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# Deep dive on event-driven development with Amazon EventBridge

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Amazon EventBridge
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# Agenda

Overview of Amazon EventBridge

Building an event-driven application

Handling webhooks: Amazon API Gateway + EventBridge

Amazon EventBridge schema registry: Schema discovery & code bindings

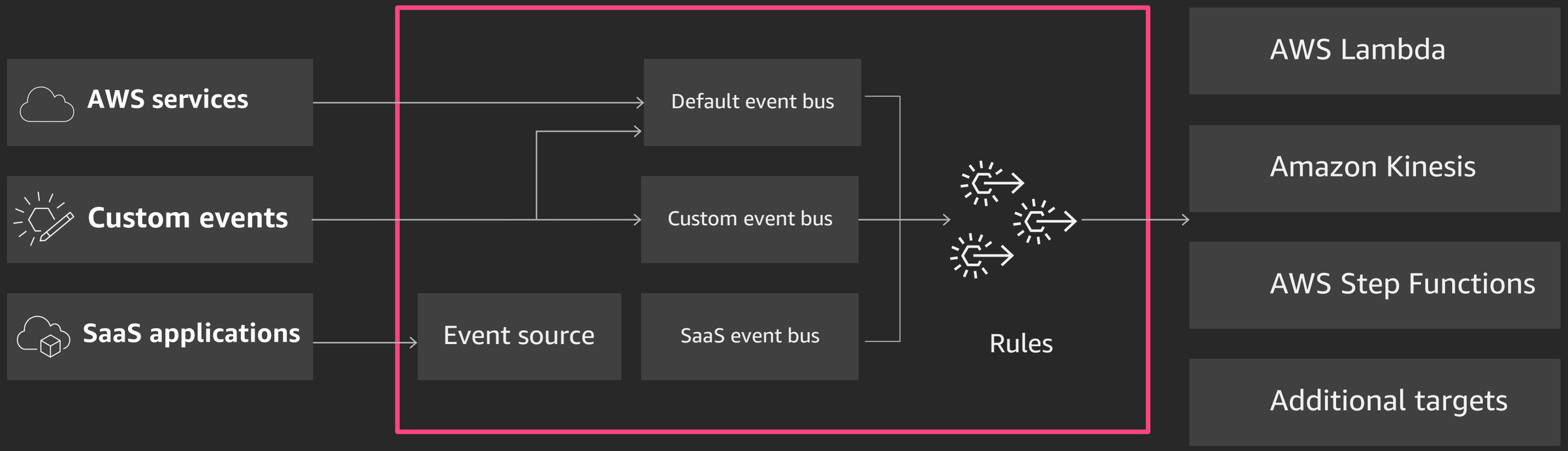
# Overview of Amazon EventBridge

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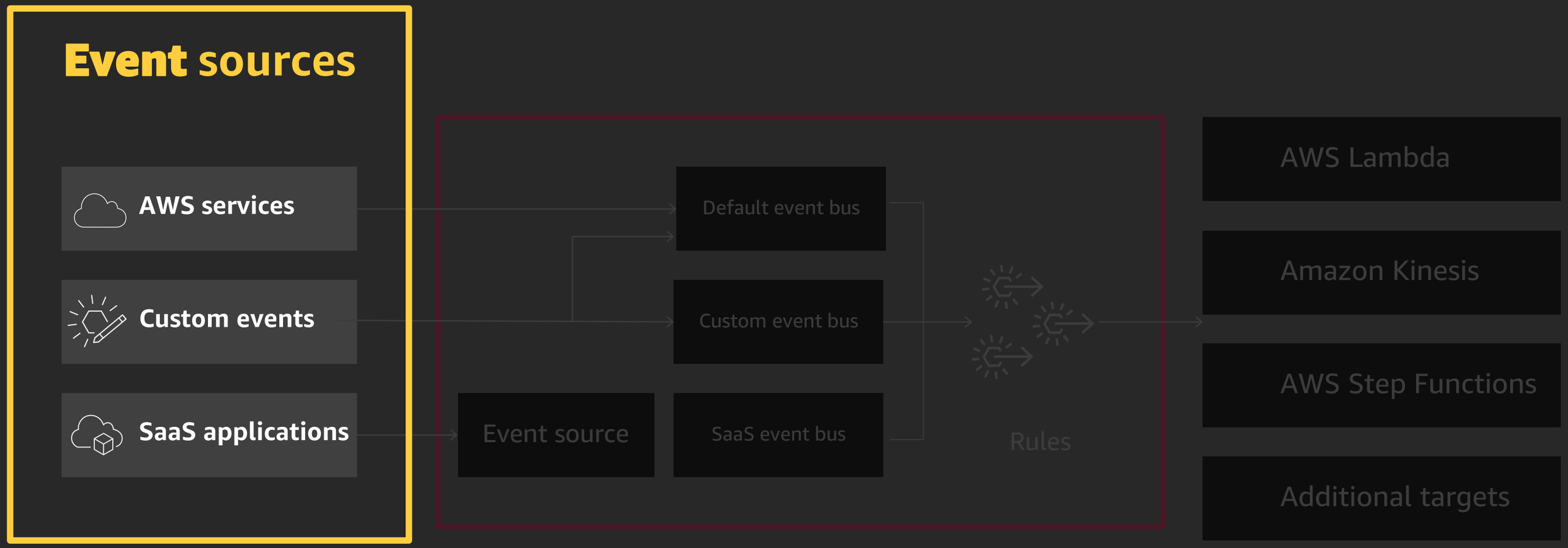
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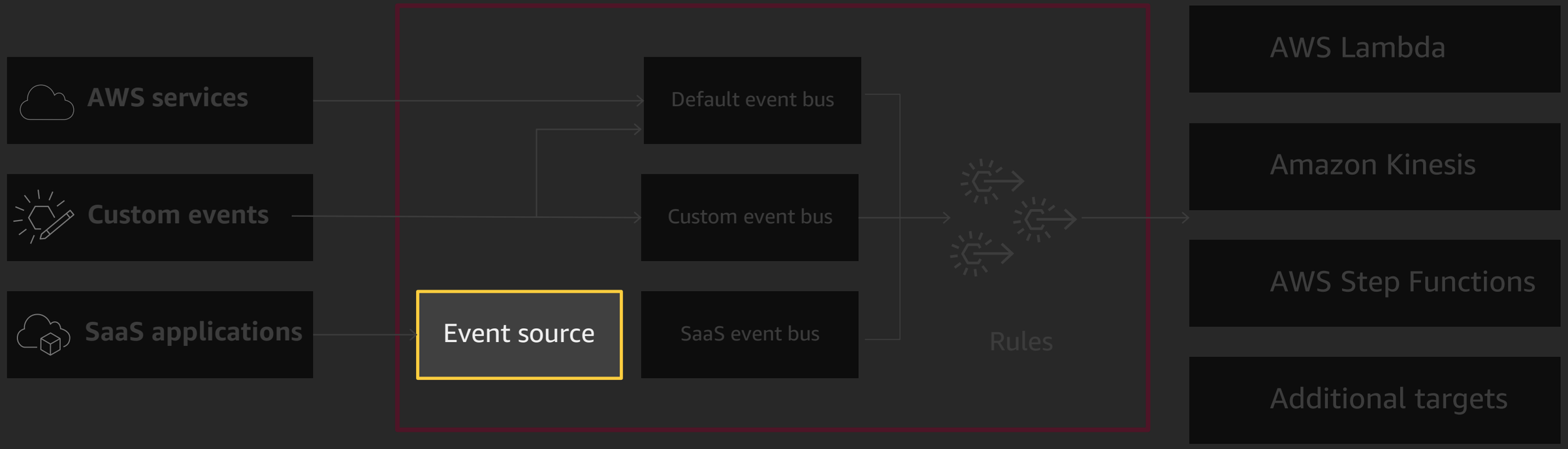
# Amazon EventBridge



