



# Resilience in Telecommunications JAMAICA



Country Case Studies: Lessons Learnt from Past  
Disasters

GET 2016

Kuwait City

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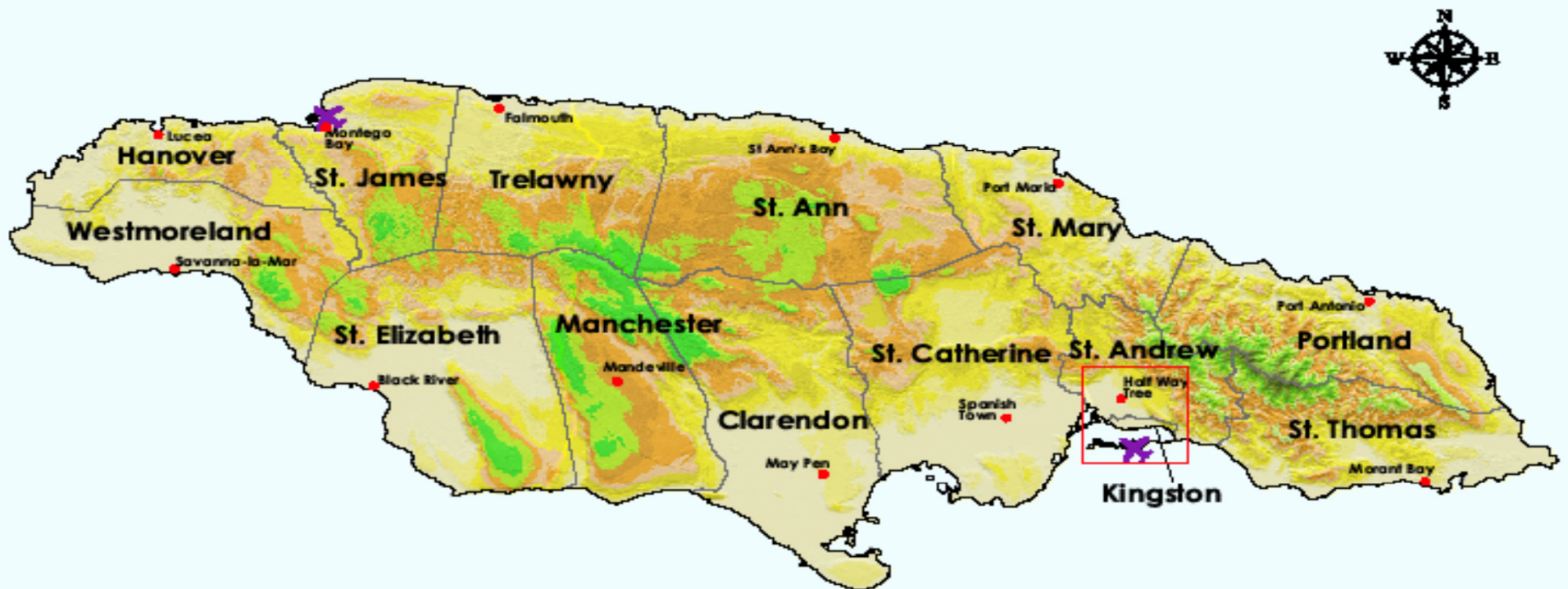
# Outline

- 1. Importance of Resilience in Telecoms***
- 2. Emergency/Disaster Telecoms and ICTs***
- 3. ODPEM Programmes/Initiatives in  
Emergency Telecoms***
- 4. The Road Ahead***





# JAMAICA



CARIBBEAN SEA



# JAMAICA

Jamaica is an island country situated in the Caribbean Sea, comprising the third-largest island of the Greater Antilles.

