



Universität St.Gallen

# EDPO-Group 4

## Assignment 1

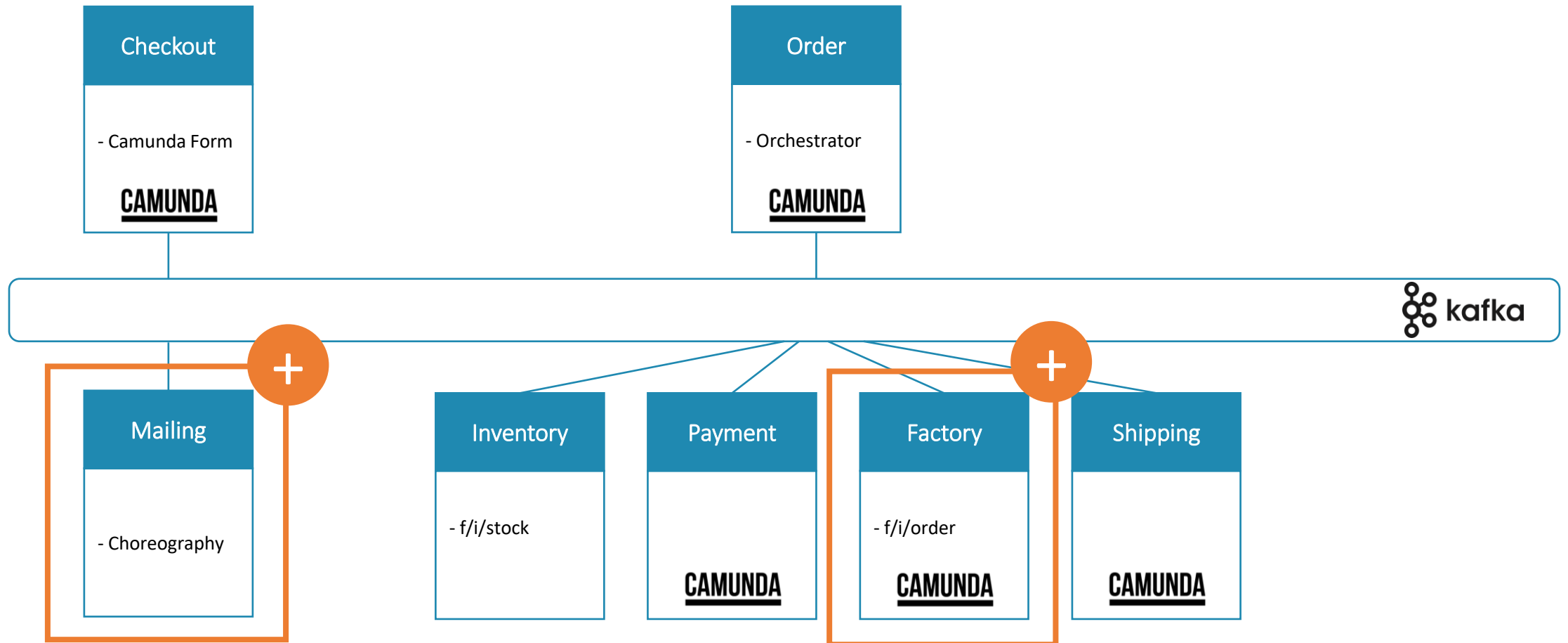
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Yasmin Lützel Schwab

Stefan Meier

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# General Project Description



# Camunda Form to initiate the Checkout process

Start process: chekout-flow

Customer Name\*

Customer Address\*

Article #1\*

the thing you want

Amount #1\*

how many you want

Article ID #2

another thing you want

Amount #2

how many of the other thing you want

Article ID #3

another thing you want

Amount #3

how many of the other thing you want

Submit

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# Orchestration vs. Choreography



