
AWS
re:Invent
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ENT312-R

Modernizing your workload for speed and flexibility

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Agenda

Migrate to modernize (10 minutes)

Workshop instructions (5 minutes)

Lab execution (1 hour 45 minutes)

Our scenario

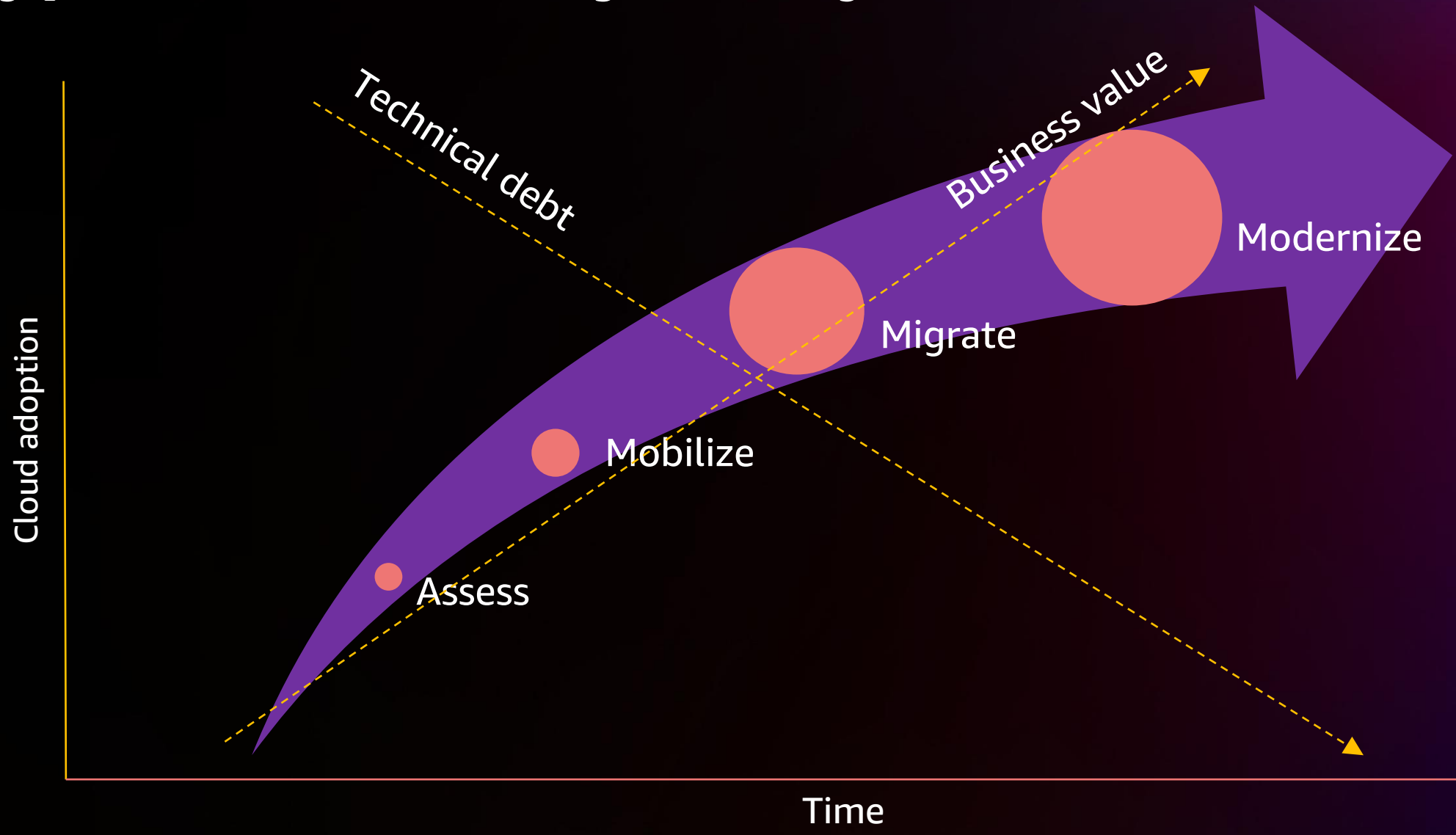
Scenario

- Data center exit goals in <2 years
- Modernization of business-critical apps
- Accelerate benefits of the cloud
- Reduce operational overhead

Workload pain points

- Infrastructure provisioned for peak, underutilized hardware outside of peak
- Codebase in the gigs increasing deployment times and downtimes
- Difficult to adopt new technologies

