AWS
re:Invent
NOV. 28 – DEC. 2, 2022 | LAS VEGAS, NV

CON207

Your first container in the cloud

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Agenda

One, two, go! – Two easy ways to get started with AWS App Runner

What is App Runner and why did we build it?

Operating App Runner in production

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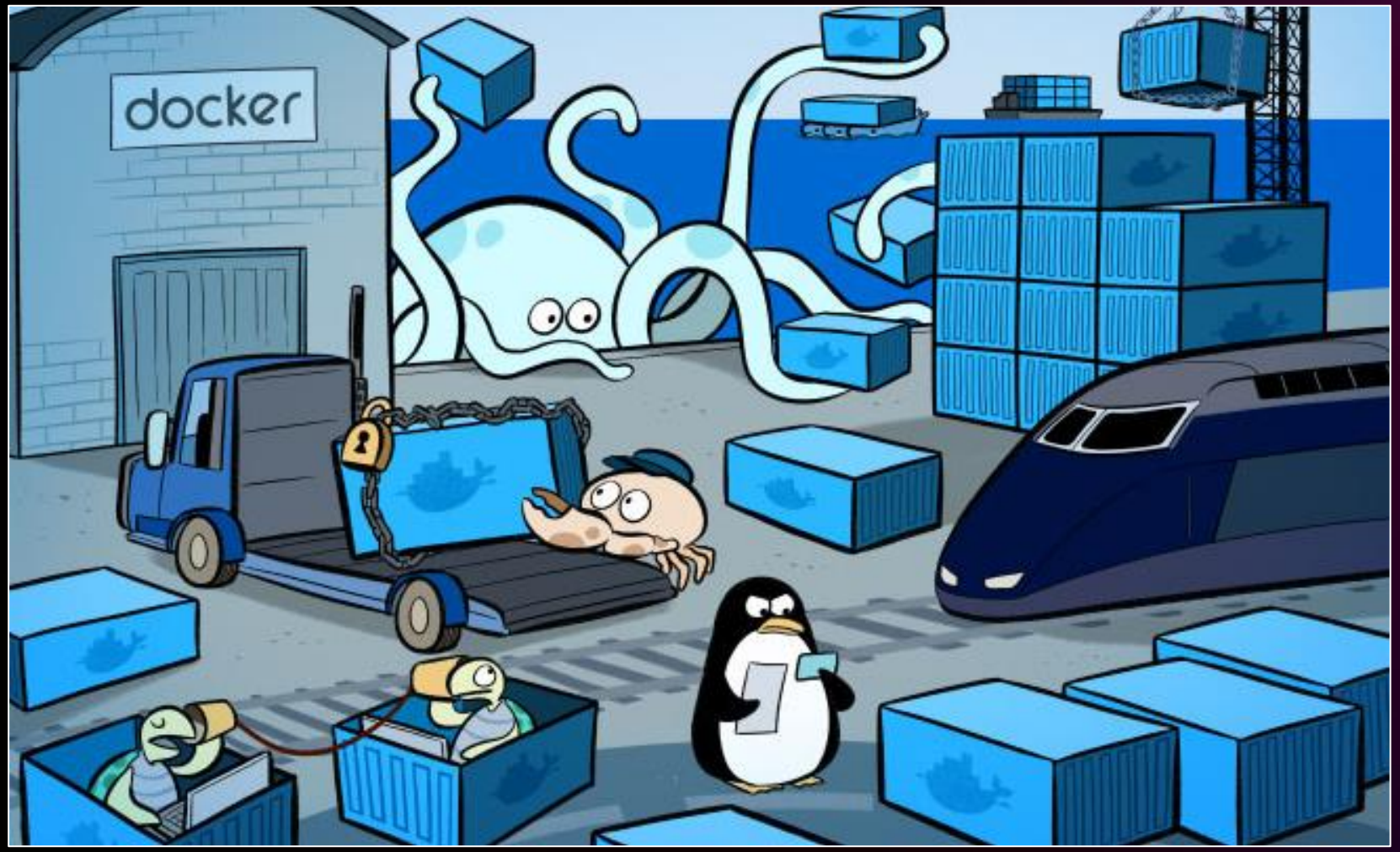

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Bryan Cantrill

@bcantrill

Follow

Question I've been posing at #KubeCon: are we near Peak Confusion in the container space? Consensus: no -- confusion still accelerating!