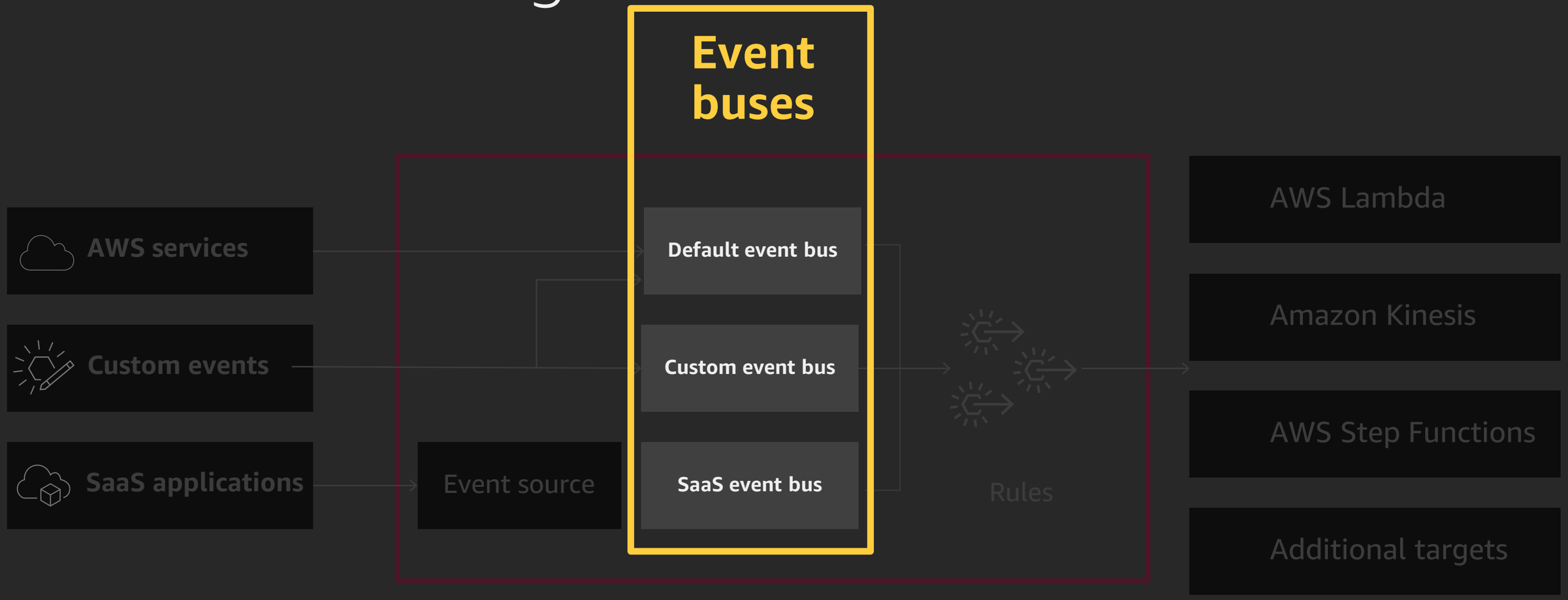
# Amazon EventBridge



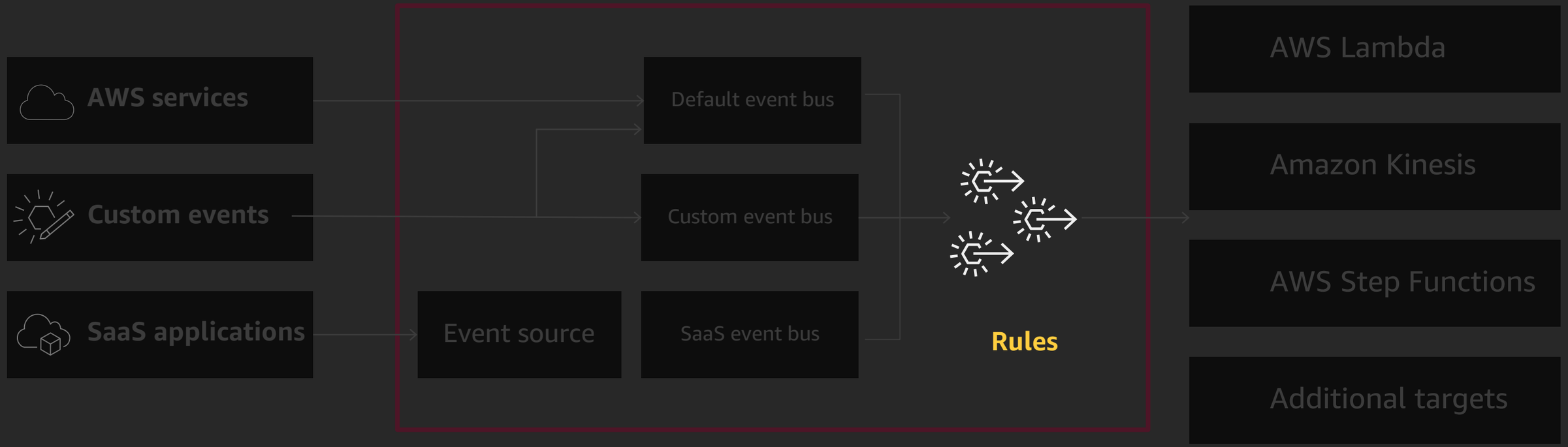
# Amazon EventBridge



# Amazon EventBridge



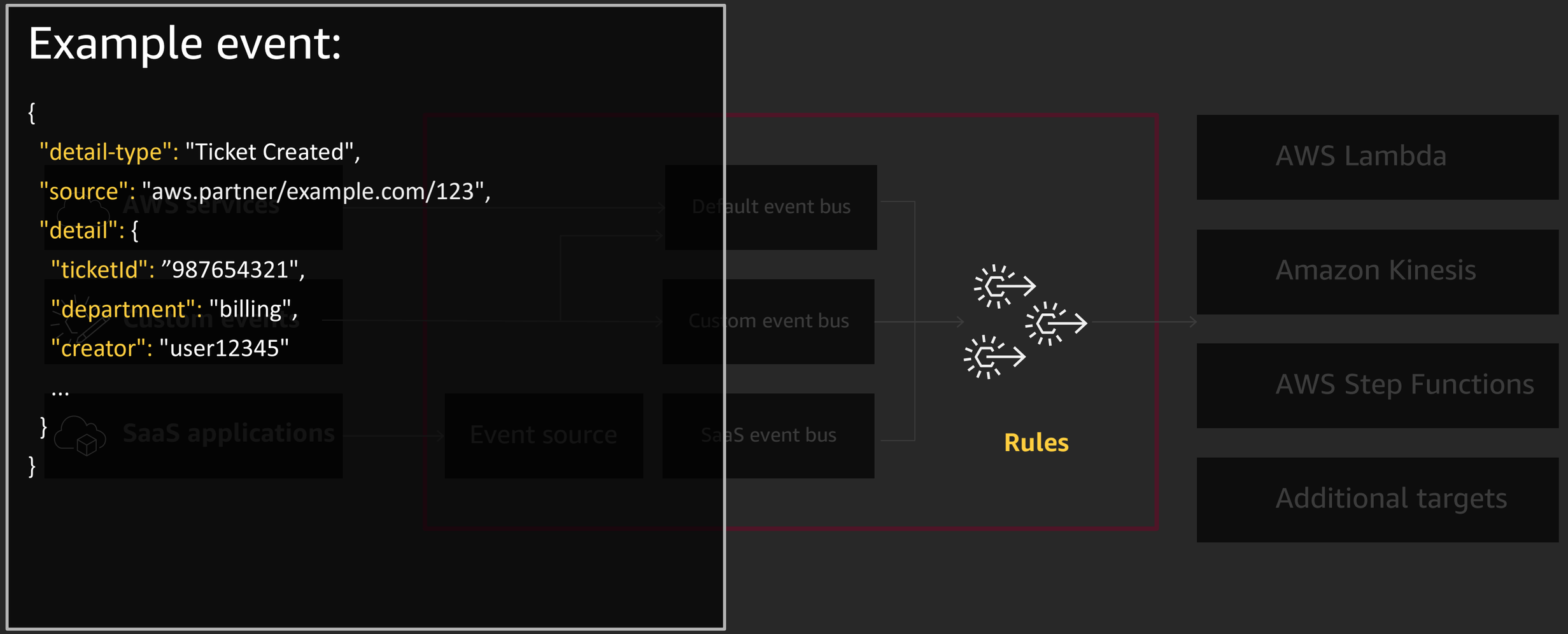
# Amazon EventBridge



# Amazon EventBridge

## Example event:

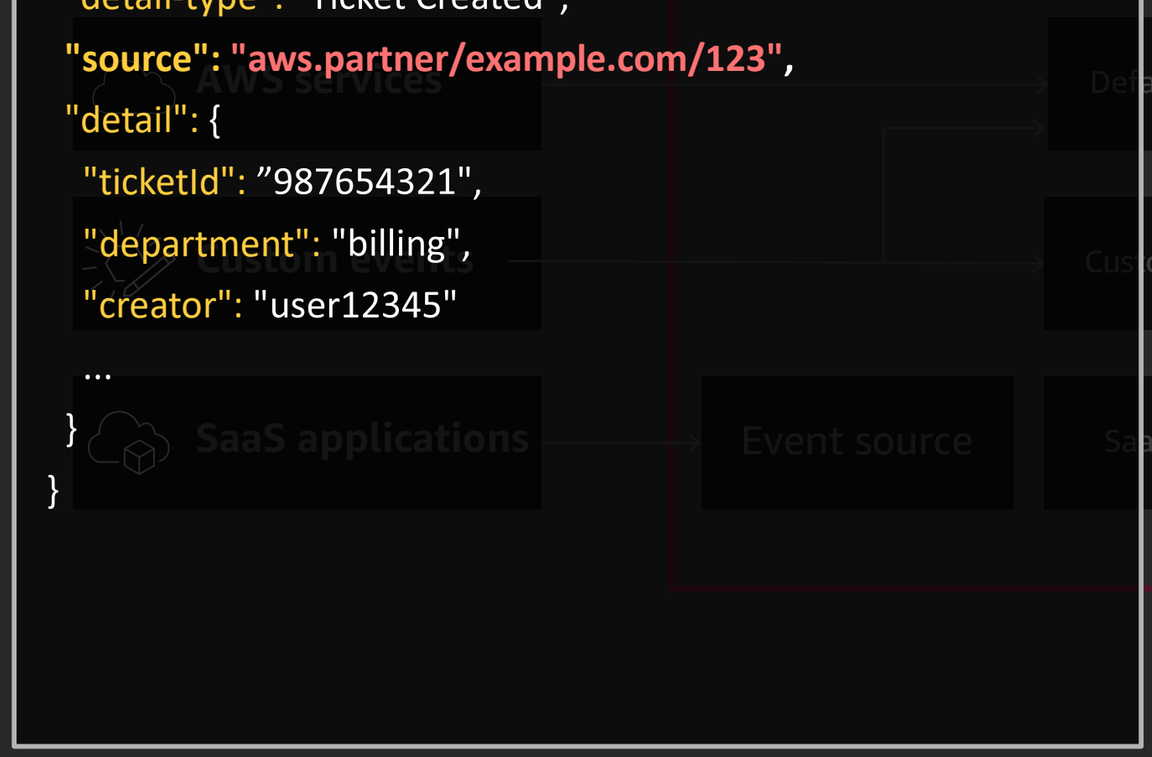
```
{
  "detail-type": "Ticket Created",
  "source": "aws.partner/example.com/123",
  "detail": {
    "ticketId": ”987654321",
    "department": "billing",
    "creator": "user12345"
    ...
  }
}
```



# Amazon EventBridge

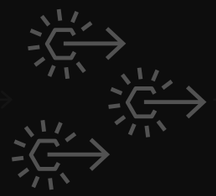
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  }
}
```

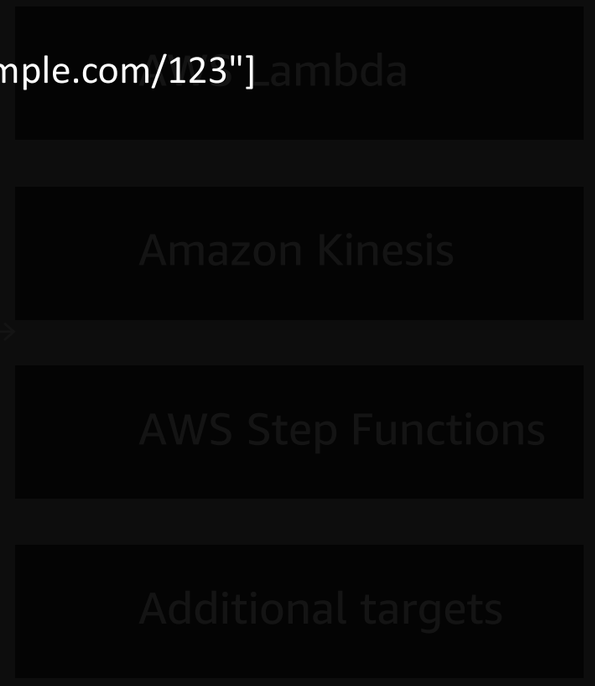



## Example rule:

