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Credit Card Fraud Detection

Event-driven and Process-oriented Architectures

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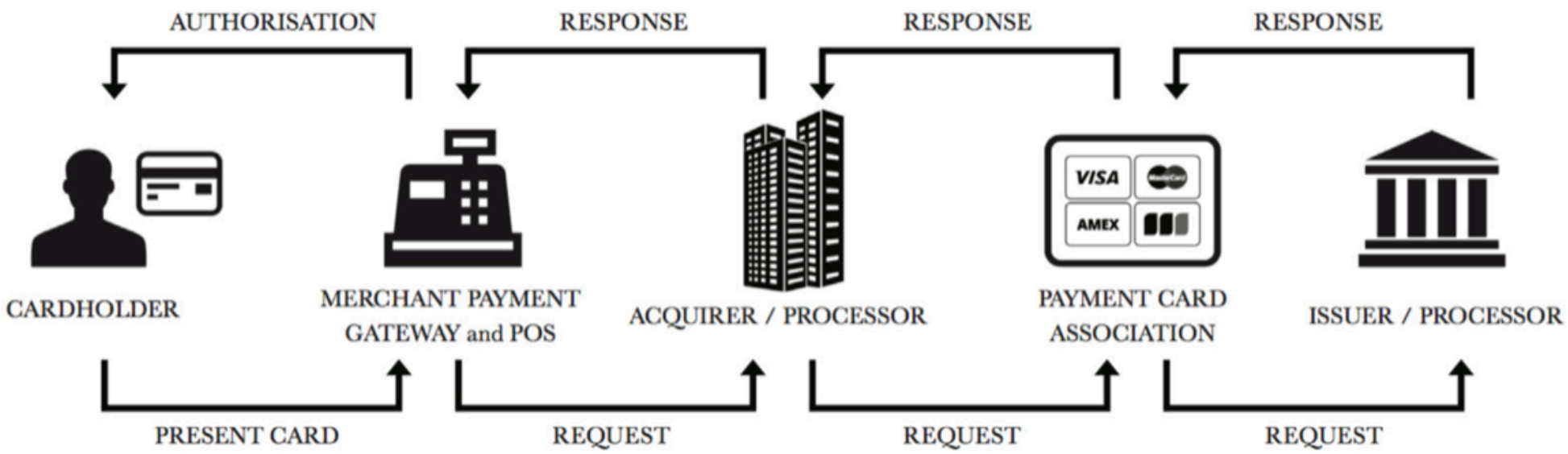
The Payment Cycle



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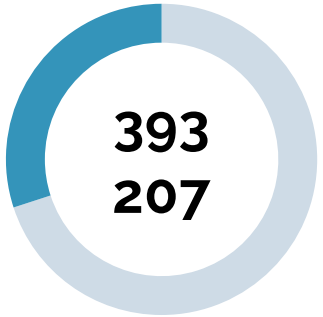
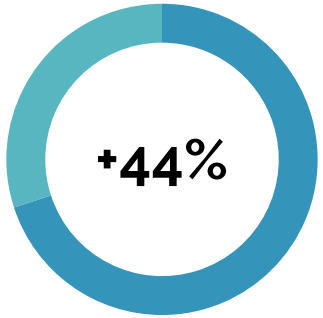
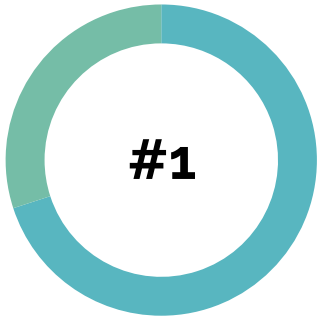


