



# The Startup Builders:

## Ep1: Scaling with Serverless

1st episode of three-part webinar series

Bob Gregory, Chief Architect, Cazoo

Rob De Feo, Startup Advocate, AWS



# aws Speakers

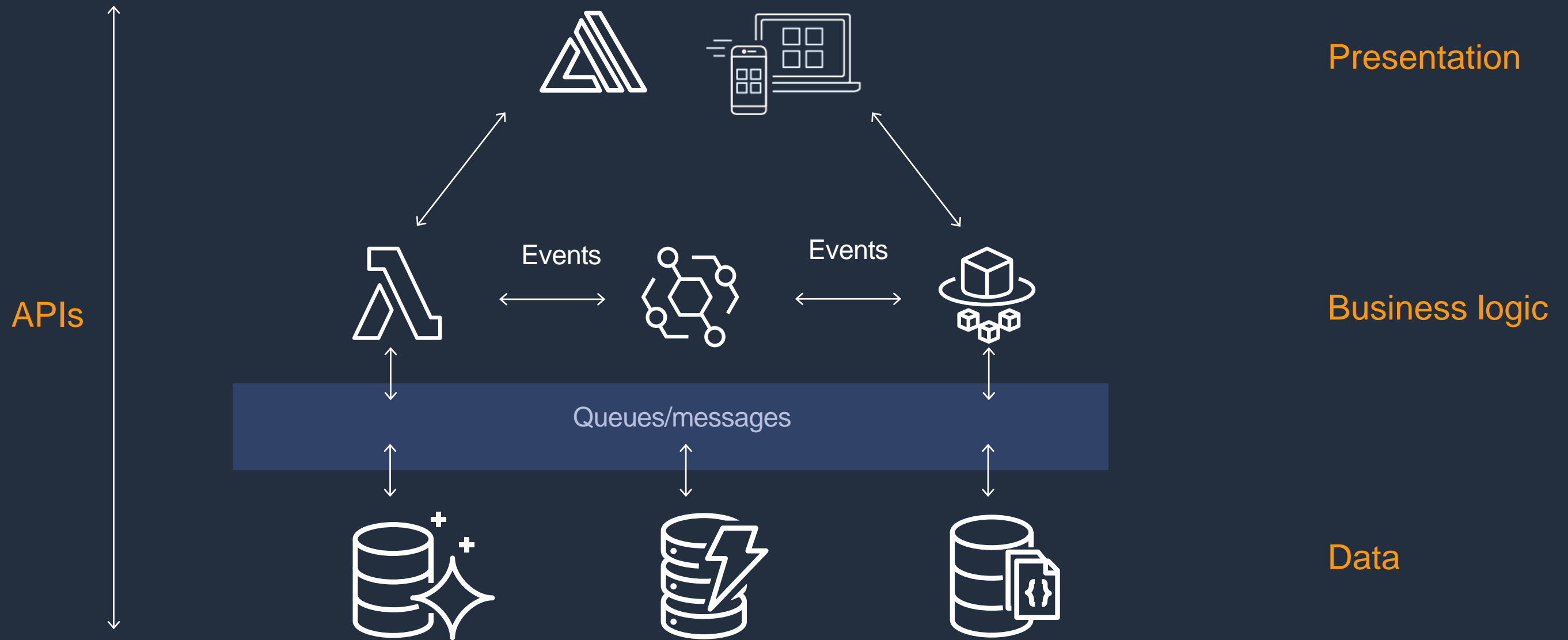


Bob Gregory,  
Chief Architect, Cazoo

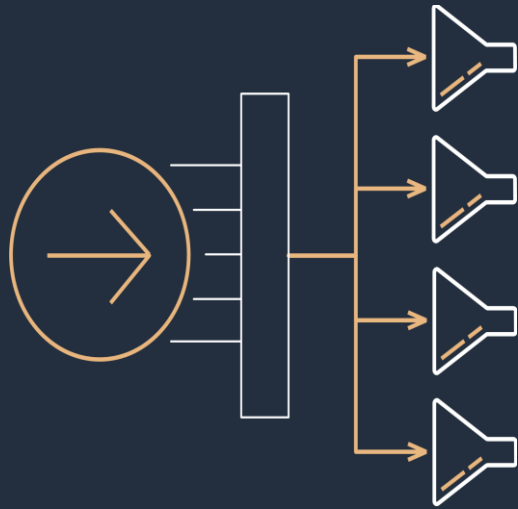


Rob De Feo,  
Startup Advocate, AWS  
