

Getting started with Amazon GameLift FleetIQ

Incrementally migrate your game server
infrastructure to the cloud

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Topics

What is GameLift?

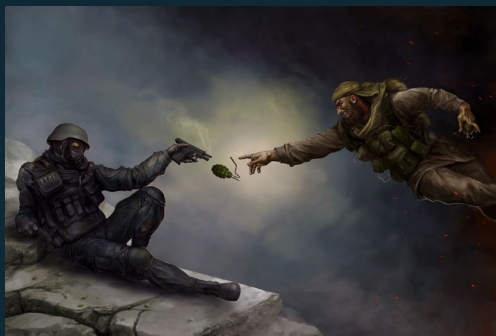
What is FleetIQ?

What does FleetIQ do?

Best practices for FleetIQ

Demo



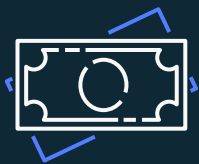


What is GameLift?



What is GameLift?

Deploy, operate, and scale dedicated, low-cost servers for session-based, multiplayer games



Low cost
game servers



Low
latency

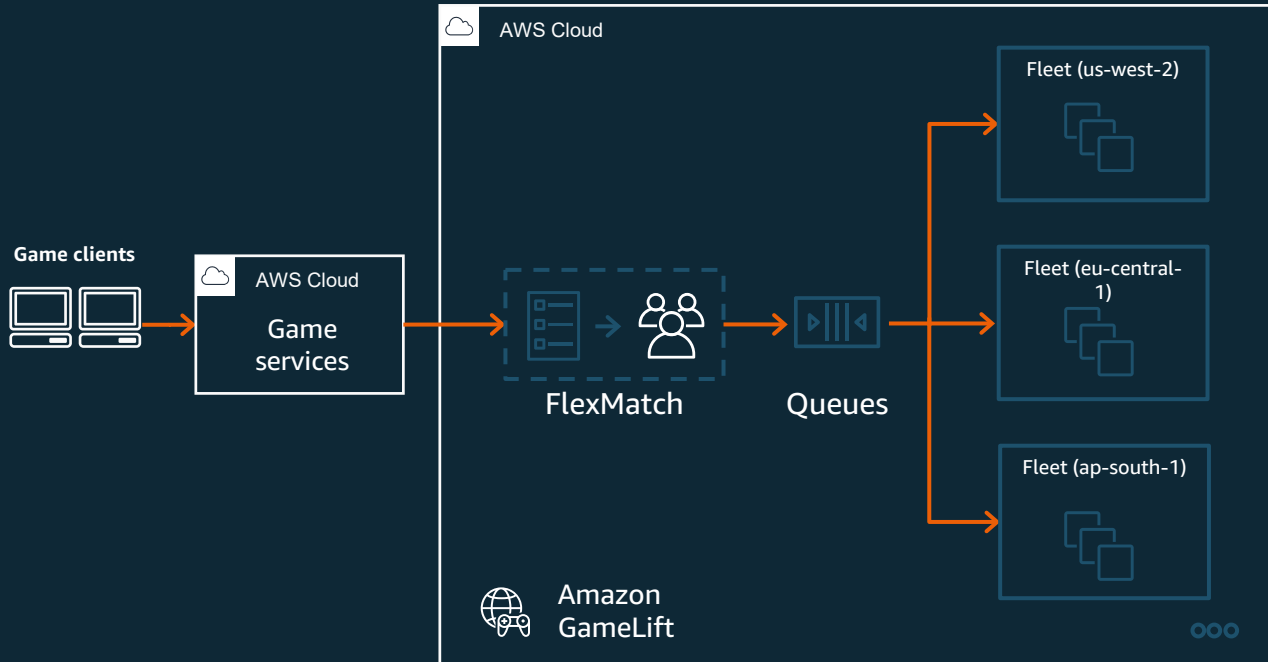


High
availability



Flexibility

What is GameLift?



What is GameLift?

Autoscaling with target tracking



Instance packing



What is Spot?

Excess AWS cloud capacity:

- Sold at a discount over on-demand capacity
- Can be interrupted
- Once interrupted, two minutes to shift workloads

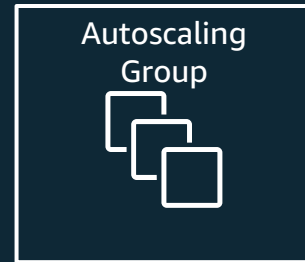


How can we use Spot when players want uninterrupted games?

What is GameLift FleetIQ?

Spot Instances for Game Servers

- Predictive algorithm for estimating instance viability
- Every new game session is a new placement decision
- Effect is continual rebalancing of capacity under the covers



Spot C5.L

Viable?
Yes/No

How successful is FleetIQ at rebalancing?

