

## 3GSM Technologies supplementing Fixed Mobile Convergence

ITU-BDT Regional Seminar on  
Fixed Mobile Convergence and New Network Architectures for the Arab  
Region

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## Outline

- **Convergence or Substitution?**
- **What was the ICT problem again?**
- **The answer**
- **What 3GSM can do**
- **What Regulators and Governments can do**
- **Conclusions**

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## Converge from what?

**Fixed-mobile convergence is no good  
if you don't have (or can't afford) a fixed line!**

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## The constraints of fixed vs. the convenience of mobile

- **sup-ple-ment (sŭp'le-mənt)**  
*n.*
  1. Something added to complete a thing, make up for a deficiency, or extend or strengthen the whole.

### The Constraints of fixed:

To the operator: wires in the ground or on poles

- Costly to Build
- Costly to Maintain

To the user:

- Tied to one location
- Often ultimately tied to one provider

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## Errr....what was the problem again?

### Voice is still king - Humans haven't stopped talking

- Mobile convenience drives new products and applications  
e.g. Blackberry etc – email/voice/documents
- Specific high-speed needs demand specific high-speed solutions
- Vast majority of today's communication need is voice/low-speed data – email etc
- Today's average email and web page size is still measured in  
**tens of KB, not hundreds of MB**

**3GSM evolution will meet business and personal needs today and in the future**

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## 3GSM is the answer

### 80% of the world's population live in mobile coverage

– World Bank 2005

- For most of the world, their first phonecall will be a GSM one
- The GSM/3GSM family of technologies is the global standard – no question
- Over 90% of 3G licence holders are deploying 3GSM

**The modulation contest has been won – by 3GSM**

- In Brazil, GSM was introduced 7 years after CDMA, yet took only 3 years to win more subscribers
- GSM/3GSM added more NEW subscribers in the last year than the total existing customer base of CDMA/EV-DO combined

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## What is '3GSM'?

**3GSM is the term for evolved GSM-based 2G networks**

**3GSM uses the W-CDMA modulation technique**

**3GSM is an IMT-2000 technology**

**3GSM uses 5MHz channels**

**3GSM has a clear, global evolutionary path:**

High Speed Downlink Packet Access – HSDPA  
High Speed Uplink Packet Access - HSUPA }=HSPA

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## 3GSM – Here, Now.

- **3GSM is seamless global mobile broadband *AND* voice**
- **By 2010 there will be over 1.2 Billion 3G subscribers**
- **3GSM means true Megabyte speeds to a handset or card**
- **Why pay 3 times for**
  - **a fixed line for voice**
  - **A DSL connection for data**
  - **A mobile connection for mobility**

**.....When 3GSM gives you the Triple Play  
in the palm of your hand.**

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## Fixed BWA and Mobile BWA

- Wide area coverage – can be a priority in sparsely populated large areas
- Clear demand for mobility in urban environments – why should rural communities differ or be disadvantaged?
- Local solutions are partial solutions – users do travel

**3GSM can deliver mobile BWA through existing 3G operators, either retail or wholesale solutions through MVNOs**

**Opportunity: 3GSM could also deliver fixed BWA with a network solution and repackaged mobile terminals acting as low-cost scaled down PCs**

