

# AWS re:Invent

NOV. 28 – DEC. 2, 2022 | LAS VEGAS, NV

API306-R

# Building event-driven applications

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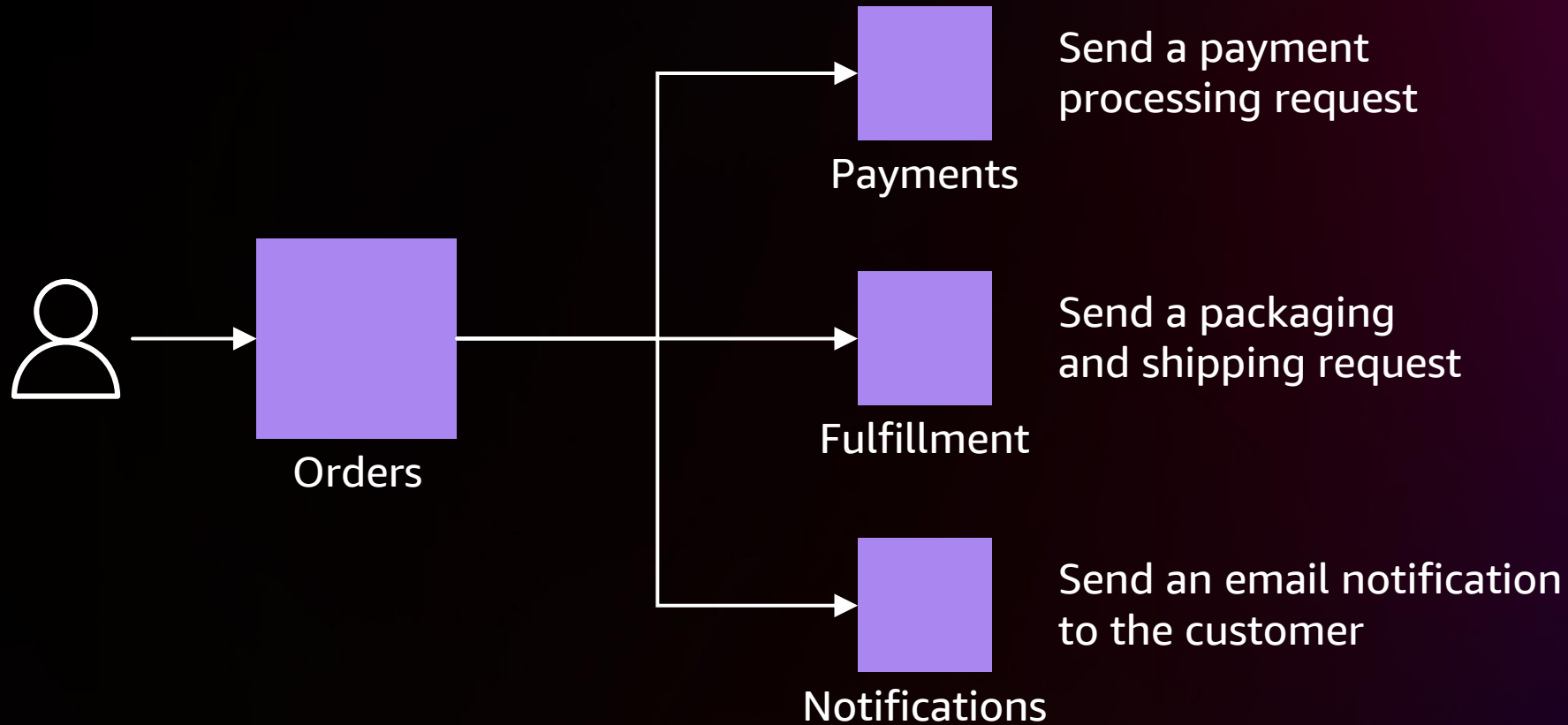
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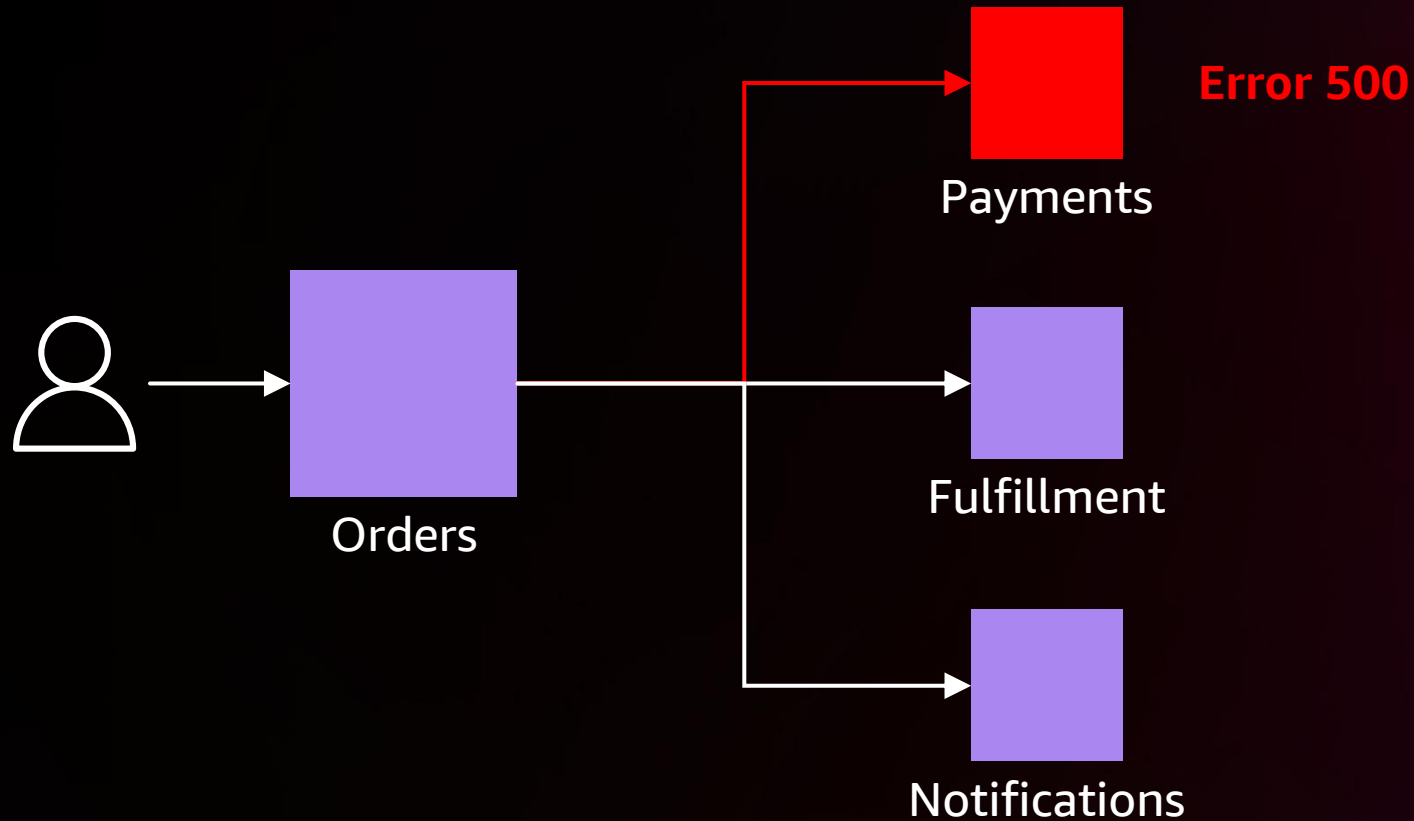
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Teams building microservice architectures often find that integration with applications and external services can result in **more monolithic and tightly coupled workloads**

