
AWS
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EMB026

An introduction to Amazon ECS Anywhere

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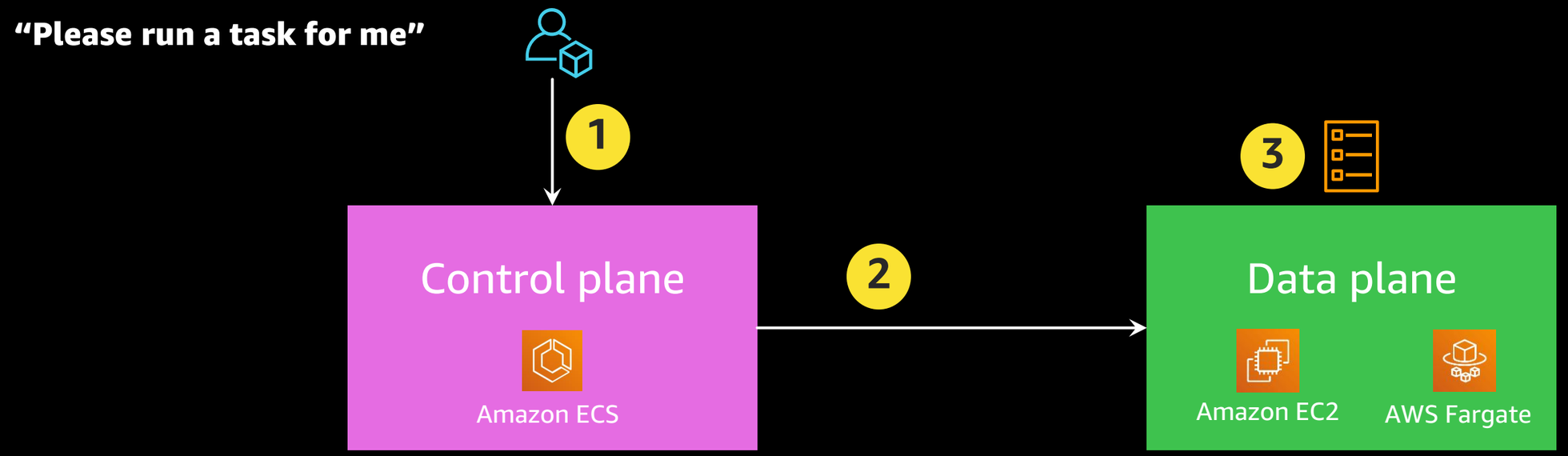
Principal Technologist

AWS

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The traditional Amazon ECS deployment flow



Amazon ECS delivers powerful simplicity



NoOps

Fully managed control plane

Native AWS integrations

Choice of serverless infrastructure or datacenter

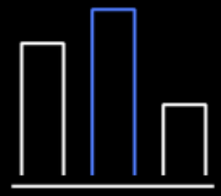


Developer-friendly

Application observability

Abundant partner ecosystem

Infrastructure as code with Copilot, AWS Cloud Development Kit (AWS CDK), and Docker



Enterprise-grade

Security and Compliance

Runs at Amazon scale

Cost management

Amazon ECS continues to grow



The Amazon ECS data plane expansion (over time)