Typical customer journey



Our modernization journey

	Rehost	Replatform	Refactor
Java application	**MIGRATE** Self-managed apps and databases run on virtual machines (VMs) No code changes Amazon EC2	**MOVE TO CONTAINERS** Fully managed container-run service with auto scaling AWS App Runner	**MOVE TO CLOUD-NATIVE** **Microservices** Self-contained Agility-independent releases Flexible technology adoption **Serverless** Pay as you go Build fast Scale effortlessly AWS Lambda
MySQL database	Amazon EC2 → Minimal-effort modernization via Amazon RDS for MySQL	**MOVE TO MANAGED DATA** Managed provisioning, backups, patching, monitoring, and scaling No code changes Amazon RDS for MySQL	**PURPOSE-BUILT DATABASES** Cloud-native and fully managed The right database for the service Amazon Aurora, Amazon DynamoDB, Amazon Neptune, Amazon Redshift

Why migrate first?

Reap cloud benefits early to free up resources for modernization

Elasticity and scalability

- Right-size instance and elastically scale
- Prevent need to renew hardware purchases

Reduce cost

- Capacity optimization through just-in-time infrastructure
- Pay only for what you use instead of provisioning for peak

Operational overhead

- Eliminate need to manage and operate a data center
- Eliminate need for hardware forecasting and procurement

And then modernize?

Enable focus for incremental modernization

Speed

- Increase speed of deployments
- Minimize/remove dev team dependencies
- Enables rapid experimentation

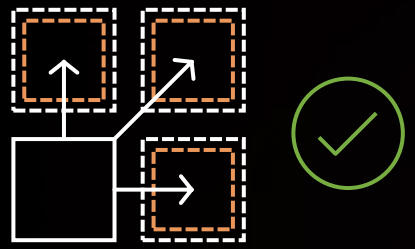
Flexibility

- Enable ability to adopt new technologies
- Use the best tool for the job
- Decoupled architectures improve resilience

Undifferentiated heavy lifting

- Focus on building business capabilities
- Get features to market faster with serverless