Checkout Service

→ Order Service is choreography



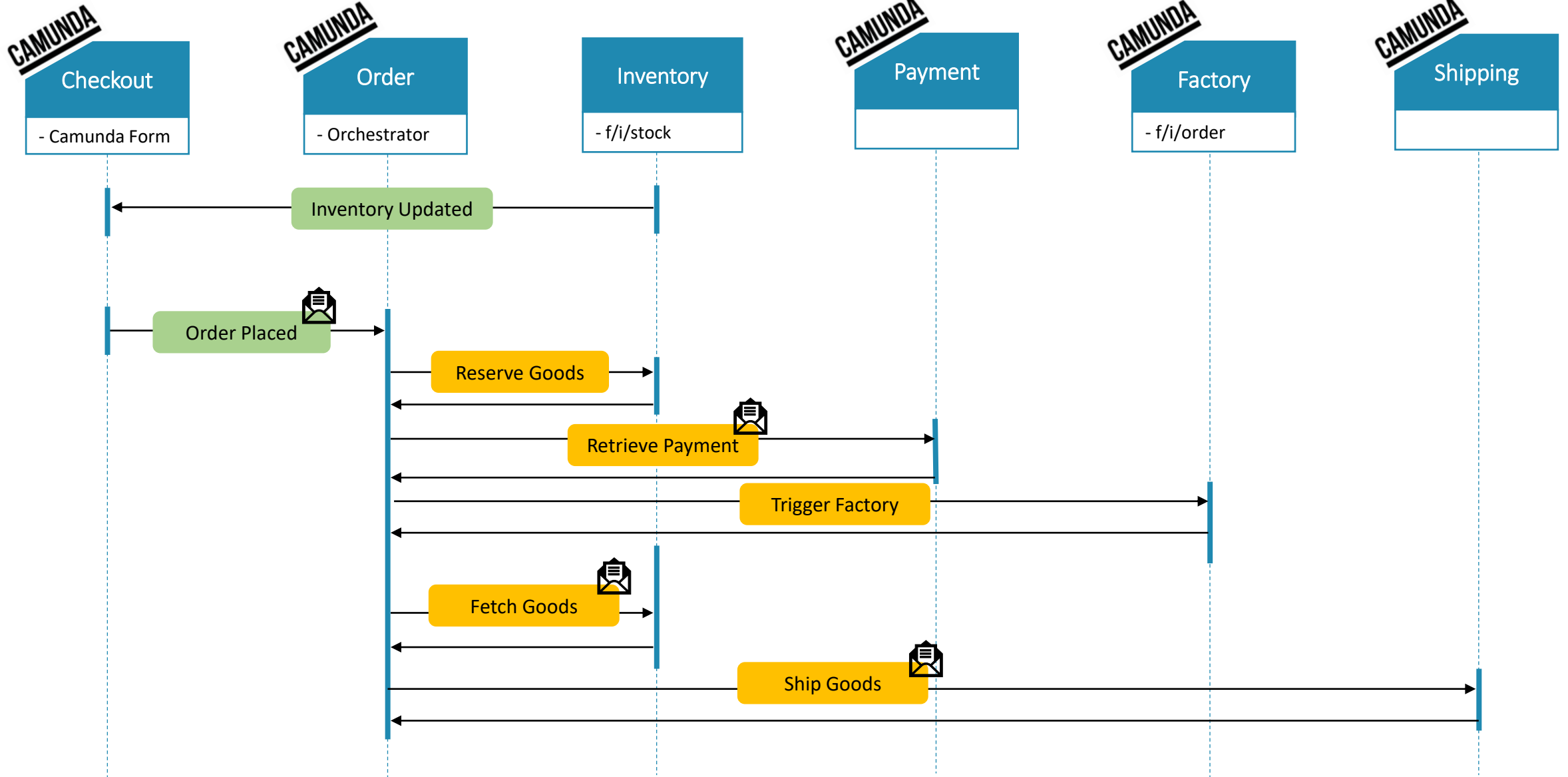
Once Order placed

→ Orchestrated by Order-Service



Any Service

→ Mailing Service is choreography



