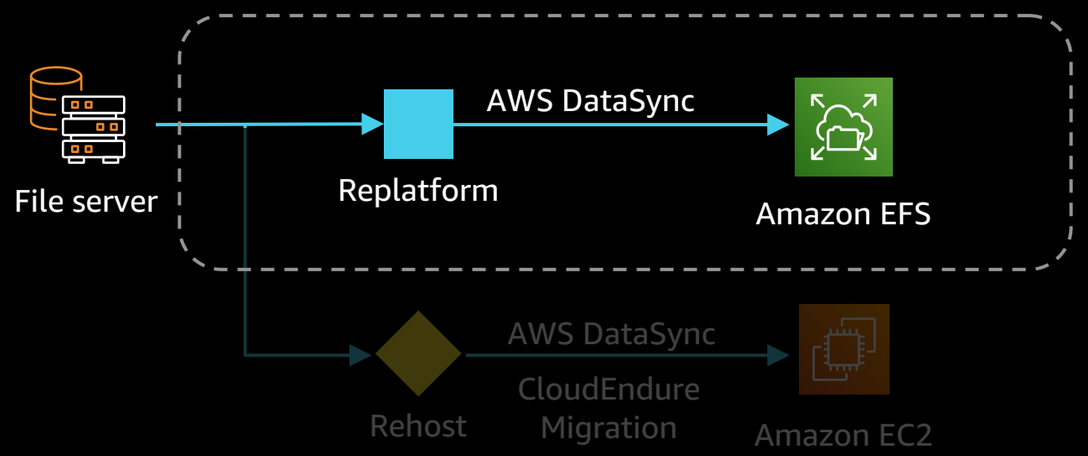


- Automated failover
- Backup and recovery
- Isolation and security
- Industry compliance
- Pushbutton scaling
- Automated patching
- Advanced monitoring
- Routine maintenance

