AWS re:Invent

MKT209-R

How to run third-party container products on Amazon EKS

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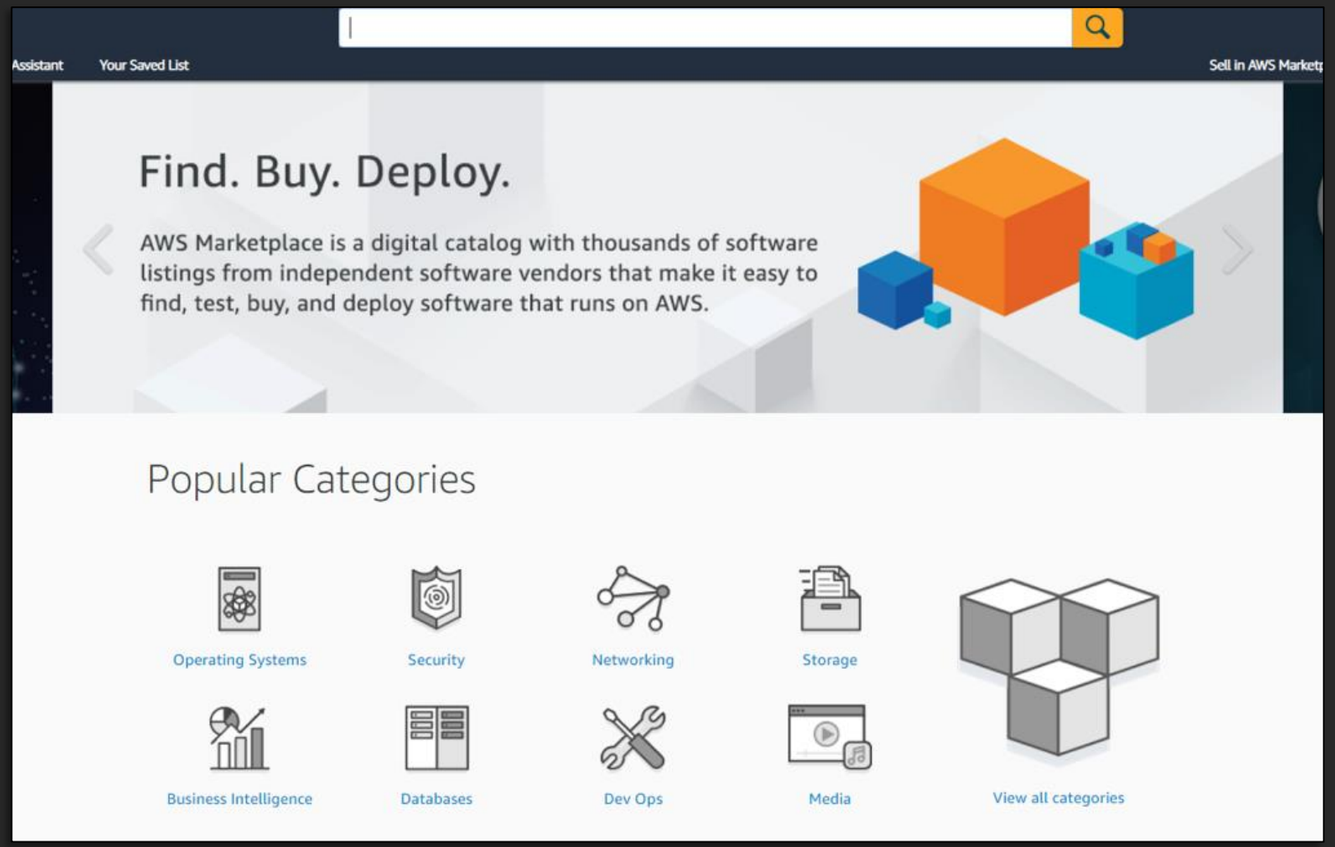
Agenda

- AWS Marketplace for Containers
- Quick Amazon Elastic Kubernetes Service (Amazon EKS) refresher
- Amazon EKS + IAM roles for service accounts
- Demo

A growing digital software catalog

aws marketplace

- Deploy software on demand
- **1,500+** ISVs
- Over **7,000** product listings
- **260,000** active customers
- **100,000** + active security subscriptions
- Over **850 million** hours of EC2 deployed monthly
- Deployed in **20 regions**
- Offers **39 categories**