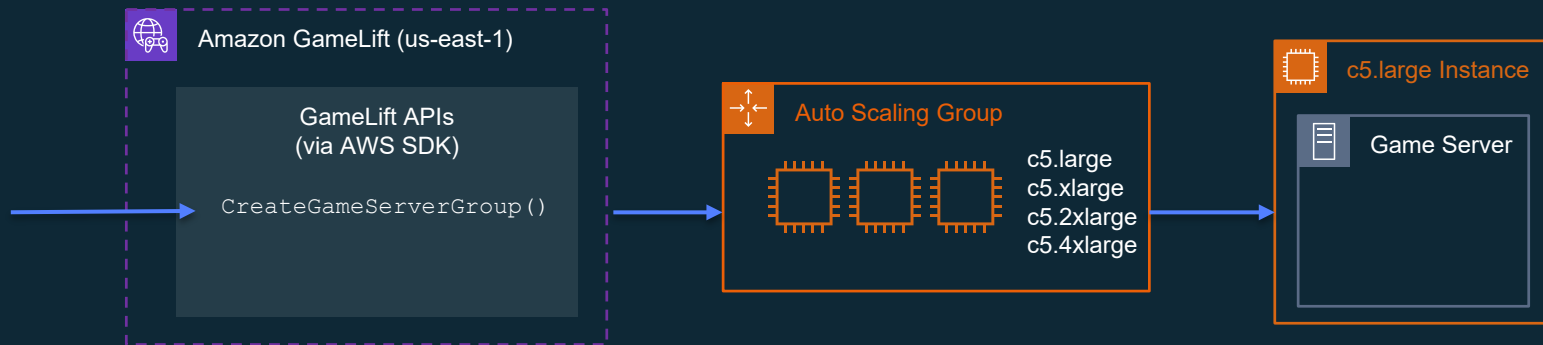


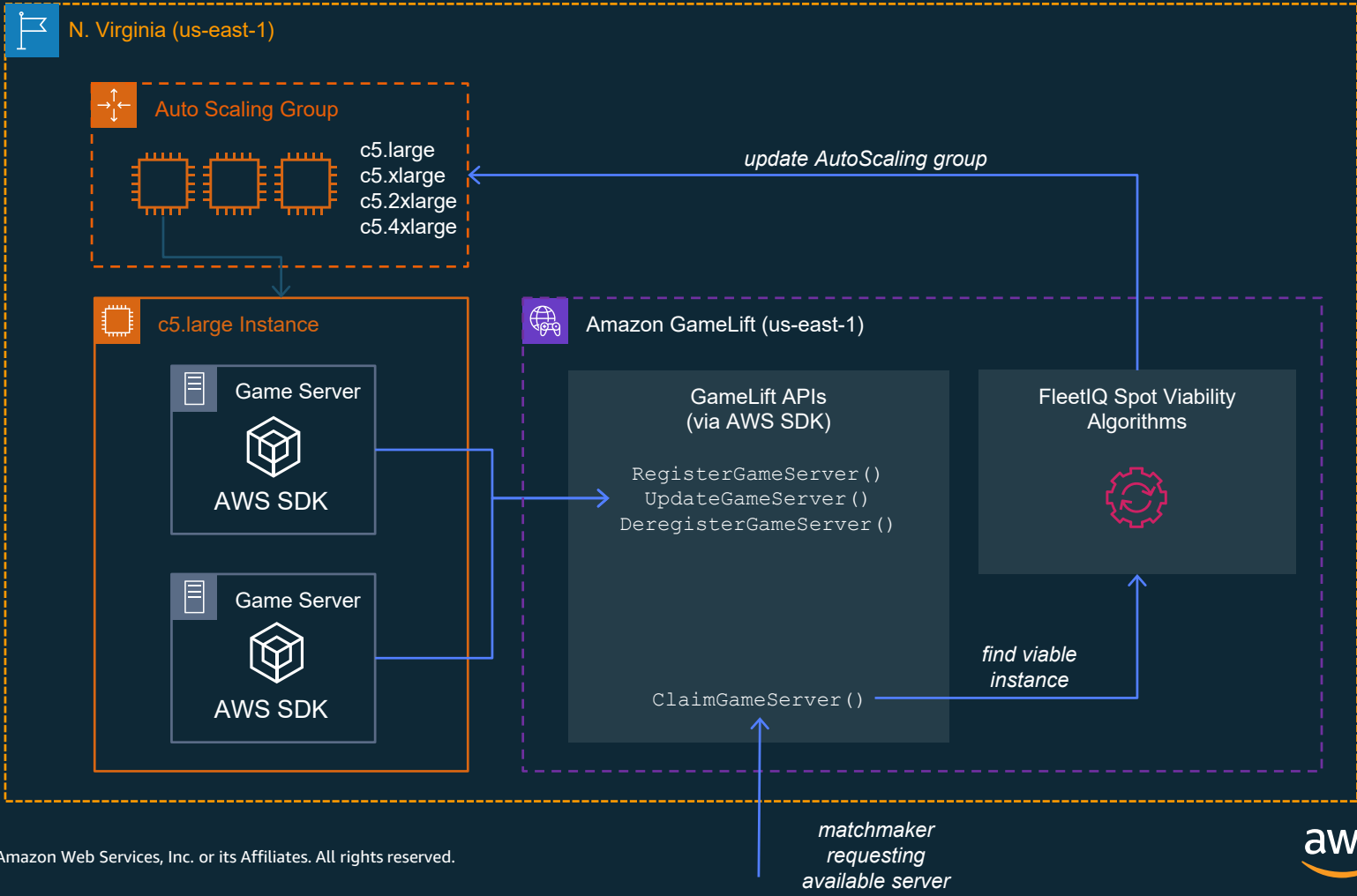
Only **1** in **75,000**
game sessions get
interrupted in practice