Customers continue to innovate with Amazon ECS

Common questions we heard from customers

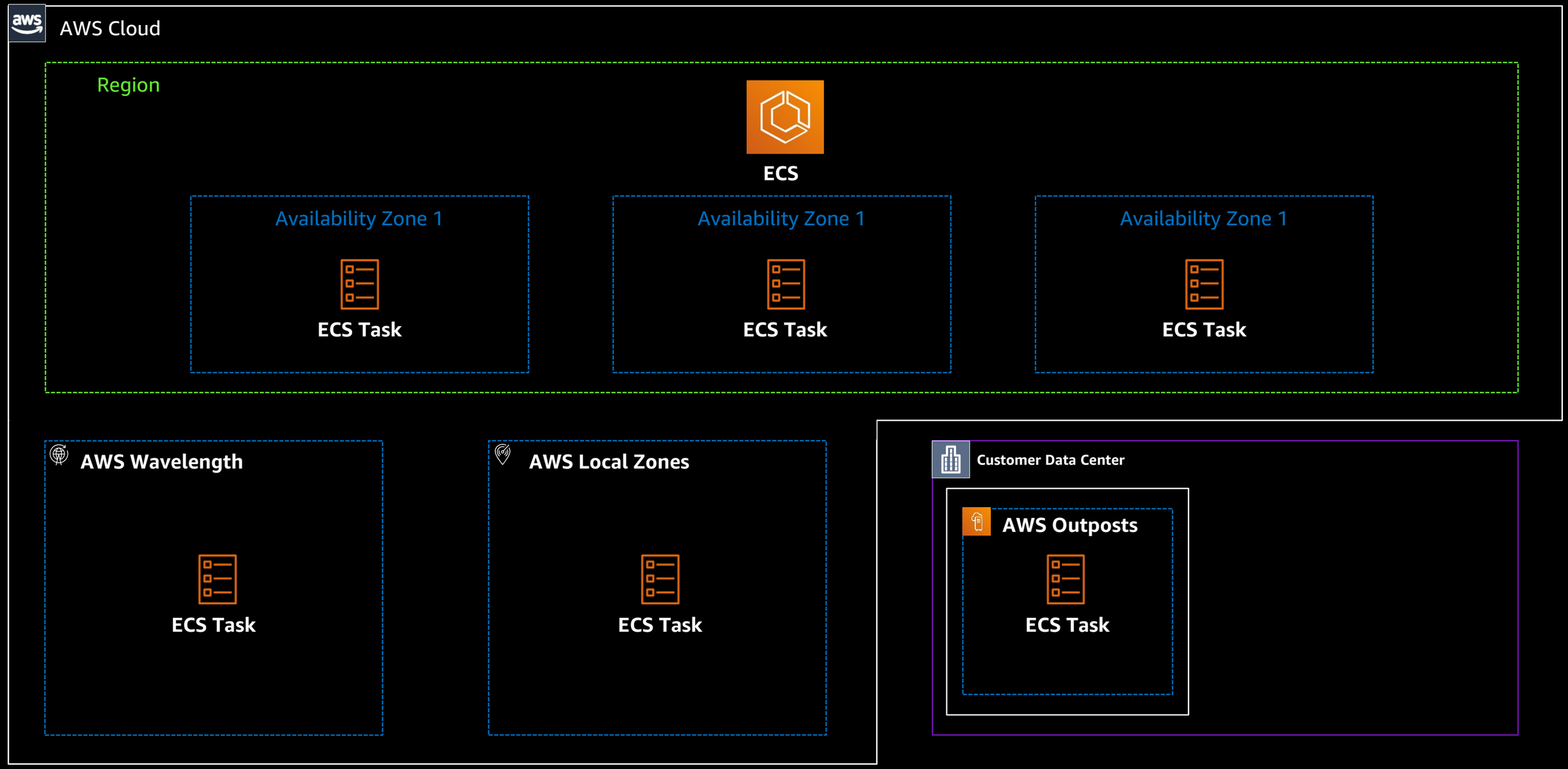


How can I reduce the latency when connecting to ECS applications?

How can I deploy ECS applications in my data center on an AWS managed infrastructure?

How can I deploy ECS applications that take advantage of 5G networks?

The Amazon ECS data plane expansion (over time)



Customer challenges and use cases

Single operational model

Users do not want to have separate operational models for cloud and on-prem when they are not yet all-in

Capex investment protection

Users may have made capital investments in their data center that they need to amortize before moving to the cloud

Compliance requirements

Users in specific regulated markets or industries may be forced to own a larger part of the infra operations and can’t yet use managed services

Data gravity and proximity

Users may need to have applications deployed close to the data for higher bandwidth and lower latency