```
{
  "source": ["aws.partner/example.com/123"]
}
```



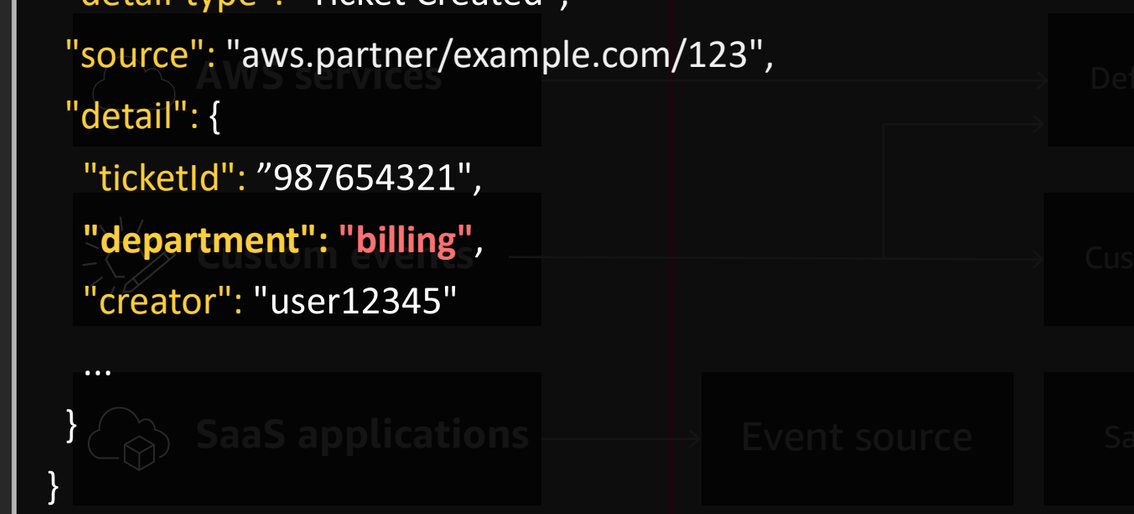
Rules



# Amazon EventBridge

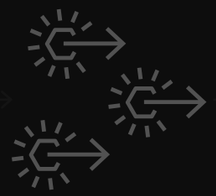
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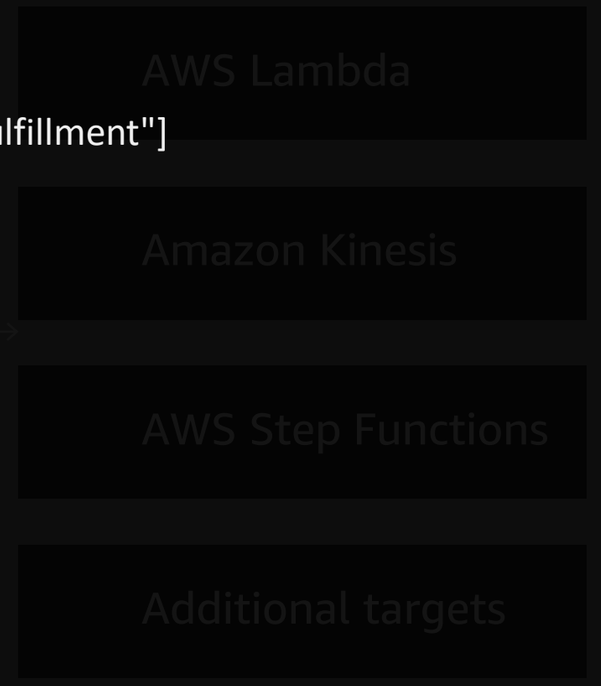



## Example rule:

```
{
  "detail": {
    "department": ["billing", "fulfillment"]
  }
}
```



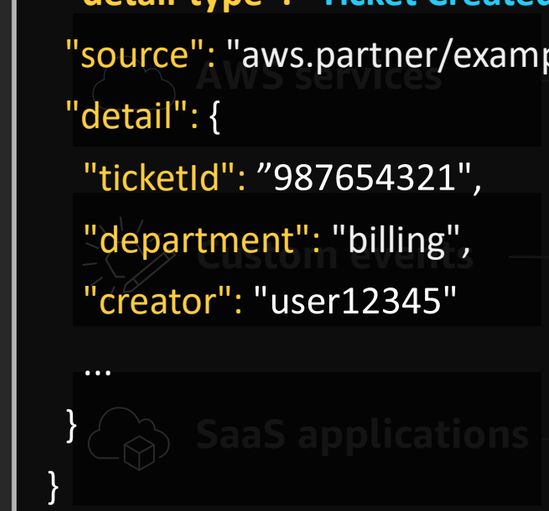
Rules

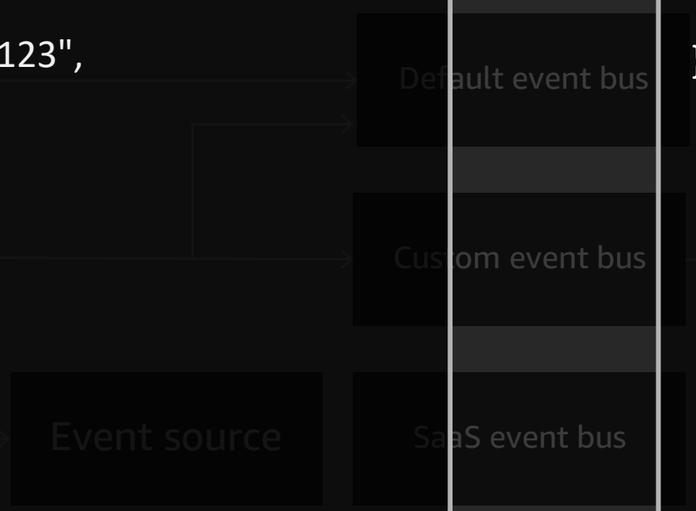


# Amazon EventBridge

## Example event:

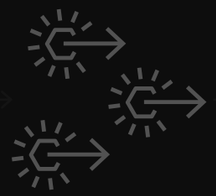
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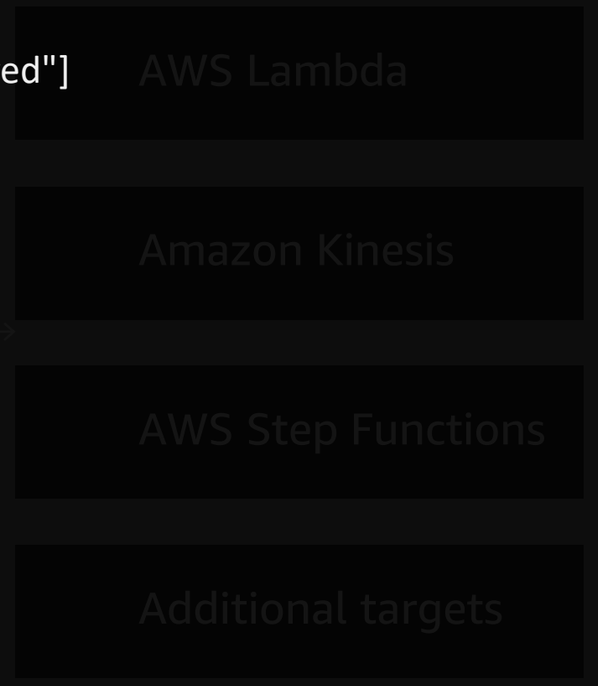