Event

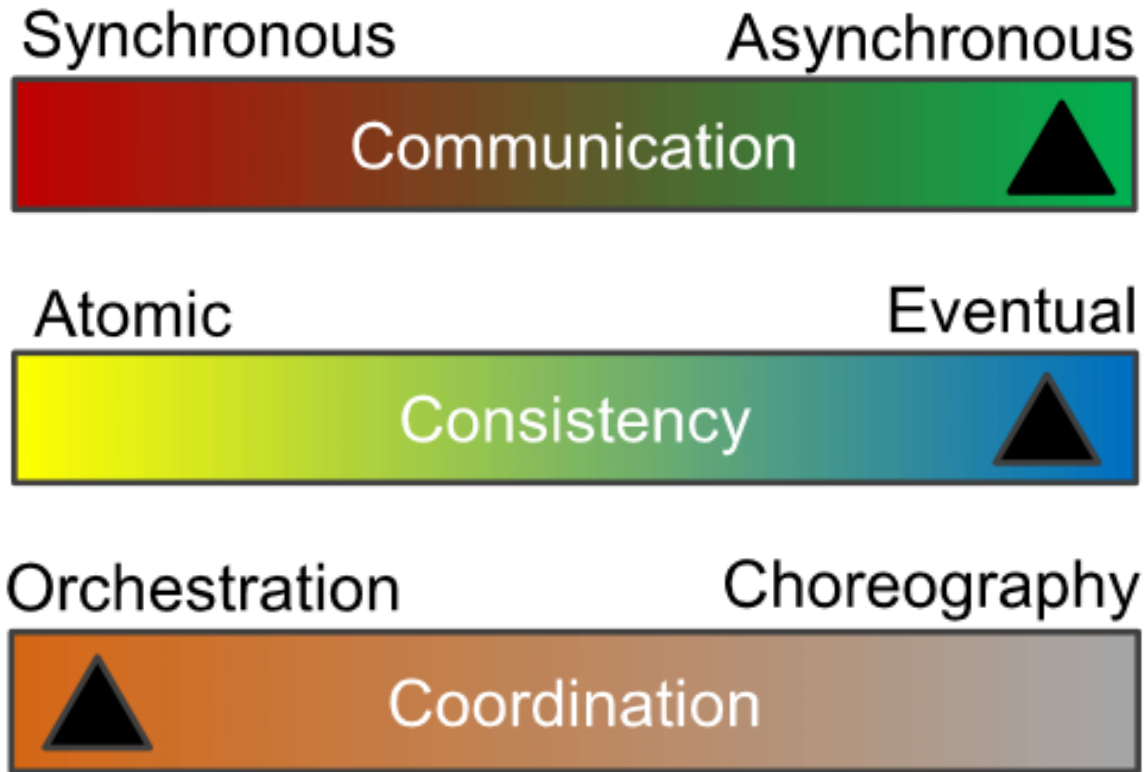
Command



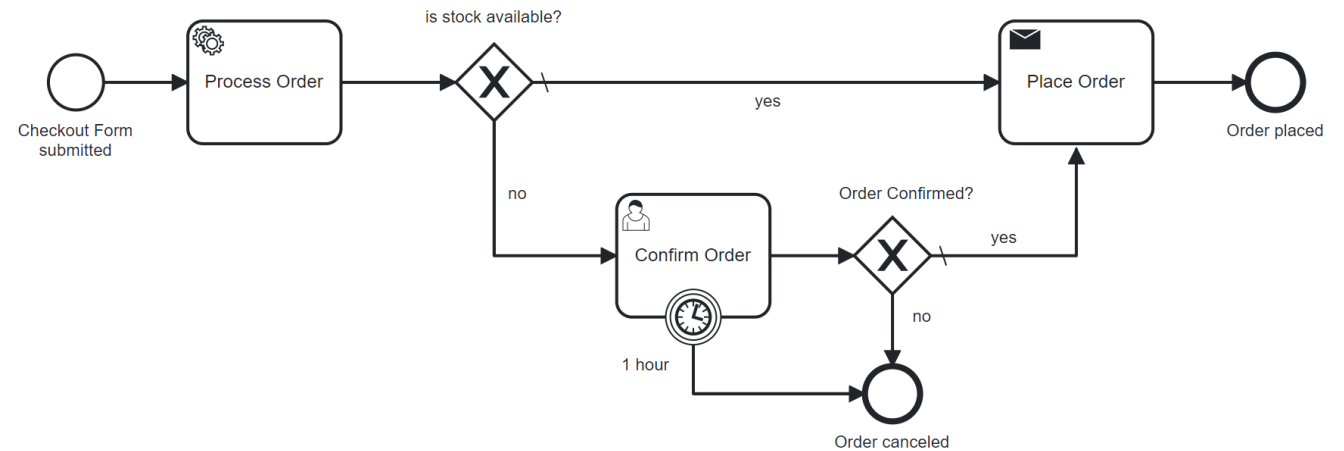
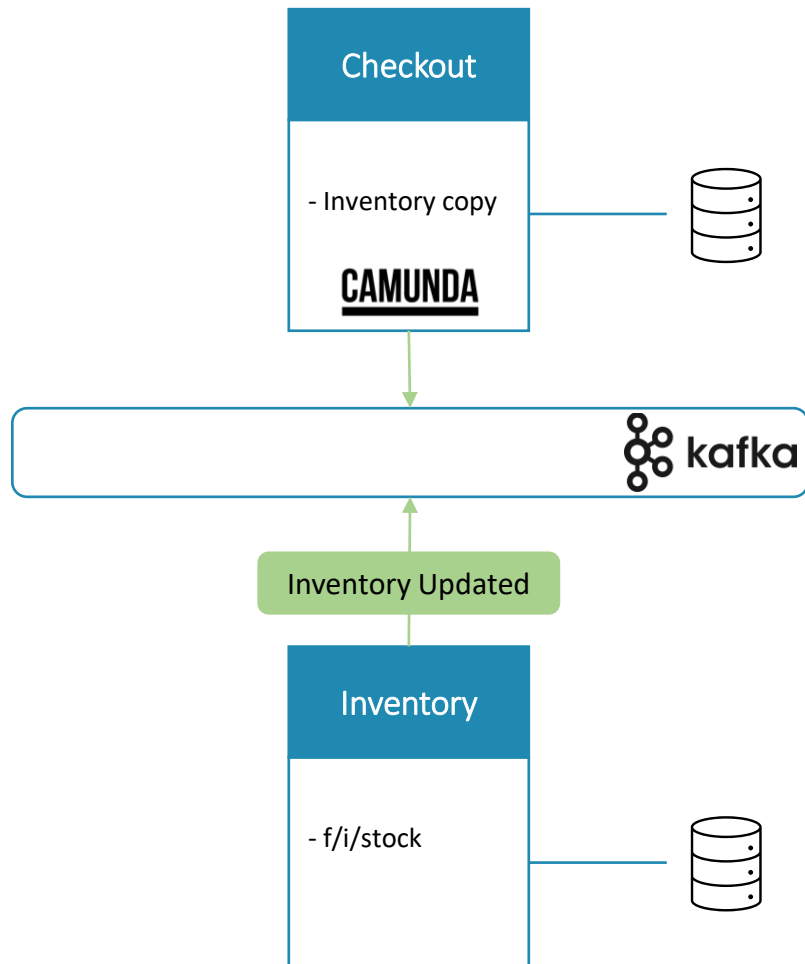
Mailing: send status Mail