**Capital:** Kingston

**Area:** 10,990 square kilometres (4,240 sq mi) in area

**Population:** 2,709,300 (2011)

**Government:** Constitutional monarchy, Parliamentary system, Democracy

**Independence:** Full Independence 1962

# Importance of Resilience in Telecoms

- Numerous Examples from Major Disaster Events – Local & Global
  - ✓ Gilbert 1988, Ivan 2004, Gustav 2008,
  - ✓ India Ocean Tsunami 2004, Haiti Quake 2010, others
- The need for information
  - Early Warning
  - Response
  - Relief and Recovery
- Reduce Suffering and Stress



# Importance of Resilience in Telecoms

## Disaster Impact of the Telecoms Sector:

- Mainly Hydrometeorological Events
- Damages to Towers and other infrastructure, tower misalignment
- Power Outages, loss of fuel
- Limited or No Communication between emergency responders and among citizens
- Slow or no transfer for critical information for decision making

# Damages from Disaster Events



Presenter: H. Glaze

# Importance of Resilience in Telecoms

How have we responded/recovered:

- Partnership with Government and Private Sector
- Coordinated response
- NOT AS QUICKLY AS WE WOULD LIKE
- Infrastructure hardening where possible

# Emergency/Disaster Telecoms & ICT

- Increase integration and linkages of Telecoms and ICT
- Use of GIS, Remote Sensing and other technologies
- Enhanced use of Social Media and its presence in the Telecoms Market
- Need to be more robust and reliable

# Importance of Resilience in Telecoms

➤ The ITU sums-up its work in Emergency Telecoms in four (4) principles:

1. Multi-Hazard
2. Multi-Phased
3. Multi-technology
4. Multi-Stakeholders

# **Telecoms Resilience Building Programmes/Initiatives of the ODPEM**

# Initiatives/Programmes

- ❖ Emergency Affiliate Radio Service (EARS)
- ❖ ALERT FM Pilot Project
- ❖ Early Warning Siren – Old Harbour Bay, St. Catherine
- ❖ Training of Communities in Basic Radio Telecommunications
- ❖ Improvements in the ODPEM Radio Network
- ❖ Equipping of Communities and Local Authorities
- ❖ Proposed Major Emergency Telecoms Enhancement Project