- Flexible consumption and contract models
- Manage Software Entitlement
- Integrated with AWS cost optimization tools
- Secure deployment environment
- Manage procurement approvals and policies
- One consolidated bill: AWS and third-party spend
- Leverage AWS's pace of innovation

AWS Marketplace for Containers

Launched at AWS re:Invent 2018

Find, try, and buy container-based software for use with Amazon container services

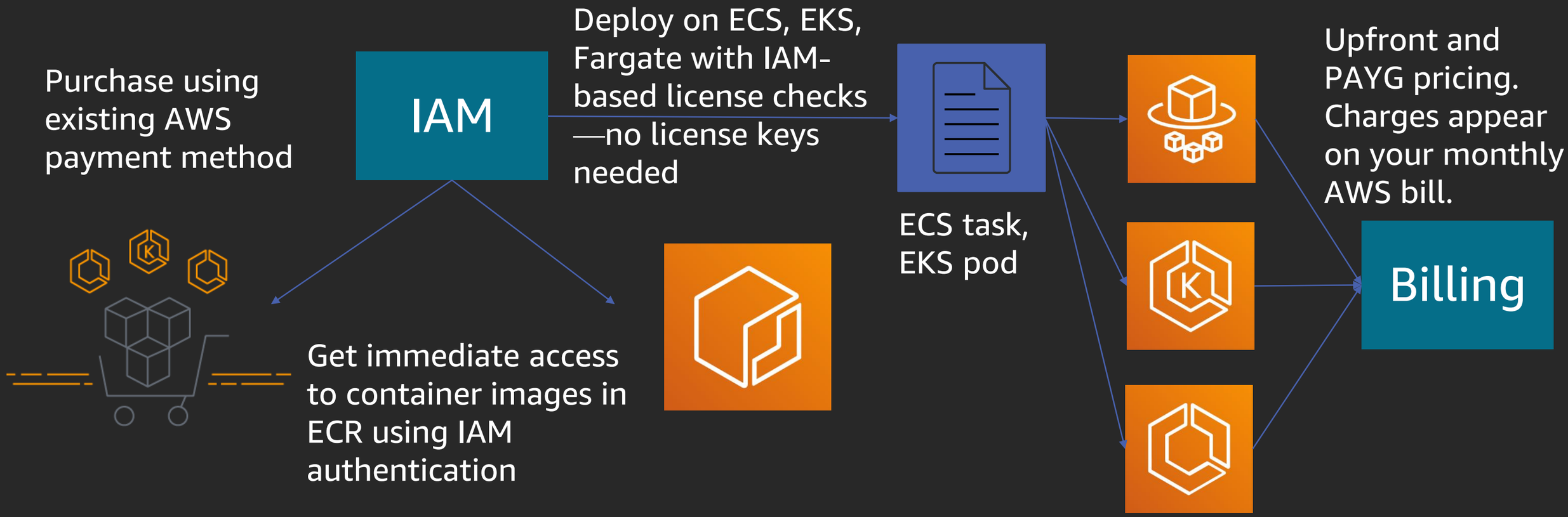
More than 200 curated and trusted container products in AWS Marketplace and AWS console

Container images are ingested, verified, and scanned from seller repositories

Deploy container products from Amazon ECR to Amazon ECS, AWS Fargate, or Amazon EKS

Products are available with free, bring-your-own-license, fixed monthly, and usage-based pricing models, including free trials

Buy and deploy containers faster and let AWS Marketplace handle software entitlement, metering, and billing