Other pillars of modernization



Technology and architecture

Independent business functions

People, process, and culture

Organized for value

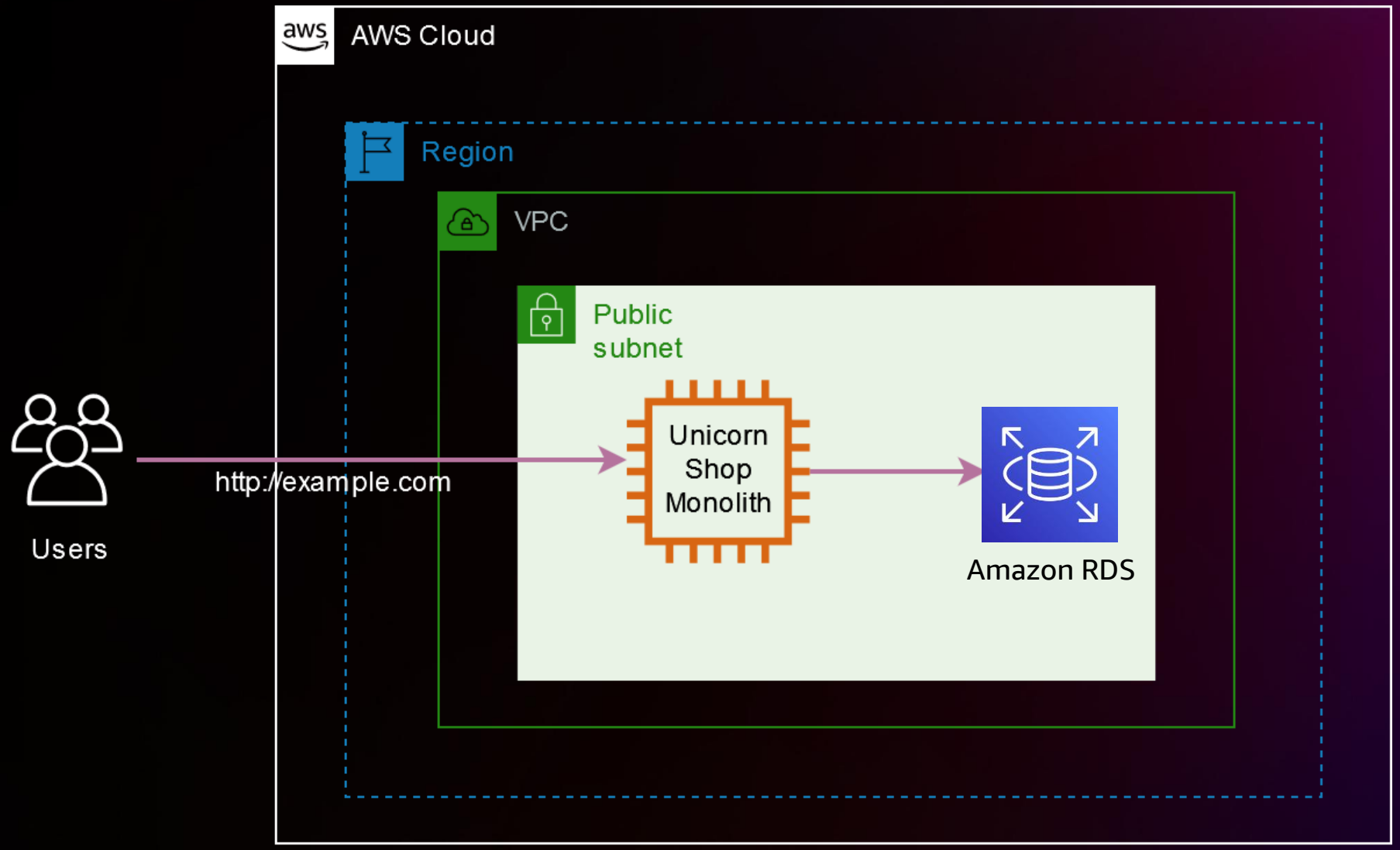
Ops and governance at scale

Automate, enable, and self-serve

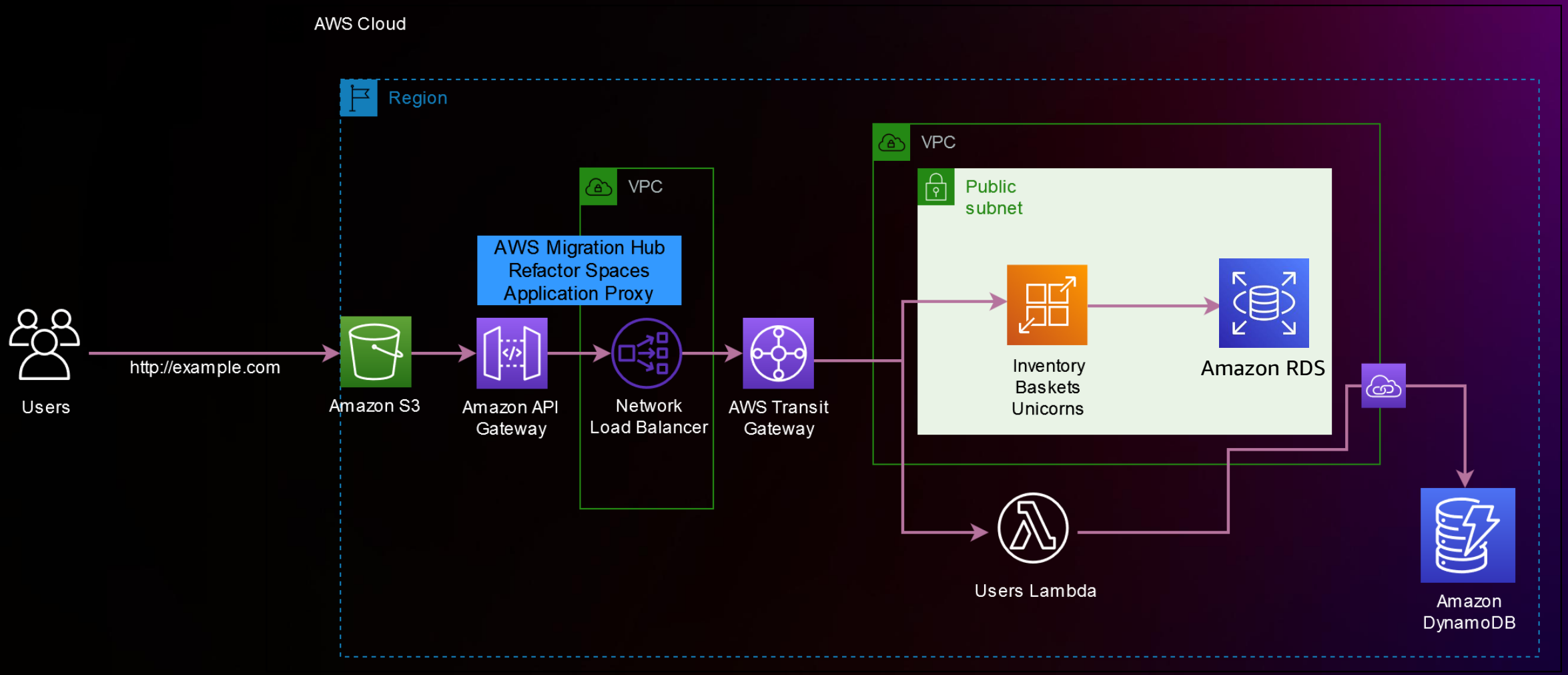
Modernization is the refactoring of legacy technology by combining modern infrastructure, architecture, and organization patterns to maximize resiliency, engineering efficiency, and business agility