# Parallel Saga

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# Event-carried State Transfer



Decoupling, Reduced load on inventory



Replicated Data → eventual consistency

Event: OrderPlacedEvent (from Checkout)

Command: RetrievePaymentCommand (from Order-Camunda)

Event: CheckAvailableStockEvent (from Order-Camunda)

Event: CustomerCreditUsedEvent (from Payment-Camunda)

Event: PaymentReceivedEvent (from Payment-Camunda)

Event: GoodsAvailableEvent (from Inventory)

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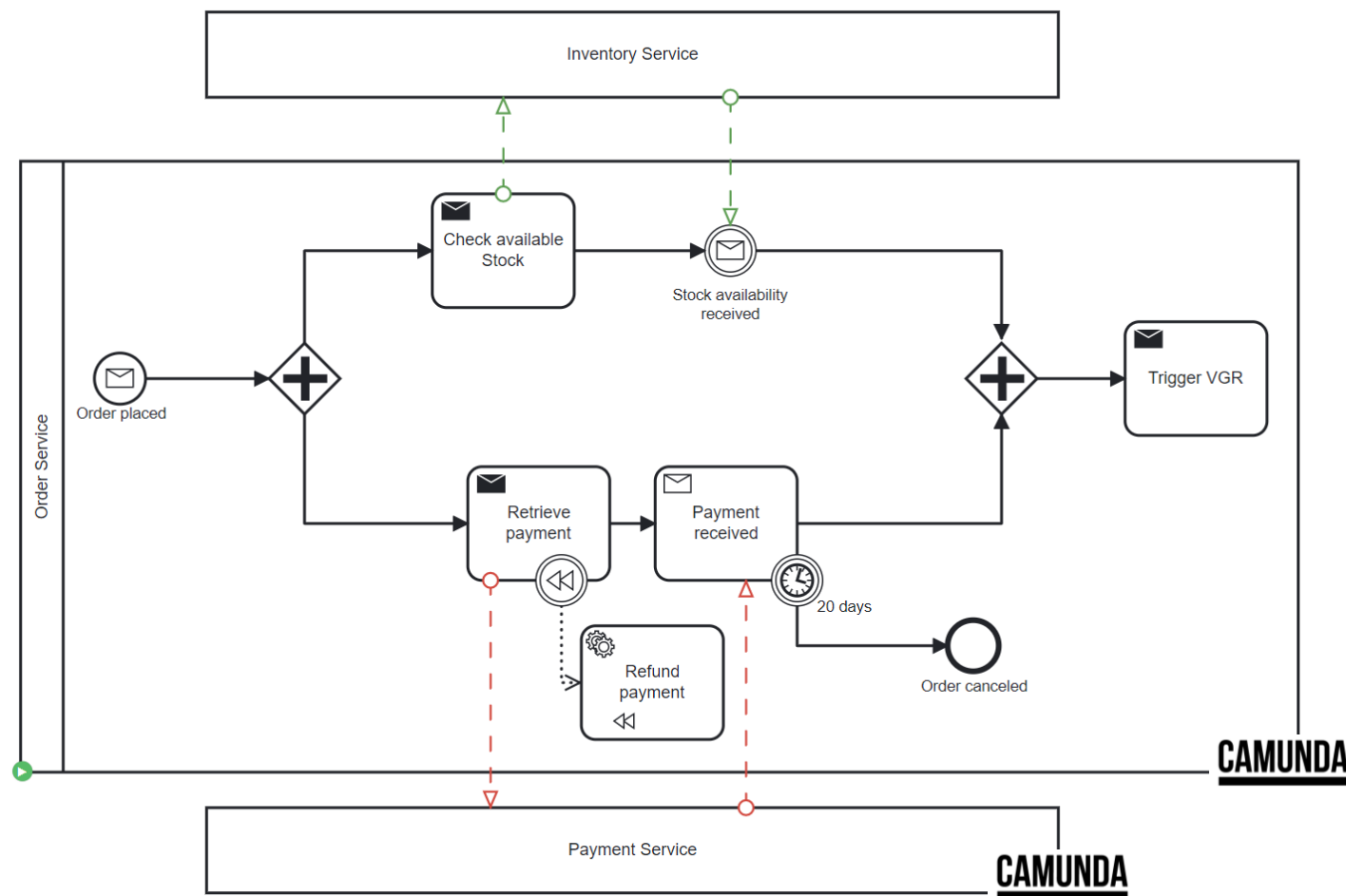
Event: GoodsAvailableEvent (from Inventory)

Event: GoodsAvailableEvent (from Inventory)

Event: GoodsAvailableEvent (from Inventory)

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Event: GoodsAvailableEvent (from Inventory)



Parallel Gateway, check the inventory while payment is retrieved



Message duplication



### Event flow

Event: OrderPlacedEvent (from Checkout)

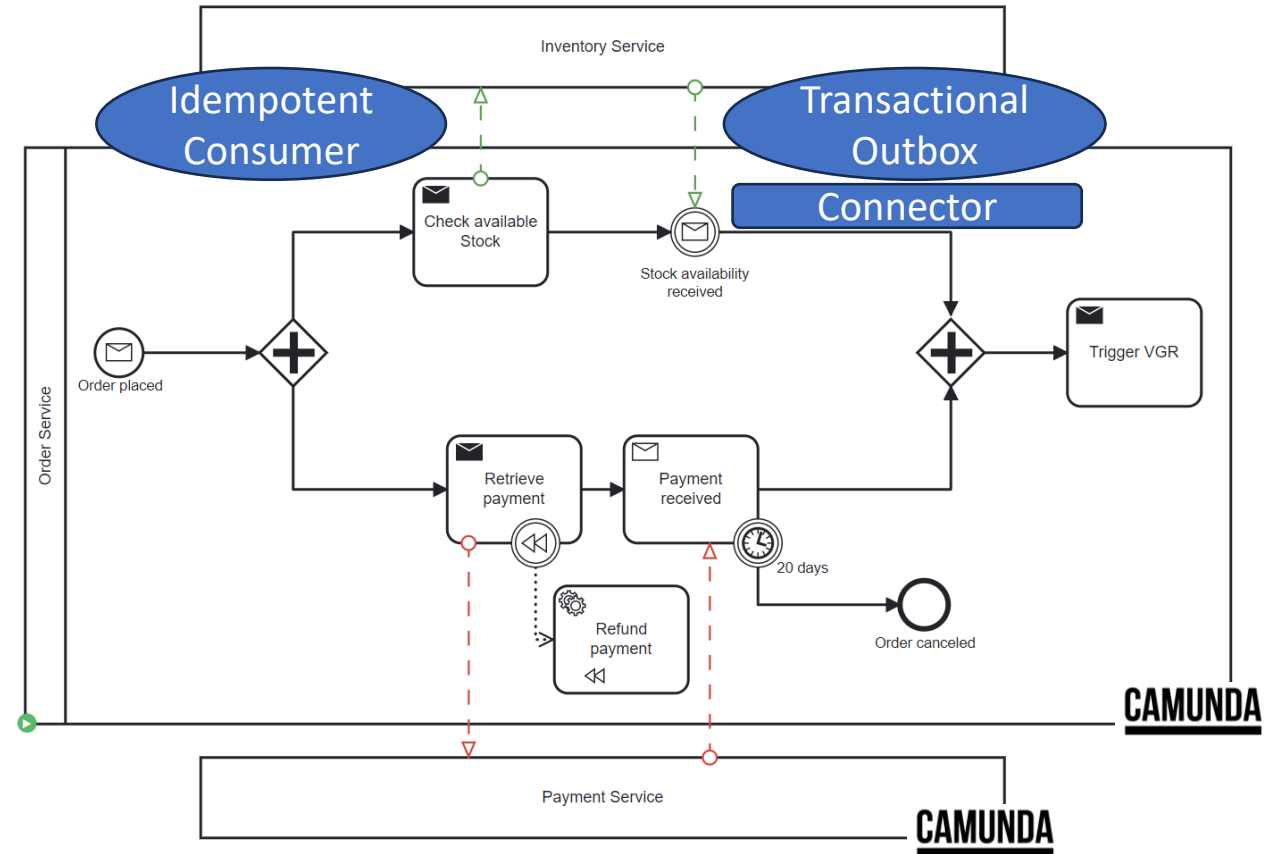
Command: RetrievePaymentCommand (from Order-Camunda)