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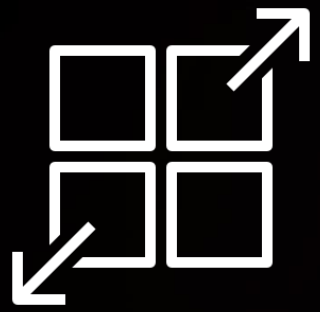
AWS App Runner



Your web applications

MANAGED BY AWS

No EC2 instances, clusters, load balancers that you need to provision, scale, or manage.

ELASTIC

Scale up and down seamlessly. Pay only for what you use.

INTEGRATED

With the AWS portfolio of services: VPC Networking, Amazon CloudWatch, AWS Certificate Manager (ACM), and more.

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Idea, Code, Launch

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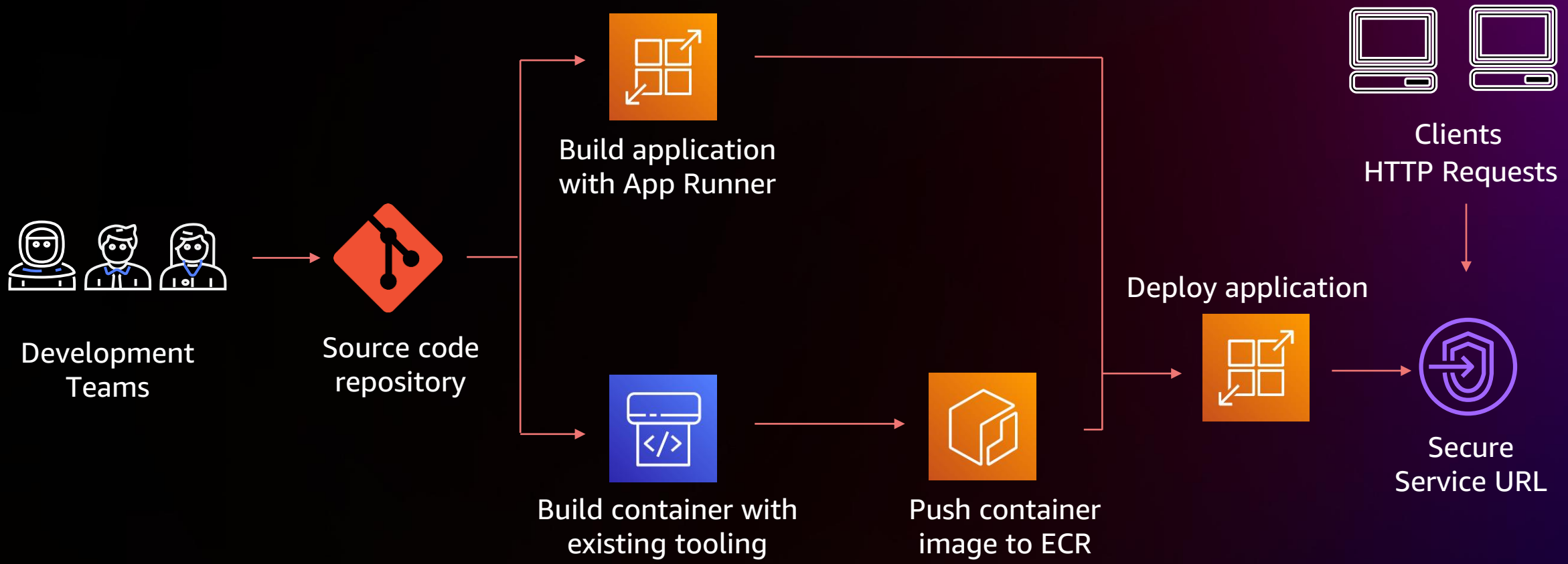
Deploy from source or container image