[StartupEngineering.co](https://StartupEngineering.co)

# A modern three-tier application architecture



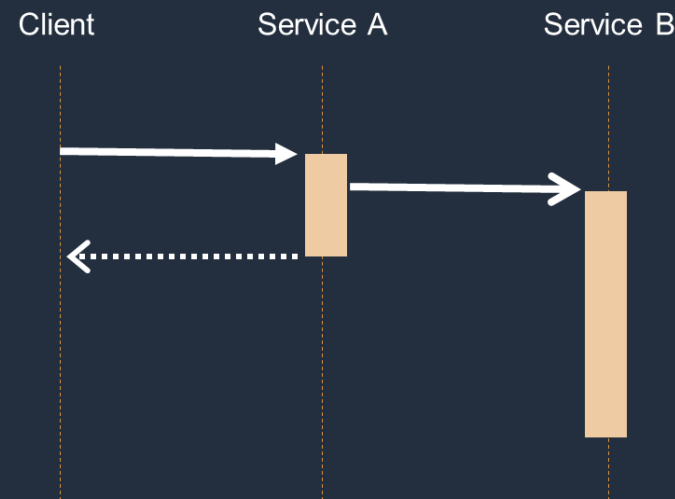
# Event-driven architectures drive reliability and scalability



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Event Routers

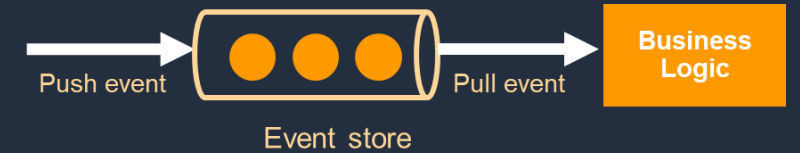
Abstract producers and consumers from each other



