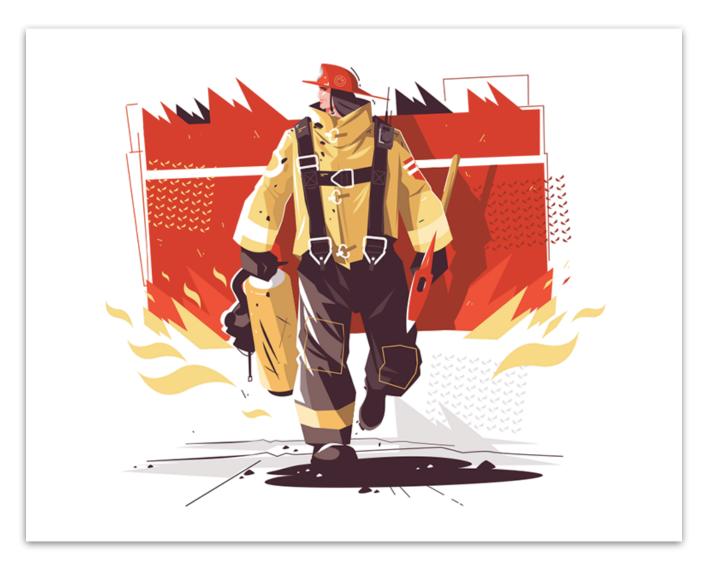# Emergency Response System

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EMERGENCY RESPONSE SYSTEM

Problem Statement:

The world today is impacted by emergencies on an unprecedented scale.The health, economic, political and societal consequences of emergencies can be devastating, both in the acute and long term. They have major impacts on the health and well-being of communities, resilience of health systems, stability of national economies, and progress towards the Sustainable Development Goals.

Managing emergencies can be a problem especially for developing countries with lack of infrastructure. There is an over-reliance on media outlets which sometimes result in false information. There could be some critical information that does not reach immediately and there is no way to filter it out.

The purpose of the Emergency Response System is to provide essential guidance and keep users up to date about any emergency situations. Additionally, this application also organizes and manages the resources and responsibilities of each operational unit in humanitarian emergencies in order to lessen the impact of disasters.

Key Functionalities:

1. Reporting emergencies along with location and image.
2. View a report of all the incidents in a particular network in graphical form.
3. Notification to relevant authority for response.
4. Verification of reported emergencies for preventing hoax reporting which will result in a ban of user accounts.
5. Alerts/broadcasting messages to all the registered users about a particular emergency with regular updates.
6. Volunteers including NGO can also register / login and participate in the event of disaster for additional help.
7. Cross network communication with ability to seek help from other networks in case of resource full.
8. One scene manager cannot work on two incident sites.
9. Contingency funds management.

Eco-system architecture diagram:

```
                                    Ecosystem
                                        |
                                        v                      Emergency Operating
                                    Network                           Unit
                                        |
                                        v                      Incident Operating
                              Enterprise Directory                    Unit
                                        |
                                        v                      Voluntary Operating
                                    Enterprise  ------------>         Unit
                                        |
                                        v                      Funds Operating Unit
                                 Organisation
                                   Directory
                                        |
                                        v                            Police Department
                                 Organisation  ------------>
                                        |                             Fire Safety
                                        v                              Department
User / Volunteer                 Useraccount
  Directory                        Directory                        Public Health
      |                                 |                             Department
      v                                 v
    User                          User Account                    Incident Management
                                        |                            Deptartment
                       +----------------+----------------+
                       v                                 v               NGO
                  Work Queue                           Roles
                       |                                 |             Personal
                       v                                 |          Organisation(Doctors,
                  Work Request                           |           engineers etc)
                       |                                 |
                       v                                 |           Funds Operating
            Authenticate Incident                        |            Department
                  Request                                |
                       |                            System Admin
          +----+-------+                                 |
          v            Emergency Request           Incident Manager
          |
          v            Cross Network                Scene Manager
          |              Request
          v            Emergency Unit               Personal Admin
          |              Request
          v            Funds Request                 Police Head
                                                         |
                                                    Fire Safety Head
                                                         |
                                                     NGO Admin
                                                         |
                                                    Fund Manager
                                                         |
                                                   Public Health
                                                      Manager
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