How does FleetIQ work?



Create a Game Server Group





What does FleetIQ do?

Autoscaling

- Instance packing
- Instance protection based on game server state

Spot Instances

- Balancing instance types based on predicted viability
- Draining game servers

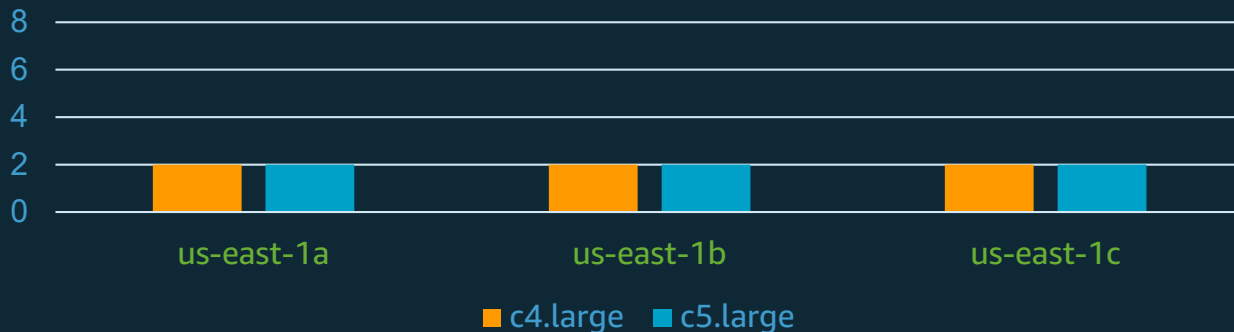
Example: Instance Balancing



Balancing instance types & availability zones



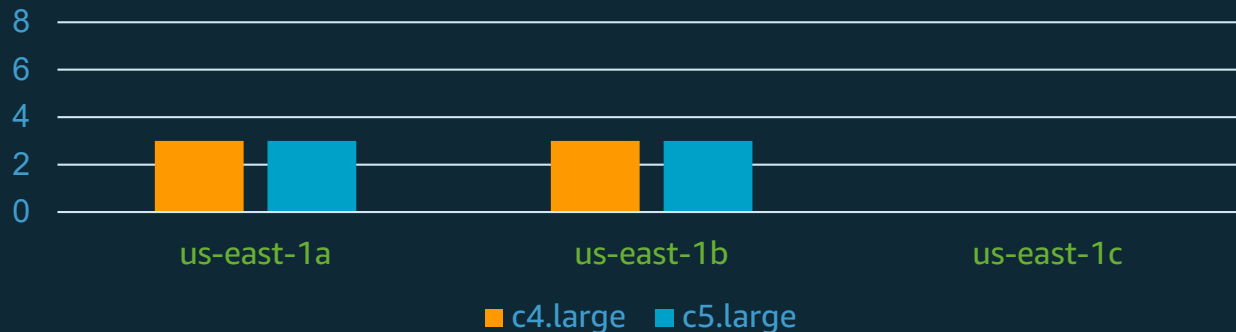
Spot instance usage



Balancing instance types & availability zones



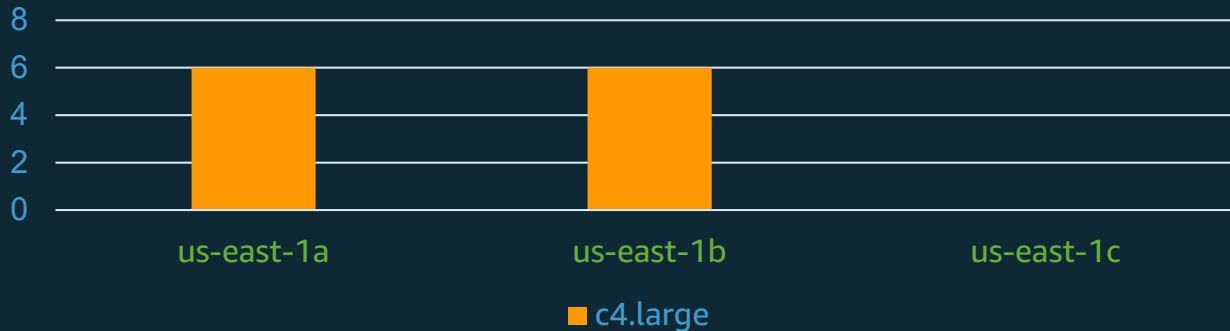
Spot instance usage



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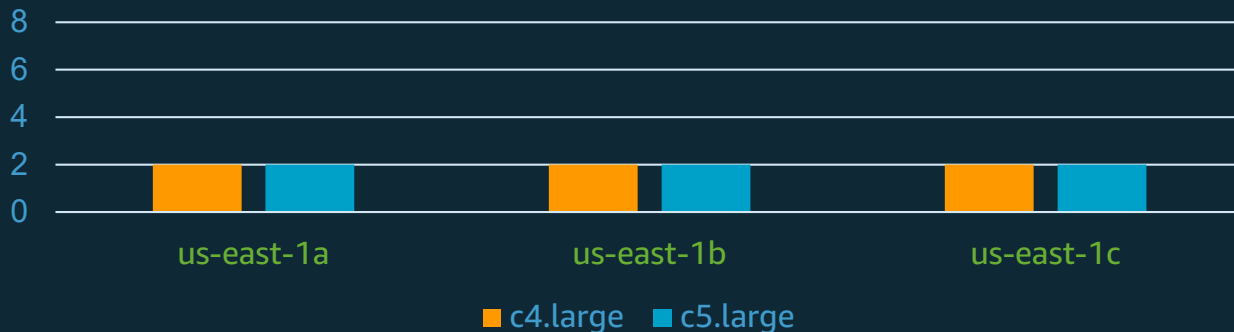
Spot instance usage



Balancing instance types & availability zones



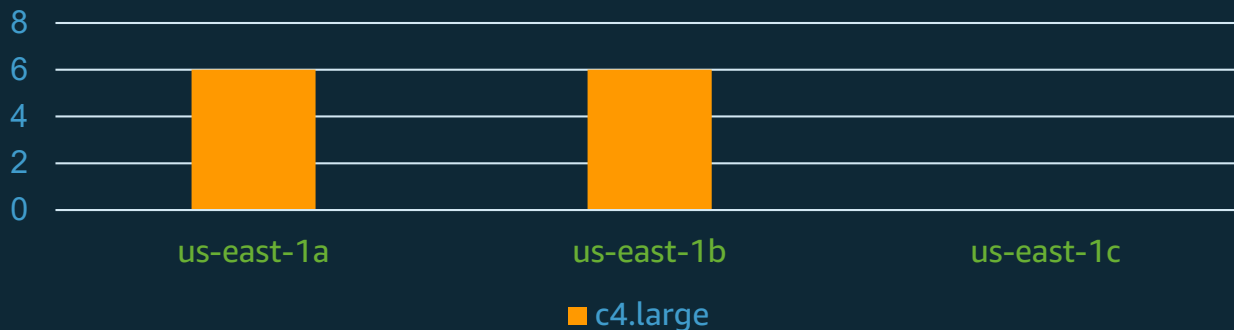
On-demand instance usage



Balancing instance types & availability zones



Spot instance usage



Example: Instance Draining



Draining instances, instance protection, & instance termination

c4.large

c5.large

AUTO SCALING GROUP

Target size = 4



c4.large

- Utilized game server

c4.large

- Utilized game server

c5.large

- Utilized game server

c5.large

- Utilized game server

STANDBY



Draining instances, instance protection, & instance termination

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c4.large

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STANDBY



c5.large

- Utilized game server

c5.large

- Available game server

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STANDBY



Best Practices for FleetIQ

Choose multiple instance types, e.g., c4.large, c5.large, c4.xlarge, c5.xlarge, m5.large, etc

Use GameLift's managed policy

Best for session-based games



Demo



FleetIQ Recap

Use low cost spot instances for session based games

Can be used with your existing backend systems

Creates an Autoscaling group in your account



Thank you!