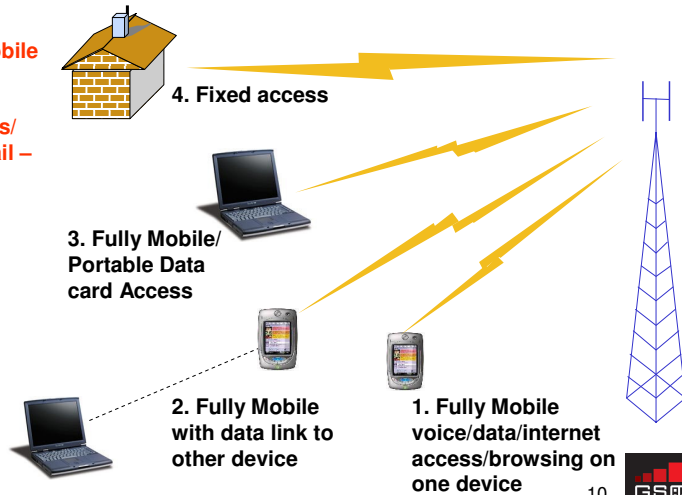
- 3GSM: globally coordinated spectrum at 3G core bands and planned 2.6GHz Extension bands
- Refarming of GSM spectrum could optimise coverage and capacity for rural areas – 3GSM at 850 and 900MHz



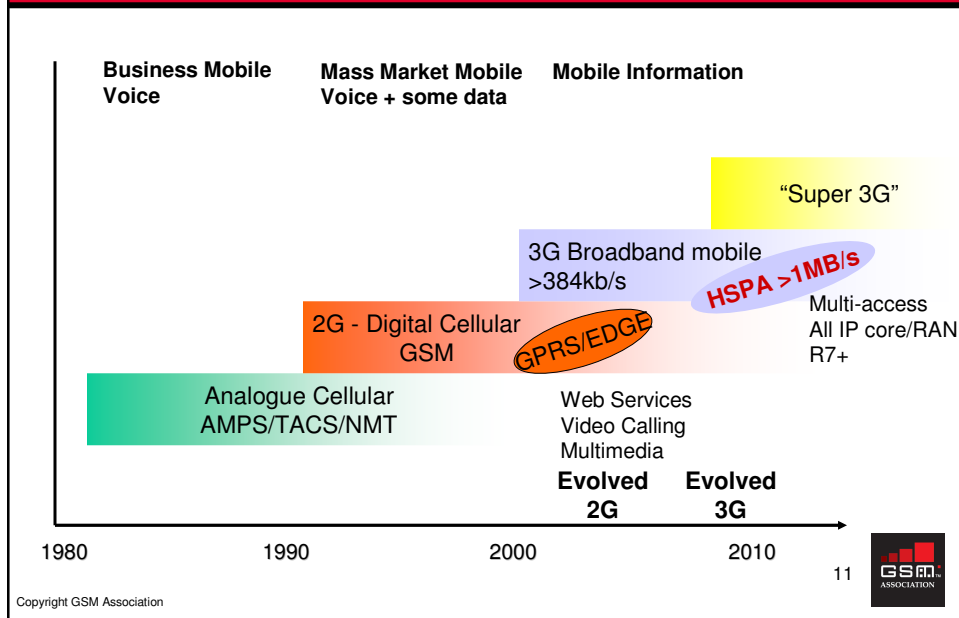
## 3GSM WCDMA BWA Access Overview

Three Existing Configurations + Potential for Fixed Broadband Wireless Access for Rural Homes and Enterprises

**Opportunity: Repackage Mobile Phone for voice/data/ Internet Access/ browsing/ email – potentially no need for a Personal Computer!**



## GSM Technologies Evolution



## 5 key messages for regulators

- **Spectrum availability**
- **Removal of technology bias**
- **Fairness and transparency**
- **Cost of regulation**
- **Taxation**

## Conclusions

- 3GSM delivers mobile and a potential flexible fixed BWA network solution
- Standards based, wide choice of suppliers and fully interoperable
- Carrier grade voice as well as dynamically assigned data capabilities
- Fallback capability through compatibility with GSM/GPRS infrastructure
- Unsurpassed economies of scale
- Carrier-grade 3GSM networks already operating in over 85 markets globally
- Upgrade path to even higher data rates, eg HSDPA available now

Industry led initiatives have the ability to help economic growth in MENA rural and remote areas

**GSMA invites MENA region regulators to work together with the industry to support this broadband initiative**

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13



**Thank You**

**To learn more, contact:**

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