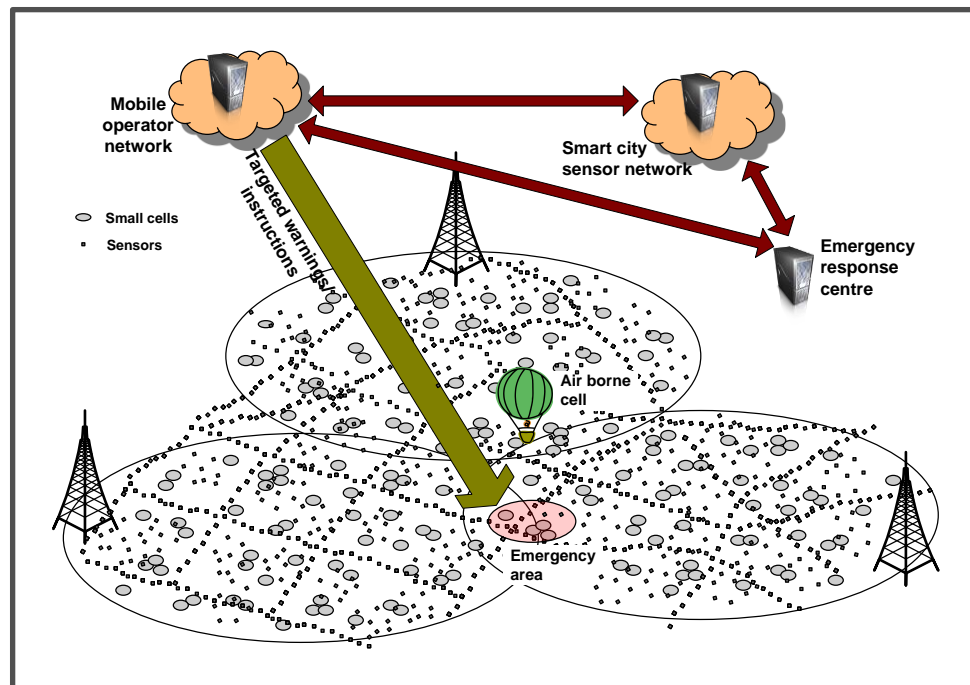


# Facing disaster/ emergency challenges with 5G networks in Smart city, Smart community

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# D&E response in Smart city

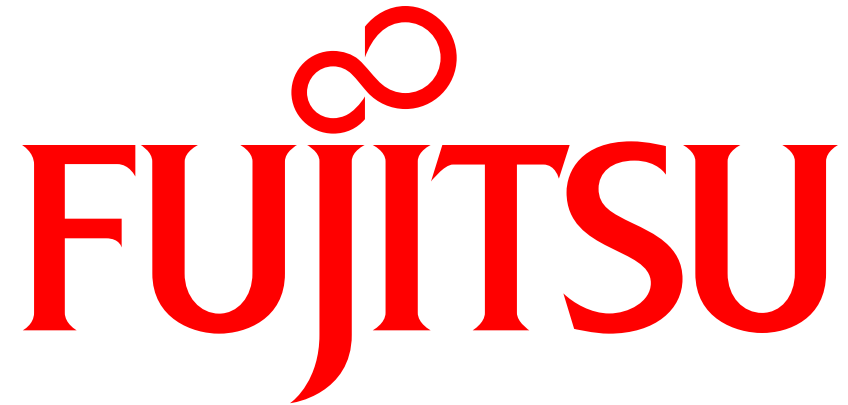
- Disaster and emergencies need targeted, fast and accurate response.
  - In some cases accurate, timely warnings save lives.
  - In others accurate guidance on escape routes are vital.
- Smart cities in 5G era will have thousands of small cells and millions of sensors.
  - How to suitably configure, maintain, enhance and leverage the available (surviving) ICT resources to help determine the latest situation, to communicate with & assist potential victims and assist multidisciplinary D&E rescue/recovery teams?



# 5G D&E response networks



- Disaster events can partially damage network, making some of the eNBs defunct.
  - In the 5G domain, how to leverage SDN and NFV features to provide seamless and reliable connectivity to the victims and D&E teams?
  - What advanced & innovative D2D technologies be added to improve the communications reach and capabilities for the victims and D&E teams?
- After disaster and emergency events, the network traffic dramatically increases.
  - How to filter non-essential traffic and prioritize the critical communications? Maintaining high QoS communications in a damaged and potentially “failing” network and ICT systems is essential for efficient and effective D&E rescue.
  - How can additional capacity be quickly, seamlessly added to target areas?
- Essential features for 5G D&E response networks.
  - The solution should be highly reliable, accurate and agile.
  - It must be scalable and cost effective.



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