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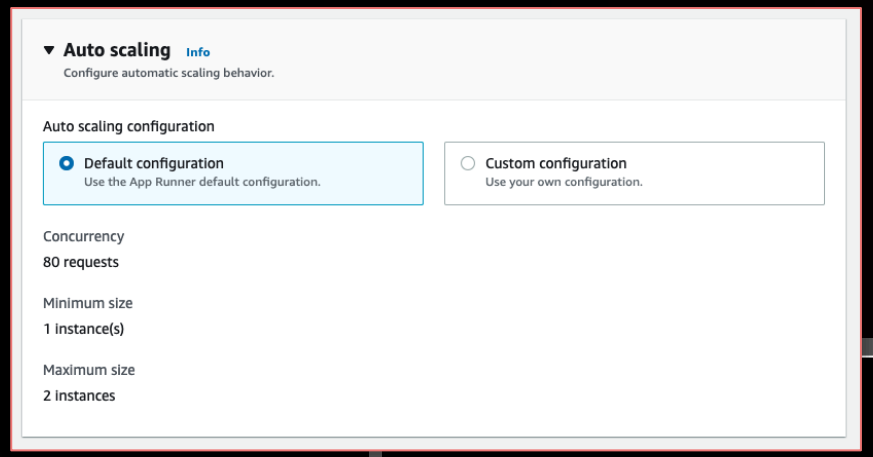
Pay for compute that scales with requests



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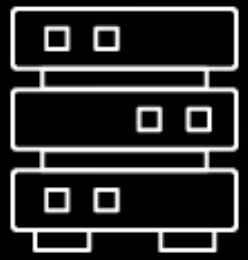
Pricing dimensions



Compute pricing
$0.064/vCPU-hour
$0.007/GB-hour

Automatic deployments
$1/application, per month

Build fee
$0.005/build minute

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Pricing scenarios

Development or test app

Built by individual developers, these apps serve test or development traffic and use manual deployments. Developers often pause these services to manage costs.

$5/month

Lightweight, latency-sensitive API

Lightweight commercial API's or web services see low request volume and do not undergo any peak hour activity.

$25/month

High-volume production app

Production app powers your most latency-sensitive business logic. They see several peak traffic hours daily.

$102/month

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Cox Automotive

Autotrader

Cox Automotive Mobility

Dealer.com

Dealertrack

F&I Express

FYUSION

Kelley Blue Book

Manheim

NextGear Capital

SNT Spiers New Technologies Cox Automotive / Mobility

vAuto Live Market View

VinSolutions

xtime

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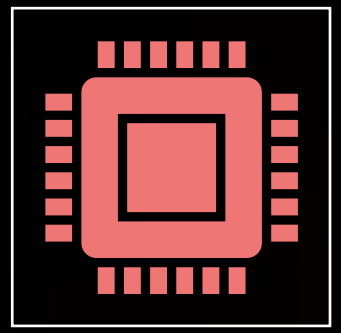
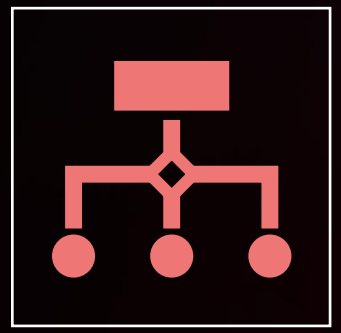
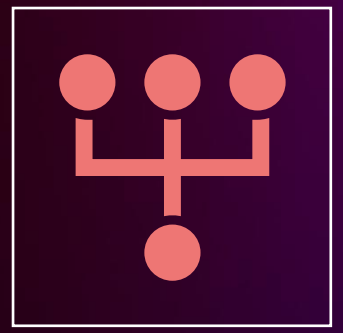
Model delivery At Cox Automotive



Our goal is to do for data science what DevOps did for software development



One of the problems that we had to solve was how to run models as APIs at scale



Can we build a managed service–driven platform to deliver a wide range of models?

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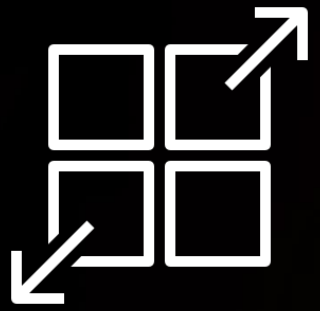
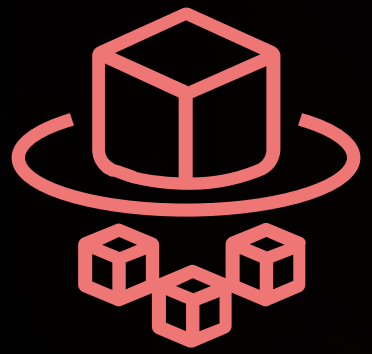
Containers in the cloud