Customers asked for even more options

Common questions we heard from customers

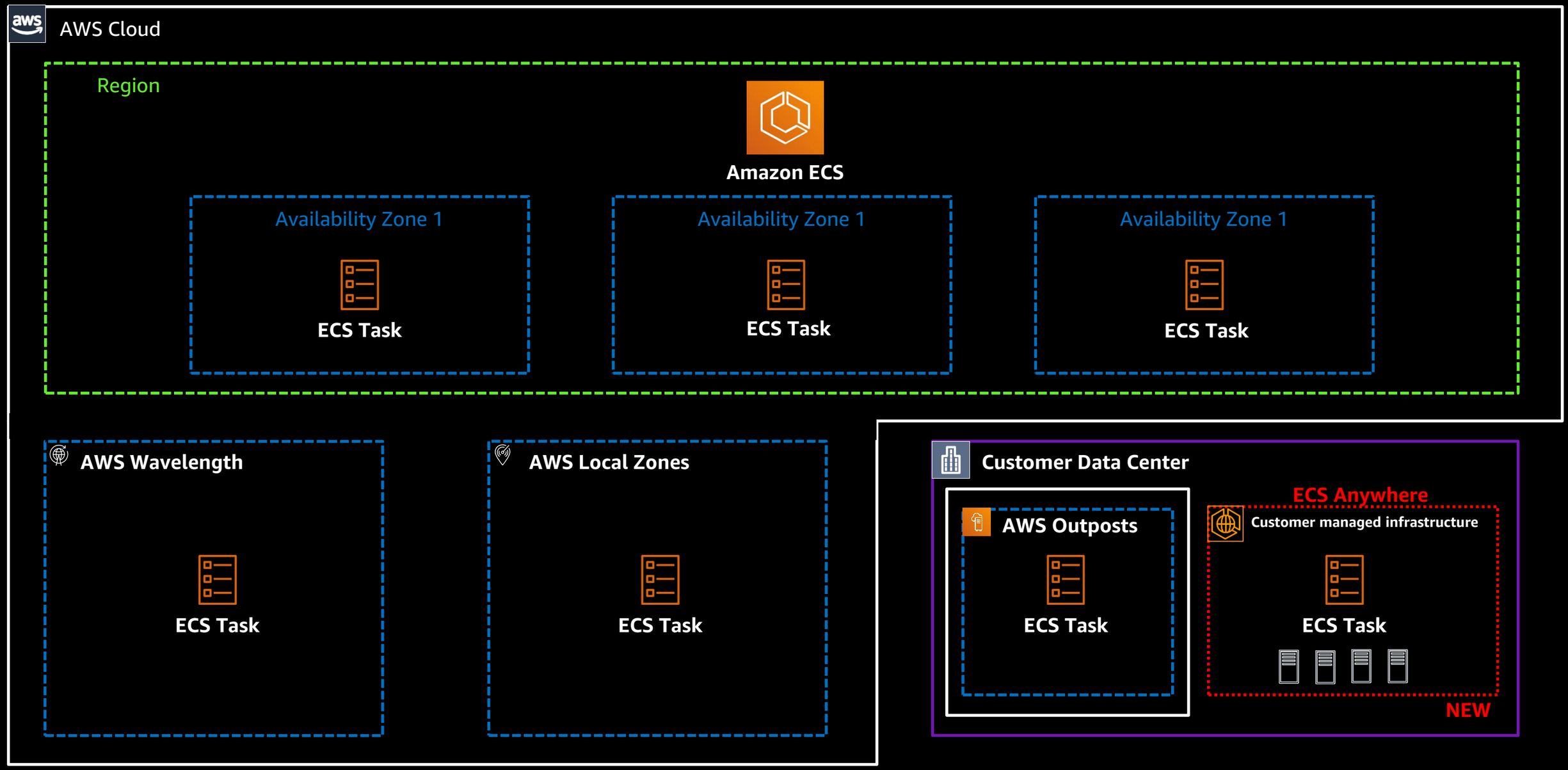


Can I use ECS with infrastructure that I own and manage for compliance reasons?

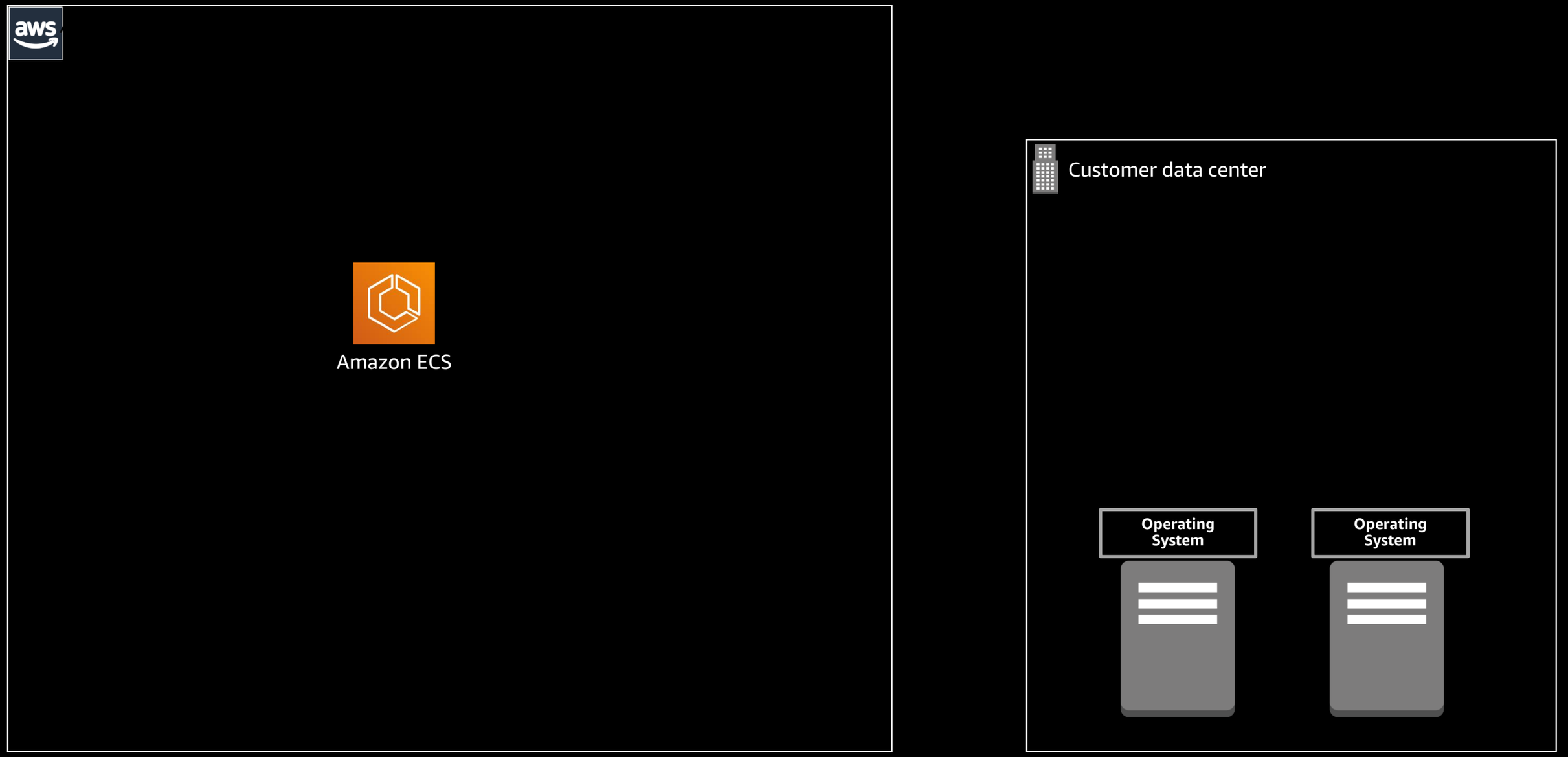
Can I leverage the simplicity of ECS while making use of existing capital investments?

