



# **Building Capacity for Climate Change Adaptation / Mitigation A Case for the Efficiency of Evolved EDGE**

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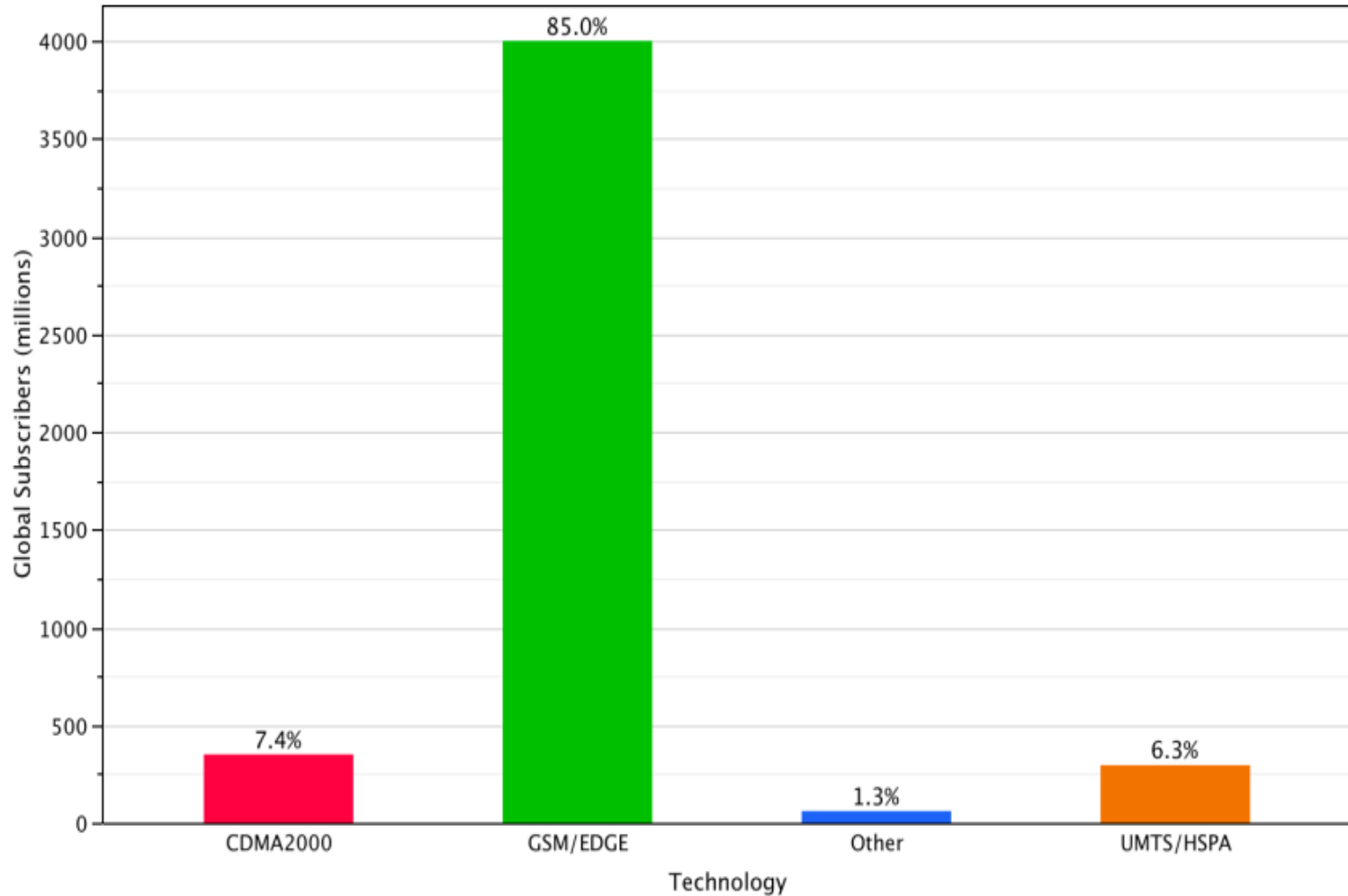
# Key Challenges

- **Enhanced applications which can assist with adaptation and mitigation to climate change require broadband access**
- **No fixed line access and GSM mobile infrastructure**
- **Scarcity of capital**
- **Scarcity of resources**



