
AWS
re:Invent
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CMP321

How Coinbase rapidly builds and scales their NFT marketplace with AWS

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Agenda

Key Amazon EC2 concepts to build and scale your applications

Journey of launching Coinbase NFT

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AWS enables customers to bring any workload to cloud and scale easily

1

Broadest set of compute options

2

AWS Global Infrastructure with Elastic Load Balancing (ELB) and Amazon EC2 Auto Scaling groups

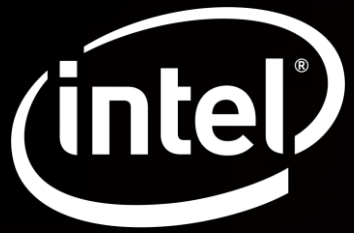
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Flexible purchasing options and capacity reservations

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Broadest set of compute options



Intel Xeon Scalable processors



AMD EPYC processors

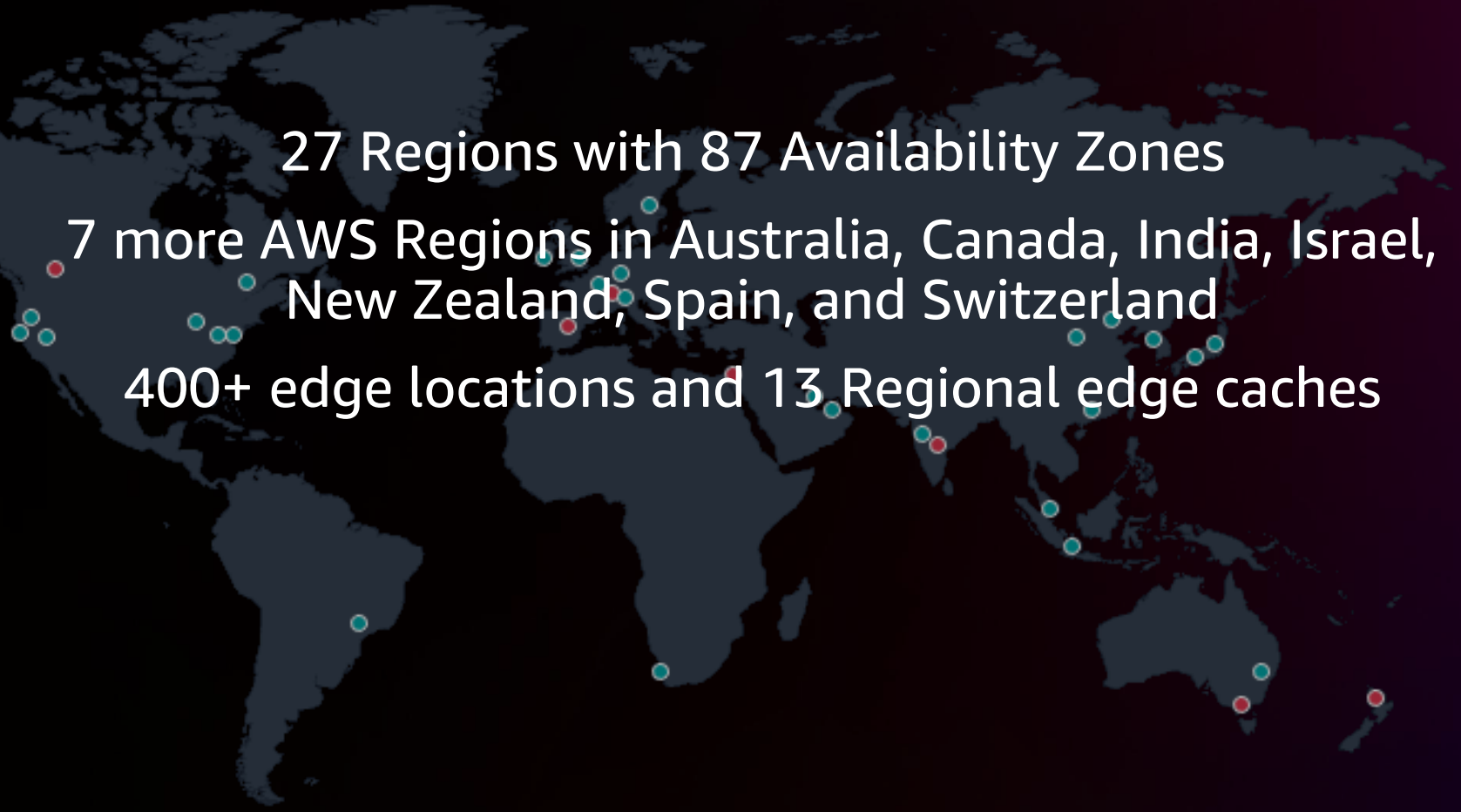


AWS Graviton processors

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AWS Global Infrastructure



27 Regions with 87 Availability Zones

7 more AWS Regions in Australia, Canada, India, Israel, New Zealand, Spain, and Switzerland