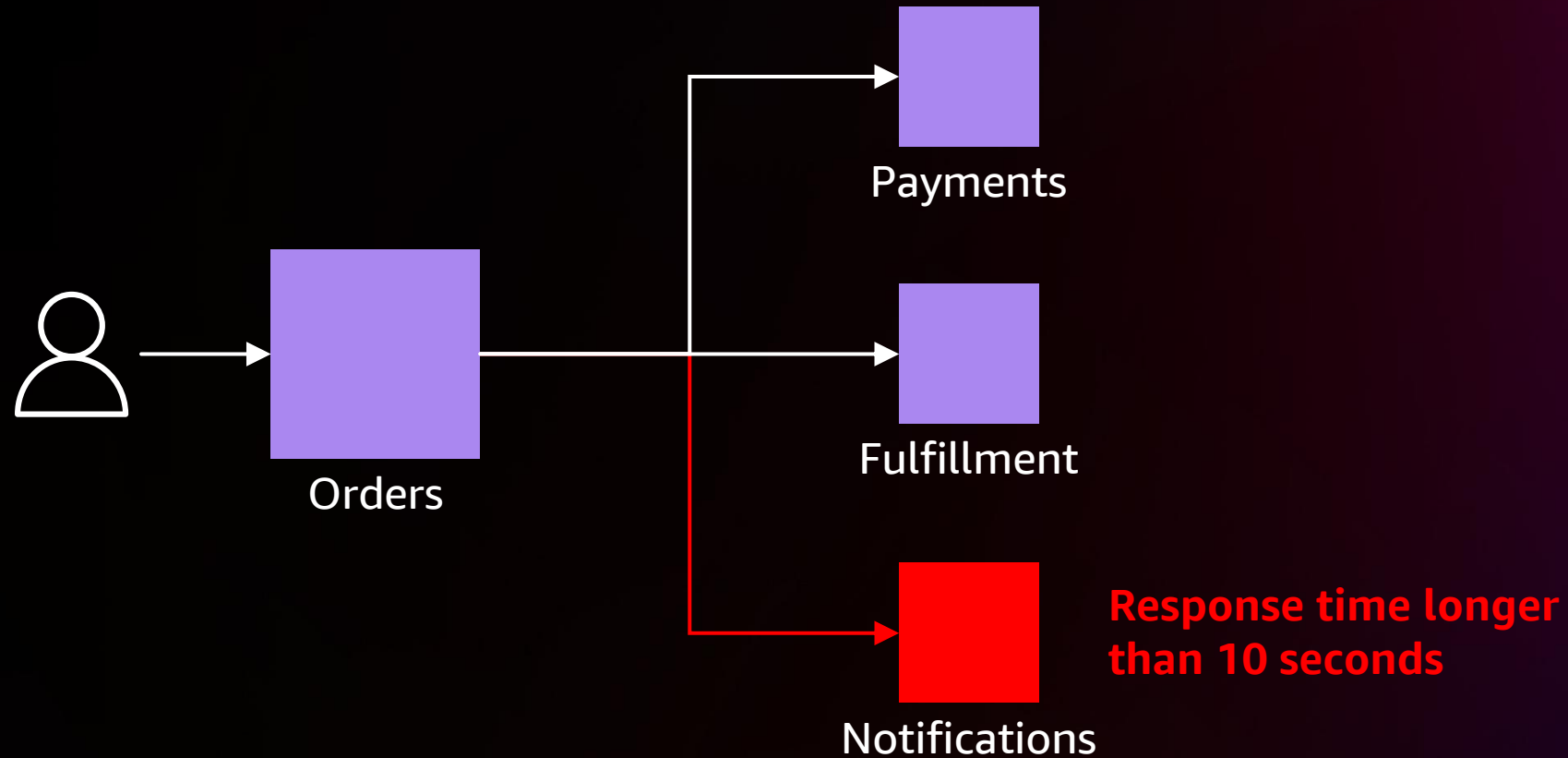
# Ecommerce architecture example



# Challenges with synchronous