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Asynchronous Events

Improve responsiveness and reduce dependencies

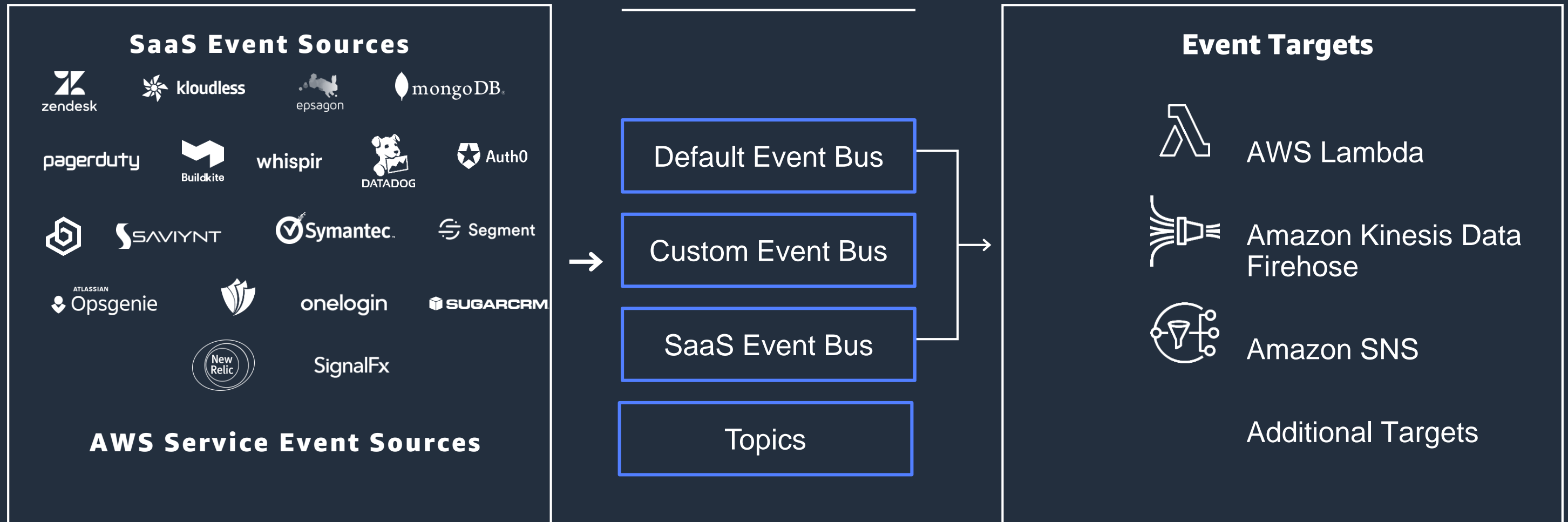


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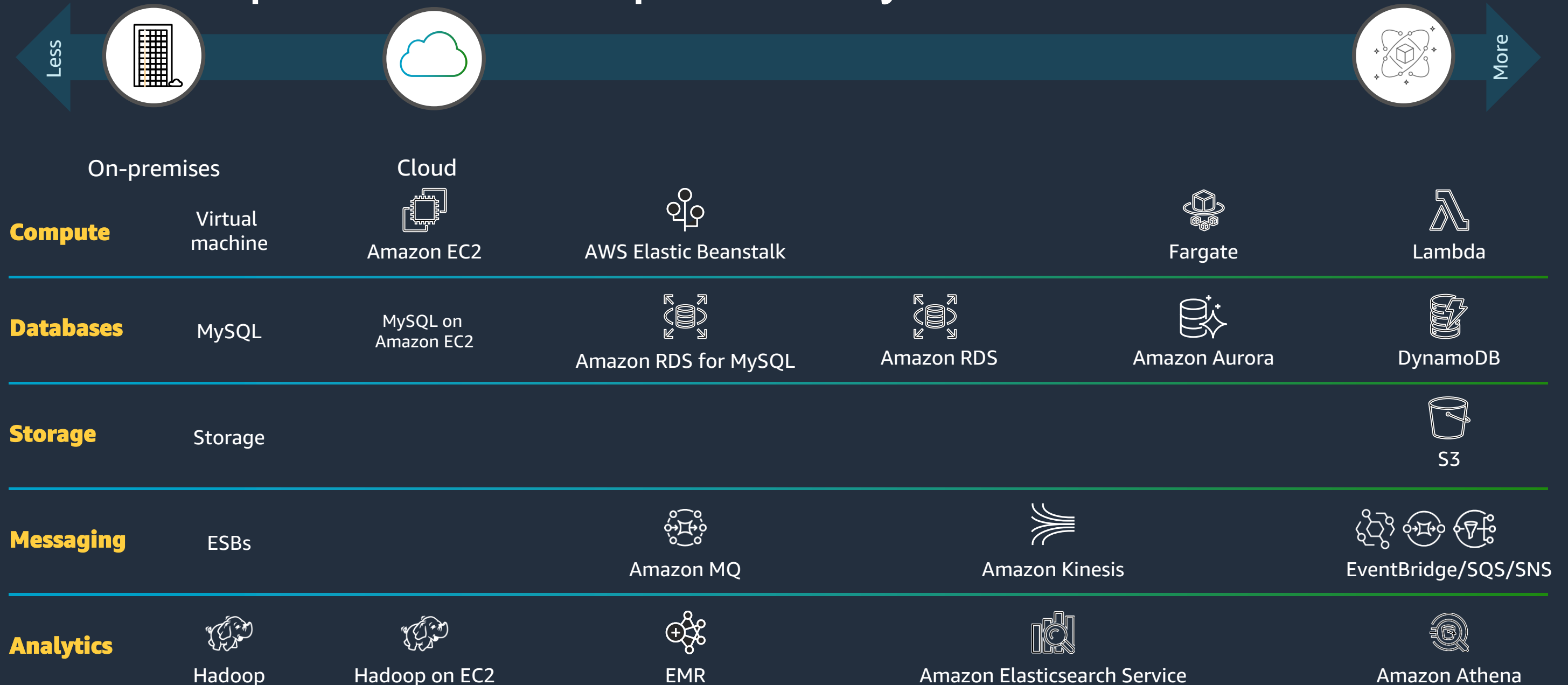
Event Stores