AWS App Runner

Amazon ECS



AWS Fargate

Amazon EKS

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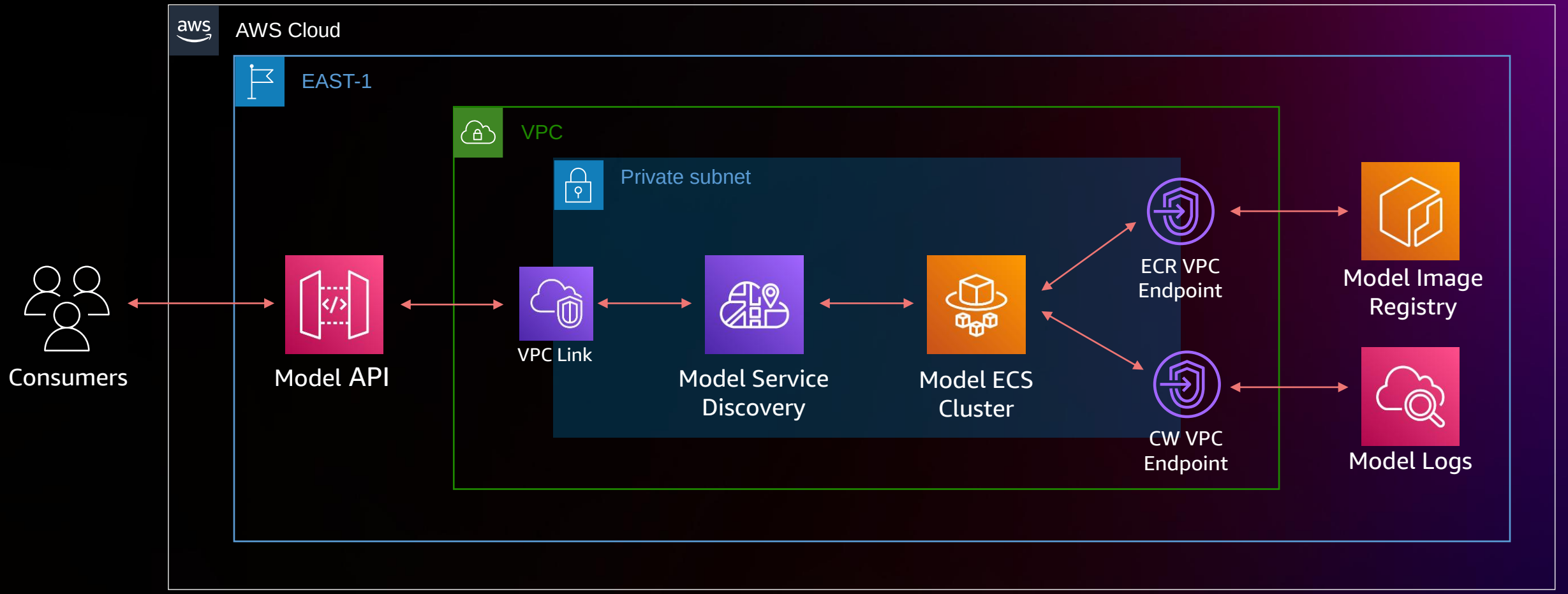
Known ECS pattern