Can I use ECS as a common tool to deploy “anywhere?”

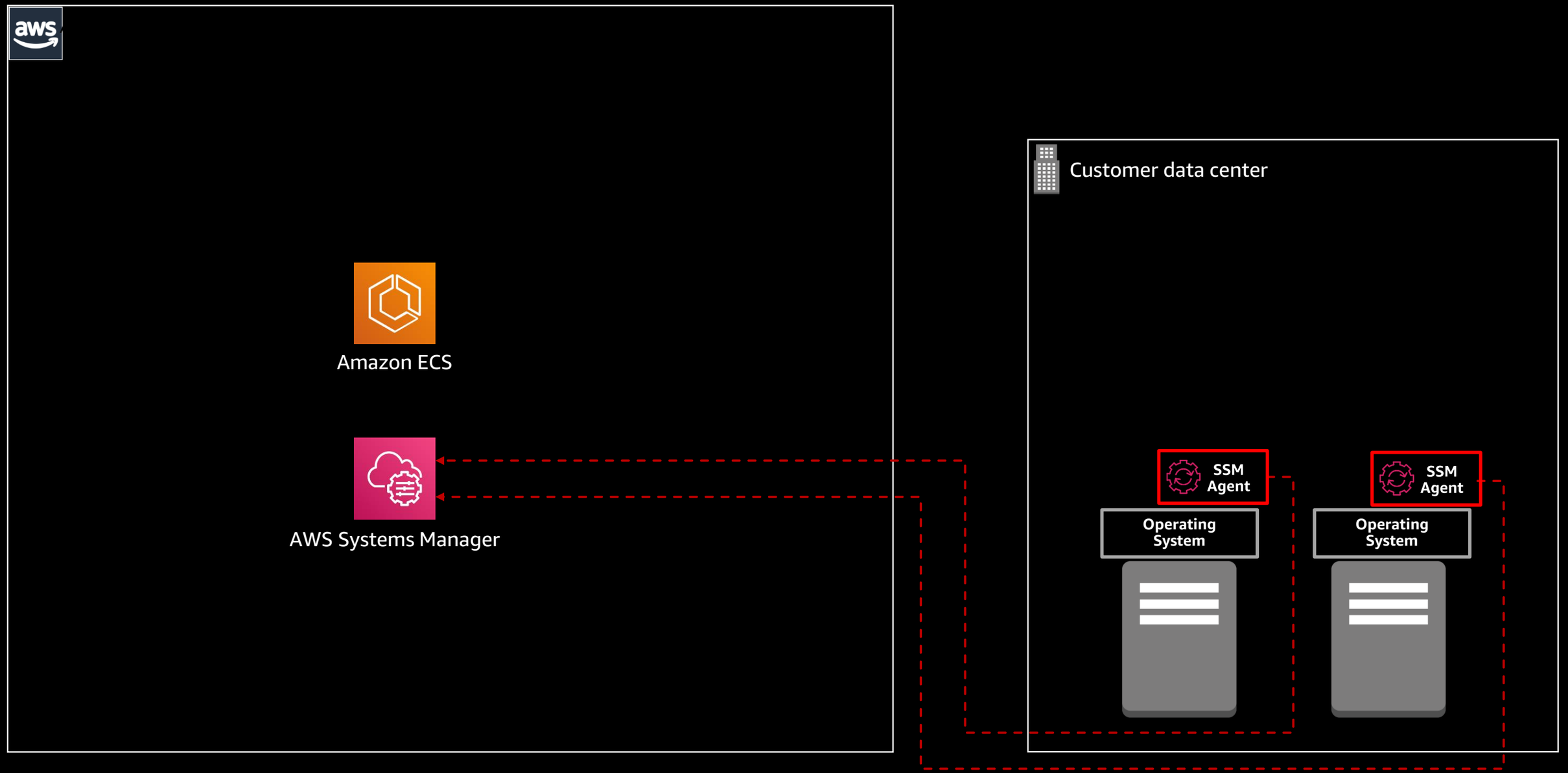
The Amazon ECS data plane expansion (over time)



