Team ENIGMA

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Problem statement

Cash collection system (mobile app + relevant backend structures) for field force to do daily cash collection based on Invoice or challan amount and foolproof solution to ensure noundercollection or incorrect representation by cash collection associate or payee by using barcode or OTP or self validating TOTP mechanisms. Consider offline (no-connectivity) scenario as well.

The Current Landscape

Agents approach sellers and collect cash. It is done manually without the use of an app.

How do we solve this?

By making mobile applications for the stakeholders and monitor them remotely by an administrator.

ASSUMPTIONS

1

Some sellers give cash and some provide digital payments

2

Only one agent is assigned to collect cash from one seller

3

agents connect to internet atleast at the start and end of day

4

wholesale seller is connected to internet most of the time

5

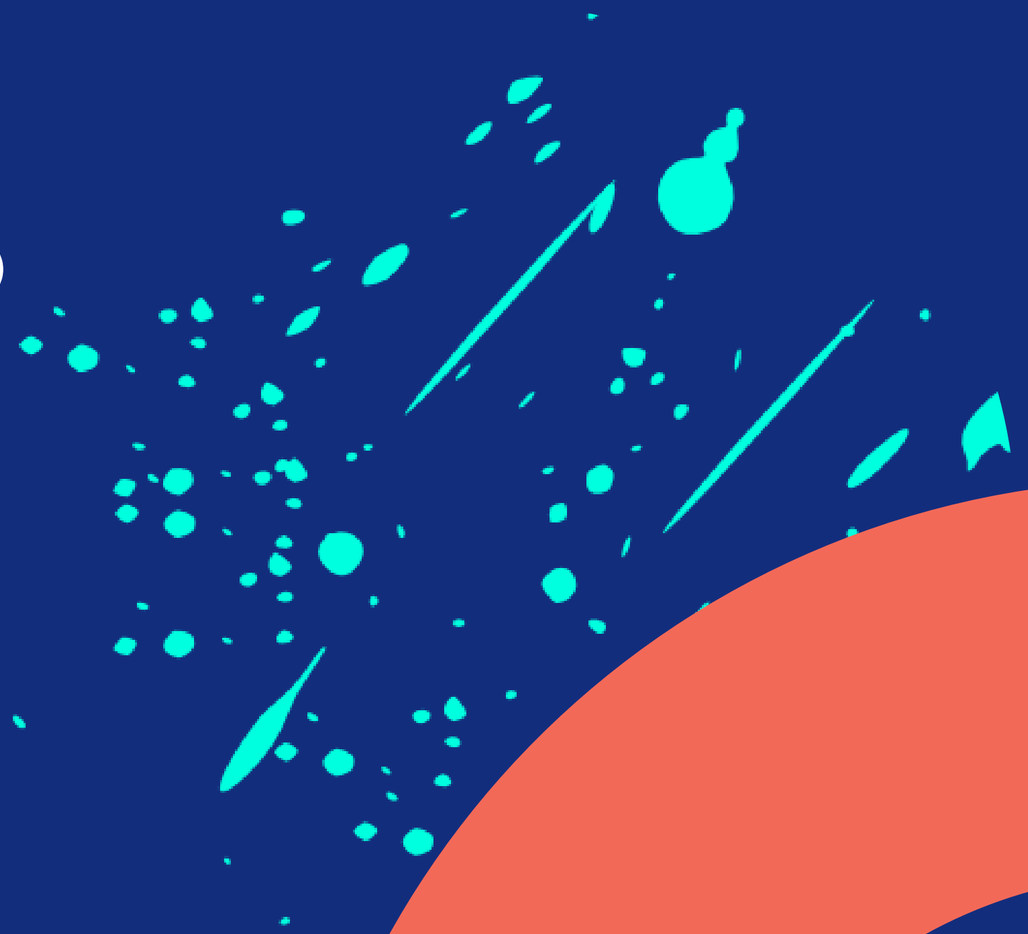
Wholesale seller, money collection agent and seller have mobile network

6

All stakeholders have smartphone

Objective

- Create a cash collection system (Mobile app)
- based on invoice or e-challan generated
- foolproof solution
- offline verification and storage of transaction information