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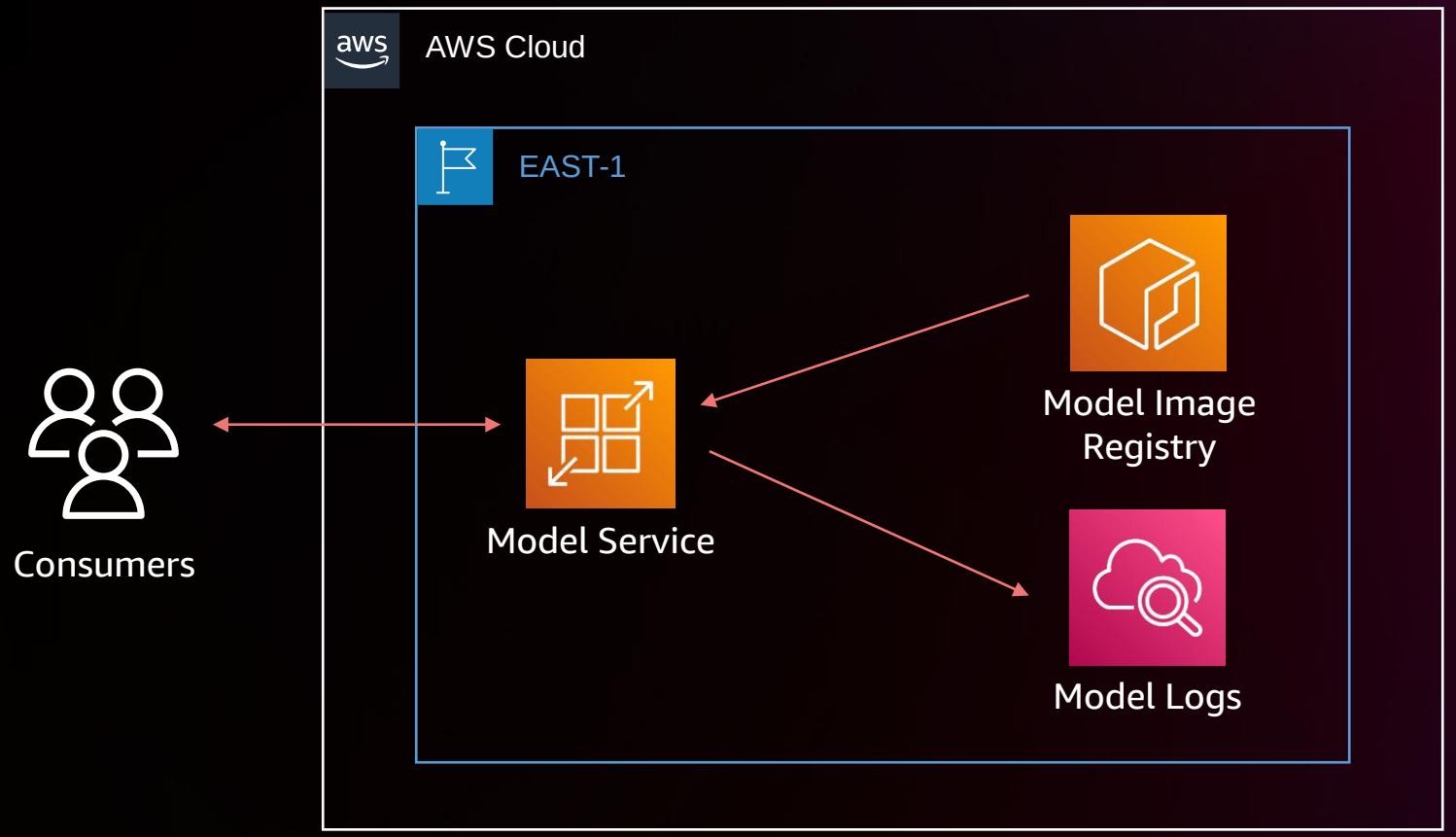
Fitting into the App Runner pattern



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Simplified operations

Over-provisioning

- Solve for burst traffic
- Previous model versions scaled
- Lower environments mirror production

Avoiding scale to 0

- Keep lower environments warm for rapid testing
- Minimal cost for infrequently used models

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Taking *YOUR* first container to the cloud