architectures



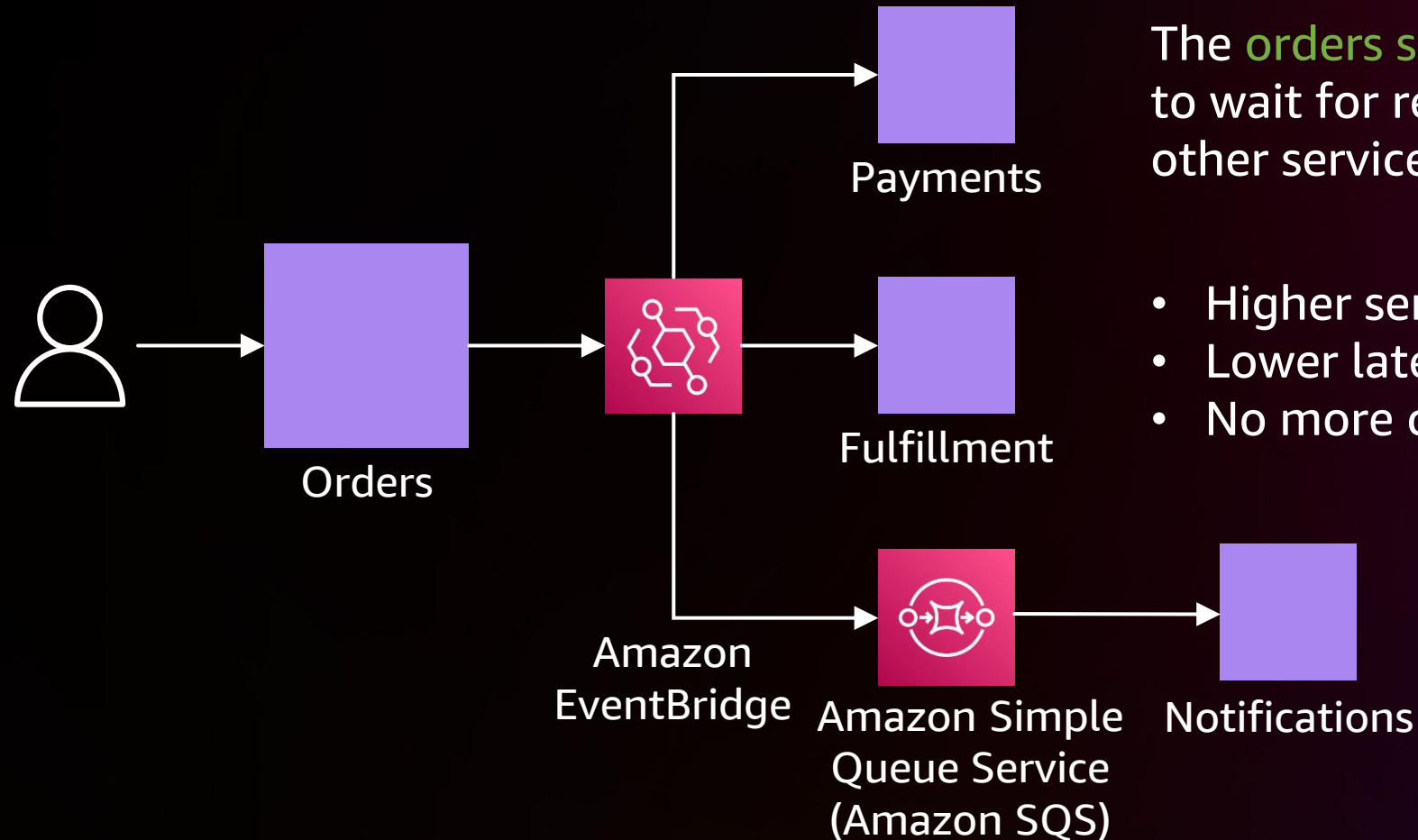
# Challenges with synchronous architectures