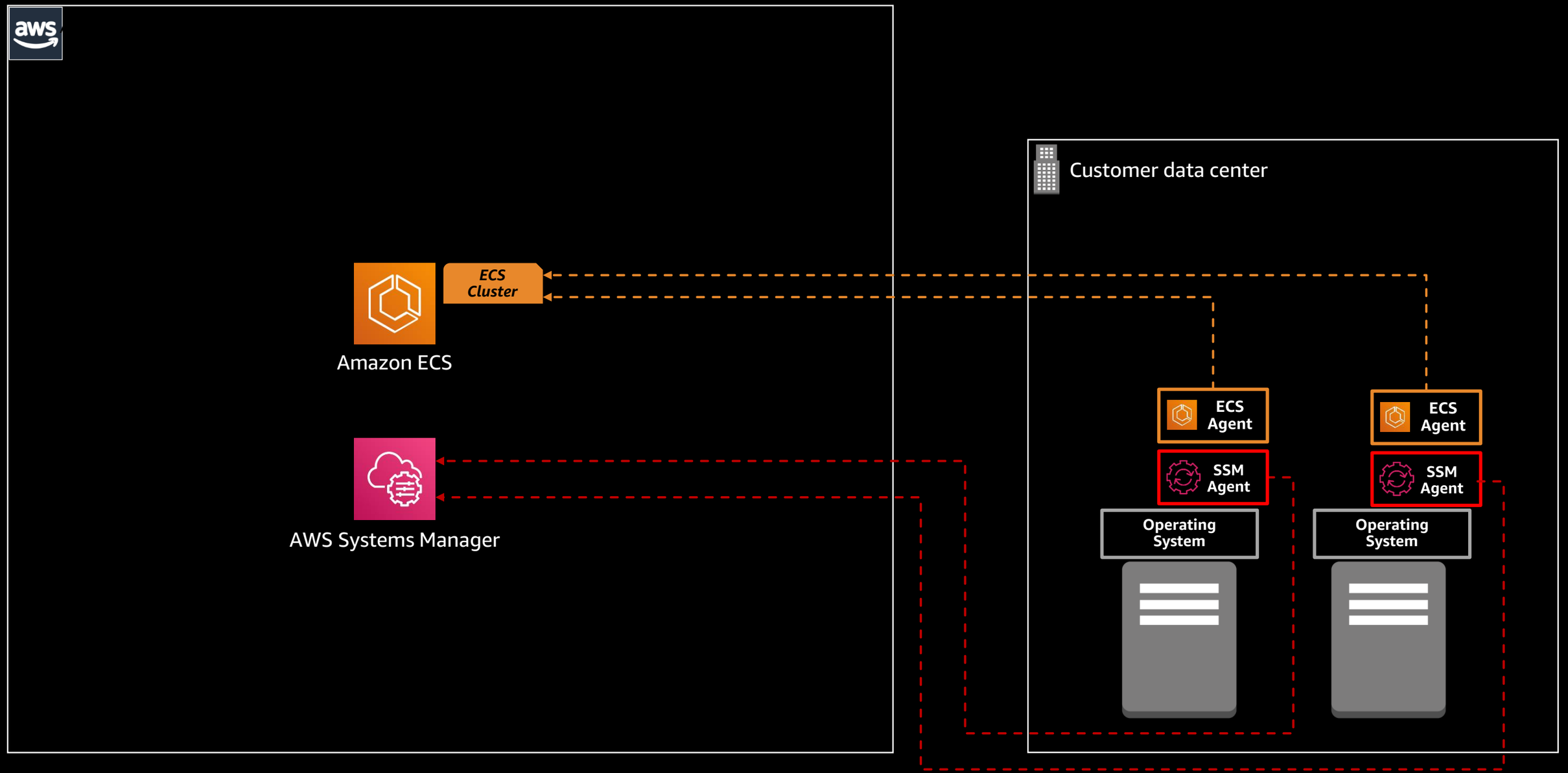
Amazon ECS Anywhere – how it works



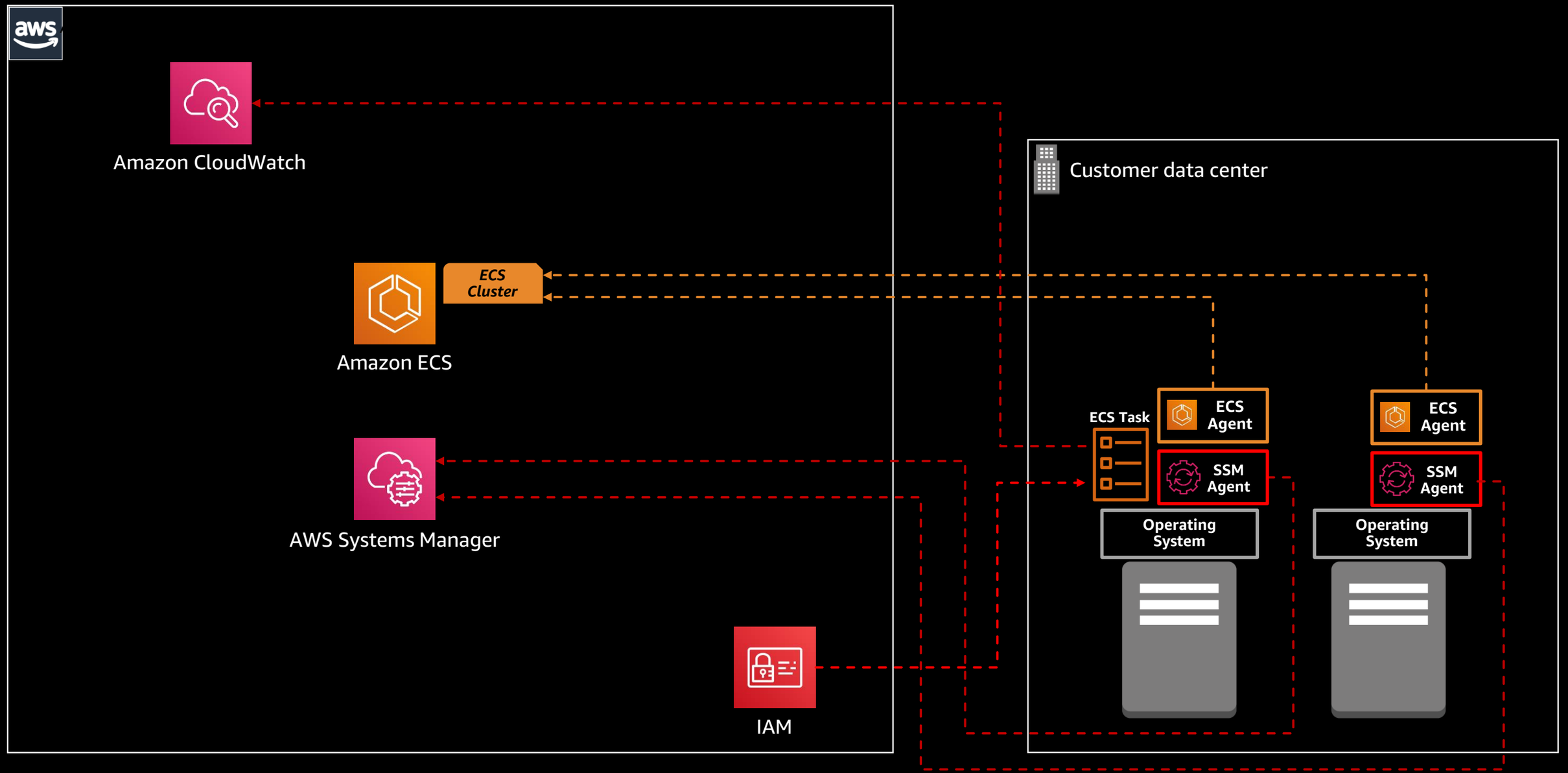
Amazon ECS Anywhere – how it works