400+ edge locations and 13 Regional edge caches

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Flexible purchasing options

On demand

Pay for compute capacity by the second with no long-term commitments

Savings plan

Make a 1-year or 3-year usage commitment and receive significant savings compared to on-demand pricing

Reserved Instances

Same great discounts as Amazon EC2 savings plan with less flexibility

Spot Instances

Use spare Amazon EC2 capacity at steep discounts compared to on-demand pricing

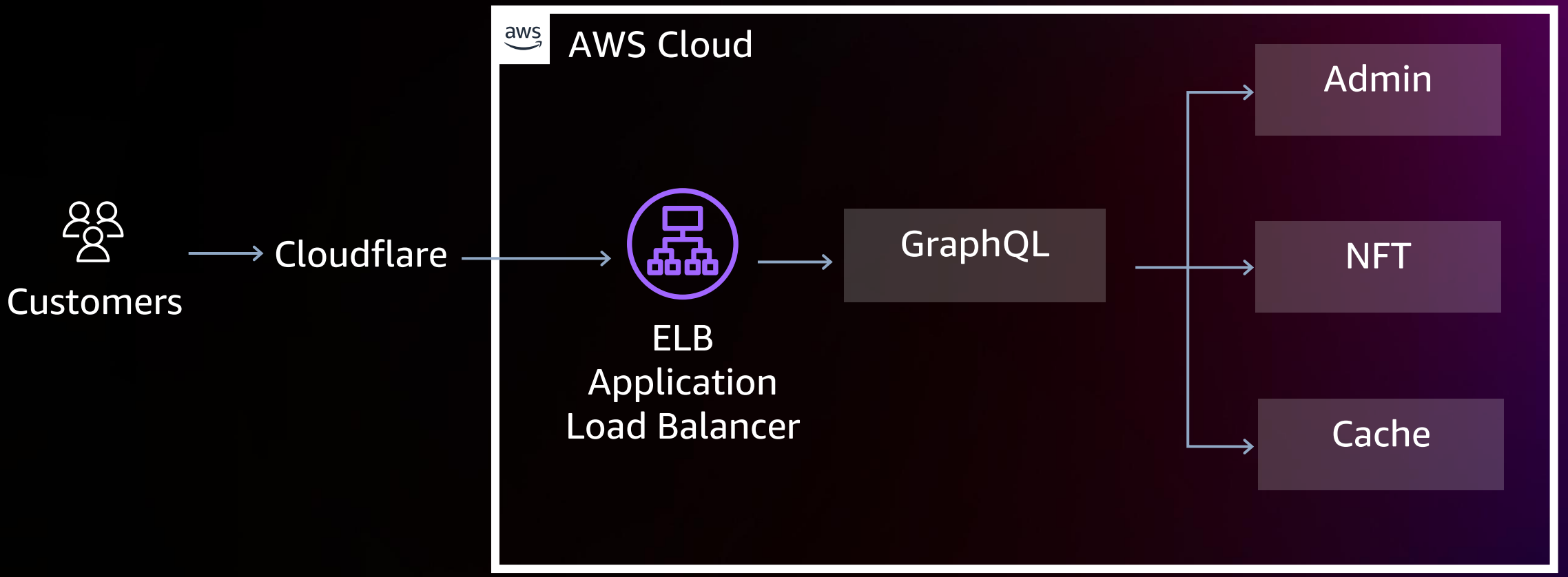
On-demand capacity reservations to reserve compute capacity for your instances in a specific Availability Zone for any duration

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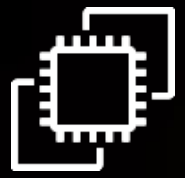

coinbase NFT

Coinbase NFT Marketplace architecture



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How Coinbase built and scaled NFT Marketplace with AWS



Take advantage of options

Used a mix of instance options across **Intel, AMD**, and **AWS Graviton-based instances** to optimize for price performance across a wide range of workloads



Plan for scalability and resiliency

Use of mixed instance types **(EC2, C5, C6i,** and **C6a)** increased capacity pool, availability; invested in **multi-AZ** strategy for extra resiliency; used **Amazon EC2 Auto Scaling groups** to react fast and optimize cost



Prepare for a smooth launch

Capacity reservations ensured having enough capacity at launch; worked with **AWS infrastructure event management** to get guidance for the launch event; used **AWS Well-Architected** and **AWS Fault Injection Simulator** to evaluate architecture, improve resiliency

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What is ahead

WE LAUNCHED NFT MARKETPLACE WITH 1 MILLION+ USERS BUT OUR JOURNEY DOES NOT END HERE



Multi-region expansion



Fraud detection with Neptune



Adopting Amazon Aurora serverless

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