# Challenges with synchronous architectures

- Tight coupling
- Complexity/agility
- Extensibility
- Responsiveness (high latency)
- Failure handling
- Scaling
- Availability

# With event router and event store

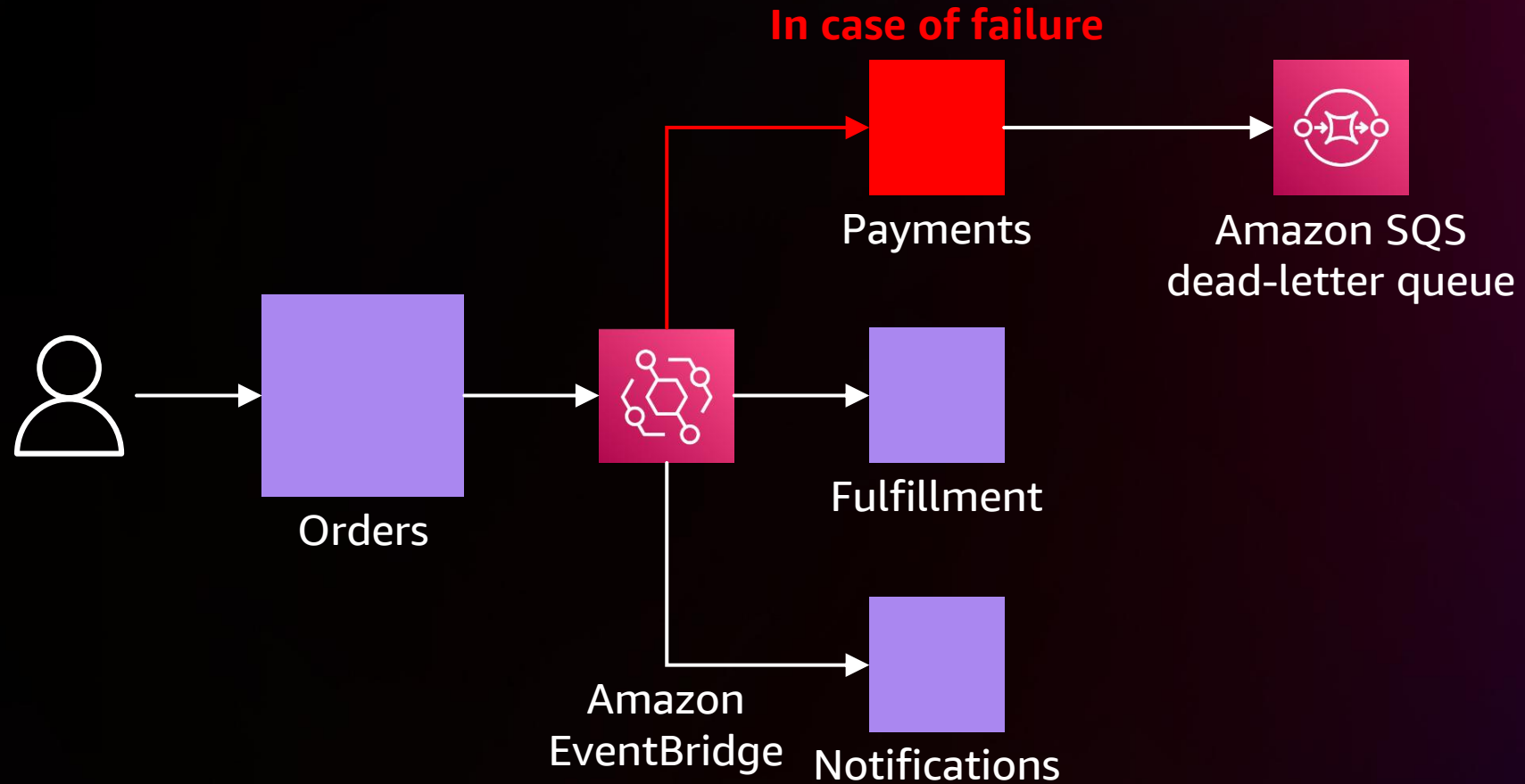


The **orders service** no longer has to wait for replies from all the other services