Migration options for shared NFS

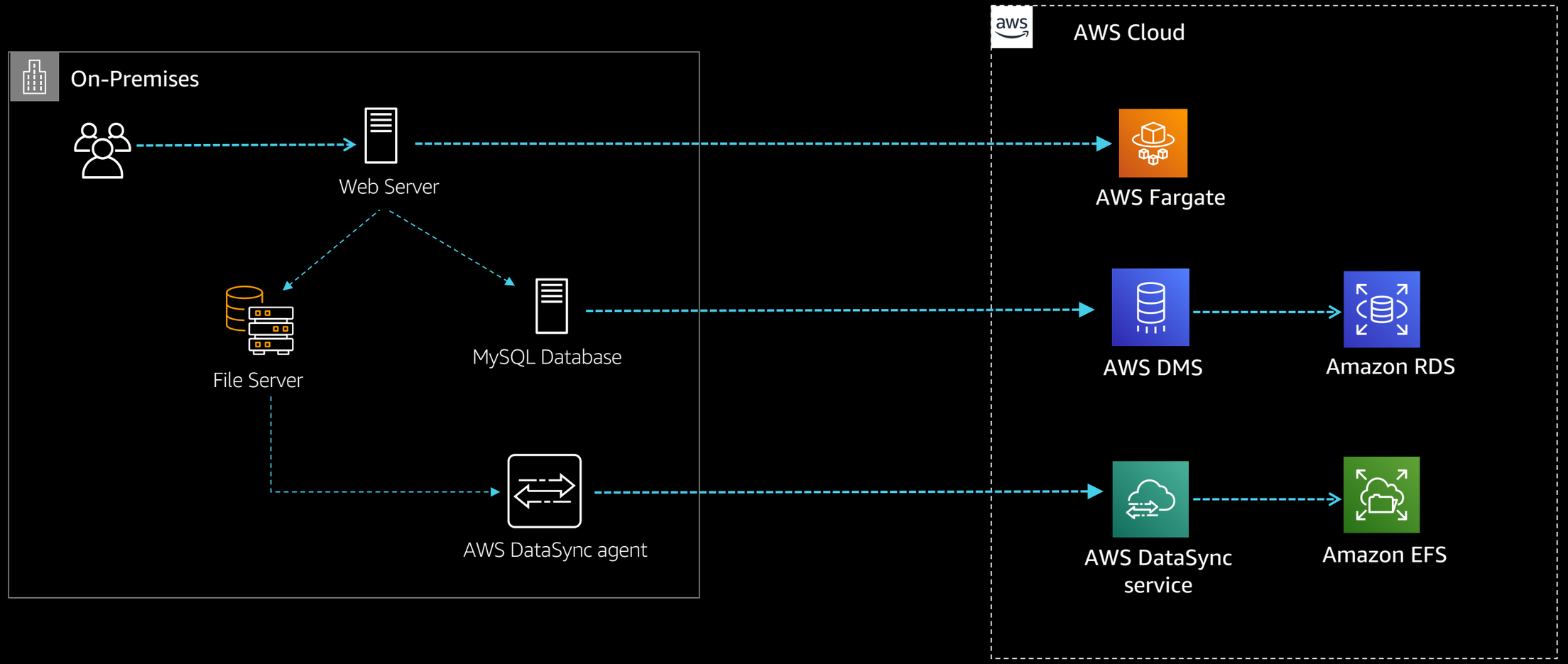


Migration options for shared NFS

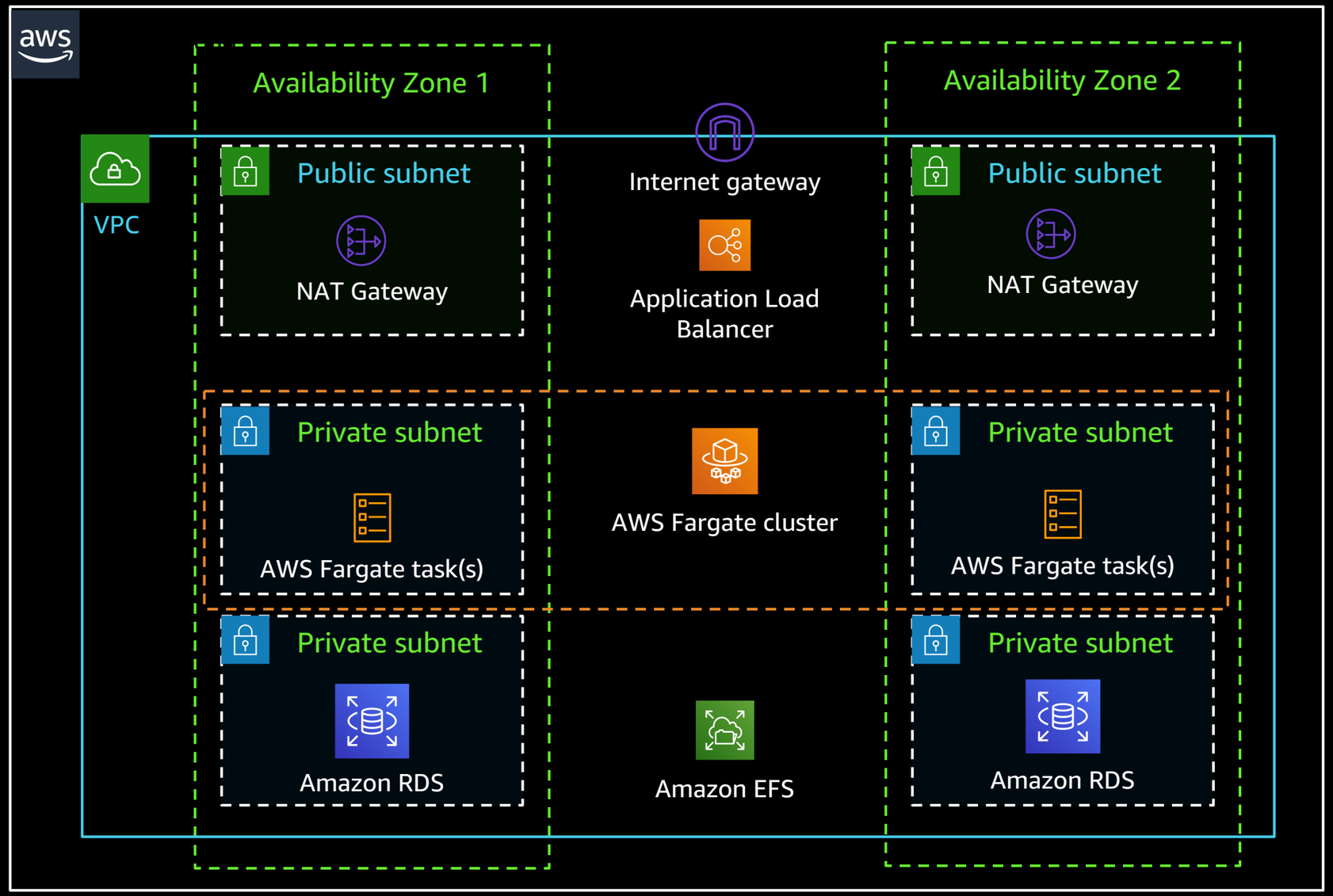


- Scalable performance
- Dynamic elasticity
- Full management
- Security and compliance

