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## **Emergency Response Network**

- A SMART City proposal for Emergency Response Services

#### A. Current Questioning

Most cities are known to need emergency response services

Emergency response services are provided by different agencies operating ambulances (that are of the air ambulance (in special circumstances) and on-road ambulance or rail ambulance categories), specific to cause disaster management teams, armed forces or even special task forces.

Importantly most cities have different requirements and systems for such response.

Today most cities need dedicated & exemplary services that can act for or mitigate accident, antigovernment or climate change related risks and threats, where sufficient attention is also given to manage prone-to-disaster locations or hazardous places that have a likelihood of becoming disaster stricken.

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This reckoner revisits the need to design and implement an Emergency response network that can notify, alert, protect or assist people in different circumstances at any location be it a busy road or remote area, railway track, flyover, bridge, tunnel, water body, dwelling, building or facility.

#### B. Purpose of such an Emergency response network



An emergency response network will rely on specialized infrastructure, systems, technicians, methodologies and curriculums that continually review & improve the network's procedures, skills and ability to provide 24/7 assistance, incorporate SMART mitigation and act swiftly to protect and save life

#### C. Reckoning

Cities do not have augmentation maps that can help an Emergency response network know more to act swiftly to provide emergency response services for vulnerable locations like Road systems, Tourist spots, Tunnels, Bridges, Flyovers, Public Facilities, Residential or commercial buildings, Mud or brick dwellings, Weak structures, Water bodies, or important zones like Railway stations, Bus stands or main terminuses, Metro rail stations, Airports, etc.

An augmentation map is not a typical layout of a location or zone, it includes premium information about services such as

- 1. Disaster Management and/or Emergency Response requirements
- 2. A Disaster Management and/or Emergency Response Advisory and a (dedicated to nature) Emergency Response Network Call Centre facility which helps a triad of authorities like the Police, Traffic control departments and Emergency Service (healthcare) providers or Disaster management authorities identify need, triage situations, conditions and issues to take corrective action or initiate assistance
- 3. Need for key—emergency response or disaster management practices that need to be enabled or planned for due to nature of location, or types of people or people identities visiting the location or zone.

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As people visiting a location or zone need different kinds of emergency response services, this proposal categorizes people that may be affected as Children, Teenagers, Adults, Elders, Working class people, Business class people, Government officials, Aged, weak or sick people, Blind or handicapped people, Tourists etc

The proposal also highlights the skills needed by Emergency Medical teams, that is

1. EMT Category 1: Emergency Response (Basic)

Skills needed: Assessment, securing or sanitizing scene of incidence, extrication of injured or affected, splitting and bandaging, airway management with oral/nasal interventions, CPR or PASC application.

**Cardiopulmonary resuscitation (CPR)** is an emergency procedure that combines chest compressions often with artificial ventilation in an effort to manually preserve intact brain function until further measures are taken to restore spontaneous blood circulation and breathing in a person who is in cardiac arrest.

PASC stands for Preliminary Administrative Services Credentials

2. EMT Category 2: Emergency Response (Ambulance)

Skills needed: Basic skills + general driving or vehicle specific driving experience + awareness of ambulance pre=requisites, practice, operations and legal responsibilities

3. EMT Category 3: Emergency Response (Intermediate complexity)

Skills needed: Basic skills + shock management + IV therapy + trauma evaluation + pre-hospital assessment or triaging according to established protocols

4. EMT Category 4: Emergency Response (Defibrillation skills)

Skills needed: Basic skills + use of manual, semi-automatic or automatic defibrillator +recognition of VF patterns via the development of cognitive skills. Here **Ventricular tachycardia** (**V-tach** or VT) is a type of regular and fast heart rate that arises from improper electrical activity in the ventricles of the heart

5. EMT Category 5: Emergency Response (Paramedic)

Skills needed: Intermediate complexity skills + insertion of endotracheal tubes, administration of emergency medications + ability to assist physicians + ALS skills

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#### ALS skills include

- a. Airway **Management** and Ventilation.
- b. Cardiovascular Emergencies.
- c. Patient Assessment and Management.
- d. Vascular Access and Medication Administration.
- e. Medical.
- f. Trauma Management.
- g. Neonatology and Obstetrics
- h. Operations.

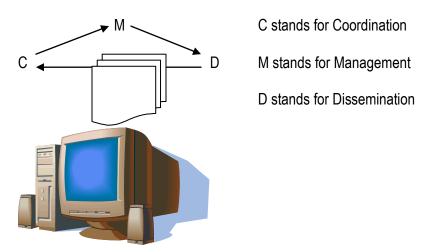
The proposal also highlights the skills needed by Emergency Service Teams as

- 1. EST Category 1: Responding for natural or man-made disasters where there are different categories needing specific response
- 2. EST Category 2: Assist in response for hostage situations, terror attack or bomb threats
- 3. EST Category 3: Assist in response for strike, mob violence, curfews or restricted movement specific response
- 4. EST Category 4: Assist in ride operator specific accident relief, crime surveillance, incident specific response and remedial action
- 5. EST Category 5: Ability to assist handicapped, disabled or afflicted in times of need
- 6. EST Category 6::Ability to assist Centralized Accident and Trauma Service (CATS) teams
- 7. EST Category 7::Ability to assist Normal or Advanced Life Support Ambulances

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#### D. Emergency Response Services Help Desk



CMD Role 1 - Publishes Alerts, Advisories, Warnings, Incidence reports, Feedback forms to improve safety, commuter health accountability, mitigate or control crime occurring in public and private transport vehicles, suggestion forms, complaints redressal forms

CMD Role 2: Establish / Ensure availability of the emergency response network

CMD Role 3: Implementing surveillance & alarm or alert specific response systems, revitalization, expansion or extension, upgradation, regular screening, functional relevance and performance assessment of the network and the working of its associated teams

CMD Role 4: Establishes and implements levels of networking between Police, Traffic Controllers, Fire brigade, Ambulances, MHU(s), Private or Government hospitals providing accident and emergency services, Armed forces medical facilities, Disaster Management departments, Civic administration, Governing authorities, Civil Defence, Armed forces, Volunteering groups, NGO(s), Red Cross etc

# E. AOEC's toolkit offerings

Documentation on improving awareness, sensitization & preparedness for Disaster Management and Emergency Response Services is included in AOEC's toolkit offering for Sustainable Commuting

You can ask for more details on any of the work-in-progress Zigbee specifications, illustrated designs for alarm systems & vehicle stalling mechanisms or ready to use guides that are part of this toolkit by calling the consultant on +919342867666 or by emailing <a href="mailto:venkataoec@gmail.com">venkataoec@gmail.com</a>