AWS Marketplace for Containers: Broad selection of sellers and products

Security and Networking

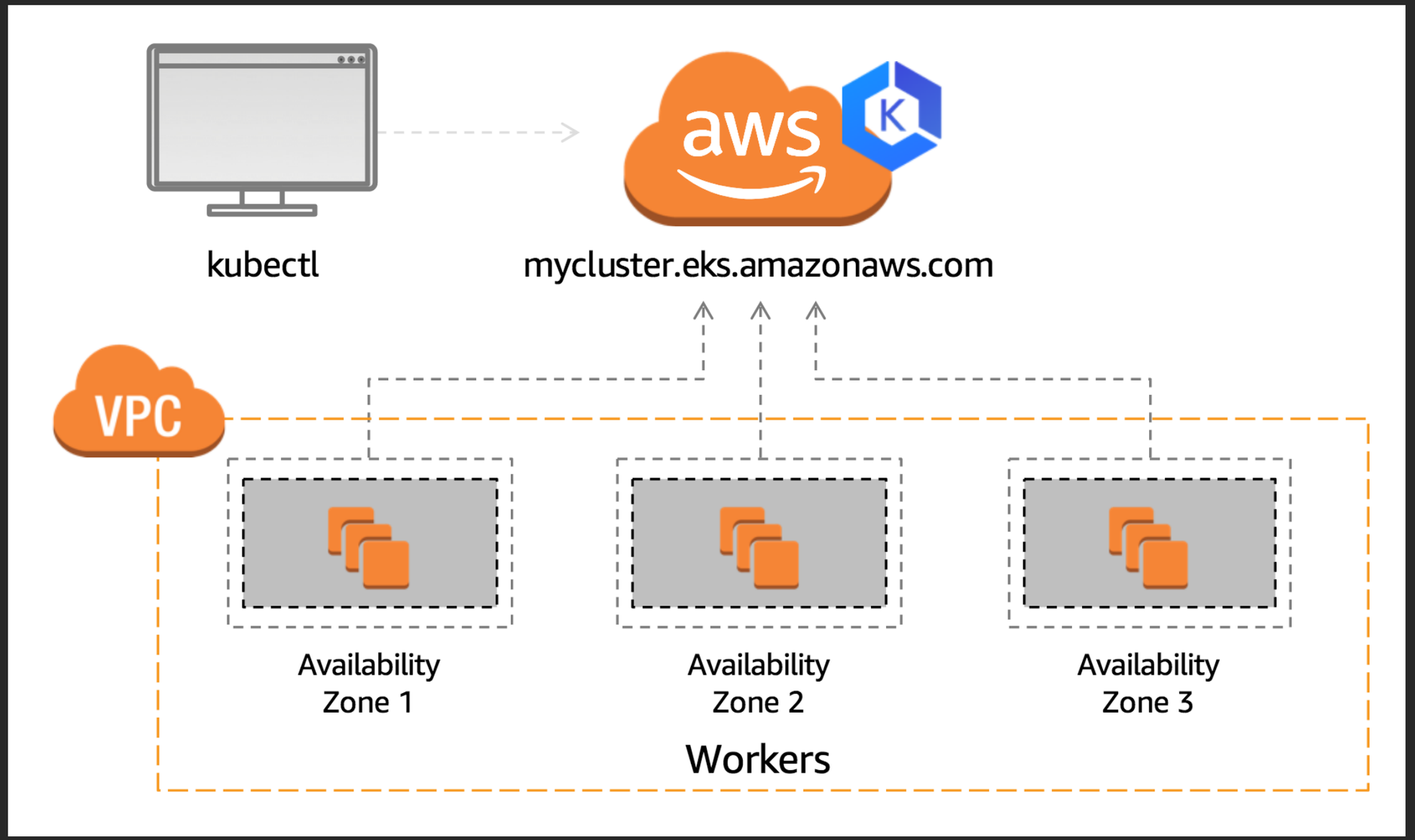
DevOps and Monitoring

Data and Bus. Apps

AWS Marketplace for Containers + Amazon EKS

- Launched Amazon EKS support for pay-as-you-go (PAYG) container products on 9/25/19
- PAYG container products enable customers to pay only for what they use, similar to AWS service consumption
- IAM roles for service accounts is a dependency to run PAYG container products on Amazon EKS

Amazon EKS overview



Amazon EKS + IAM roles for service accounts

- Launched Sept. 2019
- Pod- vs. node-level scoped IAM permissions
- Pods first-class IAM citizen
- Benefits:
  - Least privilege
  - Credential isolation
  - Auditability