## Example rule:

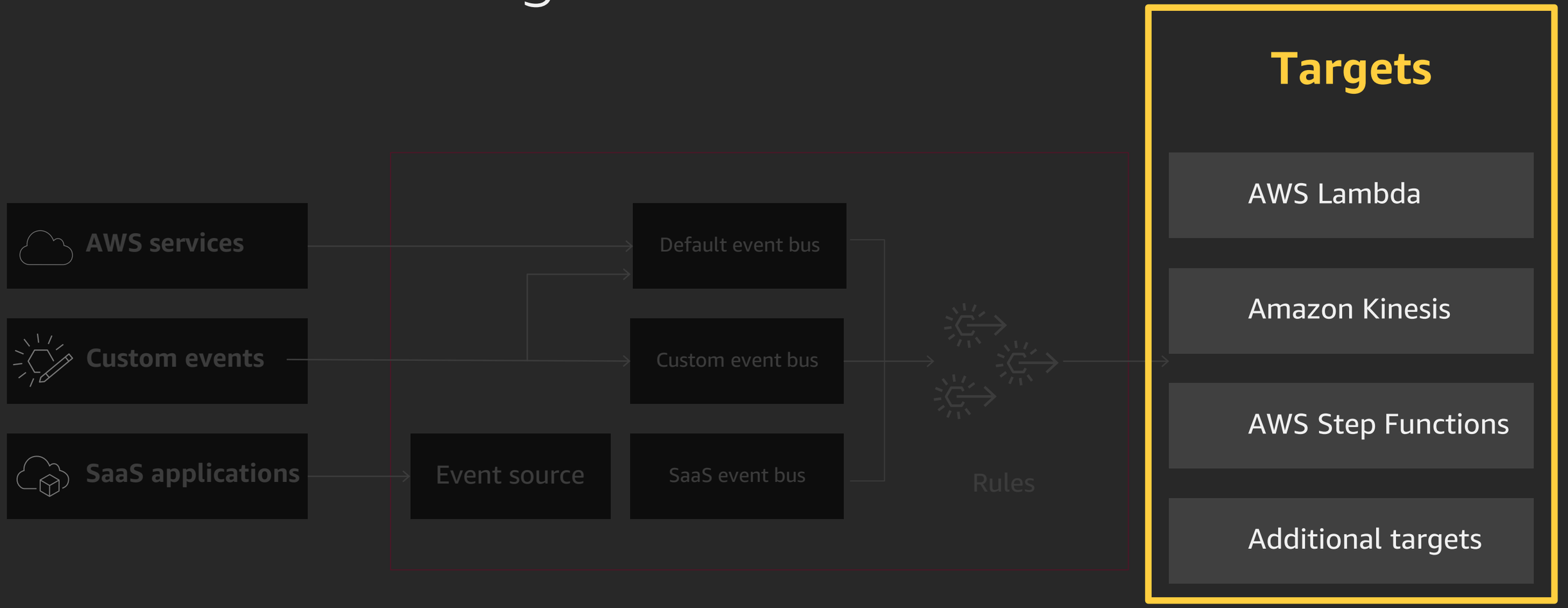
```
{
 "detail-type": ["Ticket Resolved"]
}
```



Rules



# Amazon EventBridge



# Building a simple event-driven application

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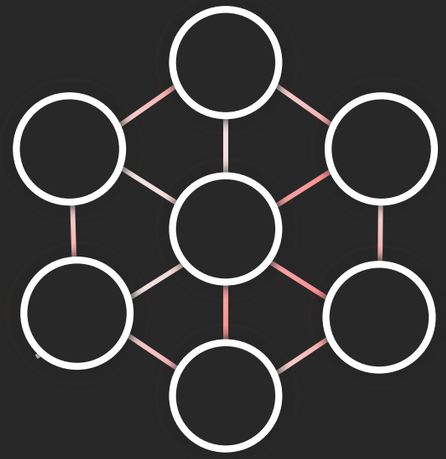