- Higher service availability
- Lower latency for end users
- No more cascading failures









# With event router



# Event-driven applications benefits

- Decoupling
- Agility
- Lower latency
- No cascading failures
- Reduced processing time (concurrency)
- Independent scaling
- Higher availability

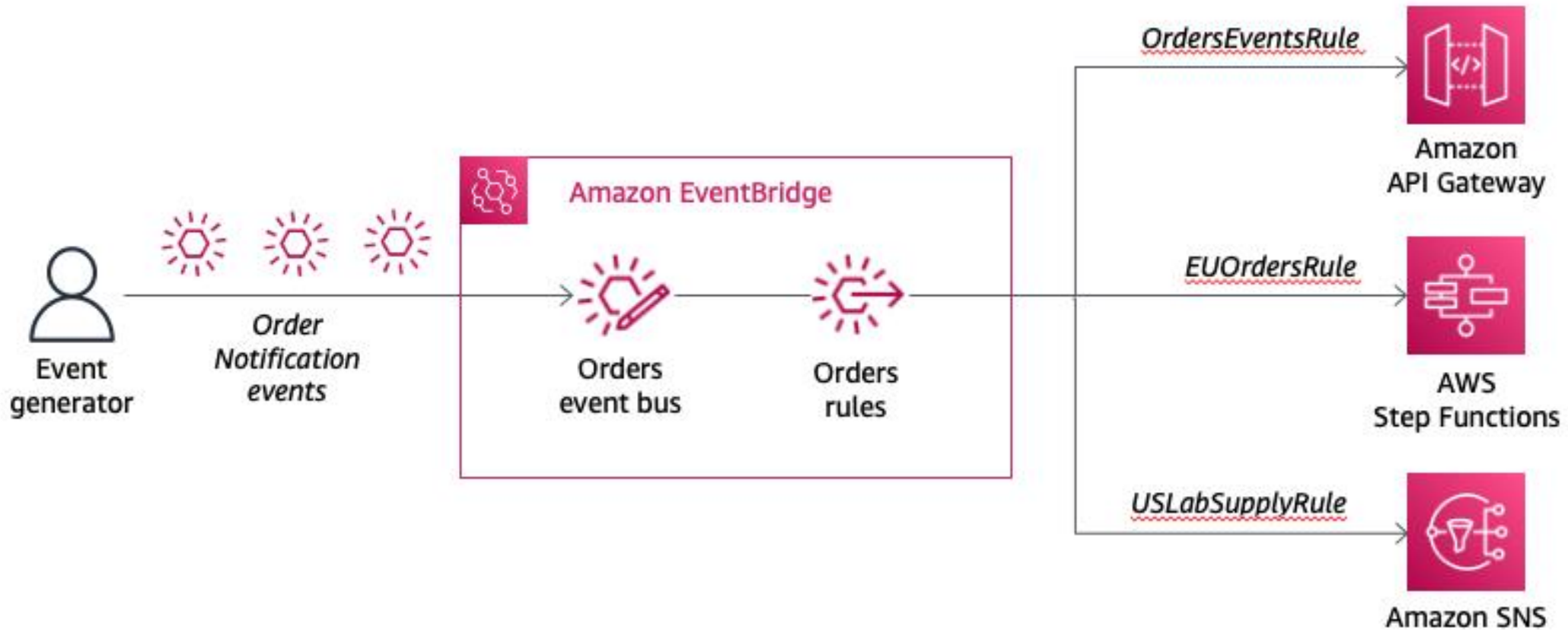
# AWS services

	Event stores		Event routers	
	Stream	Message queue	Topic	Bus
Serverless	 Amazon Kinesis Data Streams	 Amazon SQS	 Amazon Simple Notification Service (Amazon SNS)	 Amazon EventBridge
Managed open source	 Amazon MSK	 Amazon MQ		

