Alpha Presentation
AWSome Availability Zones

The Capstone Experience

Team Amazon
Kim, Iris
Huang, Wynton
Heiner, Jamison
Chak, Jung
Hood, Jake

Department of Computer Science and Engineering
Michigan State University
Fall 2021
Project Overview

• Create an open-source tool that...
  ▪ Automatically measures network latency between AWS data centers around the world
  ▪ Provides all AWS customers with an easy-to-use visualization of this latency data
  ▪ Allows experienced AWS customers to quickly answer questions about their specific use case
System Architecture
Initial Map View
Map View after selections

![Map View](image-url)
List View
Graph View
What’s left to do?

• Scale up back-end deployments (monitor all AZ pairs)
• Polish front-end visuals + add more navigation options
• Include “welcome” screen explaining the page’s content
• Populate interactive map with all 21 supported Regions
• Consider alternative OS options for Swarm Instances
• Add mechanism for controlling frequency of data collection to Swarm Conductor
Questions?
System Architecture (Raw PointPoint)

Interactive Map → Data Visualizations

EC2 Swarm → EC2 Swarm Conductor → DynamoDB

Latency Data → Commands → EC2 Swarm Conductor

Ping → EC2 Swarm

Angular

The Capstone Experience
Team Amazon Alpha Presentation