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# Monoliths and microservices



**Monolith**

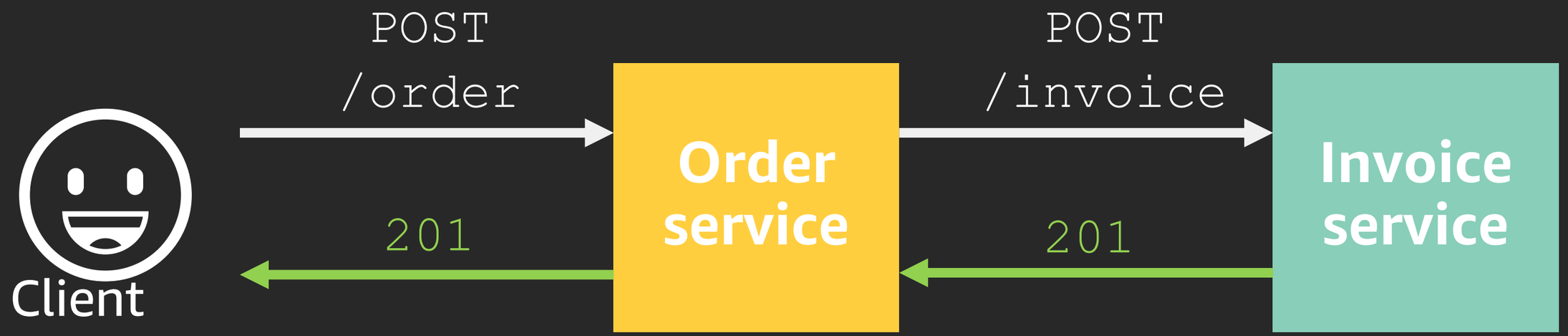
Does everything



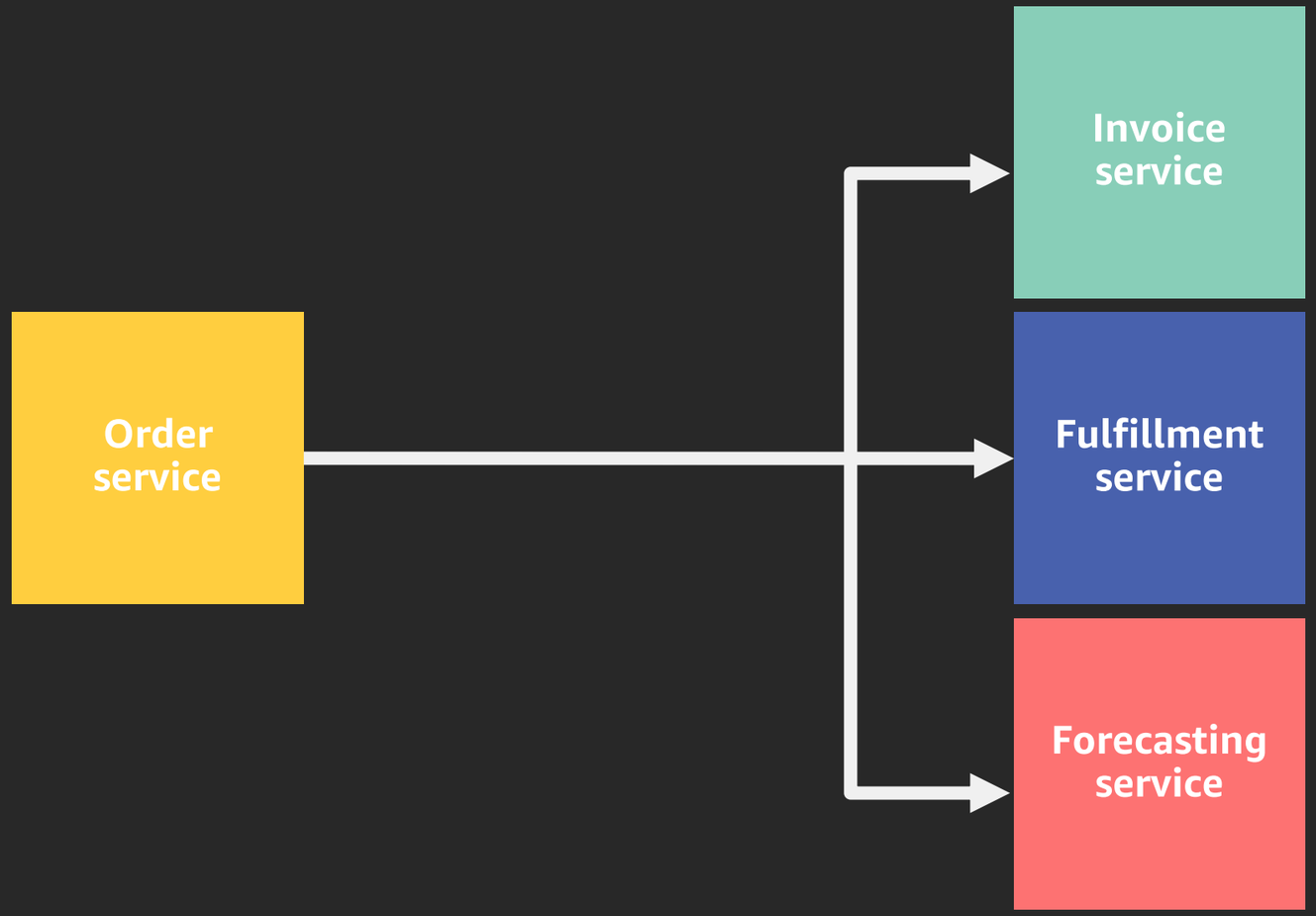
**Microservice**

Does one thing

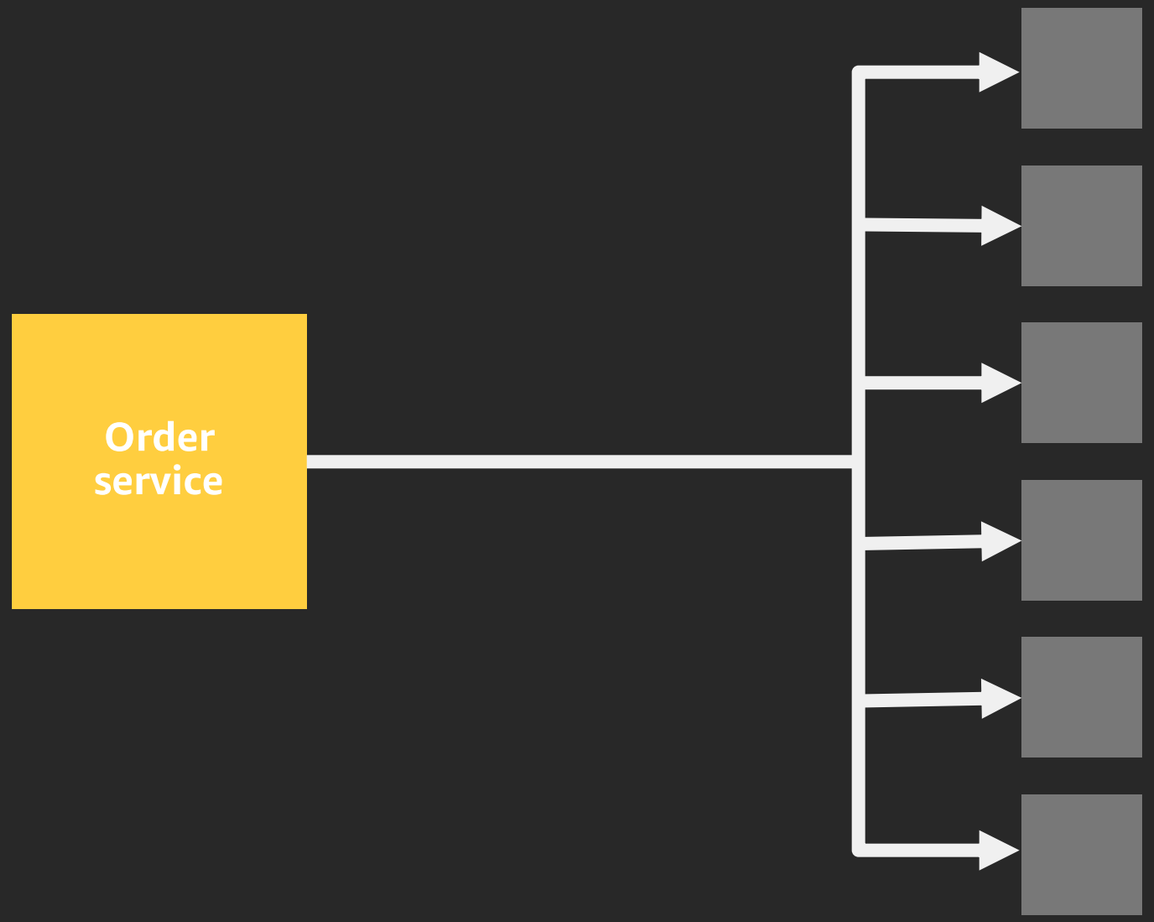
# Synchronous APIs



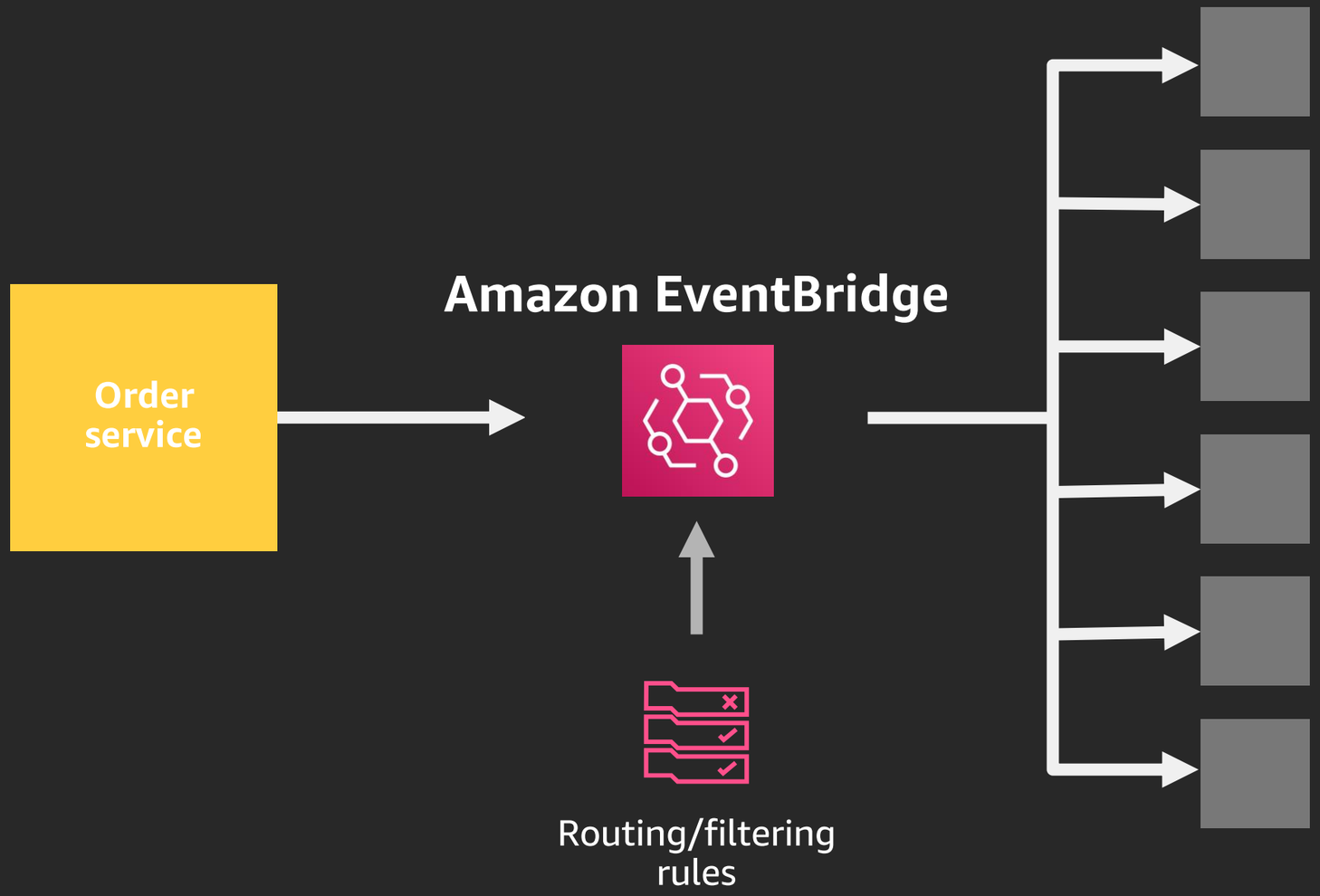