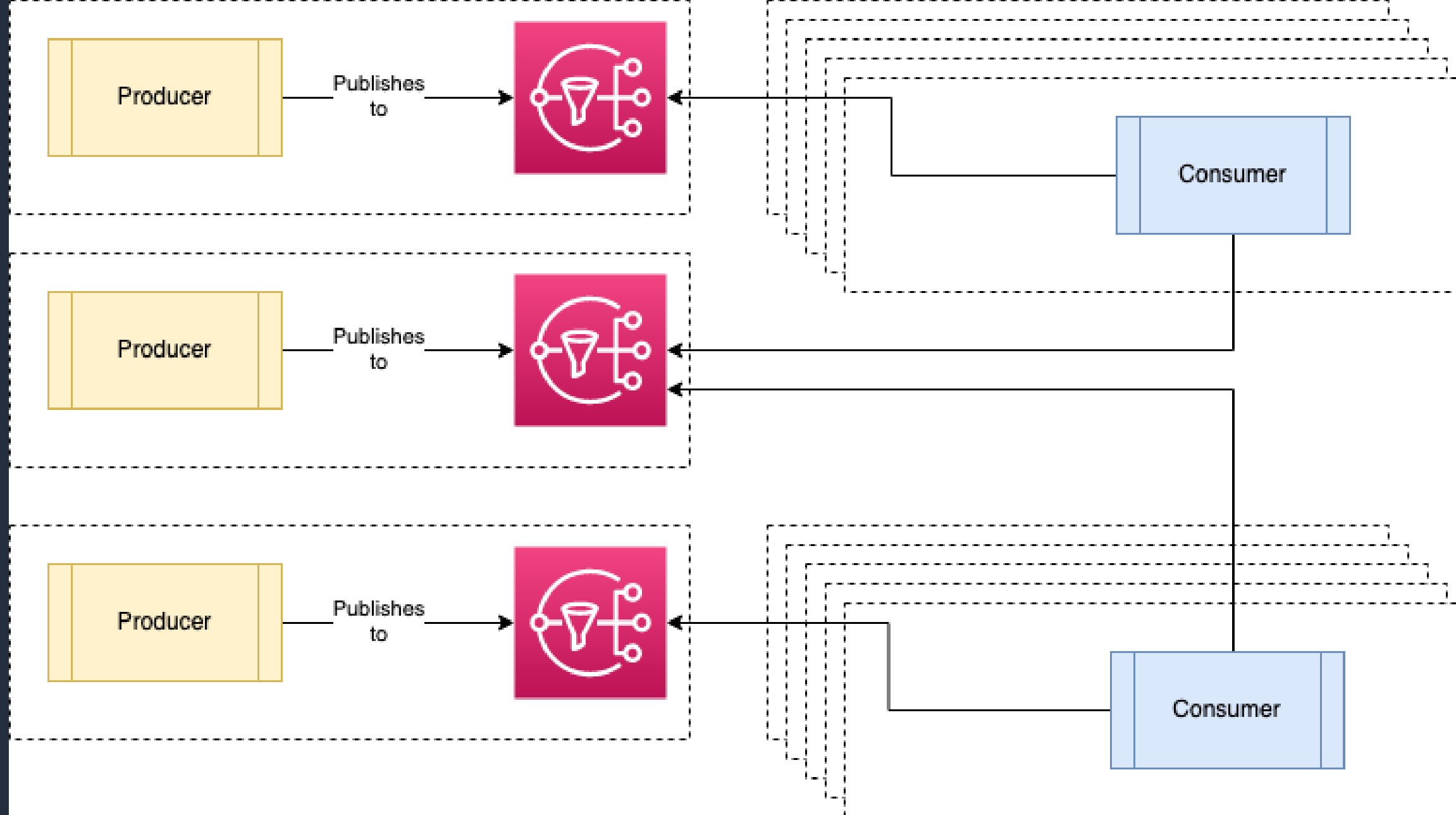
Buffer messages until services are available to process

