Christoph Neijenhuis

Escape the Lock-In
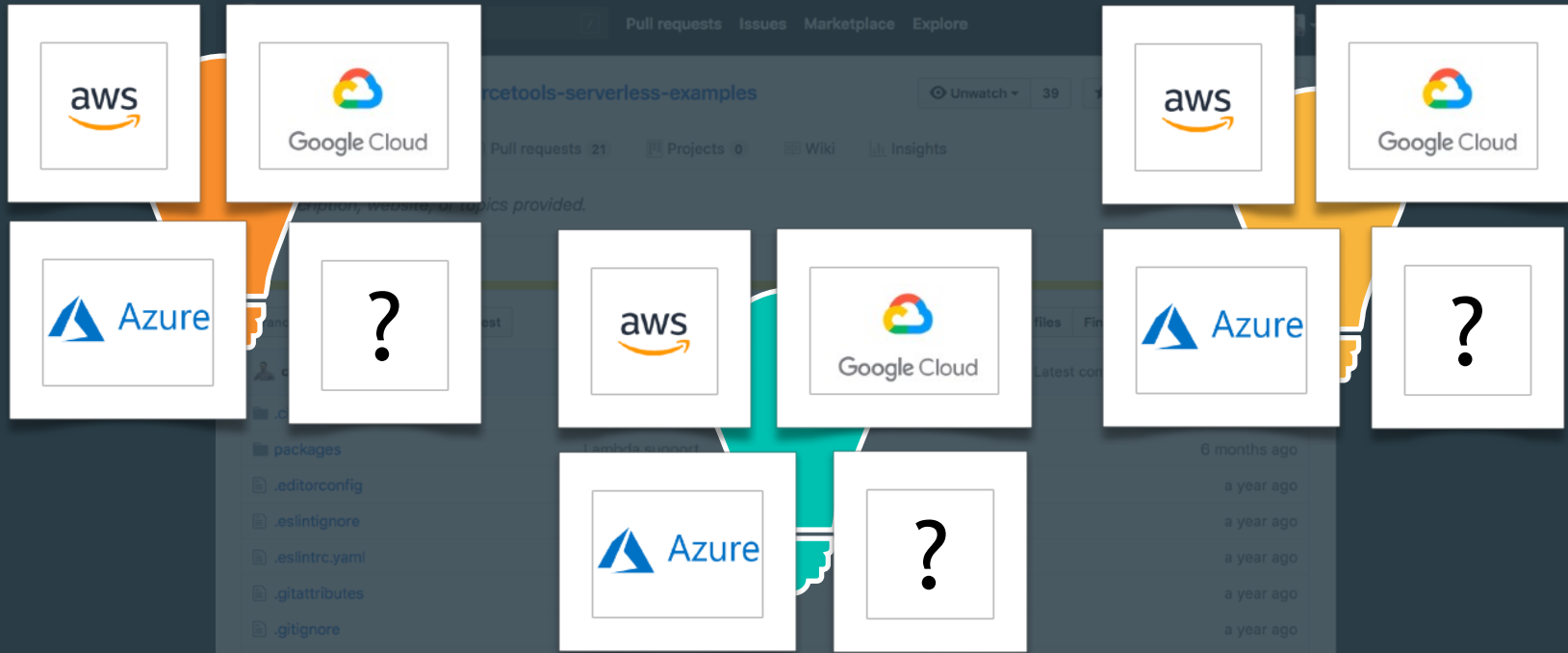
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aws

Google Cloud

Azure

Iron.io

cloudevents
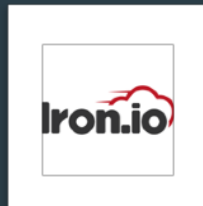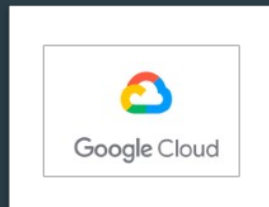
Serverless Workgroup

Cloud Native Computing Foundation

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Code examples are great to get started

Business logic

Cloud integration

Live Demo

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Place an order

Detect fraud

AWS: SNS + Lambda
Azure: ServiceBus + Azure Function
Google: Pub/Sub + GC Function