Workshop setup

The existing application



What you will build today

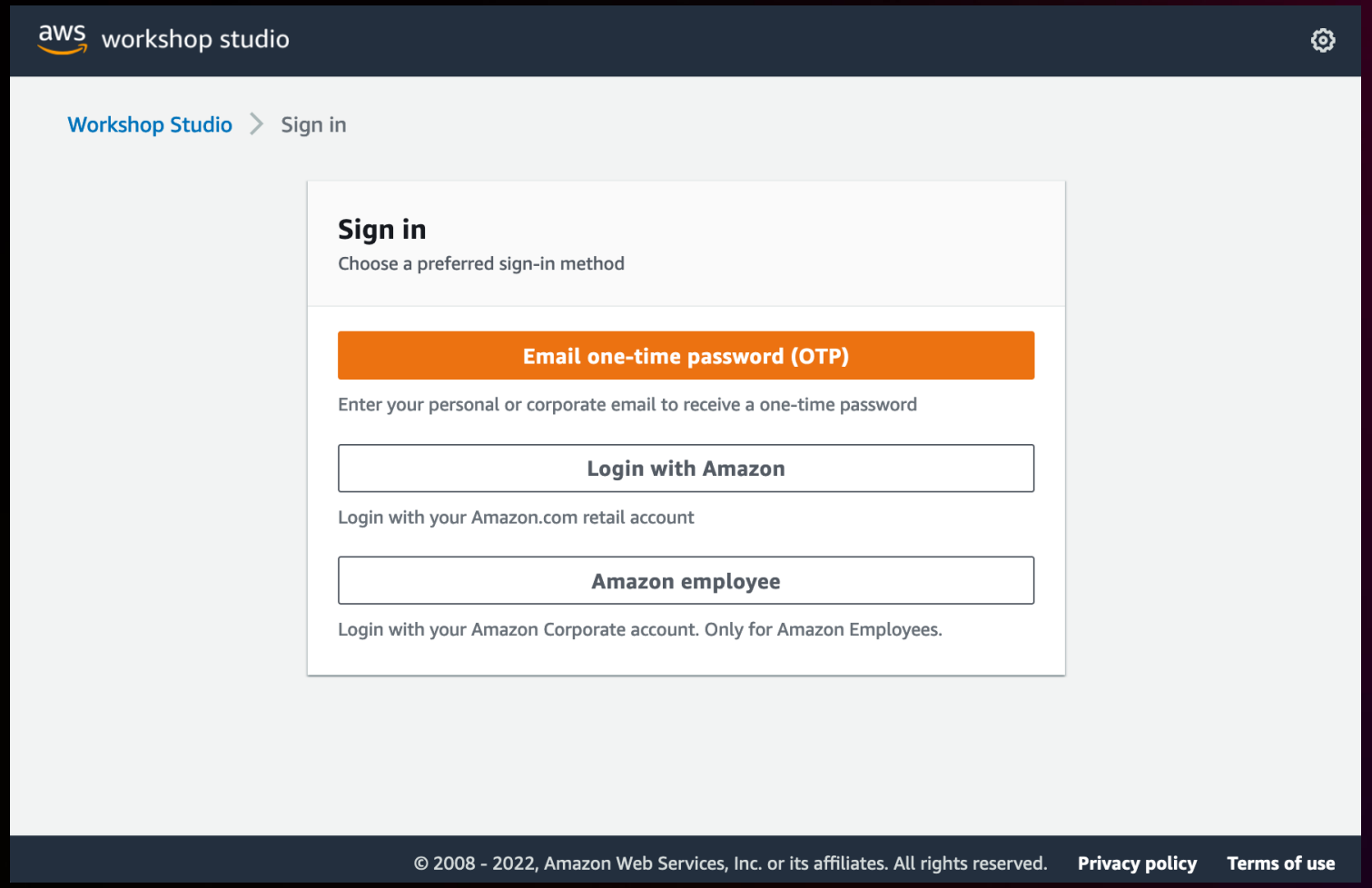


Getting started with this workshop

- As a participant, you will have access to an AWS account with any optional pre-provisioned infrastructure and IAM policies needed to complete this workshop.
- The AWS account will only be available for the duration of this workshop. You will lose access to the account thereafter.
- The optional pre-provisioned infrastructure will be deployed to a specific Region. Check your workshop content to determine whether other Regions will be used.
- Be sure to review the terms and conditions of the event. Do not upload any personal or confidential information in the account.