Cases of credit card fraud in the US in 2020

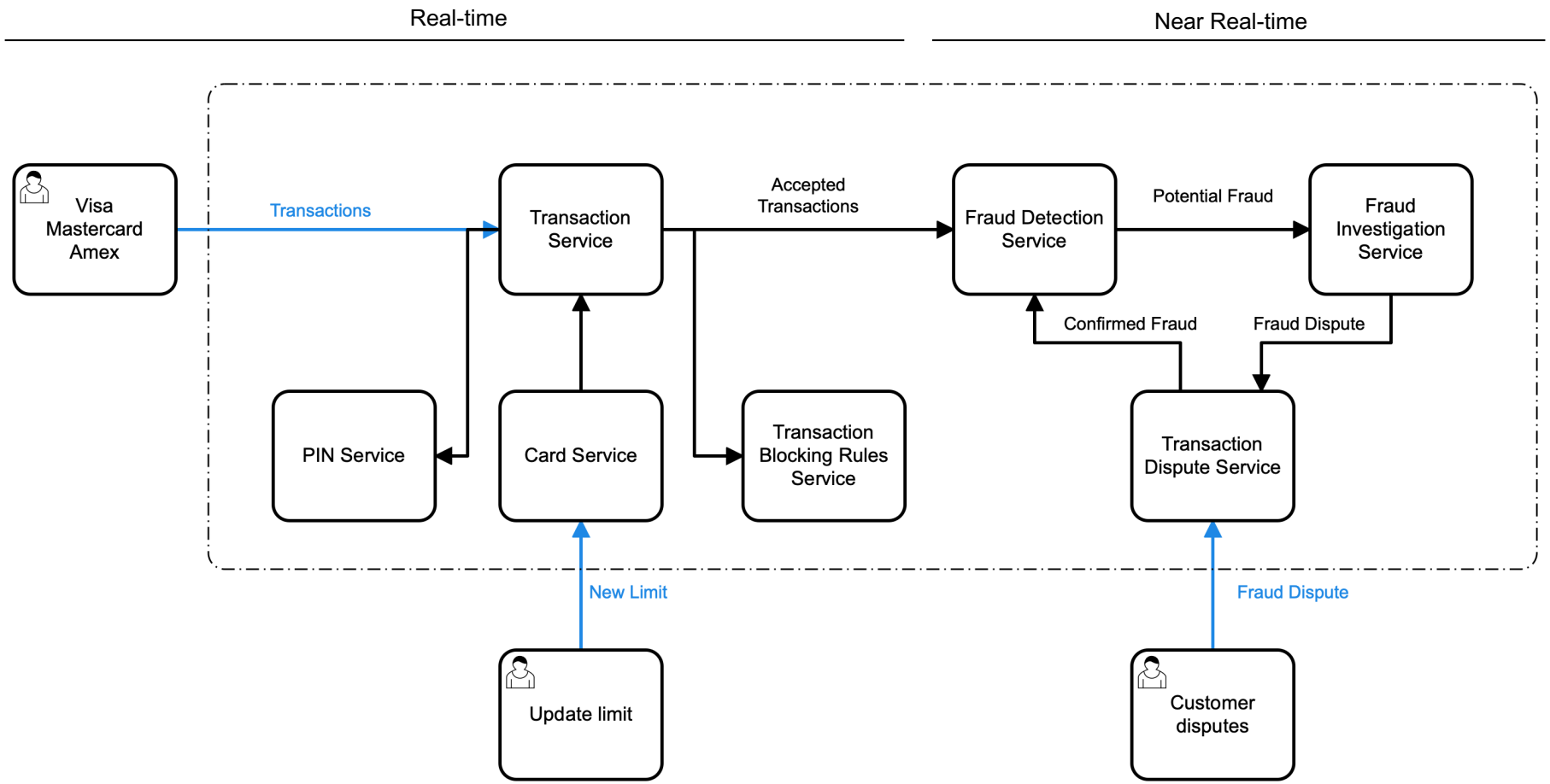


Increase compared to 2019

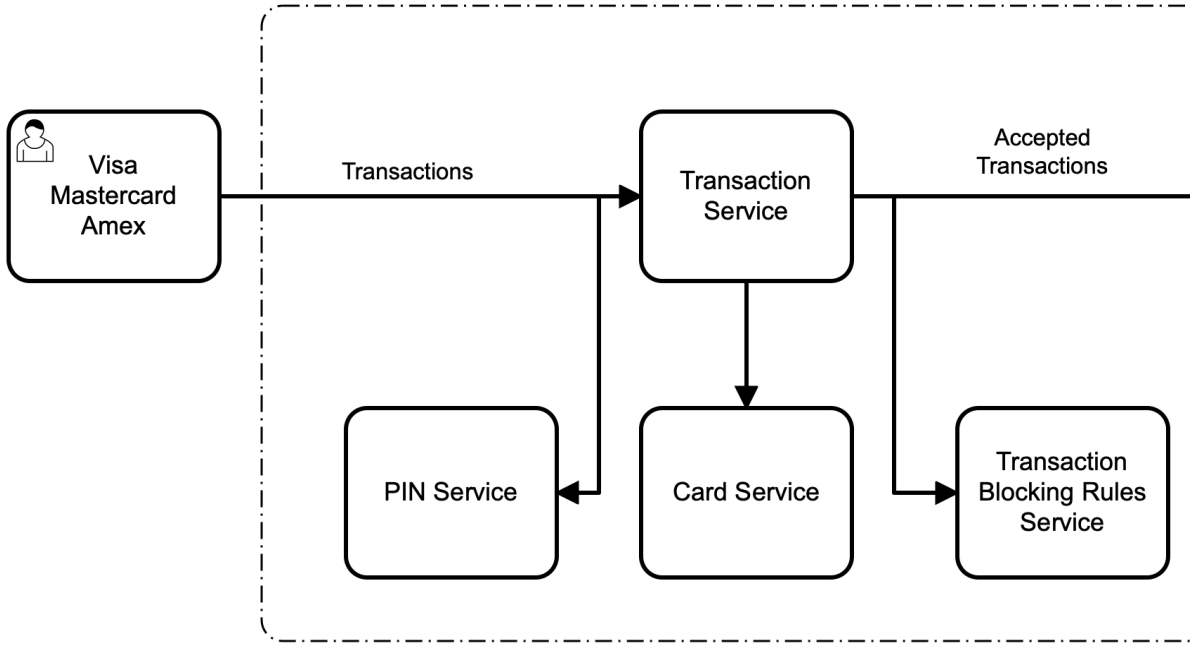