AWS: Lambda
Azure: Azure Function
Google: GC Function

Add insurance

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6
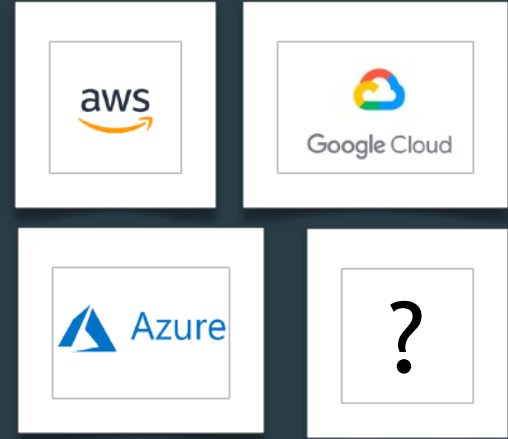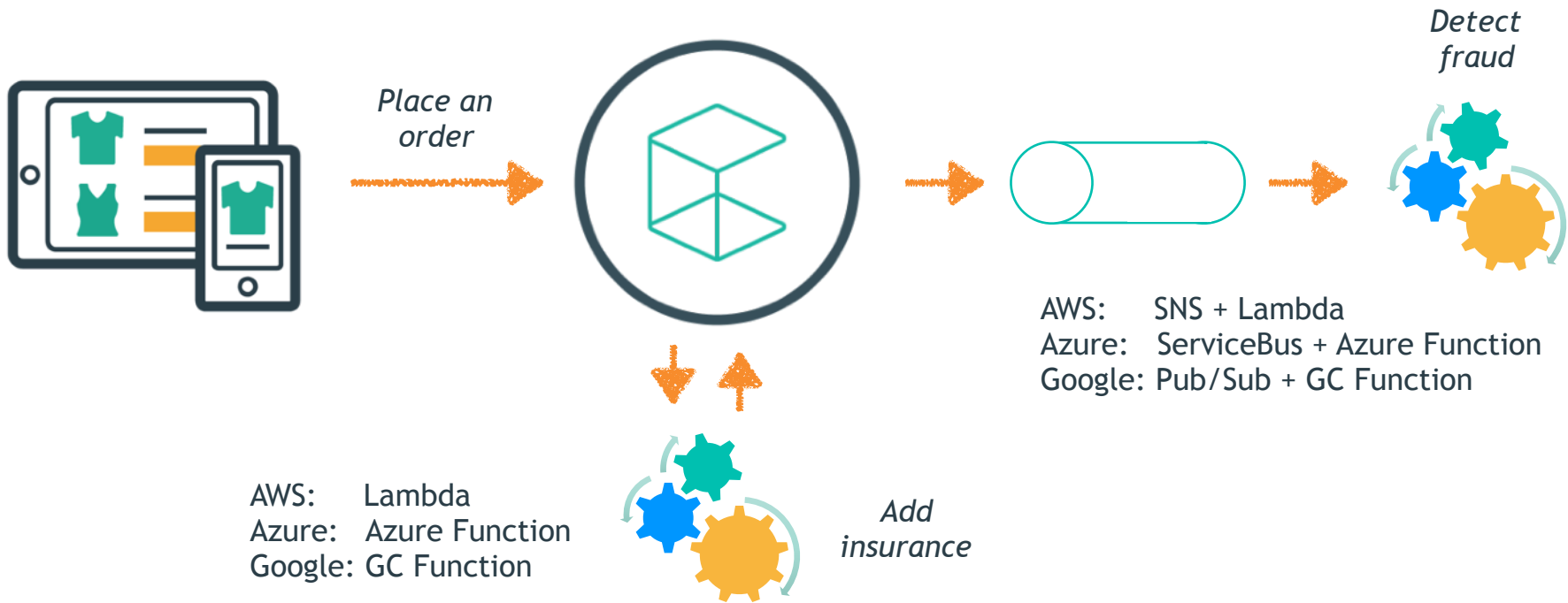
Summary Live Demo

- Functions from AWS, Azure and GCP share same fundamental concepts
    - Responds to synchronous events, such as HTTP requests
    - Responds to asynchronous events, from Message Queues
- The proprietary APIs are quite different
- A unified API can be established, and adapters be written for each FaaS
    - The unified API can be specific to your use case
    - You could also use a standardised API (e.g. express.js)

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Definition Lock-In:

No proprietary code

Definition Lock-In:

work to migrate >> work you're able to afford

FaaS ✓

Message Queue ✓

Programming Language

-In:

Pub/Sub

Blob Storage

Database

...

Key/Value Store

Machine Learning APIs

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Can an adapter be written for a given product?

- Conceptually simple
- Feature set is similar across different products, or you limit yourself to common feature set

- Examples:
  - Blob storage
  - Key/Value store

- Conceptually complex product with lots of features
- New, innovative product
  - No comparable product available

- Examples:
  - API Gateways
  - Function Orchestration
  - AI/ML products
  - Advanced database features

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Pick products that are generally available

- Cloud vendors offer some popular open source products
  - MySQL, Postgres

- Most open source vendors offer their products managed, on multiple clouds
  - MongoDB - AWS, Azure, Google Cloud
  - Elastic search - AWS, Google Cloud

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Conclusion

- You're truly locked-in if the work to migrate is unaffordable
  - Some work is to be expected
  - The goal is to keep the work small

- FaaS share the same underlying concepts
  - If you stick to a common feature set, it's possible to write functions that run on AWS, Azure and Google Cloud

- Products besides the FaaS are more likely to lock you in
  - Use Open-Source products, use standardised products

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We're hiring!

Thank you!

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