Amazon ECS Anywhere – how it works



Amazon ECS Anywhere – how it works



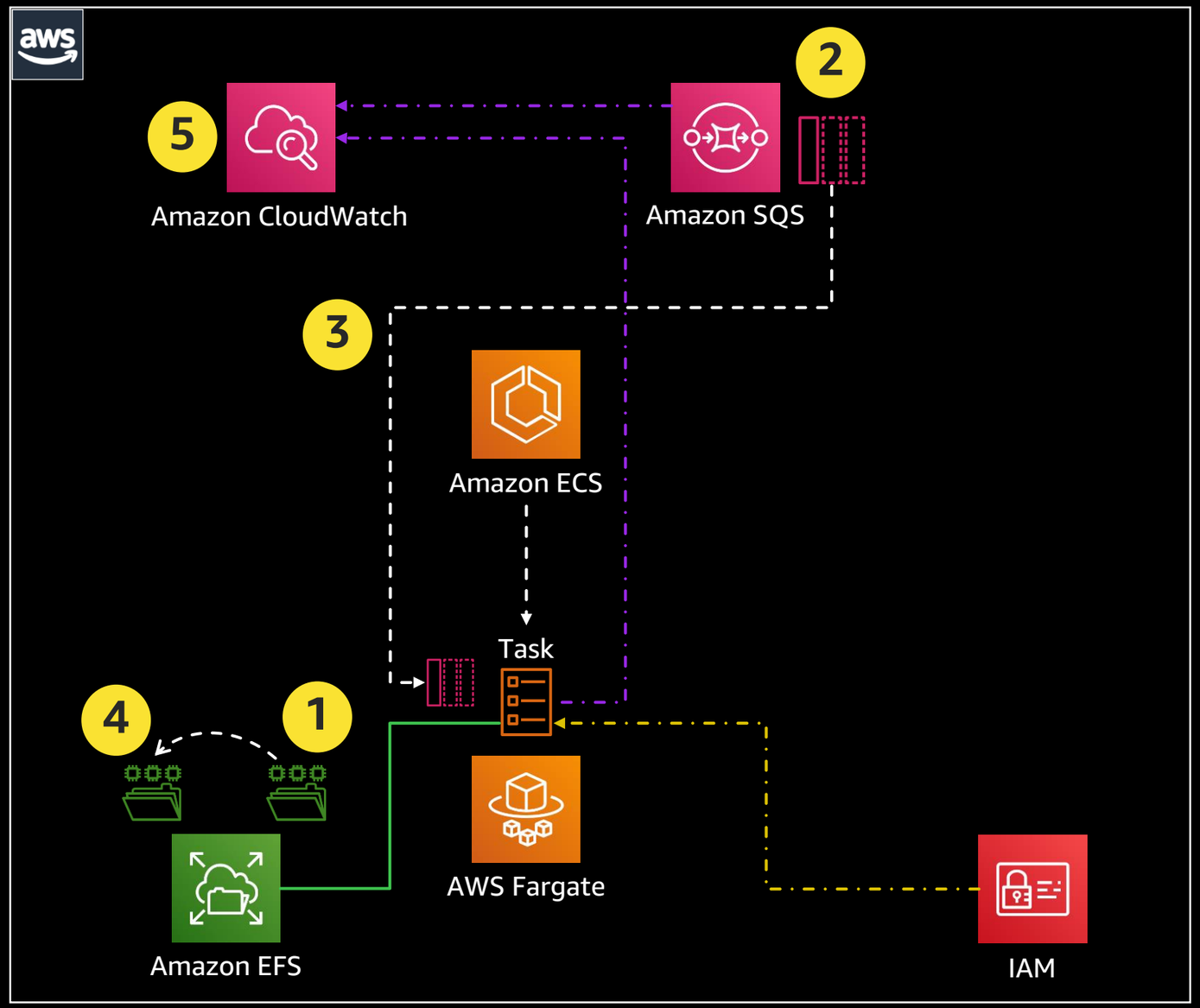
Key architectural tenets of Amazon ECS Anywhere *

