



University of St.Gallen

Credit Card Fraud Detection

Event-driven and
Process-oriented
Architectures

MCS SS22

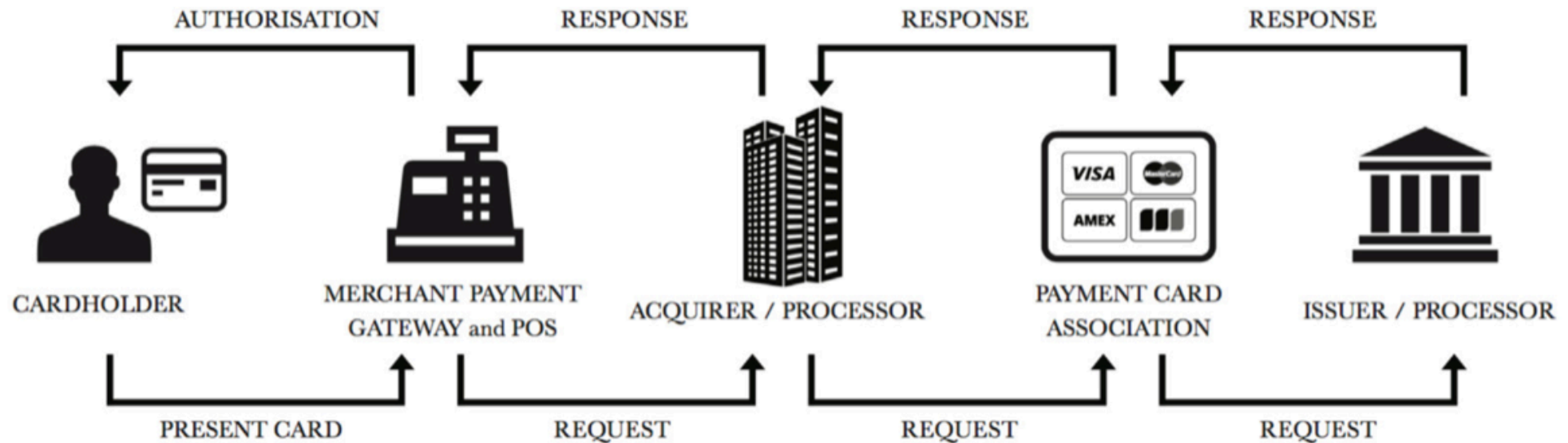
Kristofer Reynisson

Marcel Mettler

Jonas Hermann



The Payment Cycle





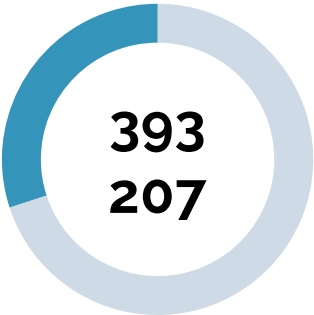
Card Present

- Copied Card Details
 - Stolen Cards

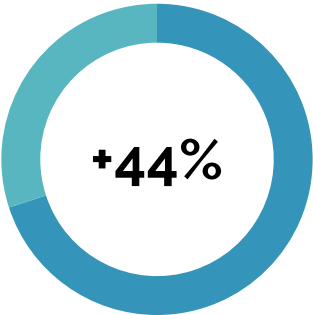