# Architecture v2

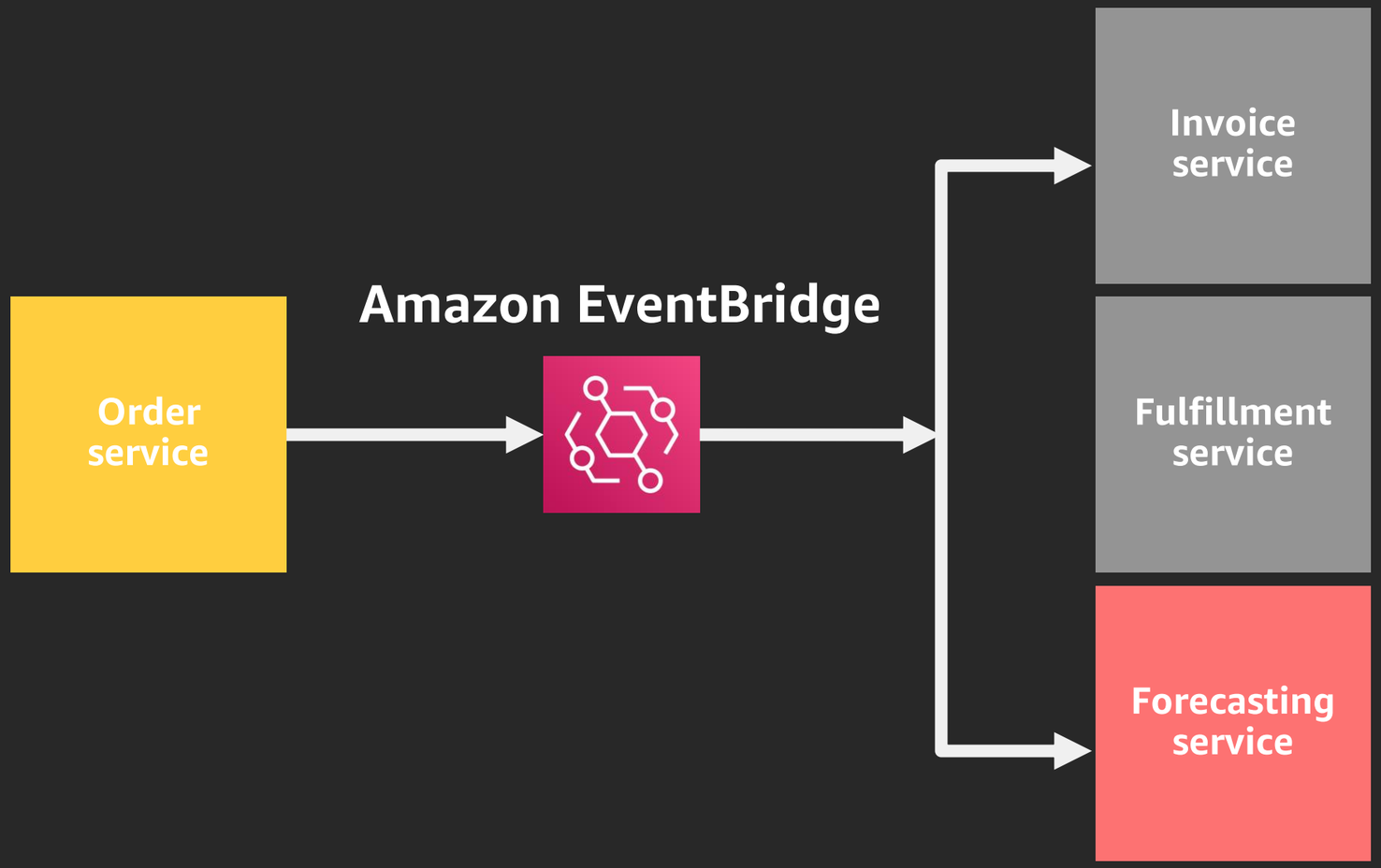


# Long-term architecture



# Event routers for fan out



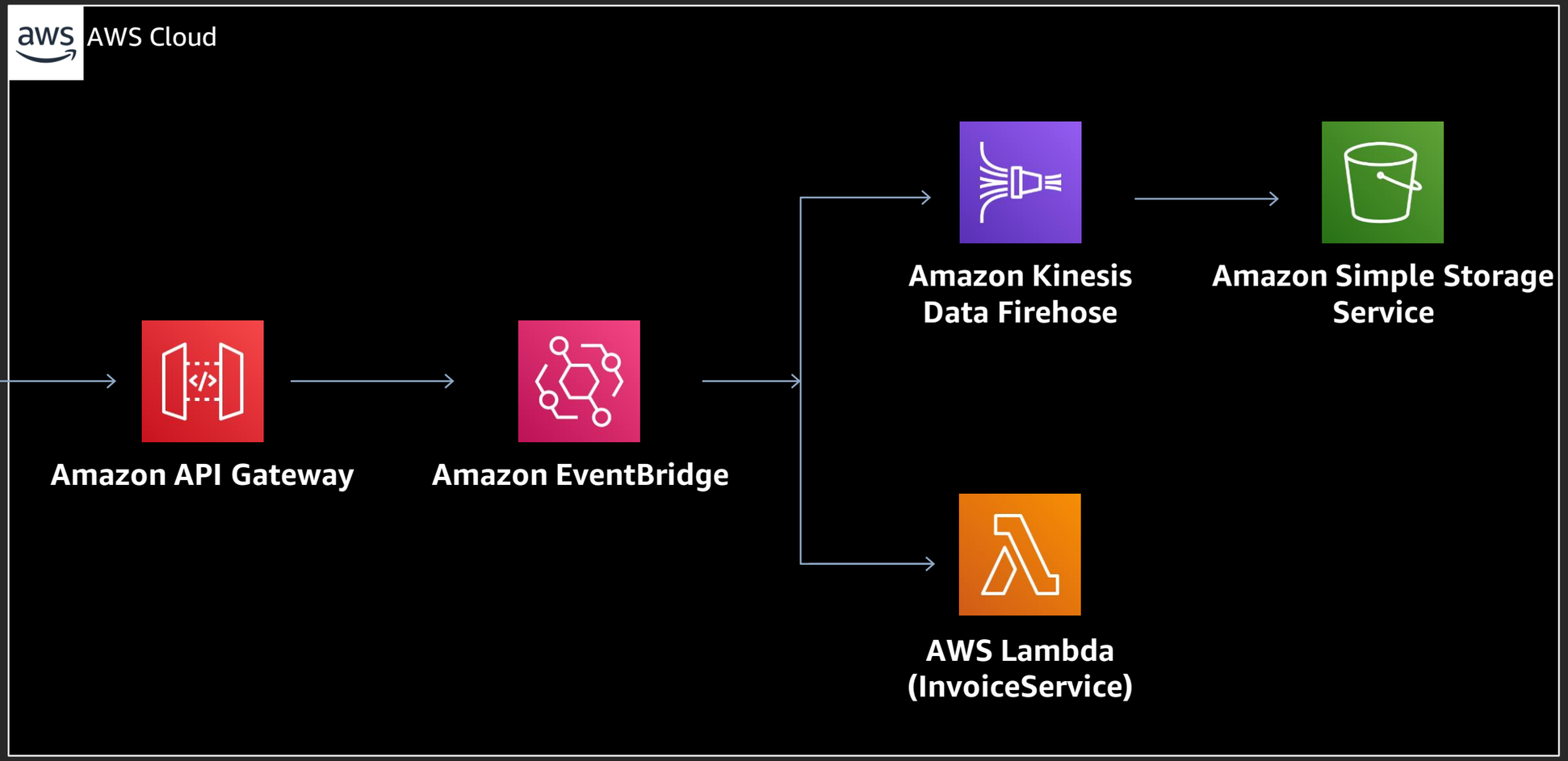

Amazon EventBridge
Order service
Invoice service
Fulfillment service
Forecasting service

# Handling webhooks

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stripe