Rank among the most common identity thefts

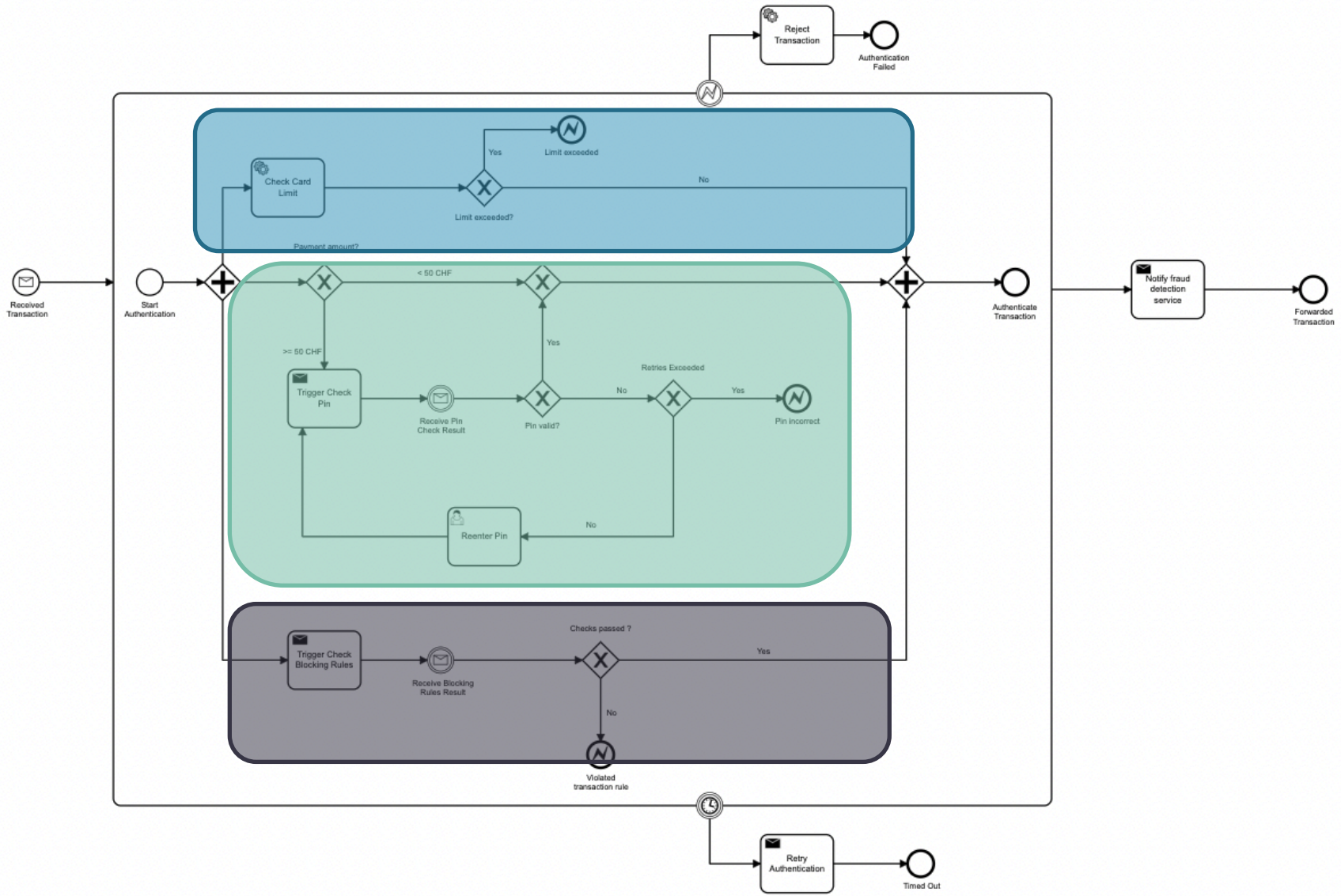
System Overview



Transaction Workflow (Orchestrated)