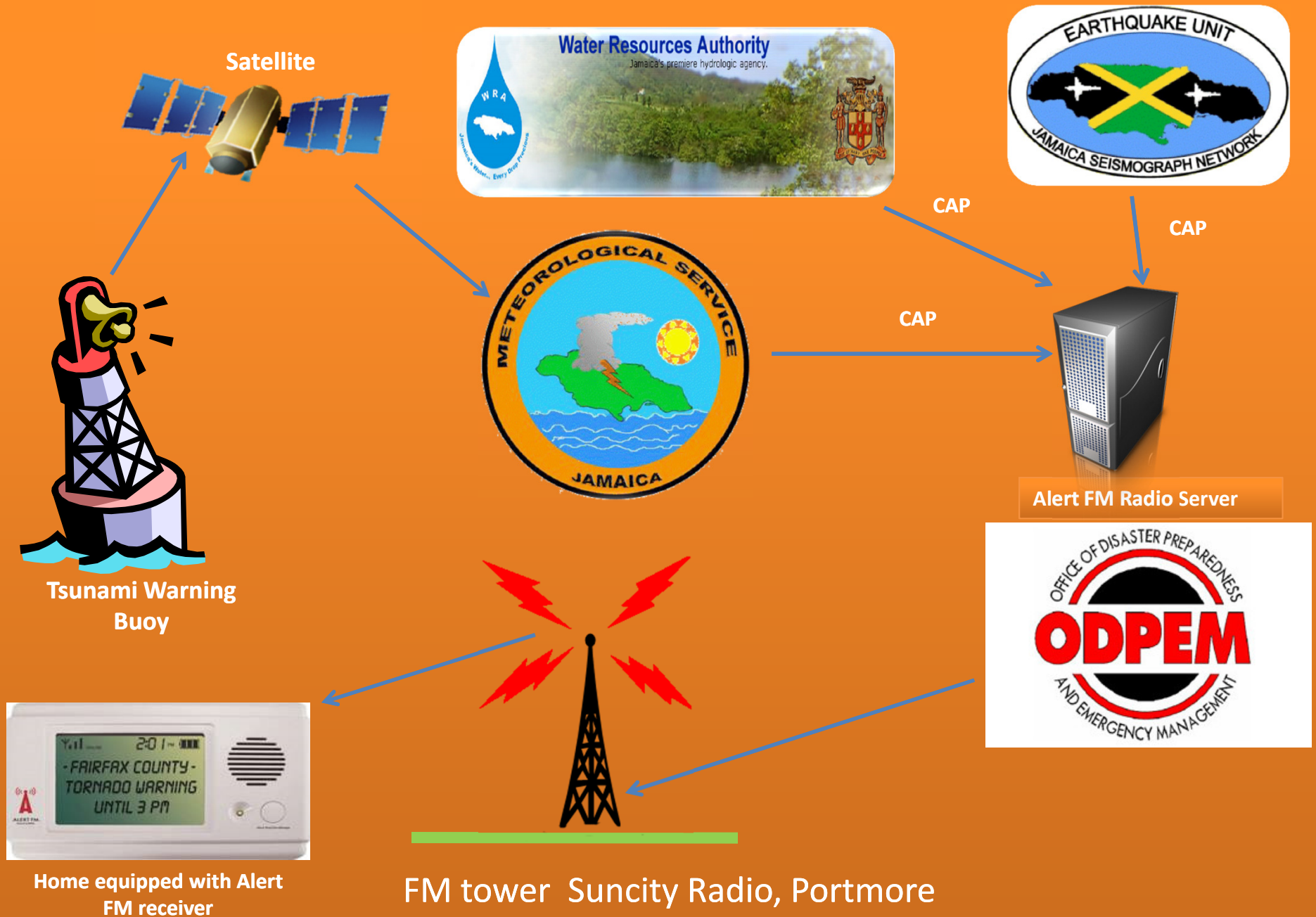
# OHB Warning Siren

1. 1<sup>st</sup> of its kind in Jamaica
2. Will be a Pilot for similar community initiatives

# **ALERT FM – Mass Notification/Early Warning**

- ☐ Born out of a PANOS Caribbean (NGO) Pilot Project Initiative for the Community of Portmore
- ☐ Focus on the provision disaster notification and alerting to the disabled community
- ☐ Potential for implementation in all communities , institutions and organizations across the country
- ☐ Controlled by the National Disaster Management Authority, ODPEM – Dessiminated through radio, internet to devices such as ALERT FM Receivers, Smartphone Apps, SMS (text messaging)

# Alert FM Integrates with Multiple Systems using CAP



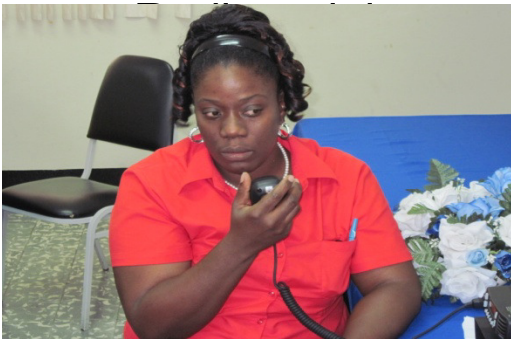
# **Emergency Affiliate Radio Service (E.A.R.S)**

- ☐ Programme initiative of the ODPEM Telecoms Unit
- ☐ Partnerships with NGOs, Local Authorities, HAM Radio Association, CB Operators and the ODPEM
- ☐ Focus on providing telecoms support through trained community & organization volunteers
- ☐ Aim at providing telecoms expertise before, during and after emergencies to communities, local authorities EOCs, and National Authorities/EOCS and NEOC
- ☐ 12 Volunteers trained in 2012, 58 volunteers training in 2014, and over 120 community volunteers in 2015