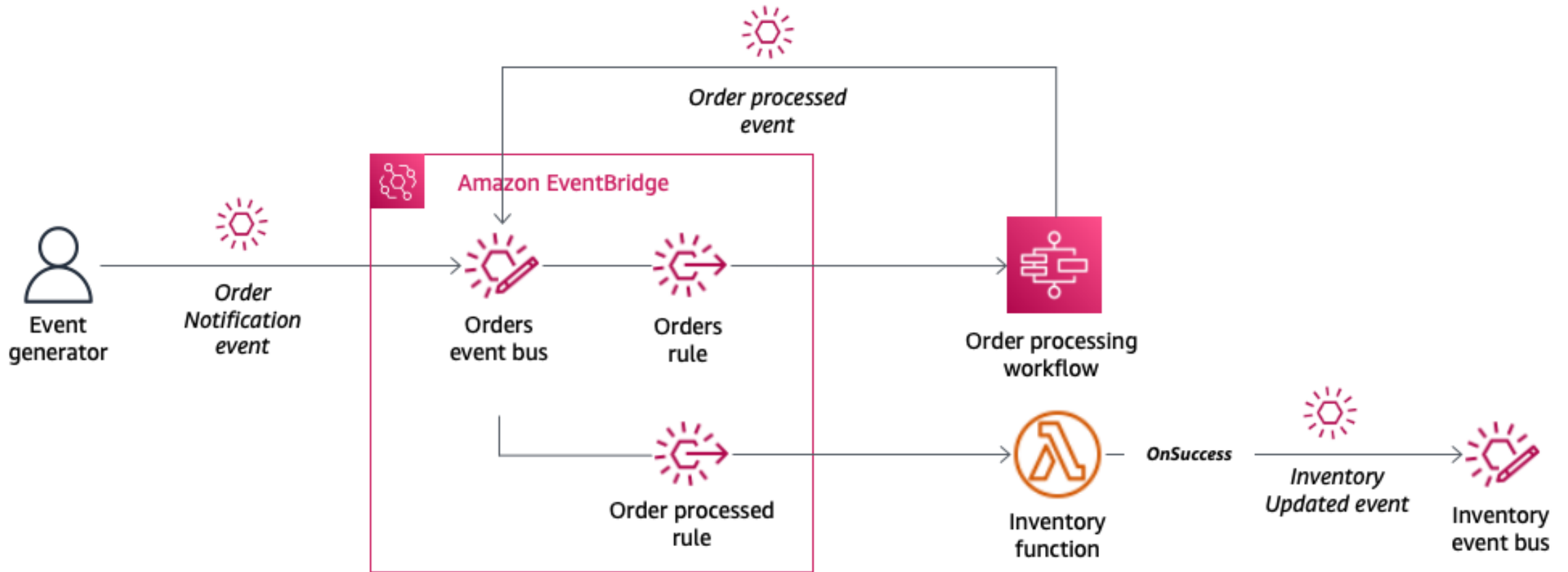
# Workshop



# EventBridge

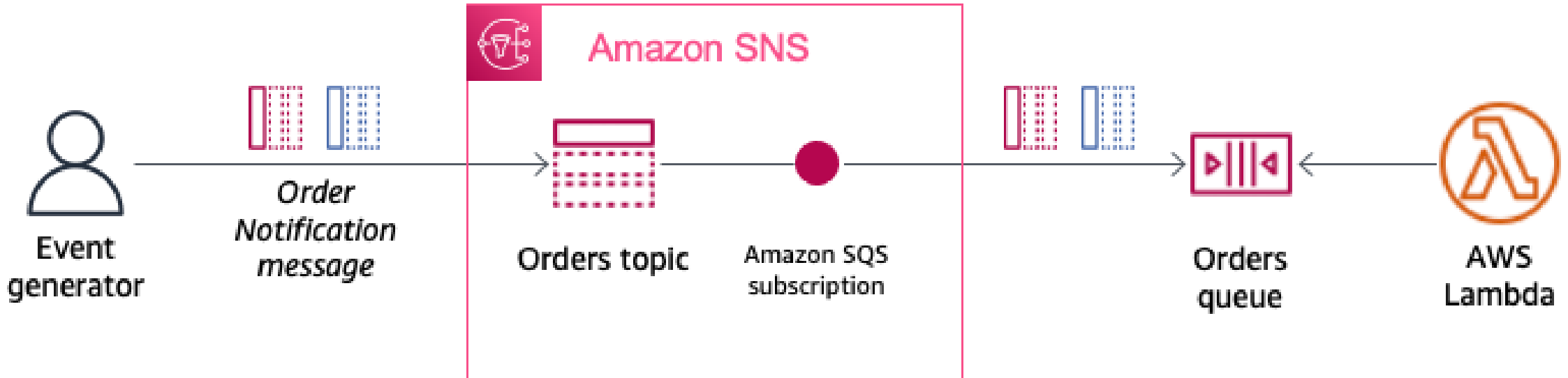


# AWS Lambda destinations



# Amazon SNS

## FAN-OUT WITH EVENT STORE CHAINING



# Go build!

[s12d.com/API306](https://s12d.com/API306)

Self hosted option:

[s12d.com/API306-SelfHosted](https://s12d.com/API306-SelfHosted)





## Review and join

### Event details

Name	Start time	Duration	Level
API306 - Building event-driven applications on AWS	11/24/2022 09:38 PM	72 hours	-

### Description

Workshop at re:Invent 2022. API306-R Building event-driven applications on AWS.

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## API306 - Building event-driven applications on AWS

Building event-driven architectures on AWS

- ▶ Getting started
- ▶ Event-driven with EventBridge
- ▶ Event-driven with Lambda
- ▶ Event-driven with SNS
- Workshop cleanup

Amazon EventBridge Developer Guide [↗](#)

AWS Lambda Developer Guide [↗](#)

Amazon SNS Developer Guide [↗](#)

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Language

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## API306 - Building event-driven applications on AWS

### Event information

Start time	Duration	Accessible regions
11/24/2022 09:38 PM	72 hours	us-west-2, us-east-1

#### Description

Workshop at re:Invent 2022. API306-R Building event-driven applications on AWS.

### Workshop

[Get started](#) >