# SaaS Event Sources

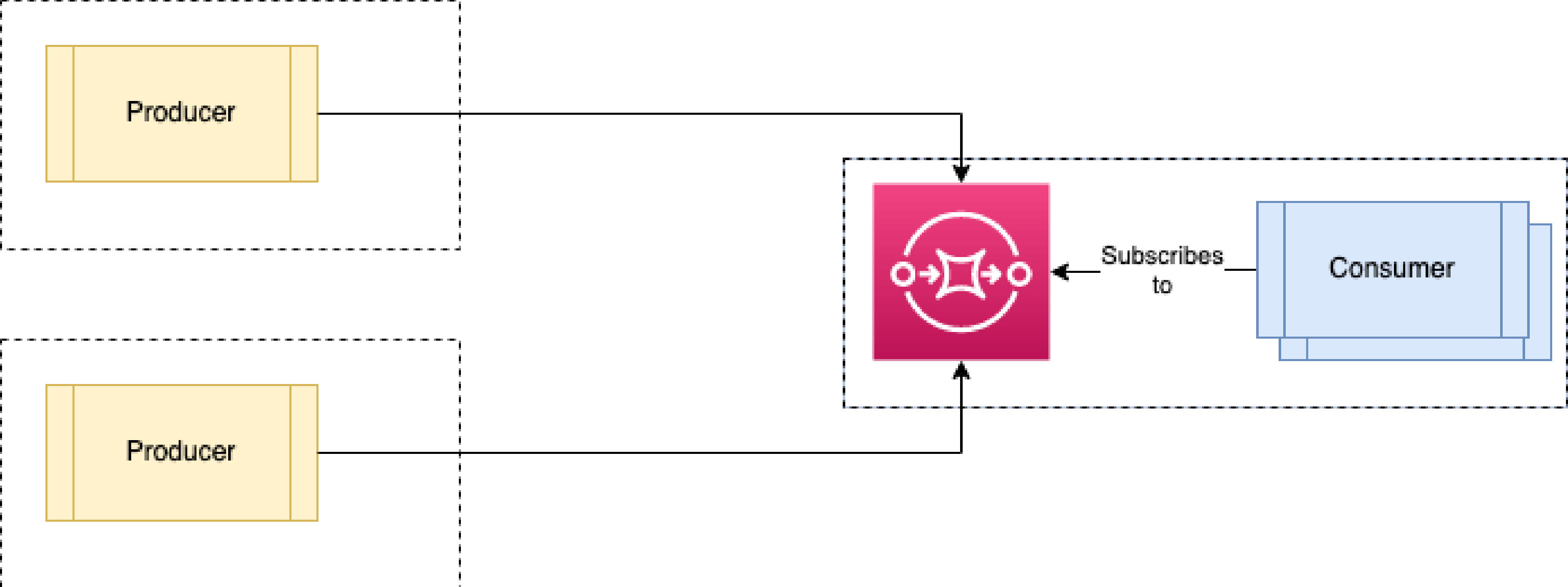


# AWS operational responsibility models



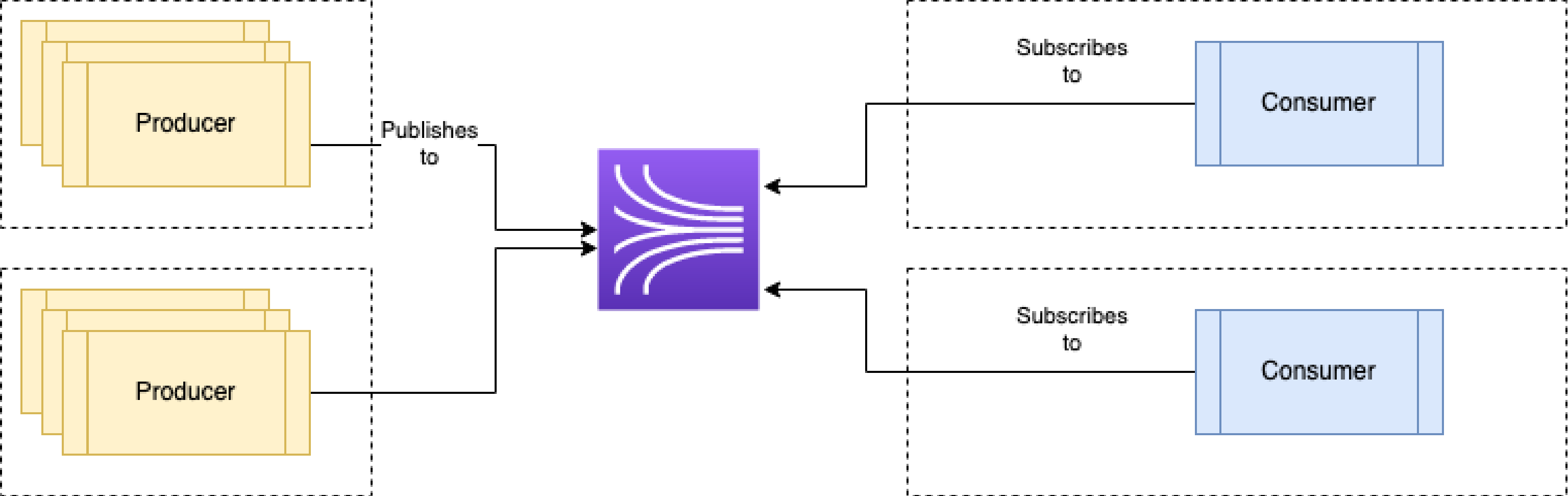


Consumers subscribe to a **TOPIC** owned by the producer. Systems are coupled by message schema and topic arn.  
Great for high throughput, low latency systems.  
Sucks for refactoring boundaries.