## E.A.R.S. TRAINING



### St. Ann & Portland E.A.R.S. Emergency



### HelpAge International Radio Operators Training

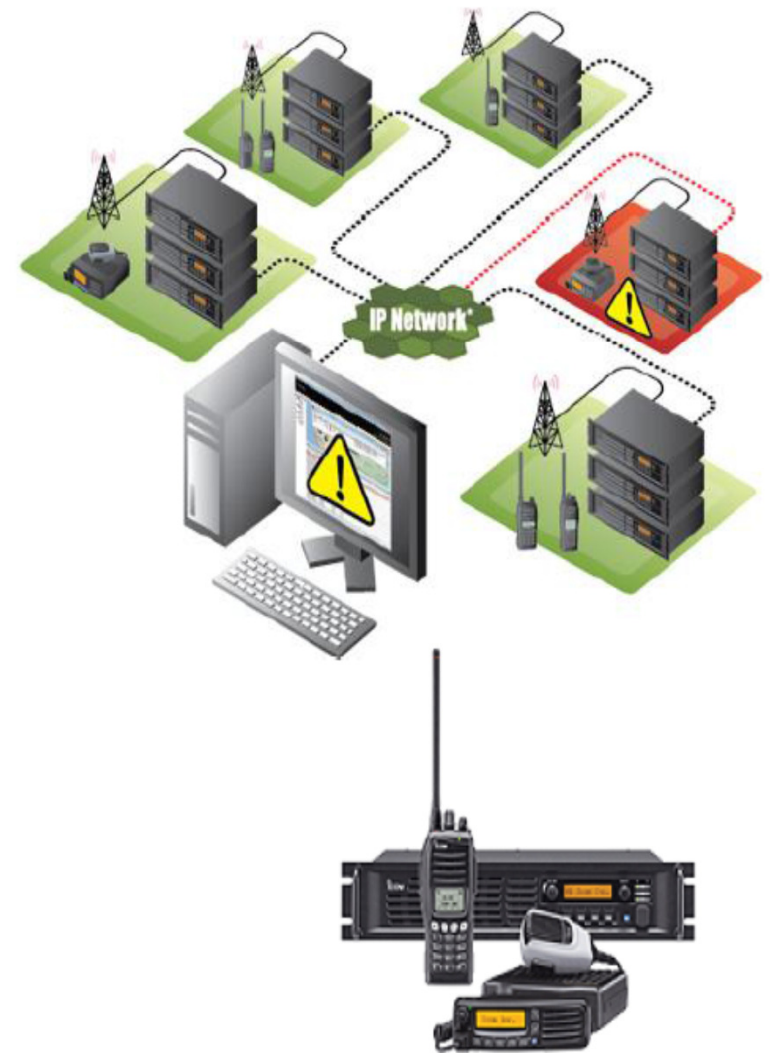


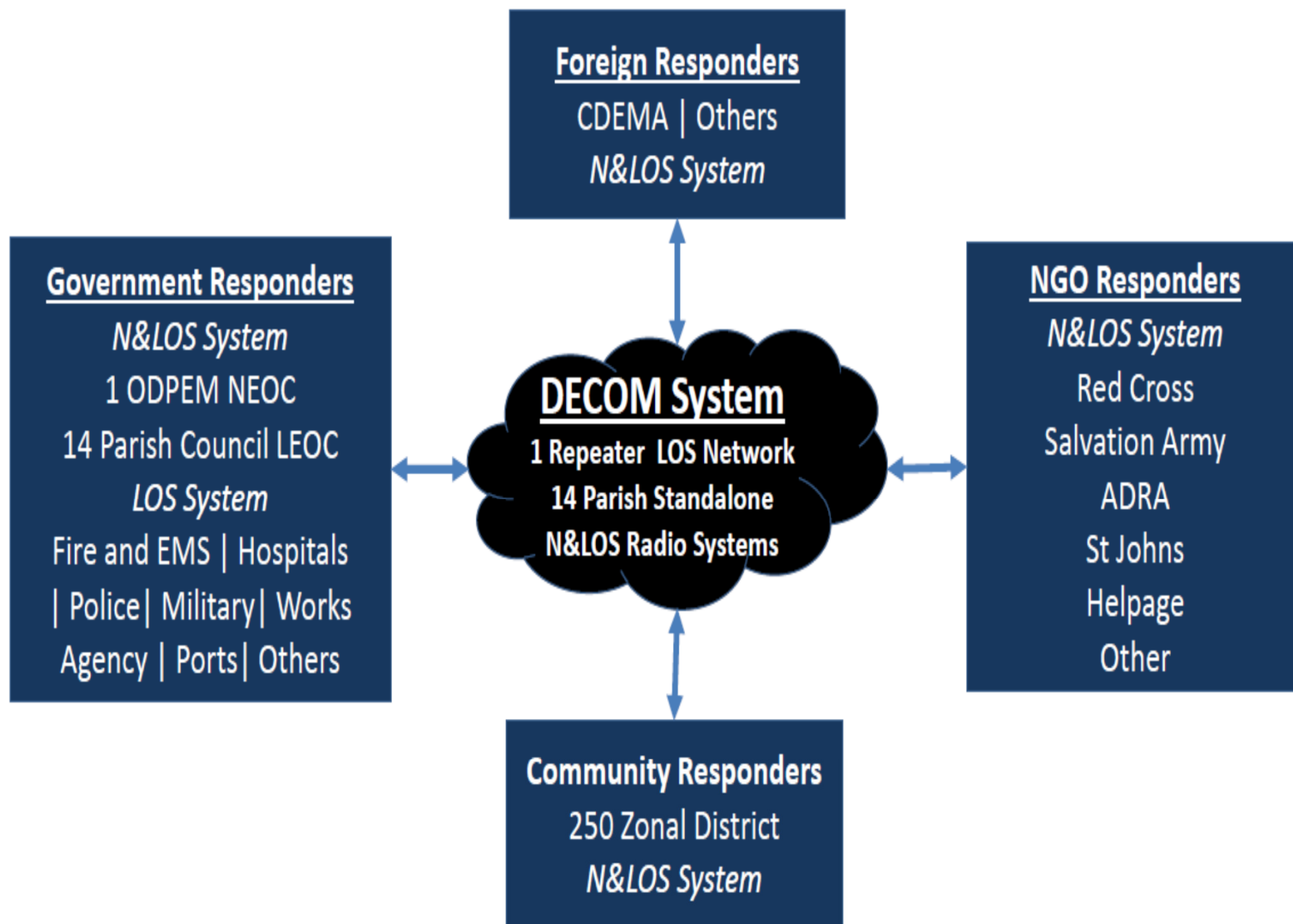


OFFICE OF DISASTER PREPAREDNESS AND EMERGENCY MANAGEMENT

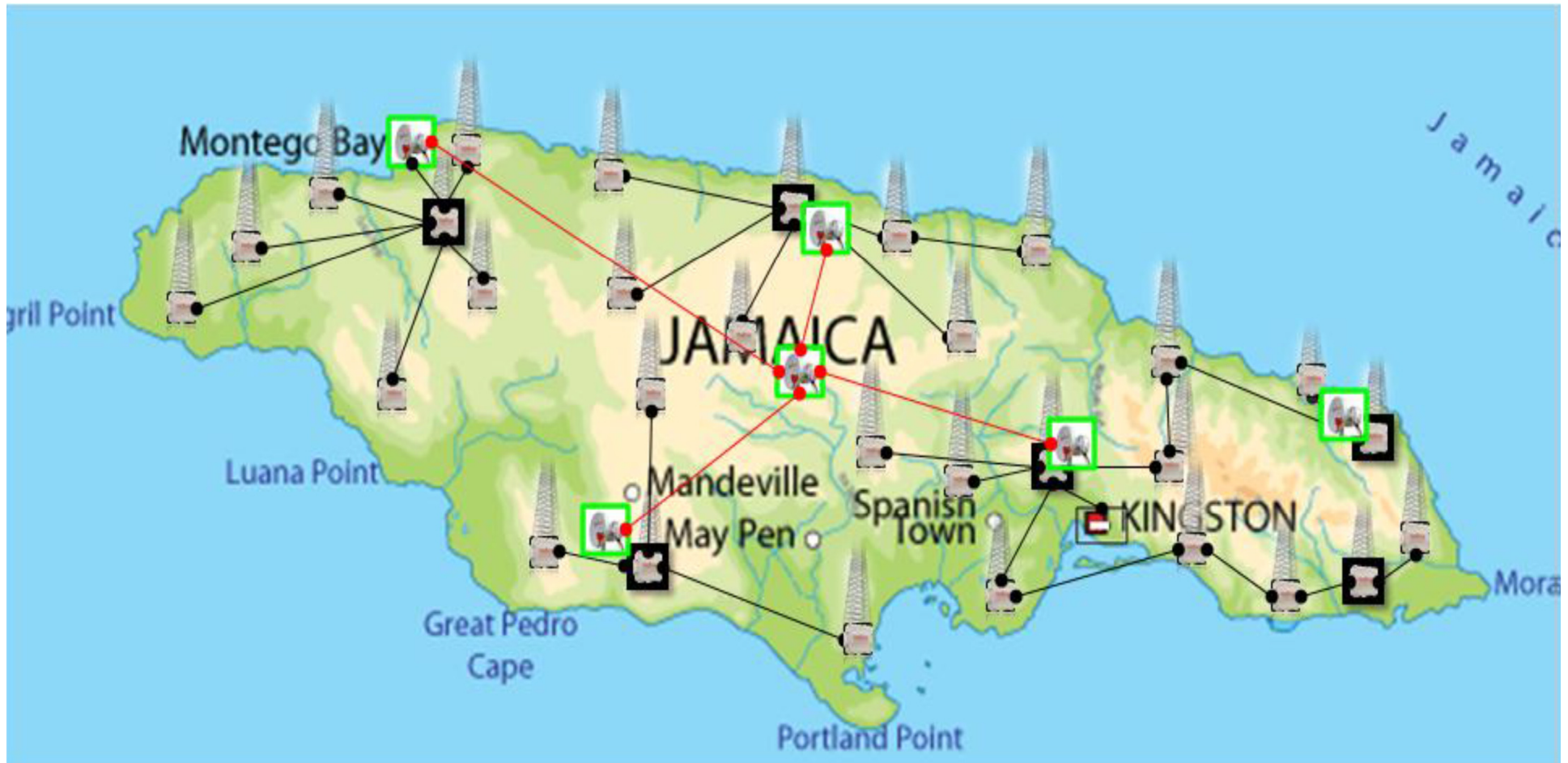
# **ODPEM Current Project Initiative – Public Safety meets Emergency Telecoms**

1. Concept | DECOM (not NETS)
2. Cost | Availability of Funding determines final design.
3. Coverage | Nationwide and Area
4. Capacity | At least 2 Repeater channels per site
5. Complexity | Wide Area Networking | Integrate-able with any system | Digital | Trunked | Etc.





# Proposed Emergency Telecoms System



## Road Ahead

- ✓ We have “Begun our journey of a thousand miles”
- ✓ More partners need to get on board (Government & Private Sector)
- ✓ Increase access to funding – Initial investment in Telecoms is expensive, but offers tremendous benefit
- ✓ Continued Training and Equipping of Agencies, Local Authorities and Communities
- ✓ **GET 2016 – Kuwait City – a catalyst for Global Guidance and Partnerships**



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