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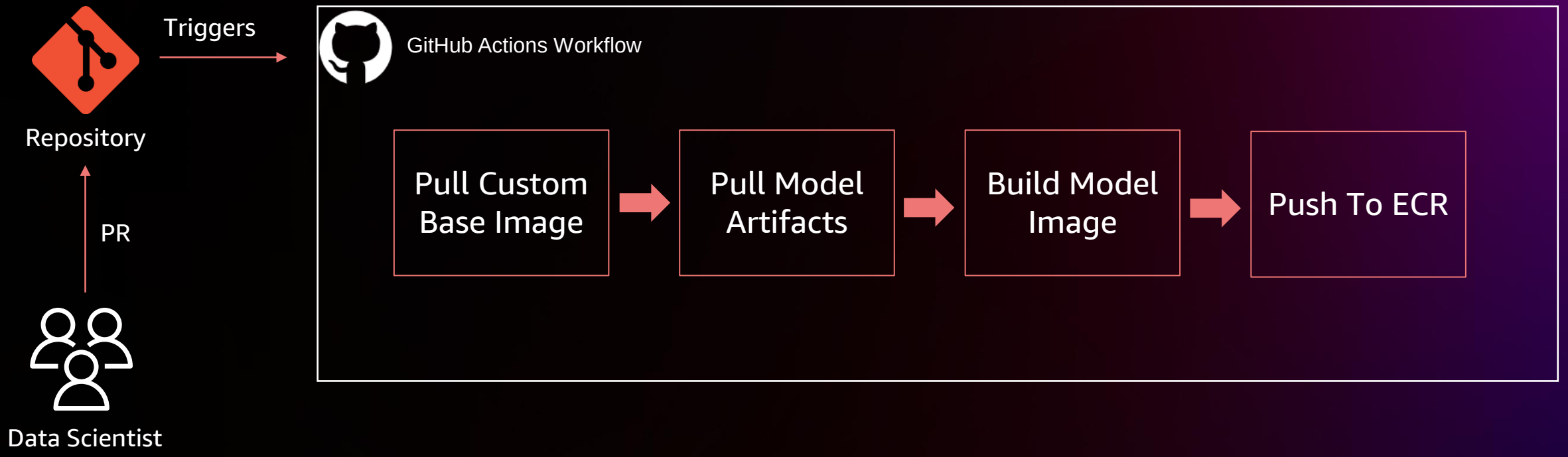
Building the container image



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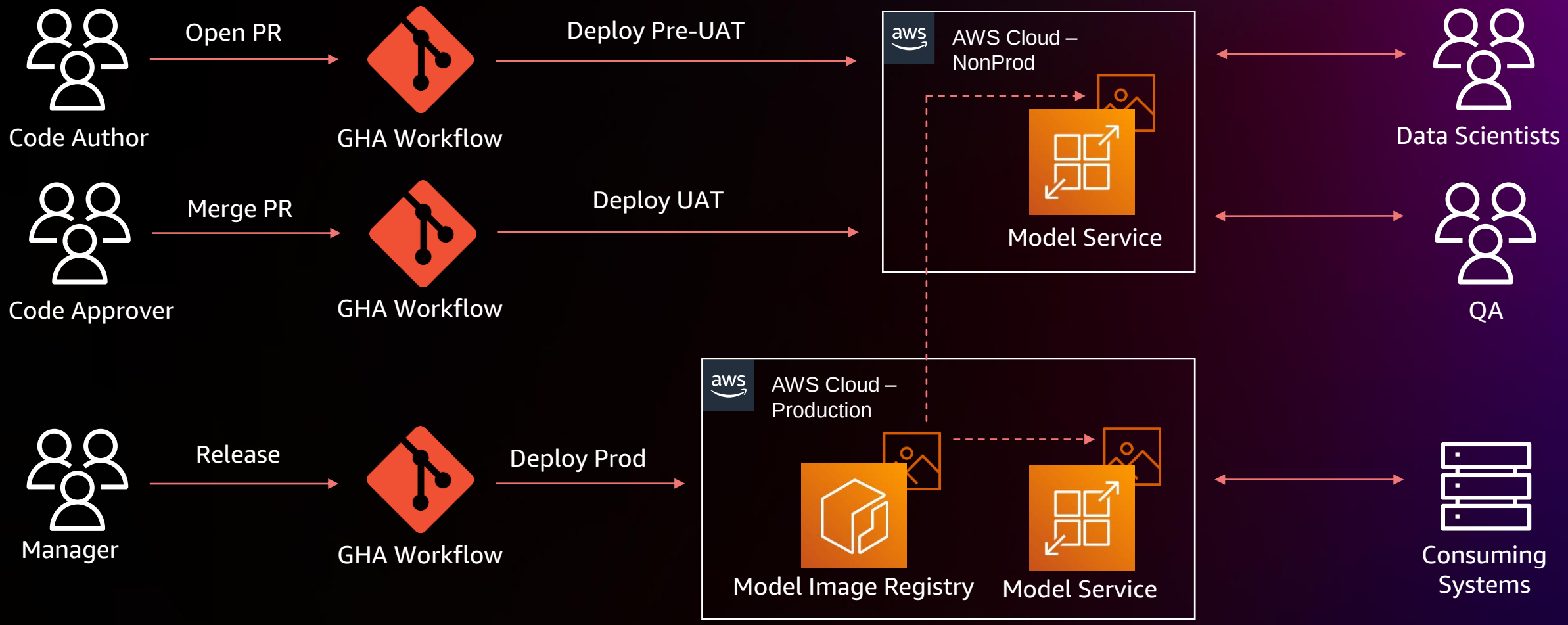
Path to production