Application migration strategy

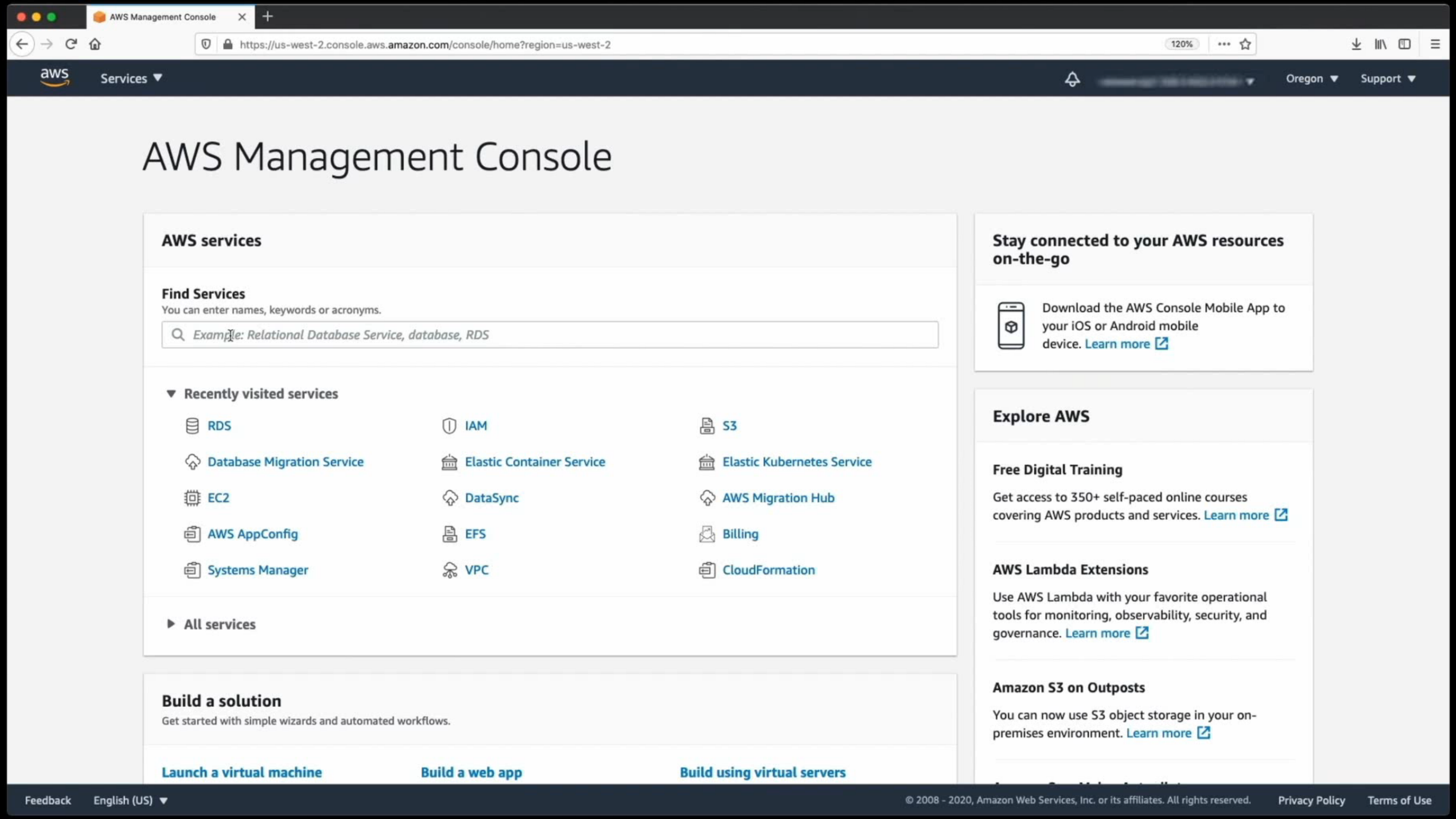


Target application architecture



Demo steps

1. Migrating source database using AWS DMS
2. Creating Amazon EFS volume
3. Migrating NFS share to Amazon EFS using AWS DataSync
4. Creating Amazon ECS cluster, task definition, and service