Overview Transaction Service



Overview Transaction Service

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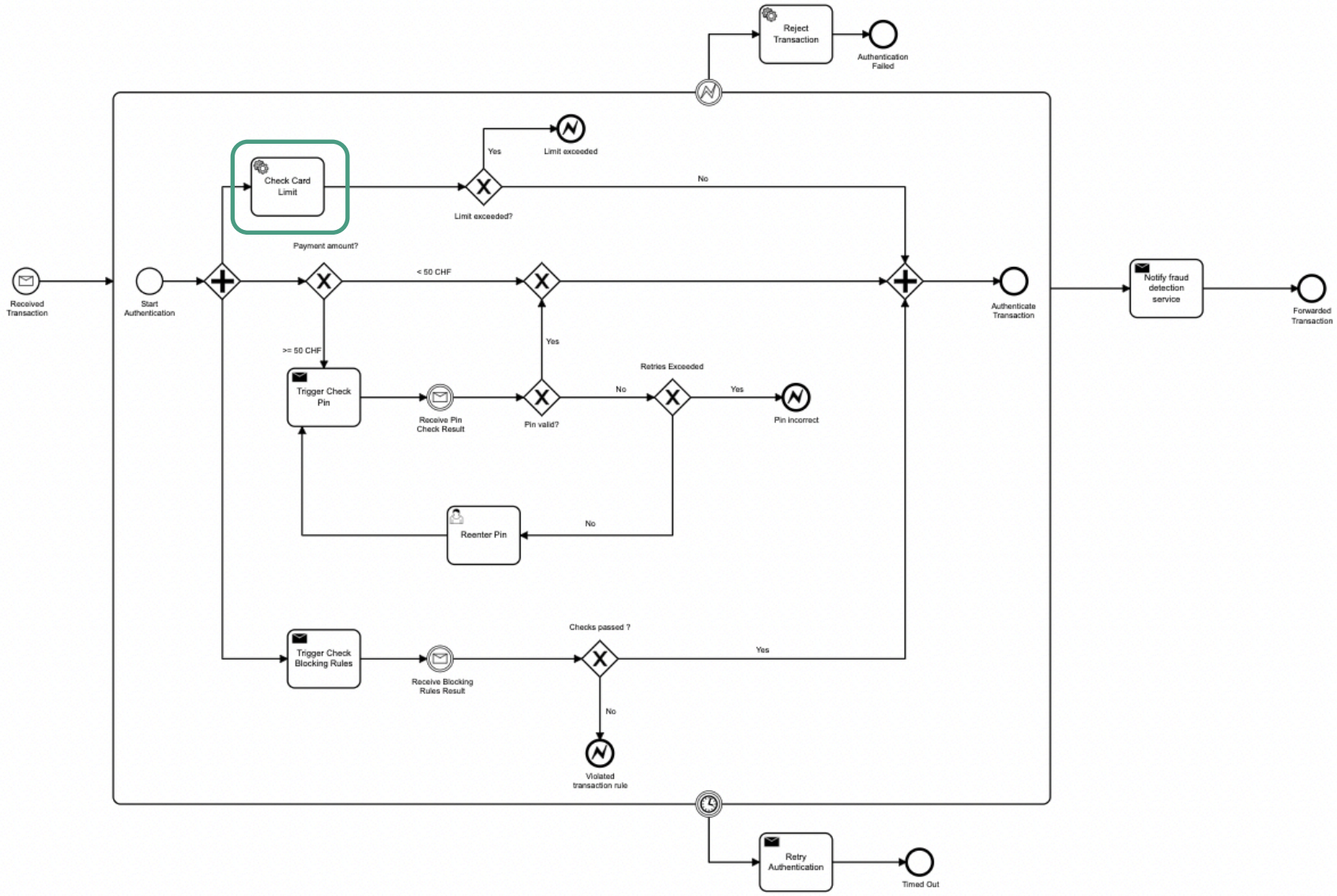