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Extending *YOUR* first container to the cloud

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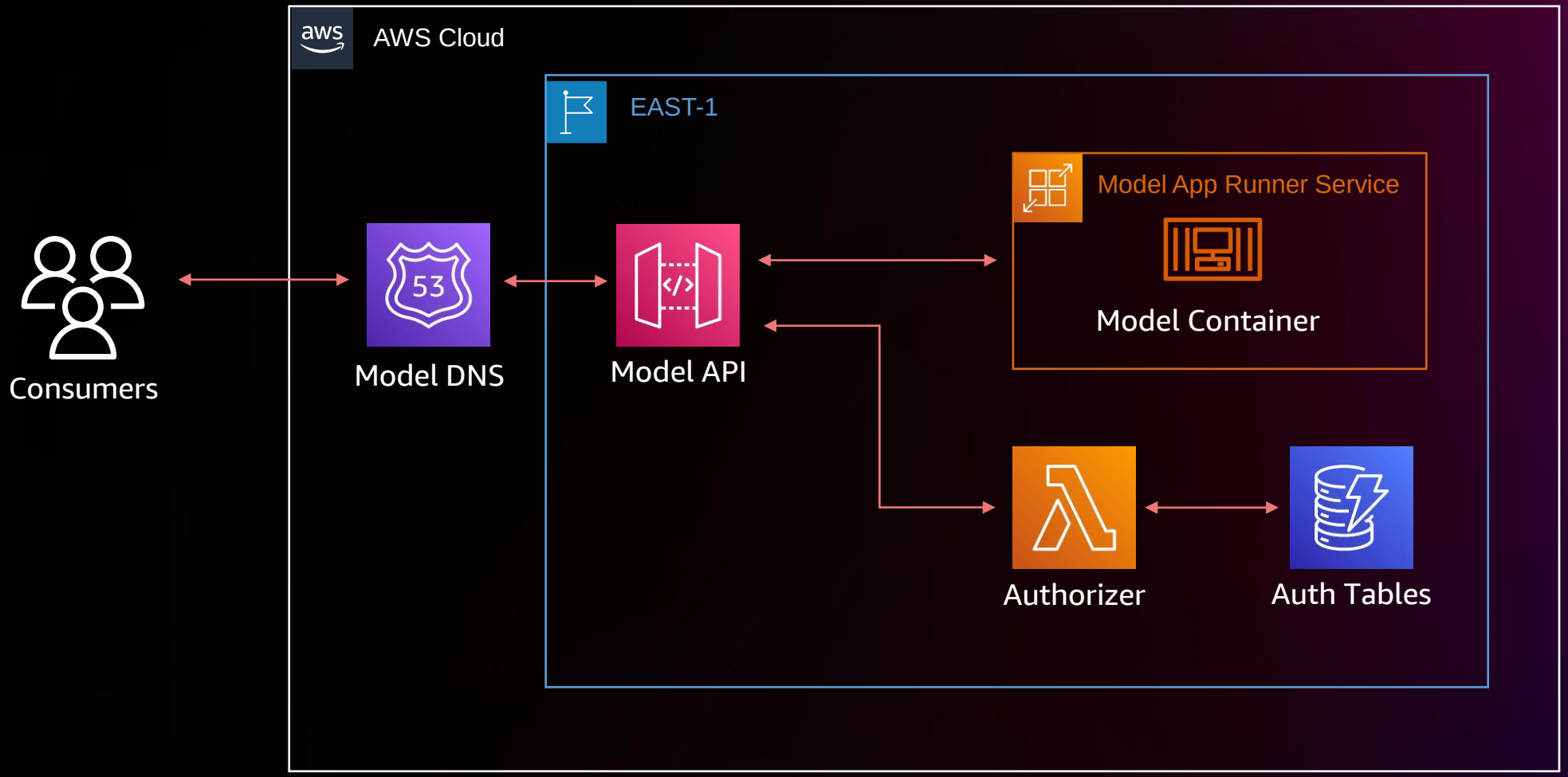
Amazon API Gateway integration



