Integrated Risk Management for Africa IRMA concepts and objectives

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Partners

EU

- Luxemburg University (LU)
- Centre de Communication du gouvernement (LU)
- Cisco Systems International B.V (NL)
- Thales Alenia Space (FR)
- Spacebel SA (BE)
- SES-ASTRA TECHCOM (LU)
- Tilburg university (NL)
- Renater (FR)
- Technologies sans Frontières (LU)

Africa

- Council for Scientific and Industrial Research (ZA)
- Centre de suivi ecologique (SN)
- Polytechnique Yaoundé (Cameroun)
- Centre Royal de Teledetection Spatiale (MA)
- Institut National des Postes et Télécommunication (MA)
- Unidade Técnica de Implementação da Politica de Informática (MZ)

IRMA concepts and objectives

- Disaster risk reduction in developing countries
  - Integrated into partner countries development policies
  - Based on existing infrastructure
  - Low cost solutions with high replication potential
  - Full scale demonstration in 3 african countries
  - Multi risks approach (flood, fire, drought, urban etc.)
  - complex emergencies (natural disaster combined with humanitarian crises)

IRMA Public Safety Communications

- PSC is THE critical infrastructure in DRR
  - In Europe it is dominated by proprietary products
  - Africa is looking for low cost solutions
- How to build PSC functionality in existing network?
  - End to end network security
  - Mobile networks
  - Quality of Service for first responders
- All IPv6 solution for:
  - Early warning – sensor networks
  - Alert making use of all possible media
  - Rapidly deployable ad-hoc meshed network WiFi/ Wimax based
  - Victim identification and tracking using RFID
  - Network management
  - Etc.

Benefits of IRMA IPv6 approach

- Use of Commercial Off The Shelf products (COTS)
- Cost savings in deployment of public safety networks
- Proliferation of innovative safety products (networked RFID, Sensors)
- Interoperable IP capable networks nation-wide
- Enablement of Trusted End-to-End IP based Network Security
- Enablement of IP based Network Management
- Enablement of IP based Seamless Network and Node Mobility
- Enablement of Next Generation Network Application Services to Users
- Common open standards communication protocol to support
  - multiple wireless networks configuration and integration
  - (e.g. Sensor, link, Internet)

- Building resilence into public network is the most effective way to achieve PSC

Conclusion

- IPv6 is the key technology enabler in IRMA
- Africa is the perfect testbed since there are no legacies to deal with.
- Africa has no choice but implement IPv6
- It will lead to the integration of DRR into development