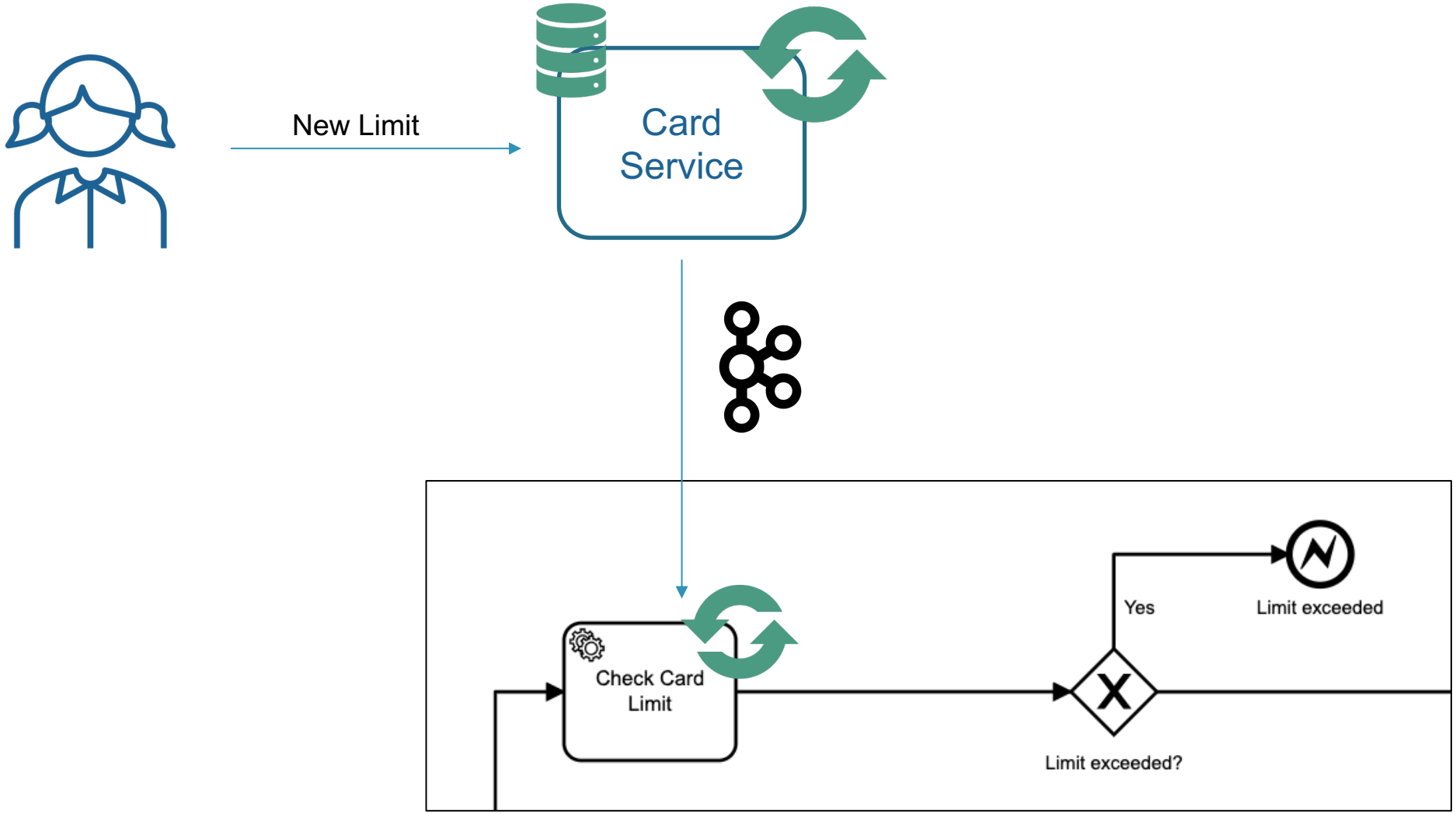
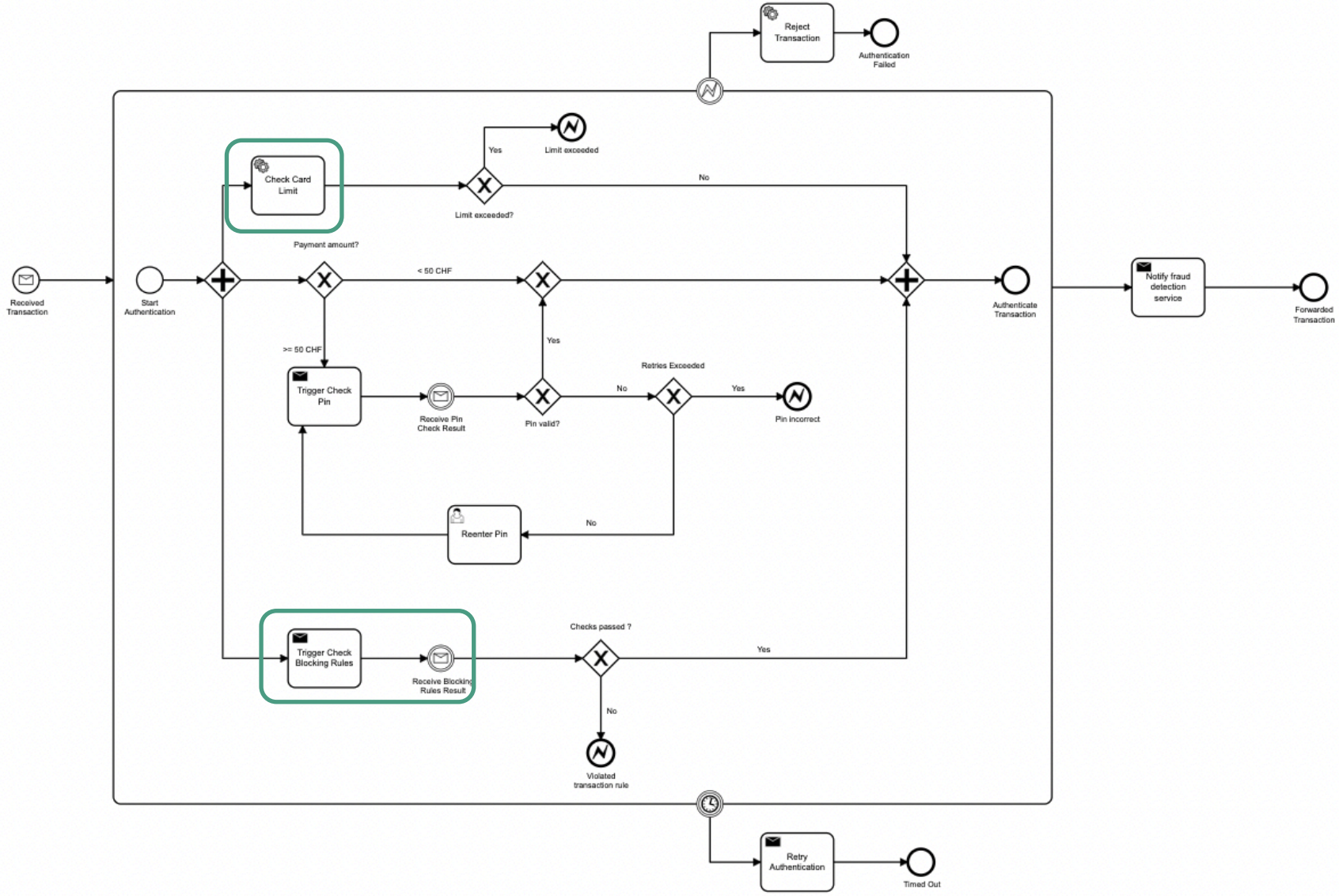
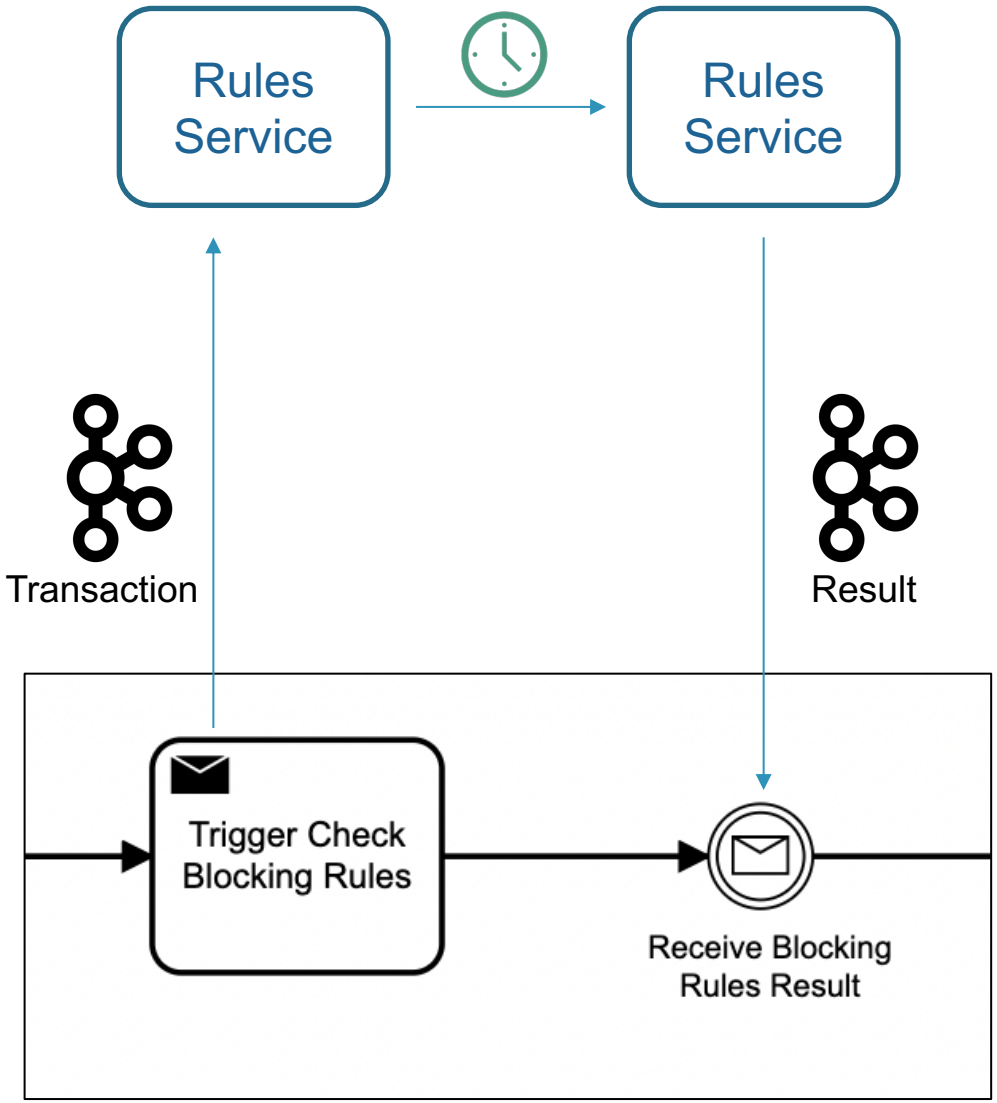