```
{
 "detail-type": ”invoice.created",
 "source": ”stripe",
 "detail": {
  "listingId": "evt_364bSdCa5Z",
  ”amount_due": 10,
  ”quantity": 1,
  ”customer”: "cus_FSdxj123",
  ”plan": ”monthly",
  ...
 }
}
```

# Amazon EventBridge schema registry: Schema discovery & code bindings

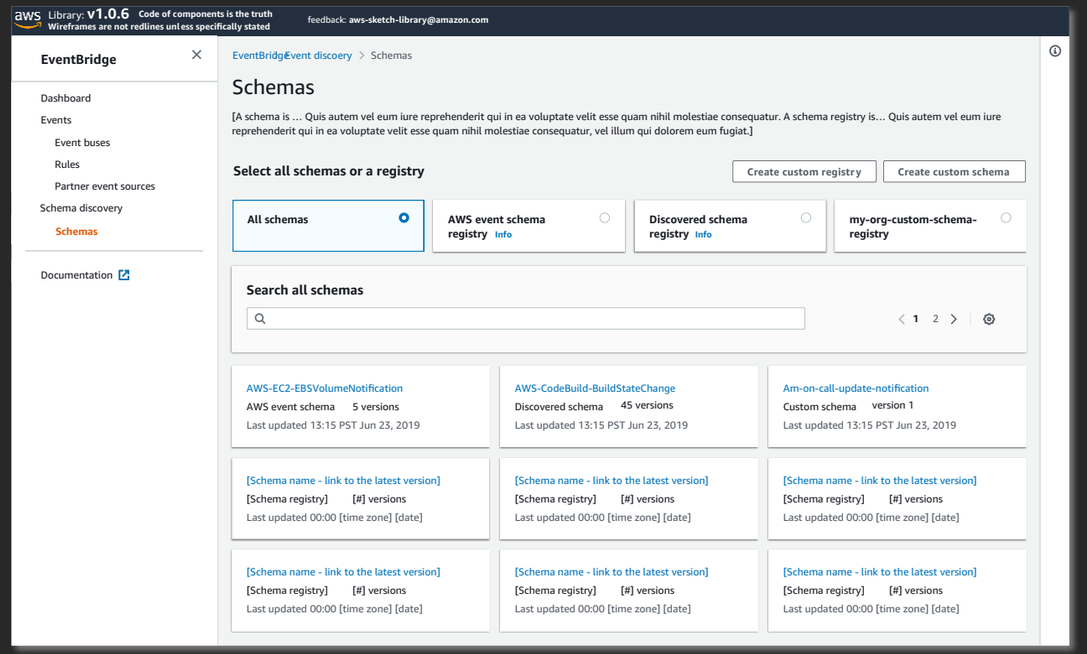
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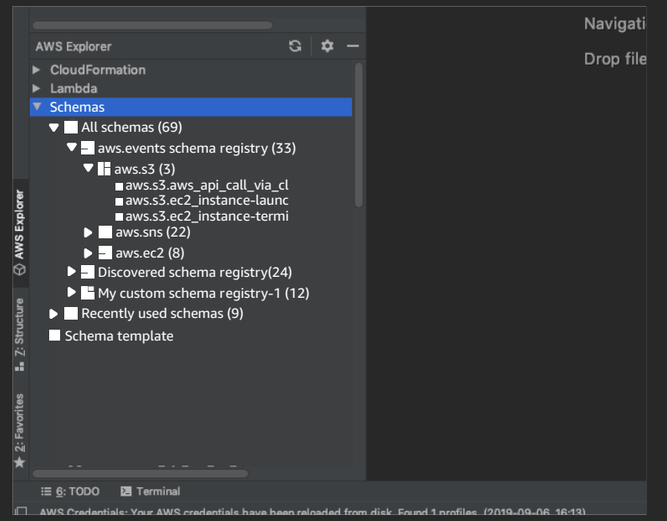
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# Amazon EventBridge schema registry

- Central registry containing schemas (the structure of events) for AWS, custom, and third-party partner events
- Integrated into popular IDEs; search for schemas directly from VS Code and IntelliJ
- Download strongly typed code bindings for schemas; allows you to treat events as objects in your code
- Schema discovery automatically creates schemas from events published to your event bus



# Resources



- Partners: eventbridge-partners@amazon.com
- https://aws.amazon.com/eventbridge/
- https://docs.aws.amazon.com/eventbridge/index.html

# Questions?



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