

# The Art of Performance Testing, Building Reliable Applications & AWS Solutions

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# **Reliability vs Resiliency**

# **Performance Testing**



# **Types of Performance Testing**



### Load

System performance under expected usage

### Stress

Evaluate system behavior under extreme, beyond-normal load conditions

### Endurance

Sustained load testing to identify long-term issues.

### Spike

Rapidly increasing or decreasing load to assess resilience and behavior

### Scalability

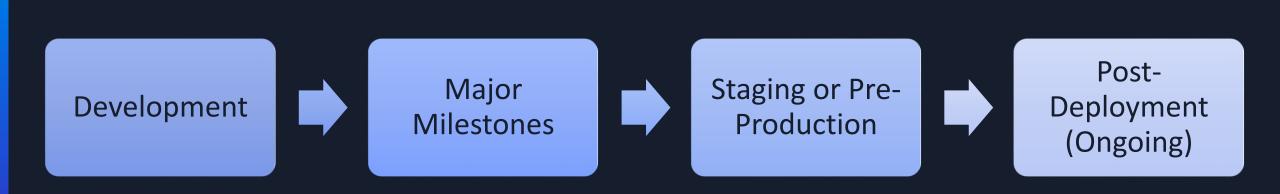
Measuring performance under growing user/transaction volume

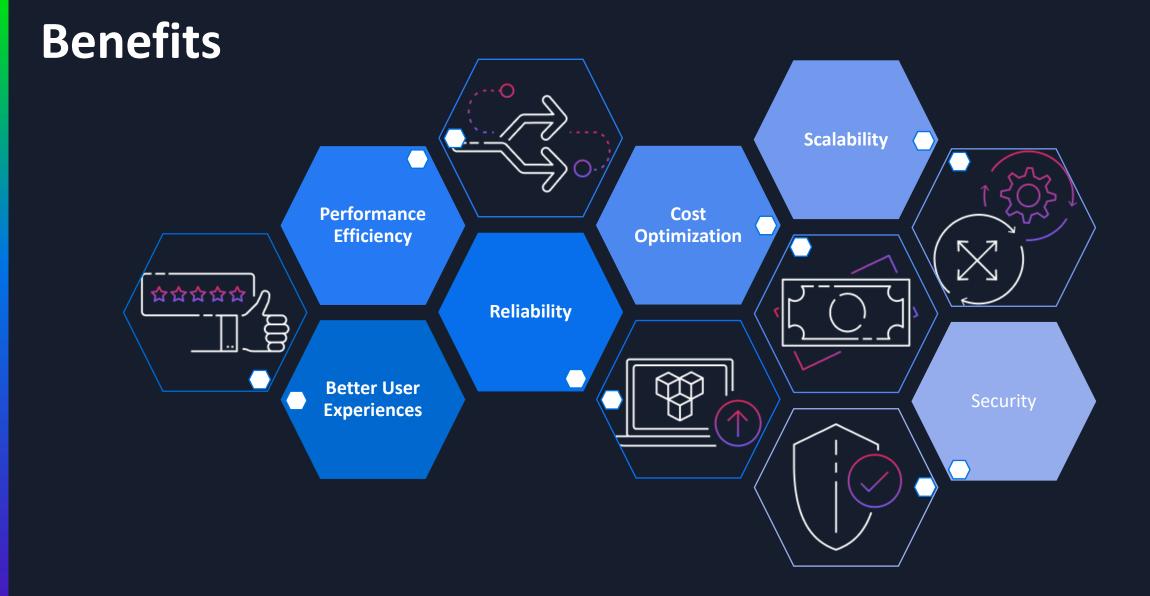
### Volume \*

Evaluates the impact of handling large amounts of data



# When

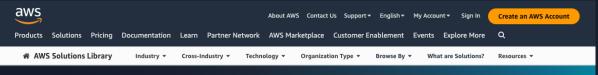




# How?

## **Distributed Load Testing**

### AWS SOLUTIONS



#### AWS Solutions Library / AWS Solution

### **Distributed Load Testing on AWS**

Automate software application testing at scale and at load to identify potential performance issues

View implementation guide

Free Amazon Q Training | Meet your generative AI-powered assistant, and learn how it can boost your productivity. Try the free training »

#### **Overview**

Distributed Load Testing on AWS automates software applications testing at scale and at load to help you identify potential performance issues before application release. This AWS Solution creates and simulates thousands of connected users, generating transactional records at a consistent pace without the need to provision servers. This solution also allows you to run tests across multiple AWS Regions.