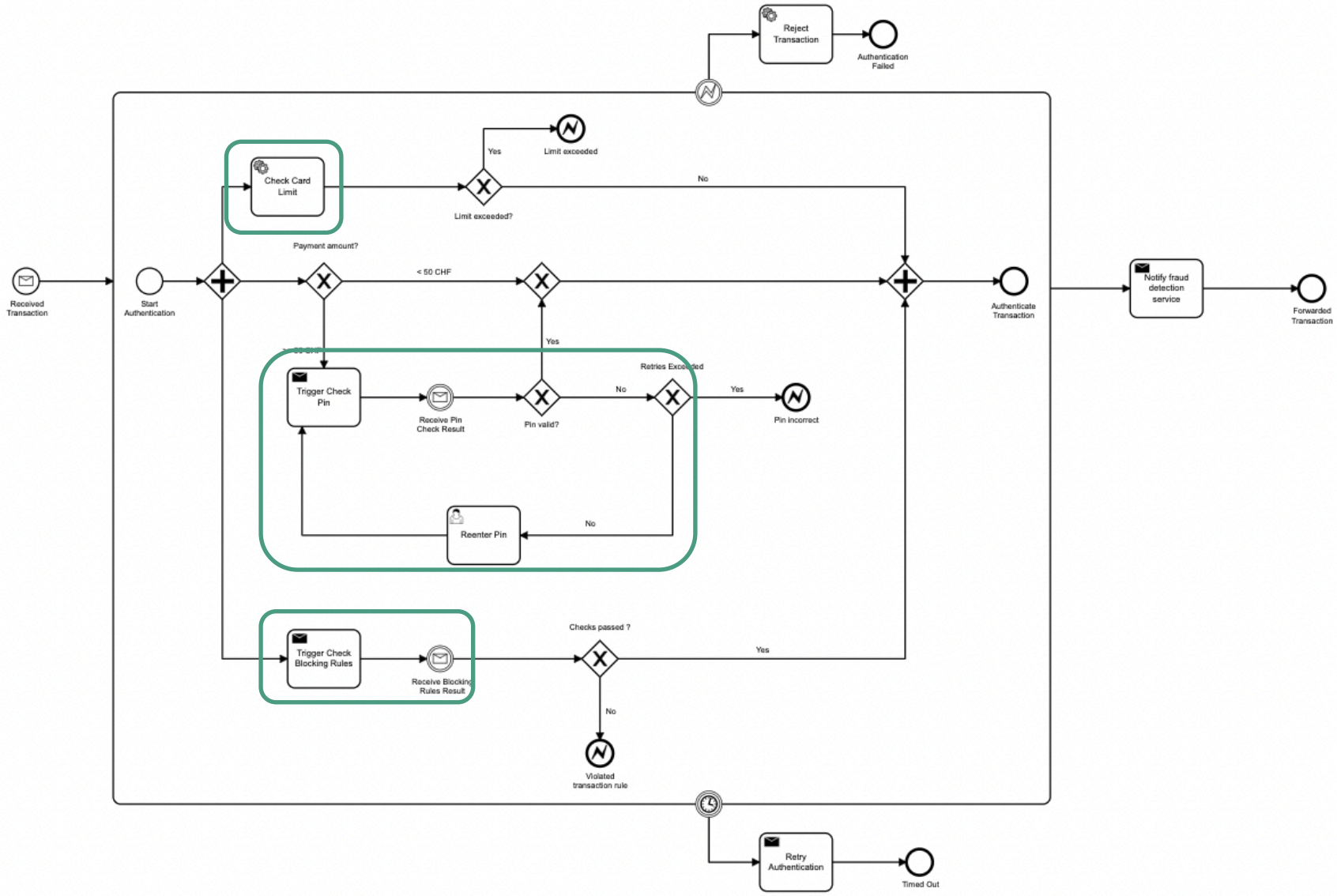

New Limit
Card Service
Check Card Limit
Yes
Limit exceeded
Limit exceeded?