Card Not Present

- Leaked or Guessed Card Details
 - Social Engineering/Phishing



Cases of credit
card fraud in
the US in 2020

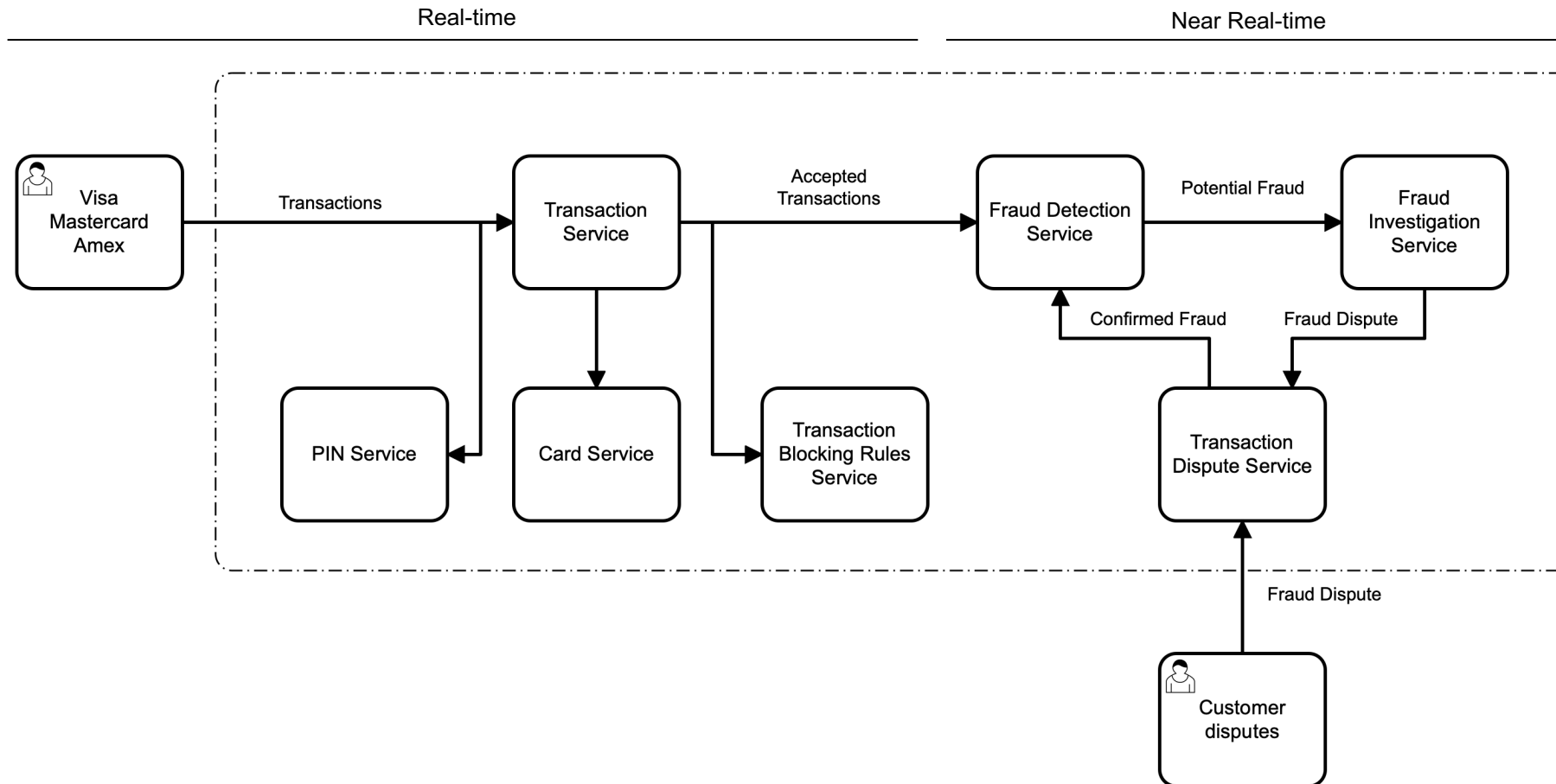


Increase
compared to
2019

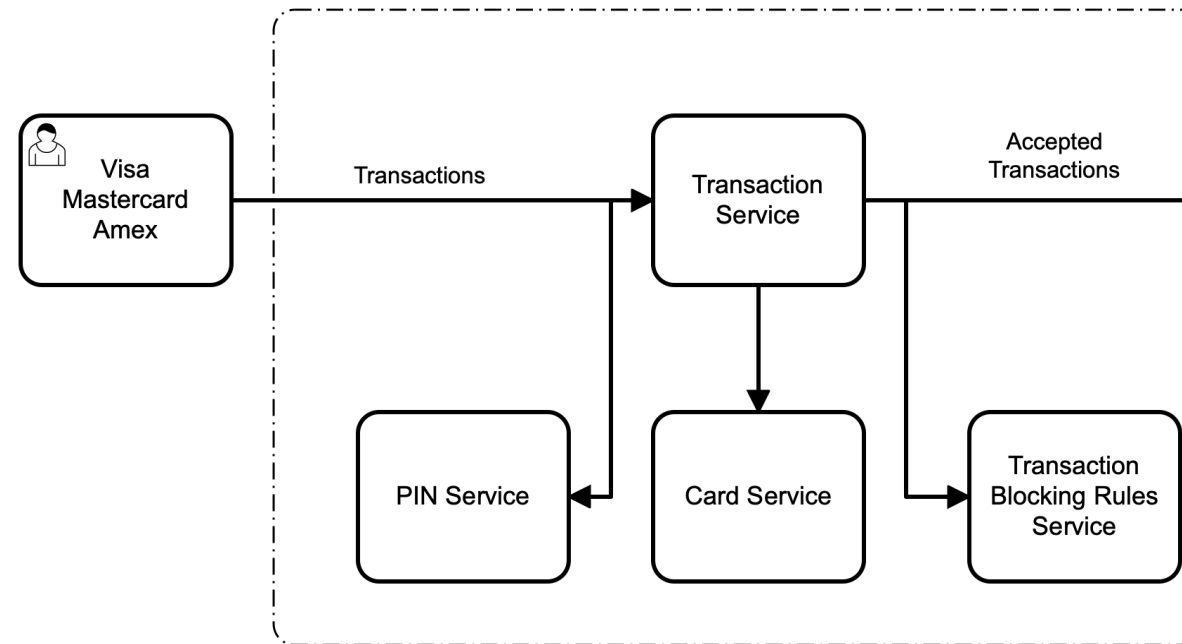


Rank among
the most
common
identity thefts

System Overview



Transaction Workflow (Orchestrated)



Fraud Detection Workflow (Choreographed)