# **Evolved EDGE Efficient Broadband Access for Developing Countries**

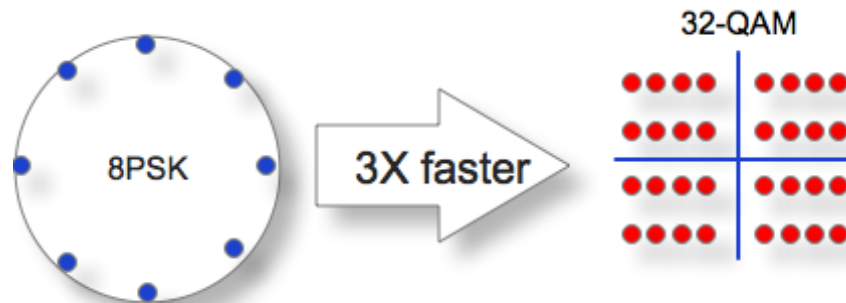
# Current deployment of GSM/EDGE



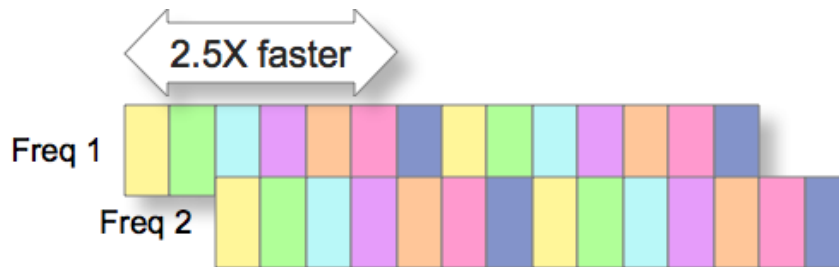
# Evolved Edge

## Broadband Performance on GSM infrastructure

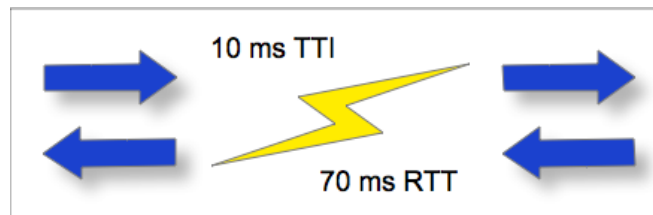
High Order Modulation  
1.2 to 1.6 Mb/sec



Downlink Dual Carrier  
596 Mb/sec



Reduced  
Latency  
Fast Browsing



# Evolved EDGE



Operator can use existing spectrum over entire coverage footprint

## Service continuity for premium performance



Less noticeable drop in performance when moving from HSPA to Evolved EDGE coverage areas



Software upgrade to most base stations

Renewable energy solutions available to power base stations and handsets

# Summary

- Evolved EDGE is a more efficient utilization of existing radio spectrum (which is considered a non-renewable resource) with less latency and higher throughput data services.
- No absolute need to purchase new base stations in order to provide broadband mobile data services as most base stations manufactured since 2001 require only a software upgrade to provide Evolved EDGE service.
- Evolved EDGE is an efficient process for emerging markets with requirements for very cost-effective use of resources and capital.
- With only one radio subsystem is used in the mobile terminal, Evolved EDGE handsets are less expensive than many other alternatives and support much longer battery life.



# Mobile Communications in Disaster Response



# Disaster Response - Current

- China Earthquake
  - Several hundred Smartphones deployed
- Haiti Earthquake
  - Several hundred Smartphones deployed

## Limitations

Where networks infrastructure is GSM then basic communications are possible – but not advanced applications

# Disaster Response - Possibility

- **Full e-Health applications can be deployed in response to disasters where they are needed**
- **Mobile EKG**
- **Mobile Ultrasound**
- **Evacuation Route mapping**



# Mobile Broadband Potential in Monitoring / Adaptation

# Monitoring / Adaptation

- **Full broadband access can lead to advanced monitoring / adaptation activities based on cellular networks**
- **Agriculture monitoring**
- **Local weather monitoring**
- **Information about veterinary diseases, avian flu and other diseases of epidemic dimensions**
- **Relevant information can be distributed via mobile broadband and can be presented on web portals, interactive maps, etc.**



**Thank you**