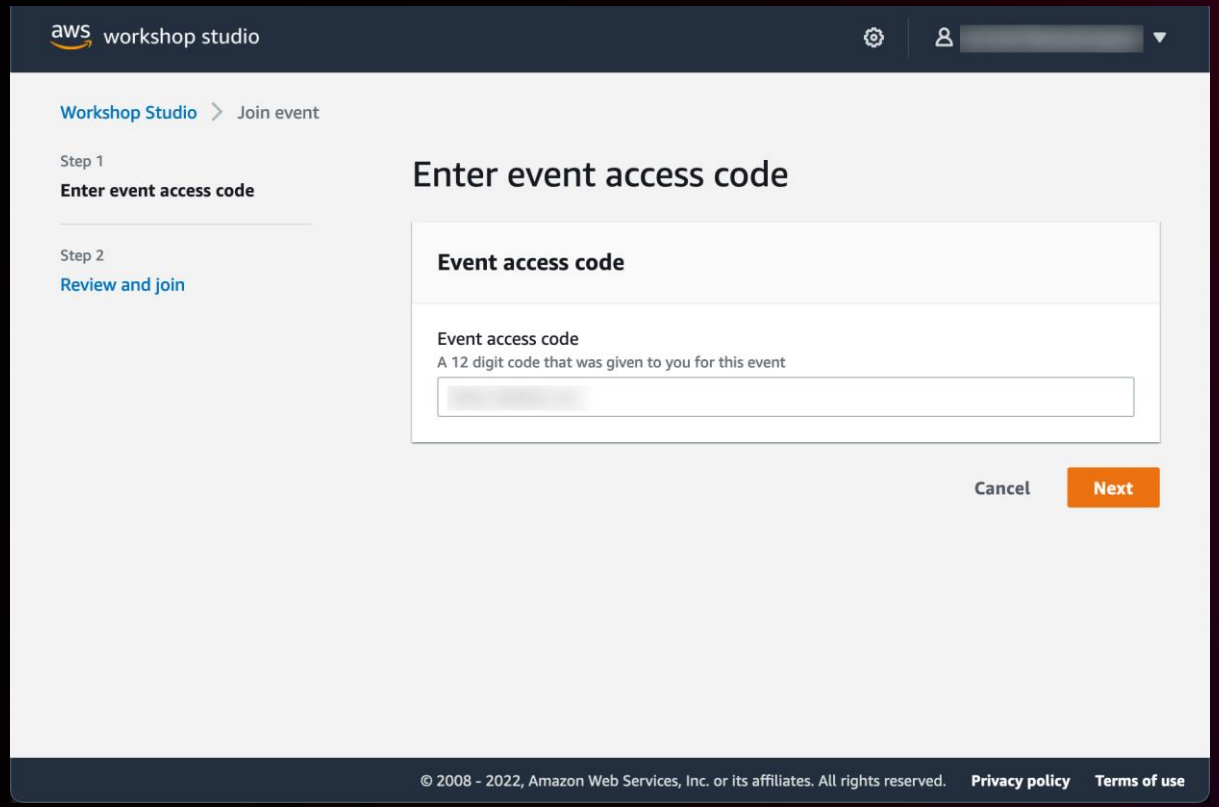
Step 1: Sign-in via your preferred method