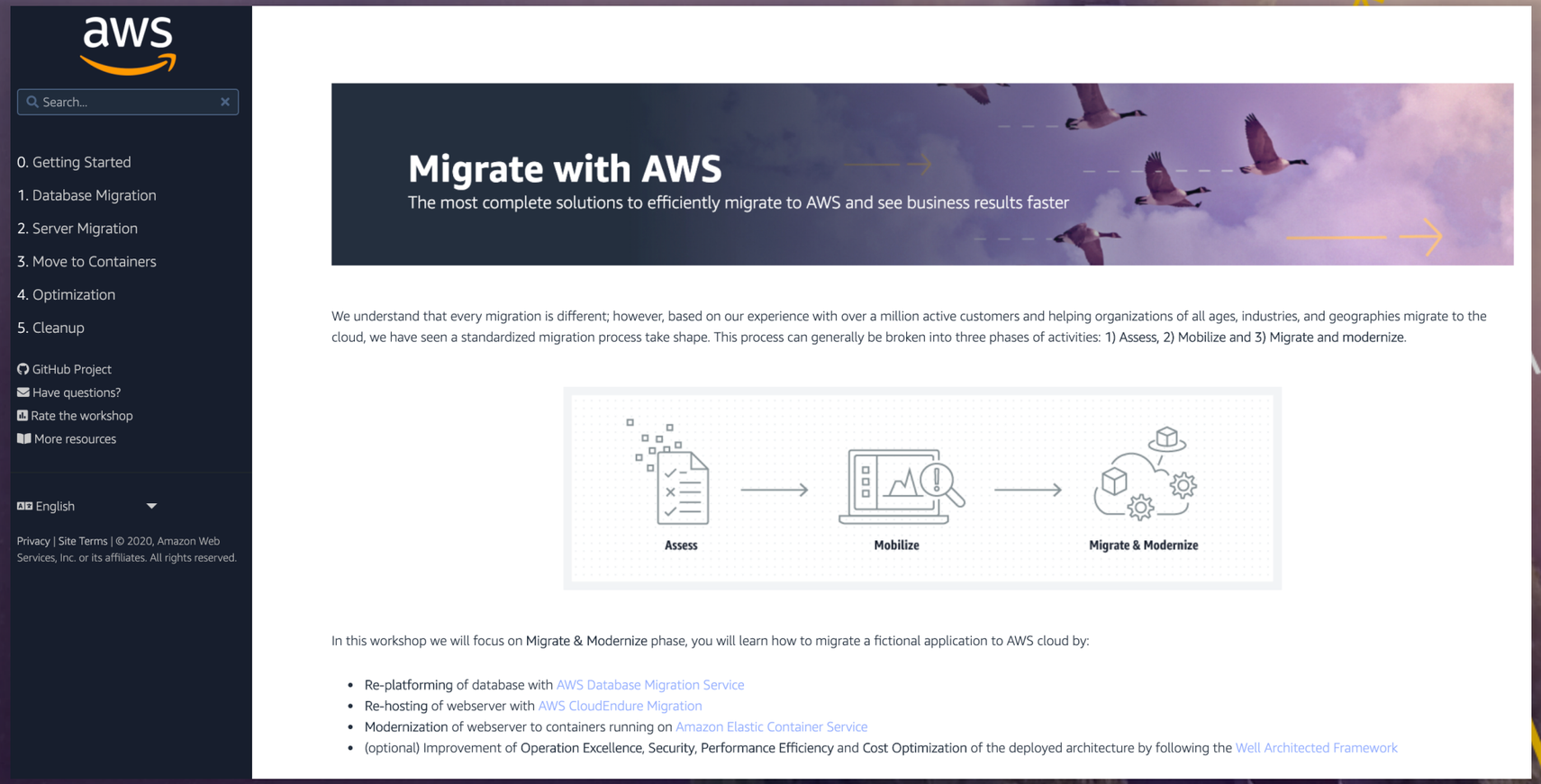

AWS Management Console
https://us-west-2.console.aws.amazon.com/console/home?region=us-west-2
120%
aws
Services
Oregon
Support
AWS Management Console
AWS services
Find Services
You can enter names, keywords or acronyms.
Example: Relational Database Service, database, RDS
Recently visited services
RDS
IAM
S3
Database Migration Service
Elastic Container Service
Elastic Kubernetes Service
EC2
DataSync
AWS Migration Hub
AWS AppConfig
EFS
Billing
Systems Manager
VPC
CloudFormation
All services
Build a solution
Get started with simple wizards and automated workflows.
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Build a web app
Build using virtual servers
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English (US)
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Summary

In this session, we have shown:

1) Different migration options for a typical web application in AWS
2) Using AWS DMS to replatform database to a managed service with minimal downtime
3) Using AWS DataSync to securely migrate data into AWS
4) Using AWS Fargate to run web tier and eliminate undifferentiated heavy lifting of server management

DIY: Application migration with AWS



https://application-migration-with-aws.workshop.aws

Thank you!



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