- The ECS control plane remains in the AWS Cloud
  - To continue to benefit from a fully managed experience
- Only information for managing tasks is sent to the ECS control plane
  - This includes host health, container activity (launched, stopped), and container health checks (if configured)
- ECS Anywhere is infrastructure agnostic **
  - Works via compatible operating system on VM, bare metal, Raspberry Pi etc.
- In disconnected scenarios ECS Anywhere tasks will continue to run
  - Task updates and scaling operations or communication to other in-region services require cloud connectivity

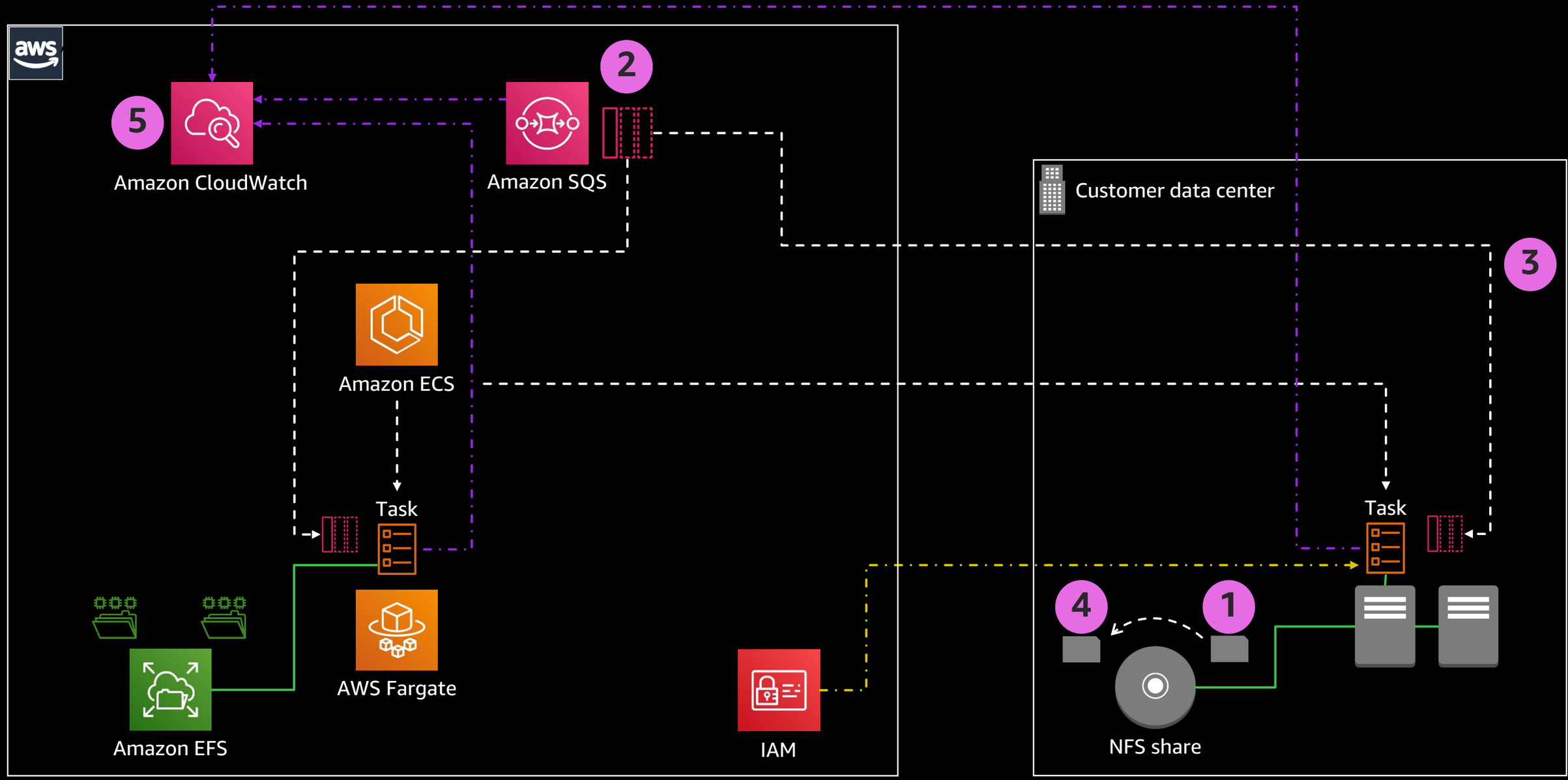
* These capabilities are currently in development and some of the details may change before we make them generally available next year