People involved

ADMIN

wholesale seller

AGENT

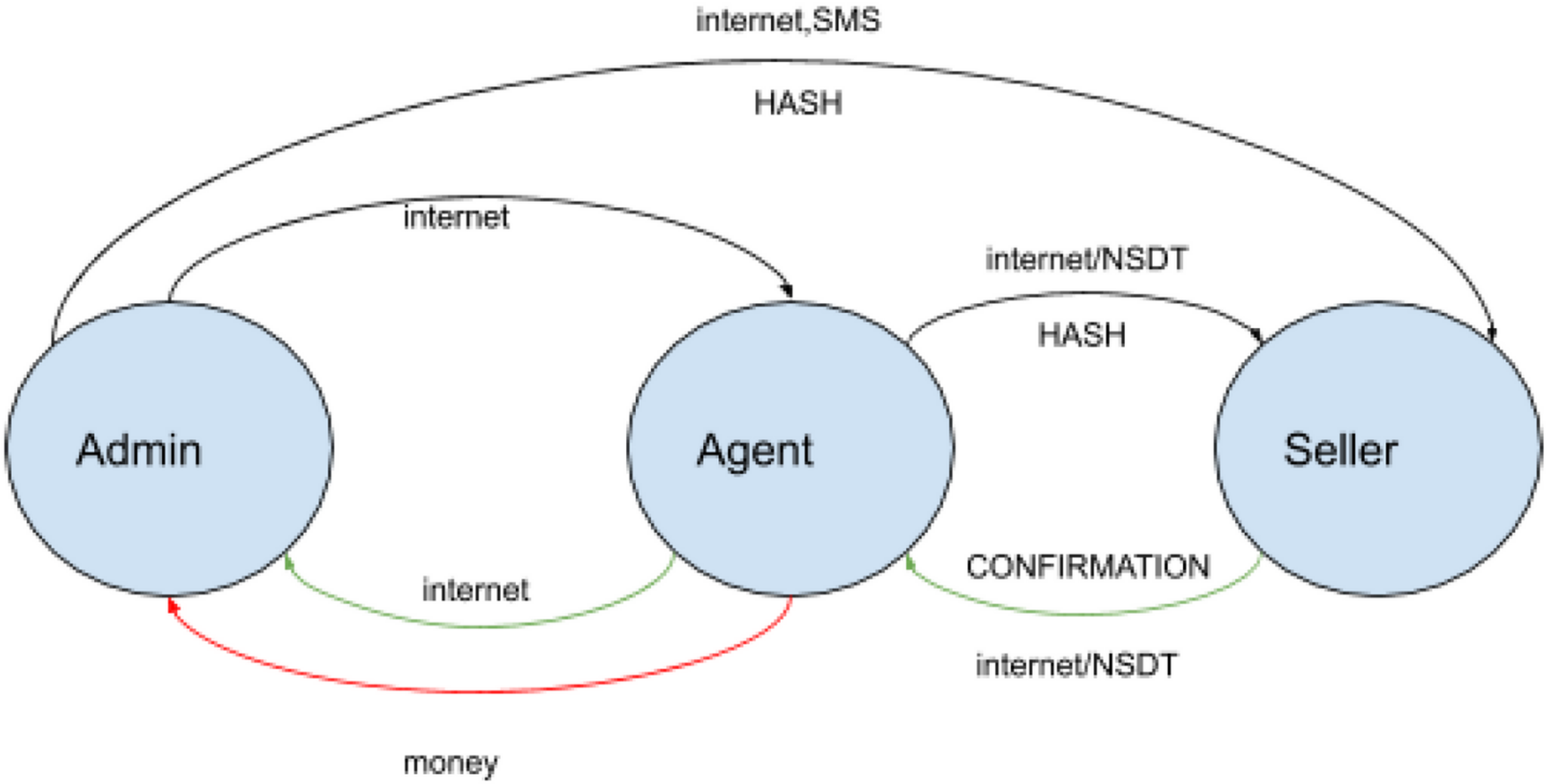
Money collection agent

SELLER

shop owner

we create app for each person

Flow Diagram

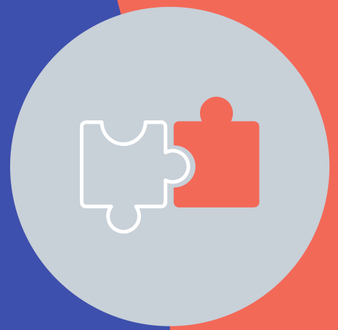


Technology Components

App for admin

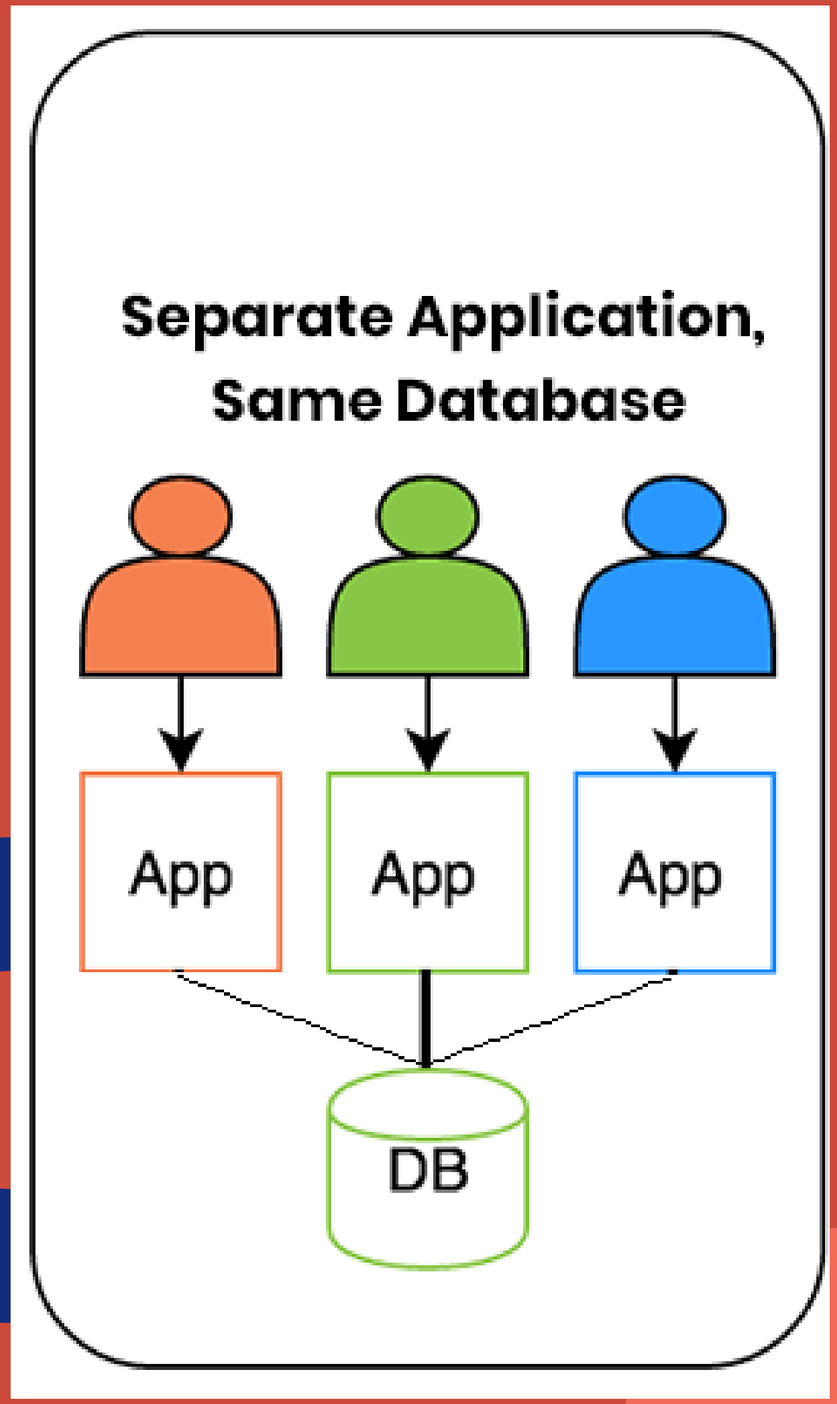
App for agent

App for seller



Common SQL database in digitalocean cloud

Technical Architecture



FUTURE SCOPE

- Usage of unused frequency in cell spectrum to validate payments is underway, which could eliminate use of SMS for validation
- Same solution can be extended to micro loans which have a period of few days
- This solution can be extended to use crowdsourcing for finding collection agents after incorporating an incentivize scheme
- OCR technology can be used to scan an offline invoice and digitize it

Thank You

FOR THE OPPORTUNITY TO WORK ON A REAL LIFE SCENARIO