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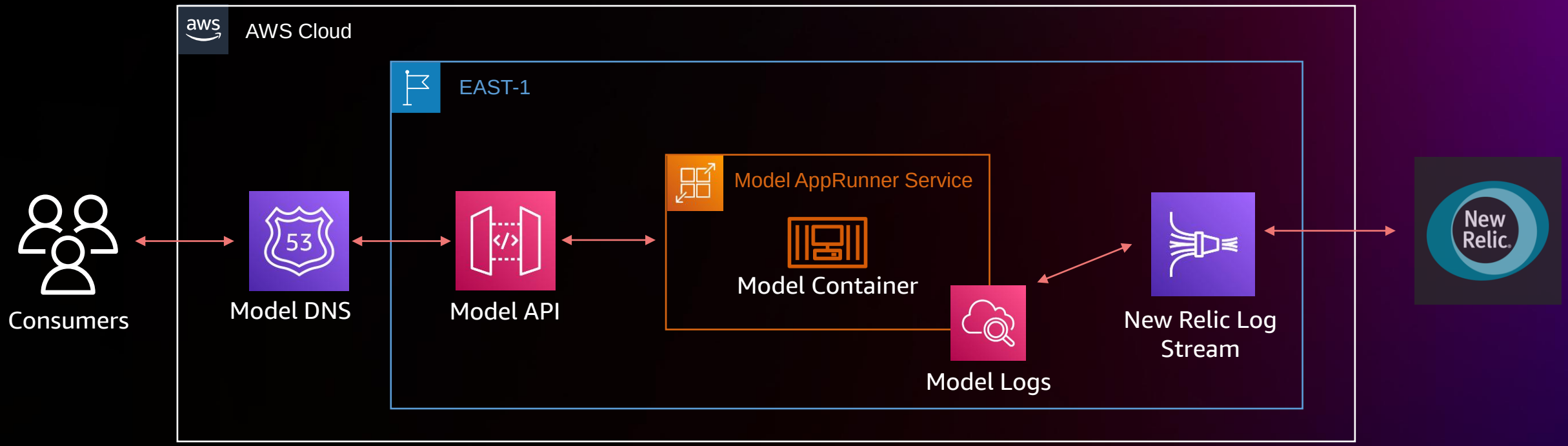
Integrating App Runner logging capabilities



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Opportunities for improvement

- AWS CloudFormation support
- Compute SKUs
- Steady-state optimization

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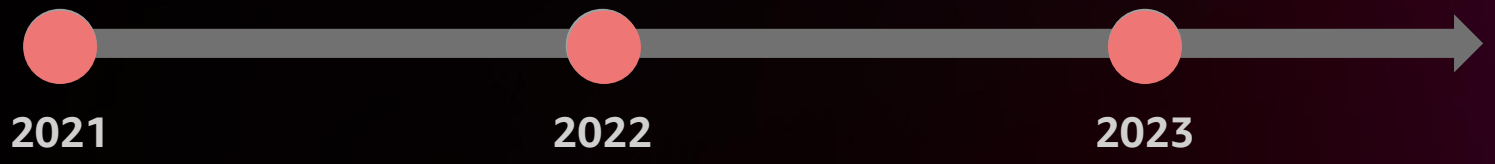
App Runner – Launch timeline



AWS App Runner launches in 2022
February – VPC Egress
February – Java run time and Node.js 14
March – FIPS endpoint support
April – AWS X-Ray integration
August – Support for alias records
September – Cross-Region ECR support
September – Node.js 16 runtime
October - Support for .NET core, PHP, Ruby, and Go
October – VPC Ingress (private services)

Please visit our GitHub roadmap to upvote:
https://github.com/aws/apprunner-roadmap/issues

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Want to learn more?

- CON406 – A close look at AWS Fargate and AWS App Runner
- CON305 – Deploy Node.js using App Runner for applications at scale
- CON408 – Deploying containerized applications in minutes with AWS App Runner

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Thank you!

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