Event: CheckAvailableStockEvent (from Order-Camunda)

Event: CustomerCreditUsedEvent (from Payment-Camunda)

Event: PaymentReceivedEvent (from Payment-Camunda)

Event: GoodsAvailableEvent (from Inventory)



Received CheckAvailableStockEvent

MessageListener: Check if stock available

Added to outbox: Message [type=GoodsAvailableEvent,

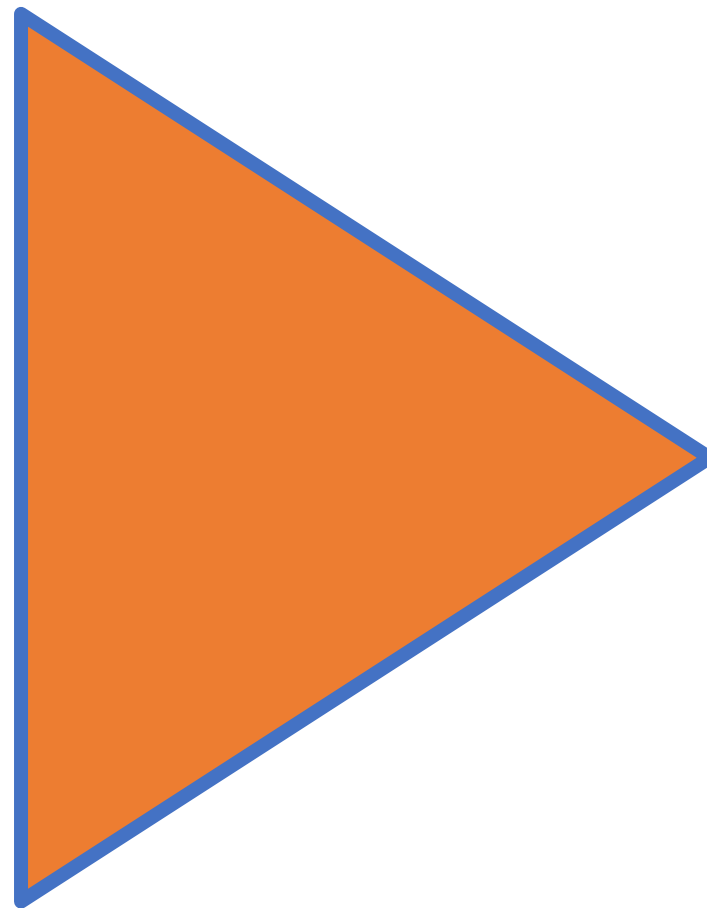
Outbox Poller: Successfully sent message from outbox

Received CheckAvailableStockEvent

Duplicate CheckAvailableStockEvent detected for refld:., skipping processing.

❌ Message duplication  
Inventory does not use Camunda

DEMO



Q & A

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