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# Smart ATM Cash Forecasting & Real-Time Refill System

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## SEQUENCE DIAGRAM



## SEQUENCE DIAGRAM – DESCRIPTION

### Scenario: Critical Alert → Route Generation → Refill

Actors:

ATM → System → Forecast Engine → Alert Engine → Route Engine → Operations Manager → Cash Van Team

Sequence Steps:

1. ATM sends updated cash level
2. System receives cash <20%
3. System requests forecast from Forecast Engine
4. Forecast Engine returns predicted depletion
5. System triggers Alert Engine
6. Alert Engine sends SMS/Email/App alert
7. System submits ATM ID to Route Engine
8. Route Engine generates optimized route
9. System displays updated route to Manager
10. Manager assigns route to Cash Van Team
11. Cash Van refills ATM
12. Cash Van updates refill confirmation
13. System updates dashboard & logs