Navigate to URL: https://s12d.com/modernization

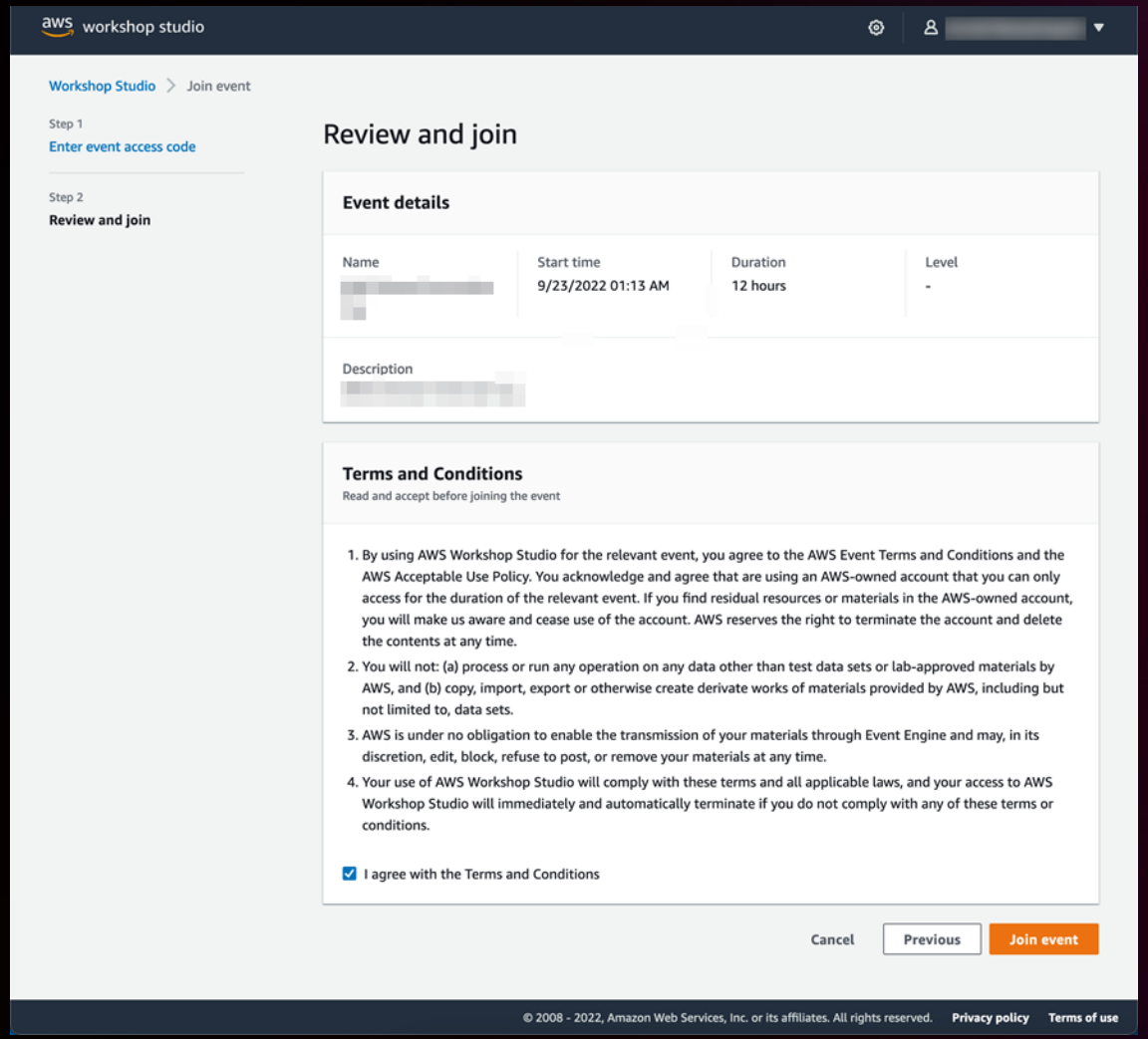


Step 2: Enter event access code

Confirm the 12-digit event access code.