Transaction Workflow (Orchestrated)




Rules Service
Rules Service
Transaction
Result
Trigger Check Blocking Rules
Receive Blocking Rules Result

Transaction Workflow (Orchestrated)



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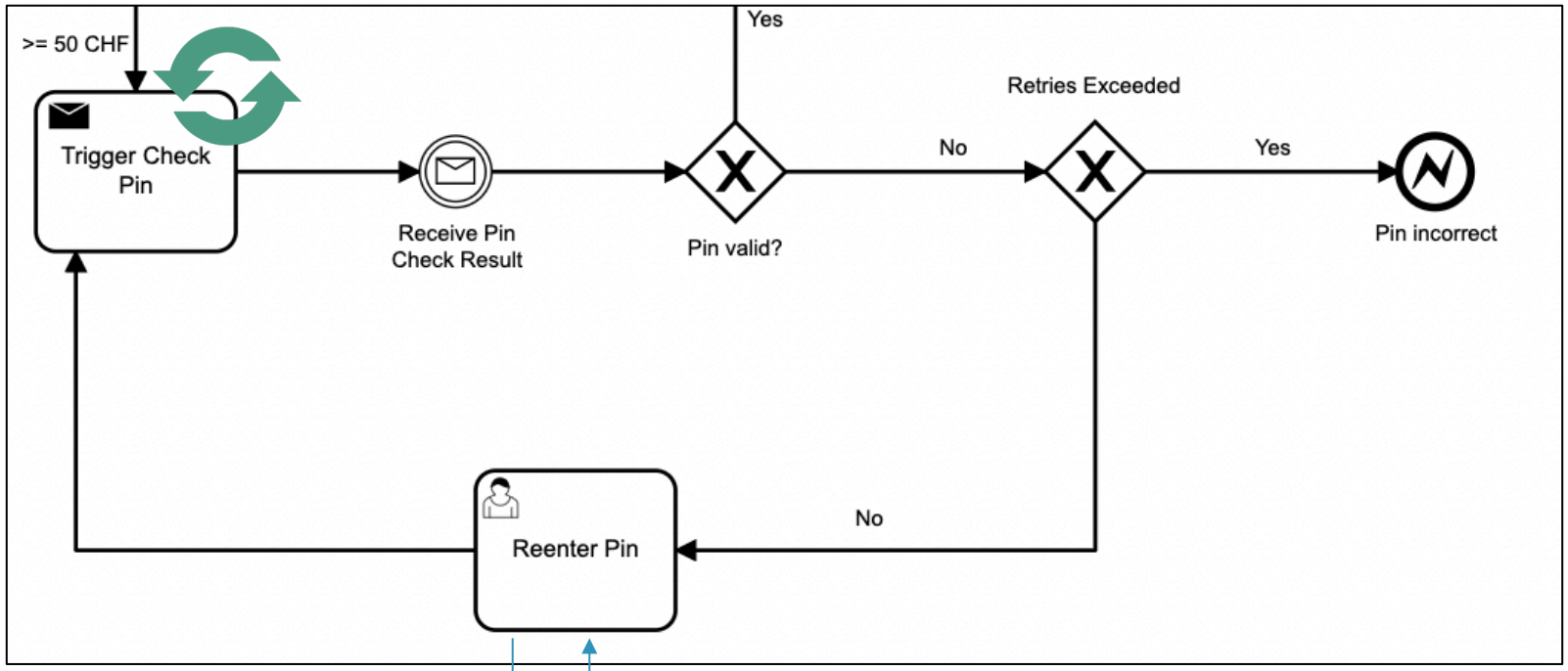