** Officially supported environments may be a subset of what the technology would technically permit due to other constraints

Amazon ECS Anywhere demo architecture



Amazon ECS Anywhere demo architecture



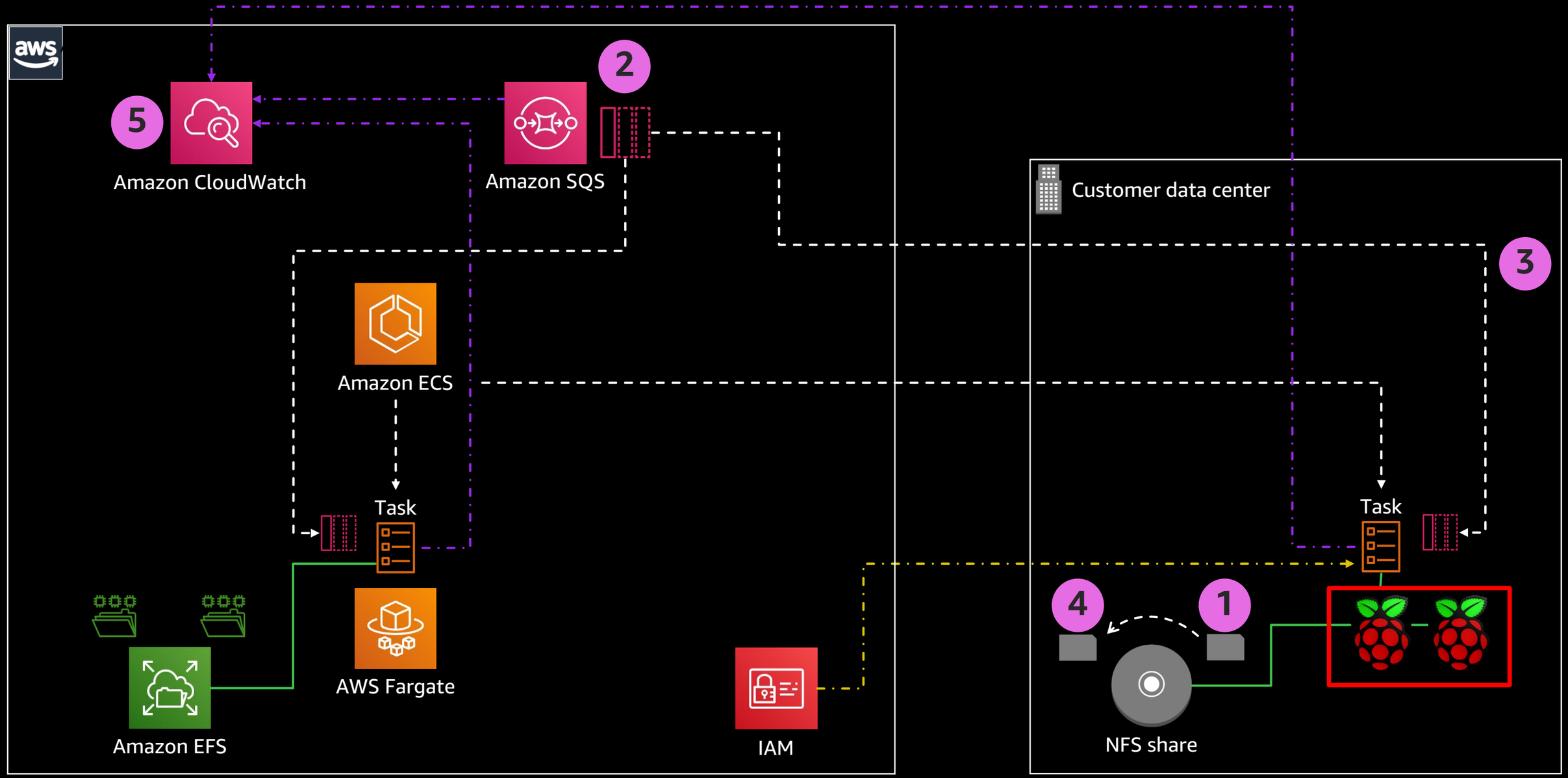
Demo



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Amazon ECS Anywhere demo architecture



My two Amazon ECS Anywhere hosts



Raspberry Pi 4 (connected via wireless)



Call to action: Stay tuned and explore more

- Subscribe to get updates on Amazon ECS Anywhere
  - https://pages.awscloud.com/AmazonECSAnywherePreview.html
- Check out the blog (which features an extended ECS Anywhere demo)
  - https://aws.amazon.com/blogs/containers/introducing-amazon-ecs-anywhere/

Thank you!

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