**DMFabric**

**A Blockchain Application for Disaster Management**

**A POC submitted for**

**IBM Call for Code**

**By**

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**DMFabric Use Case Scenarios –**

**1. Resident Registration**

Residents will register on DMFabric Application provided by Government.

They will provide their mobile number and bank information which will be validated and reviewed by Banks or PSPs and a **payment wallet** will be generated. This wallet will be activated & used for distribution of funds in crisis situations. Residents can use this wallet for payments for availing services from service providers. The payment wallet will leverage **services like VPA (Virtual Payment address), and MPIN as in case of UPI payments**

Residents will add their family member details as well which will be linked & used for finding missing persons. Each member will be registered separately and linked.

The users can login to the application by **using social media identity (Google, Facebook) or using One Time Password via SMS**.

Documents like **Aadhaar Card, medical reports** can be uploaded to the application to be used when the resident is in a medical emergency.

**2. Service Provider Joins Network**

Commercial service providers can join the Blockchain consortium and provide their services by updating their existing system to invoke smart contracts.

They will update their existing enterprise application to have the capability to invoke smart contract on network

They will receive requests for services and they will be able to accept requests on network

They will be able to publish their services in crisis situations

**3. Resident reaches nearest shelter using Transport services if required**

Resident views all available shelter options published on network and books a shelter based on nearest location, food and medical facilities

Resident requests for transportation if required and the application will automatically accept the request based on availability and the requirements being met.

Transporter will update the status when request is accepted & once service is delivered. Blockchain will link the first acceptance of request.

Resident will pay the service providers from payment wallets

**3. Resident requests for food and medical services**

Resident can request for different services such as medical, food during crisis

Service providers will accept and get paid from wallets automatically executing smart contracts

4. **Resident requests for funds**

During the crisis, if the resident is run out of money to avail a paid service, he/she can request for certain amount of money to be added to their Payment wallet

Government can distribute funds through respective Banks directly into wallets