#### Benefits

Test load capabilities using containers	containers  application tests    a load capabilities  Customize your    software using  application tests by    odent Amazon  creating custom JMeter    container Service  scripts.    n ECS) on AWS	Automate load tests Schedule load tests to automatically begin either at a specified date or on recurring dates.	View live data for a View live data for a running test using this solution's web console.	About this deployment
Test the load capabilities of your software using independent Amazon Elastic Container Service (Amazon ECS) on AWS Fargate containers.				Version: 3.2.9
				Released: 6/2024
				Author: AWS
				Est. deployment time: 15 mins
				Estimated cost: See details

aws

Use cases for this AWS Solution

**Application Modernization** 

Small & Medium Business

**Container Orchestration** Application Development & DevOps

Application Testing

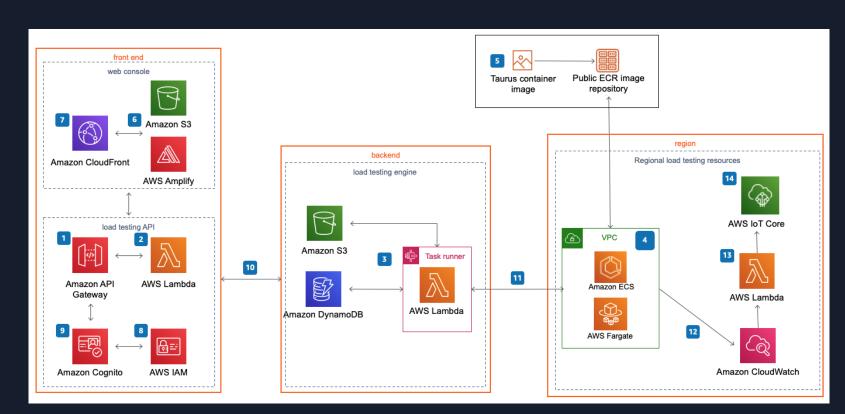
New to AWS

More...

# **Distributed Load Testing on AWS**

- Automate Load Tests
- Load Simulation with Serverless
  Computing
- Customize Application Tests
- Schedule for Seasonal Spikes
- Comprehensive monitoring and reporting for performance insights

- Scalable and on-demand load testing without infrastructure management
- Mitigate performance issues in advance of events
- Generate simulated transactional records without disruption



KEY BENEFITS

# **Deployment Model**

# 100%

Open Source

aws

# Single Tenant

# Fully Supported by AWS

**\$** Pay for what you use

# **Success Stories**

April 23, 2024

SBI Securities Completes Migration of Its Online Trading System to AWS Handling Over 2 Trillion JPY in Daily Stock Trading Transactions

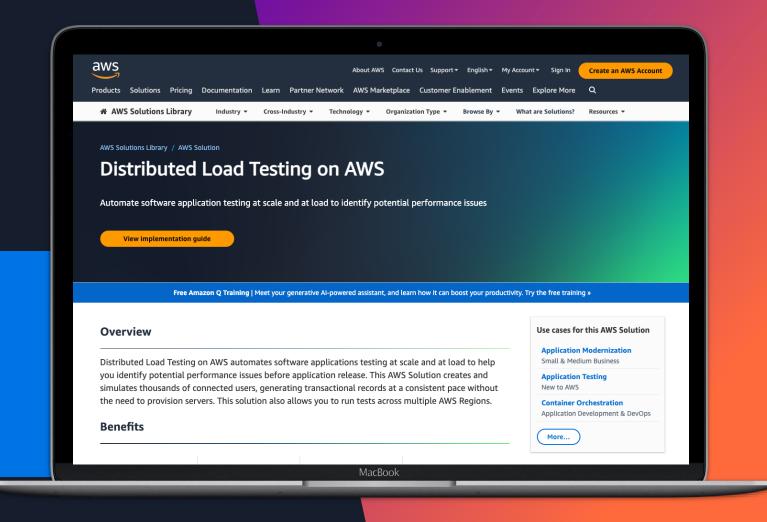
SBI Securities is also using AWS Distributed Load Testing to validate that its infrastructure can scale to meet spikes in customer demand by mimicking sudden surges in traffic.

Source: https://press.aboutamazon.com/aws/2024/4/sbi-securities-completes-migration-of-its-online-trading-system-to-aws-handling-over-2-trillion-jpy-in-daily-stock-trading-transactions

### Get started!

aws

### **Distributed Load Testing on AWS** https://a.co/arUKzr9



# Demo

# Thank you!

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