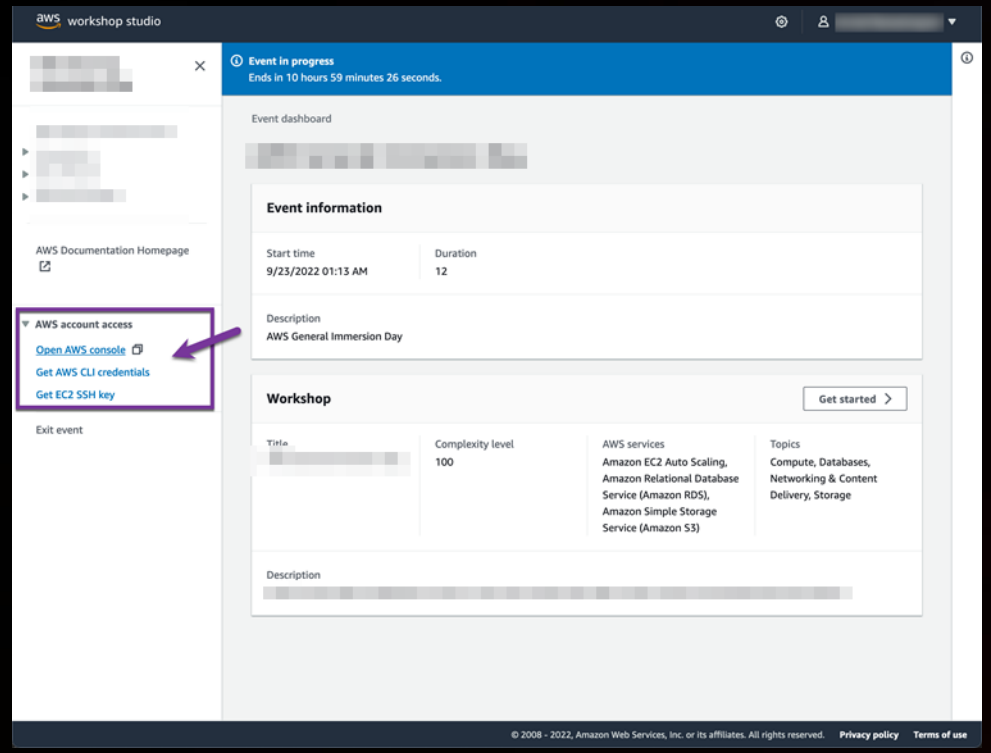


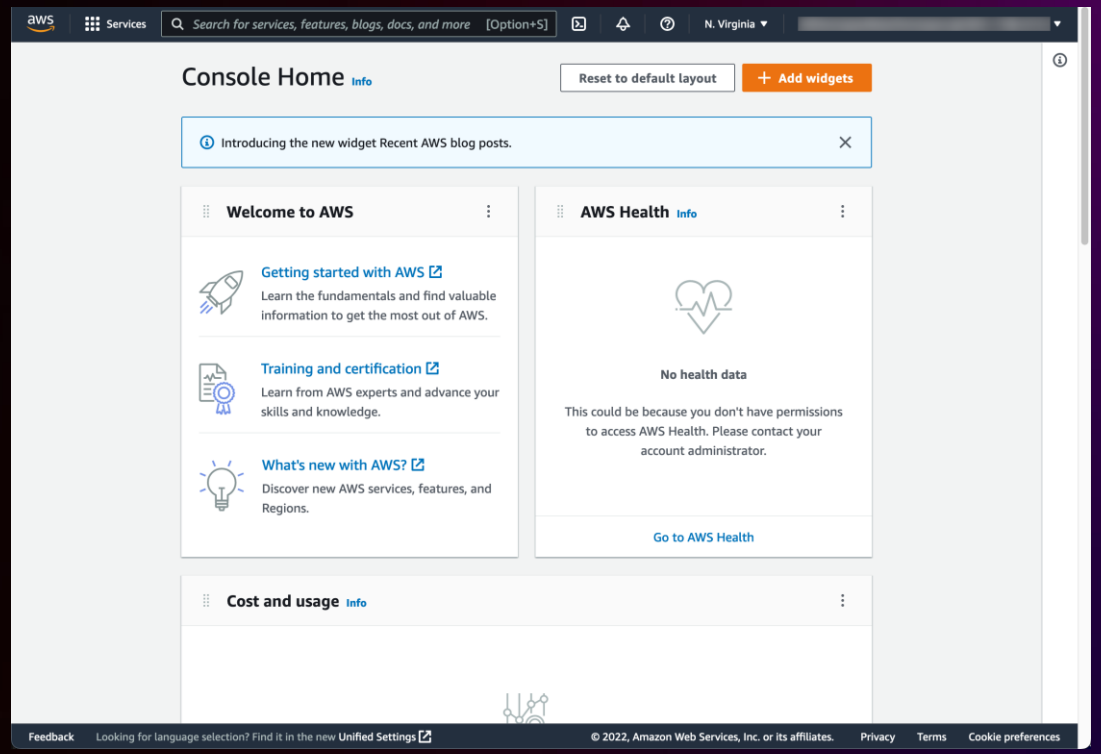
Step 3: Review terms and join event



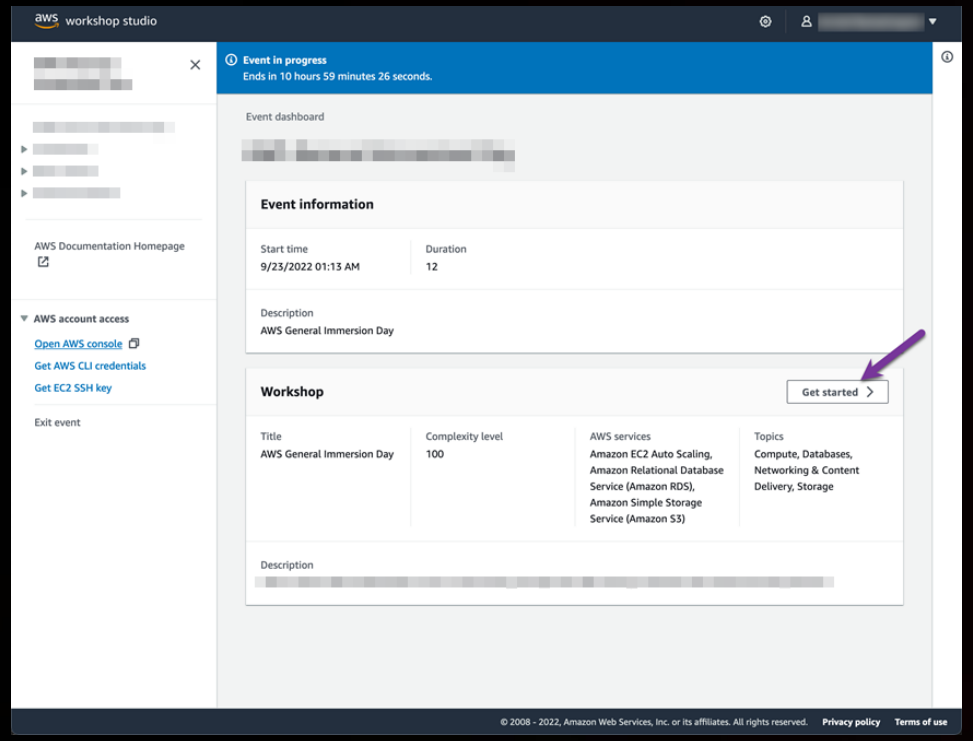
Step 4: Access AWS account

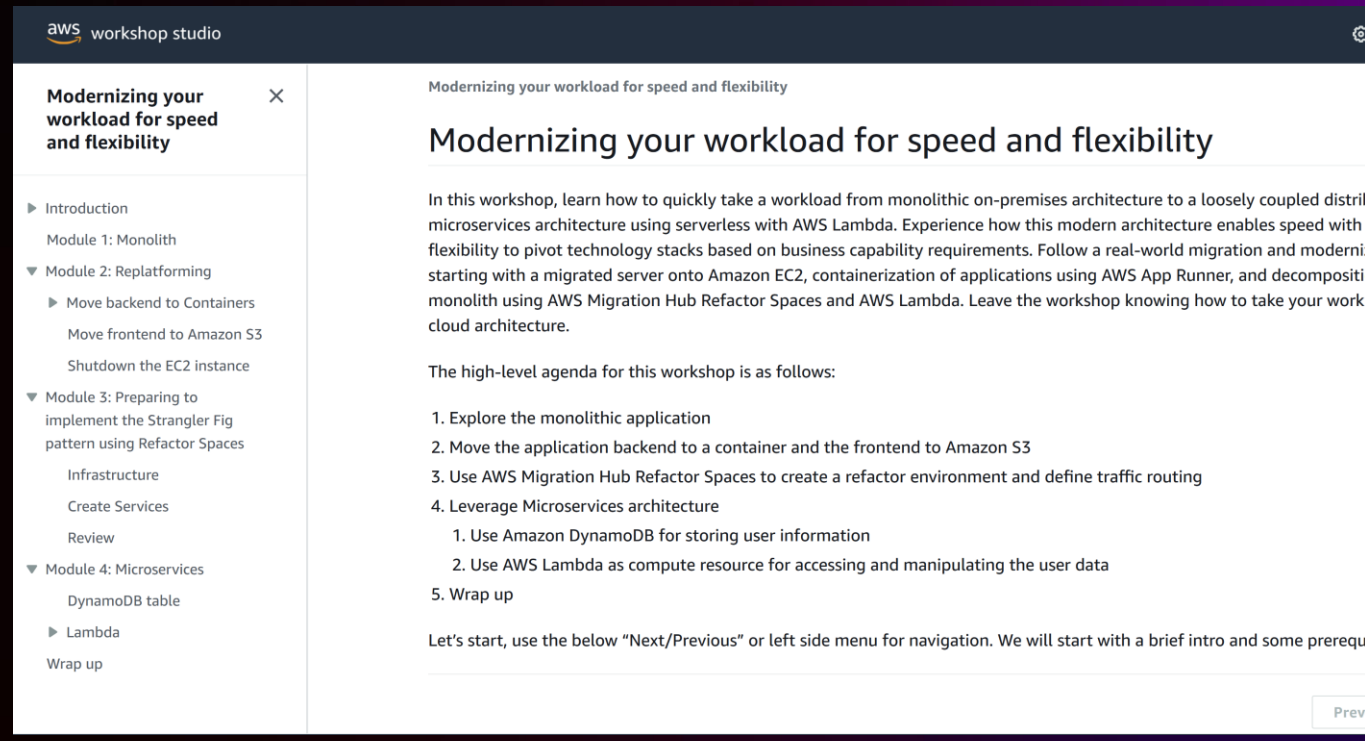
Access the AWS console





Step 5: Get started with the workshop





Thank you!

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Consider visiting session **ENT324** *How Georgia-Pacific is accelerating modernization & improving resilience* to see a real customer example.

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