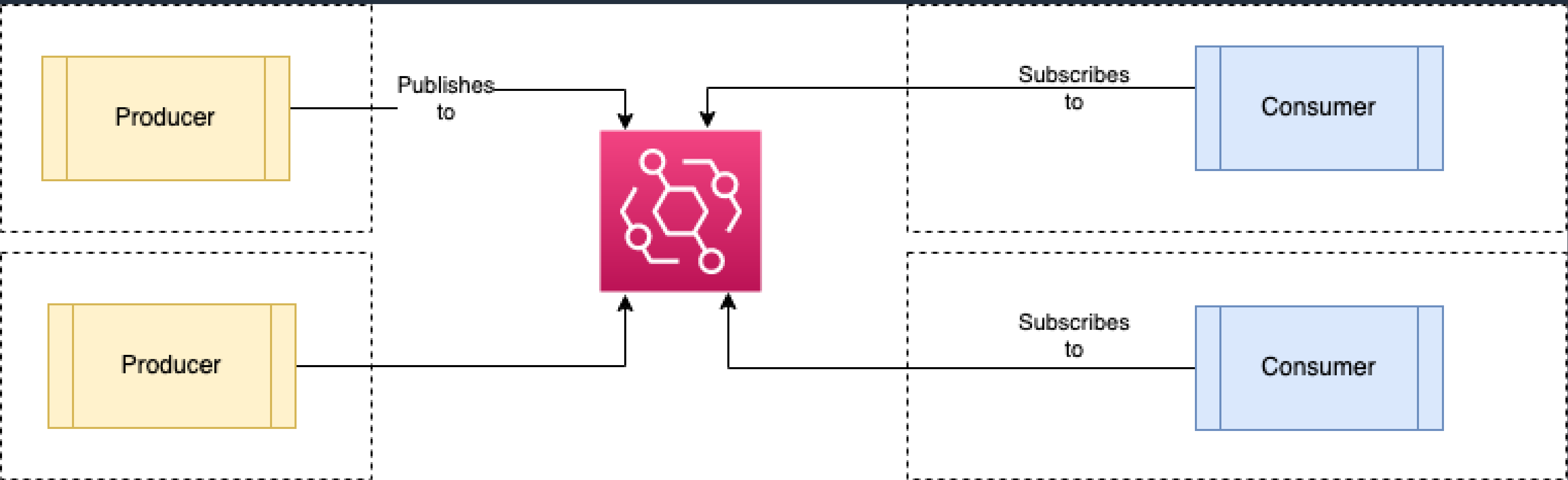


Producers push to a **QUEUE** owned by the consumer.  
Systems are coupled by message schema and queue arn.  
Great for parallel processing of work items, message ordering.  
Sucks for multiple consuming services, refactoring boundaries.

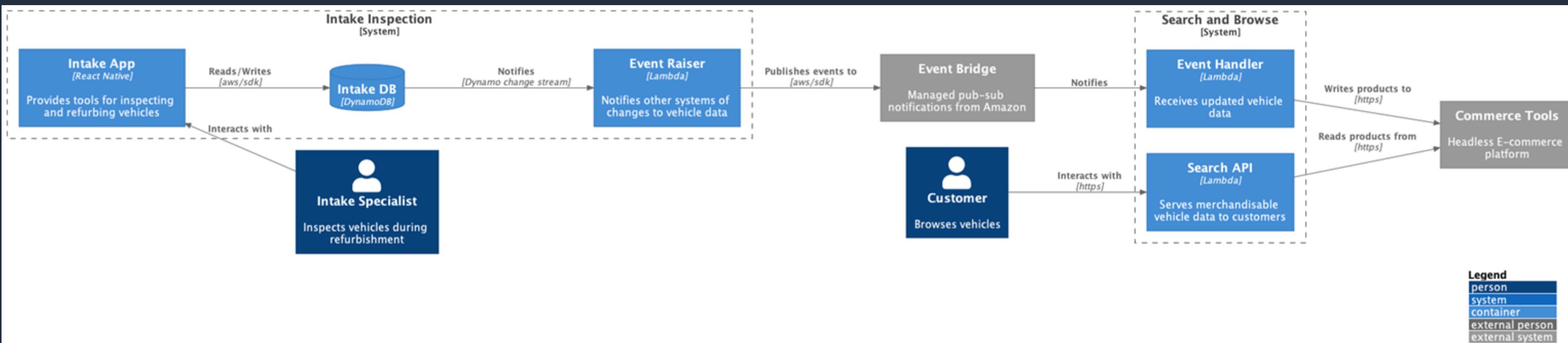




Producers push to a **STREAM** read by consumers.  
Systems are coupled by message schema and stream arn.  
Great for huge write throughput, message ordering  
Sucks for many consumers.



Consumers and Producers share a **MESSAGE BROKER**  
Systems are coupled by message schema.  
Great for general purpose messaging.  
Sucks for message ordering; high throughput, low latency.



**Within** a system, use whatever integration pattern is simplest.  
**Between** systems, prefer EventBridge

# Thank you

UPCOMING:

2nd episode – [Leveraging Containers and Structuring a Microservices Architecture](#)

October 13<sup>th</sup>

Event Driven Architecture Workshop -

<https://eventdrivenarchitecturestartup.splashthat.com/>

October 29<sup>th</sup>