Demo

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Demo

https://github.com/kqazi/mp-eks-demo

Q&A

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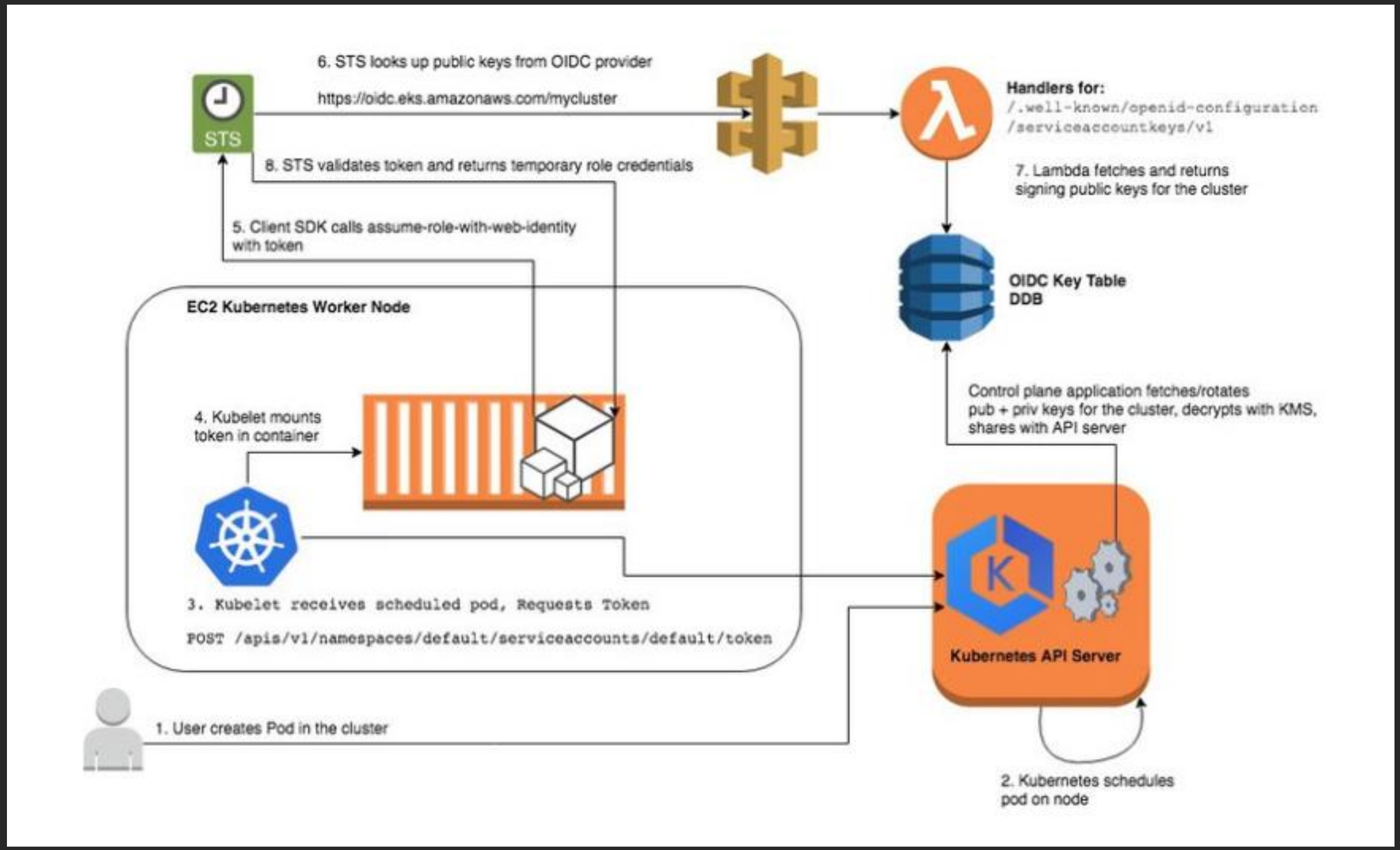
IAM roles for service accounts system topology



Configuring Amazon EKS to run PAYG container products

1. Configure IAM roles for pods: Create an EKS cluster with `eksctl` and OIDC provider setup enabled. IAM roles for service accounts works with EKS clusters >=1.13.
2. Create IAM role: Configure an IAM role that permits `RegisterUsage` to be called from the PAYG container product
3. Configure Kubernetes service account: After you create the IAM role, you need to configure the Kubernetes service account to use the IAM role
4. Annotate pods: Finally, you'll annotate the paid containers for your pods by using the service account created in the previous step and assume the IAM role

Thank you!

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