New Pin

Error Handling

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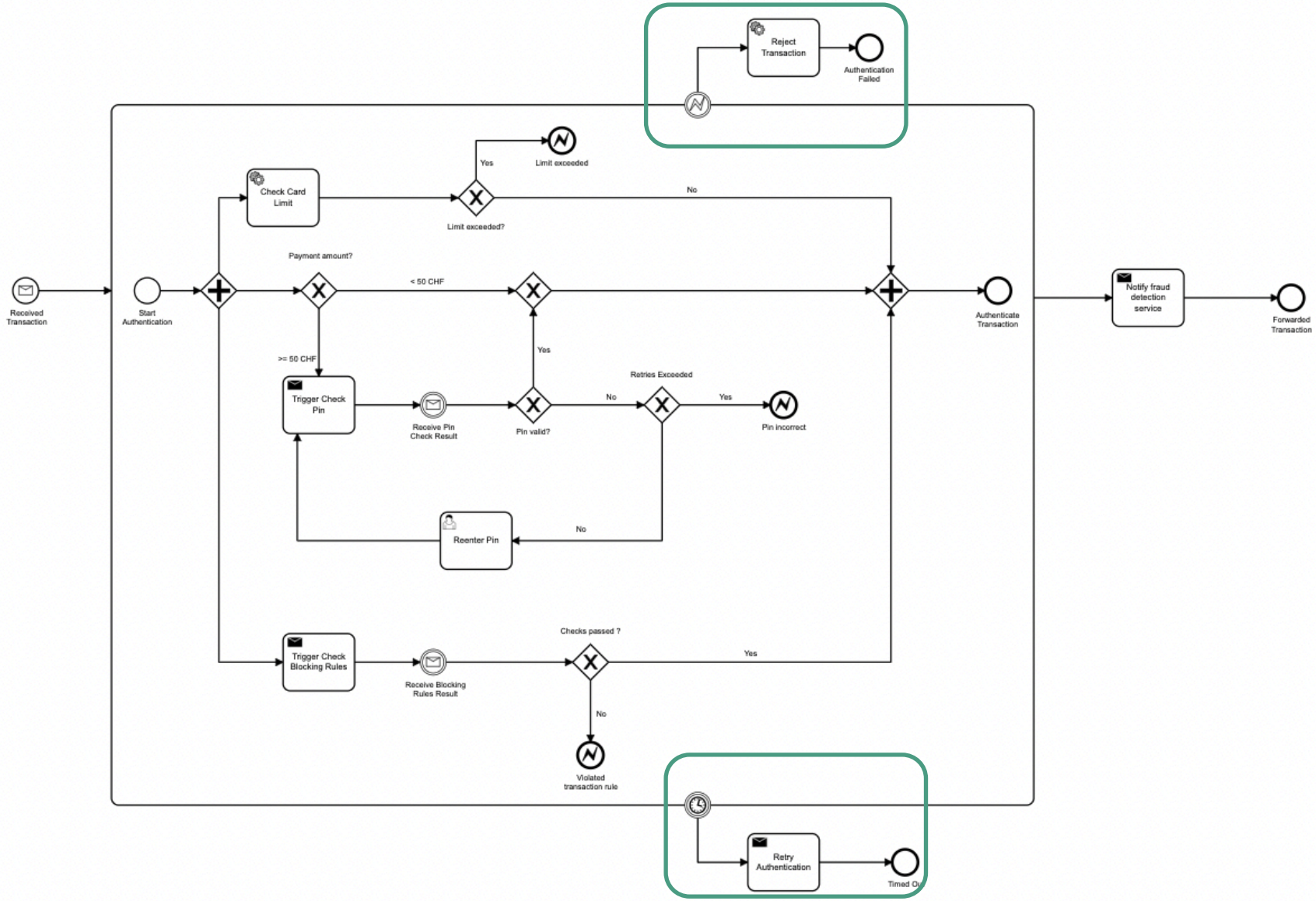

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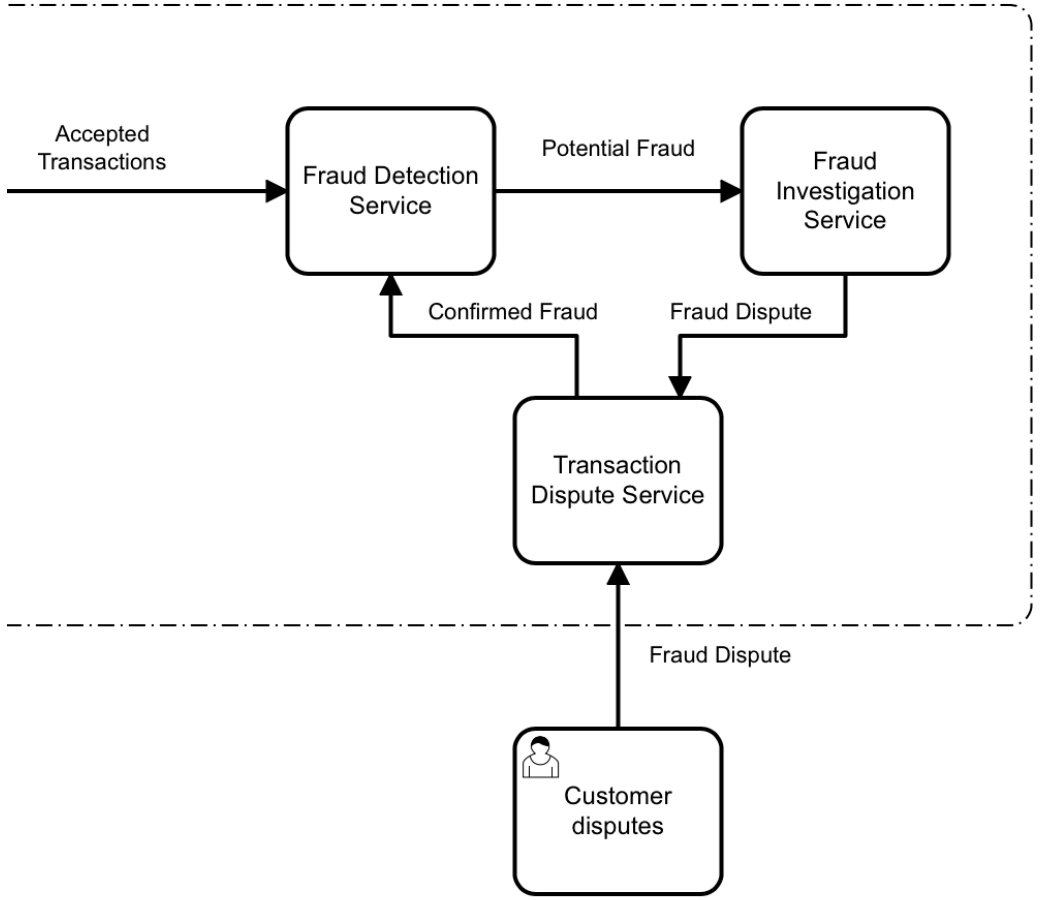
Fraud Detection Workflow (Choreographed)