Title	Complexity level	AWS services	Topics
Building event-driven architectures on AWS	300	Amazon EventBridge, Amazon Simple Notification Service (Amazon SNS), AWS Lambda	Serverless

#### Description

In this workshop we'll cover the basics of event-driven design, using examples that involve Amazon EventBridge, Amazon SNS, Amazon SQS, AWS Lambda and more. You will learn how to choose the right AWS service for the job, as well as how to optimize for both cost and performance. Through hands on practice, this workshop will give you the skills bring event-driven design patterns into your own applications.



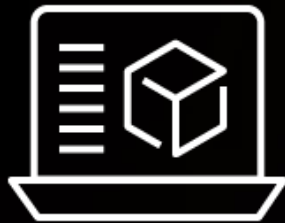
# Related sessions

ID	Title	Type	Schedule
API303	Application integration patterns for microservices	Breakout	Wednesday, 7:45
API309	Advanced serverless workflow patterns and best practices	Breakout	Thursday, 1:15
SVS312	Building Serverlesspresso: Creating event-driven architectures	Breakout	Thursday, 3:30
API307	Designing event-driven integrations using Amazon EventBridge	Breakout	Thursday, 4:15
API302	Building global event-driven applications	Breakout	Wednesday, 7:45
API308	Are you integrating or building distributed applications?	Breakout	Wait for recording
API311	Building next-gen applications with event-driven architectures	Breakout	Wait for recording



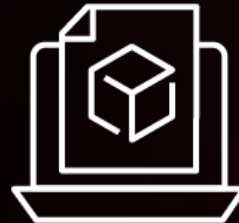
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