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Indicators Meeting (WTIM-12)  
Bangkok, Thailand, 25-27 September 2012**



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**English**

**SOURCE:** Telecommunications Regulatory Authority, Kingdom of Bahrain

**TITLE:** Monitoring WiMAX subscriptions in Bahrain

# Monitoring WiMax subscriptions in Bahrain

10<sup>th</sup> WORLD TELECOMMUNICATION/ICT INDICATORS MEETING  
25-27 September 2012

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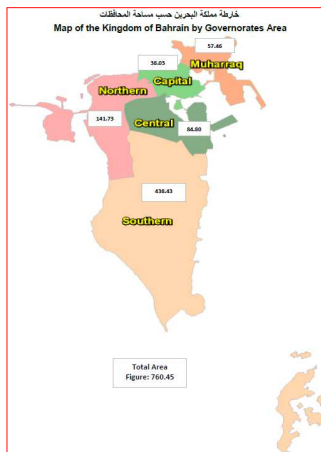
## Agenda

- Bahrain in figures
- Market liberalization
- The award of WiMax licences
- Internet services in Bahrain
- Monitoring the sector
- Data collection and indicator definition
- WiMax subscriptions in Bahrain
- Challenges



## Bahrain in figures

Area:	760 (Sq. Km)
Population:	1.2 million
GDP:	USD 28.9 Billion
GDP per capita:	USD 19,343
Density	1,580/(Sq. Km)

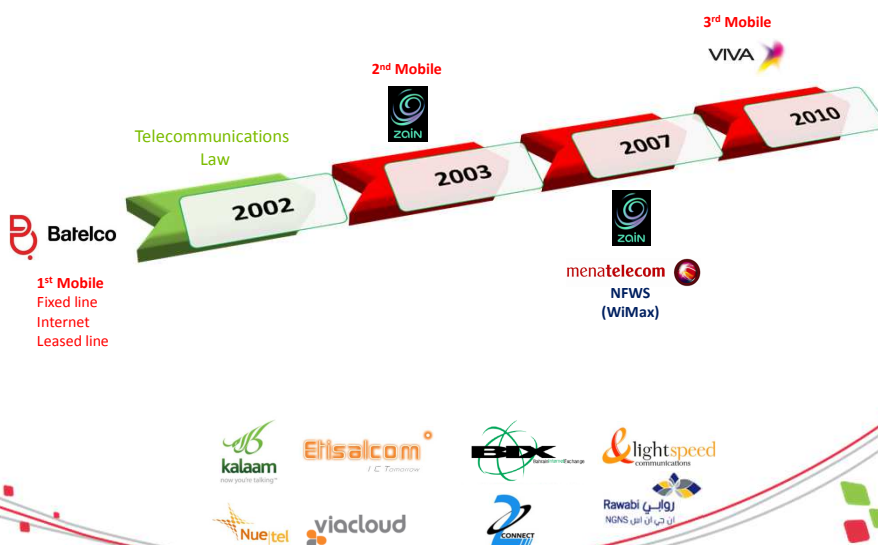


Source: Central Informatics & Communications Organization, data based 2011 except the area based on 2009.

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## Market liberalization



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## WiMax awarding

Licenses awarding process:	Auction
Licenses awarded to:	Zain (Bahrain) and Menatelecom
Technologies:	Zain: IEEE 802.16(D) =>(e) Mena: IEEE 802.16(e)
Mobility function	Initially disabled.  Based on: <ul style="list-style-type: none"> <li>the outcomes of the 2007 World Radiocommunications Conference ("WRC-07") of the ITU; and</li> <li>the Strategic and Retail Market Review ( issued by TRA Bahrain on 3 June 2008).</li> </ul> => <b>mobility restriction removed</b>
Frequency granted:	Zain: 3410 MHz – 3500 MHz  Mena: 3500 MHz – 3590 MHz
Duplex functionality	Time Division Duplex (TDD)
Radio channels	7 MHz TDD => 10MHz

Note: IEEE stands for Institute of Electrical & Electronics Engineers

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## Internet services in Bahrain



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## Monitoring the sector

- Monitor the development and performance of the sector and assess how effective regulation is.
- Inform stakeholders
  - Operators;
  - Customers;
  - Local and international organizations (e.g. CIO, ITU )
- Decision making process (e.g. determining SMP operators)

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## Data collection

- Annual data collection
  - Detail market survey
  - Requests quarterly data
  - Sent to all operators
- Monthly data collection
  - Short subscribers survey
  - Requests monthly data
  - Sent to main 4 operators
- TRA also conducts surveys

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## Annual data collection 1/2

- On annual basis TRA sent long and comprehensive questionnaire to all operators.

Internet services	Q1 (Jan - March) 2011	Q2 (April - June) 2011	Q3 (July - Sept) 2011	Q4 (Oct - Dec) 2011	Comments
<b>Fixed Wireless broadband services</b>					
Residential new adds during the period					
Number of residential subscribers at the end of the period					
Non-residential new adds during the period					
Number of Non-residential subscribers at the end of the period					

Our definition is based on the ITU definition of Terrestrial fixed wireless subscriptions “Terrestrial fixed wireless broadband subscriptions refers to the number of terrestrial fixed wireless Internet subscriptions with an advertised download speed of at least 256 kbit/s. This includes fixed **WiMAX** and fixed wireless subscriptions, but excludes occasional users at hotspots and Wi-Fi hotspot subscribers. It also excludes mobile-broadband subscriptions where users can access a service throughout the country wherever coverage is available”.

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## Annual data collection 2/3

National fixed line services					
Number of main (fixed) telephone lines	Q1 (Jan - March) 2011	Q2 (April - June) 2011	Q3 (July - Sept) 2011	Q4 (Oct - Dec) 2011	Comments
<b>Fixed PSTN:</b>					
Residential new adds during the period					
Number of residential subscribers at the end of the period					
Non-residential new adds during the period					
Number of non-residential subscribers at the end of the period					
<b>ISDN:</b>					
<b>Basic rate ISDN subscribers</b>					
Non-residential new adds during the period					
Number of non-residential subscribers at the end of the period					
<b>Primary rate ISDN subscribers</b>					
Non-residential new adds during the period					
Number of non-residential subscribers at the end of the period					
<b>Fixed Wireless (e.g. WiMax):</b>					
Residential new adds during the period					
Number of residential subscribers at the end of the period					
Non-residential new adds during the period					
Number of Non-residential subscribers at the end of the period					
<b>Other (please indicate access type in the comments column e.g. Fiber):</b>					
Residential new adds during the period					
Number of residential subscribers at the end of the period					
Non-residential new adds during the period					
Number of Non-residential subscribers at the end of the period					

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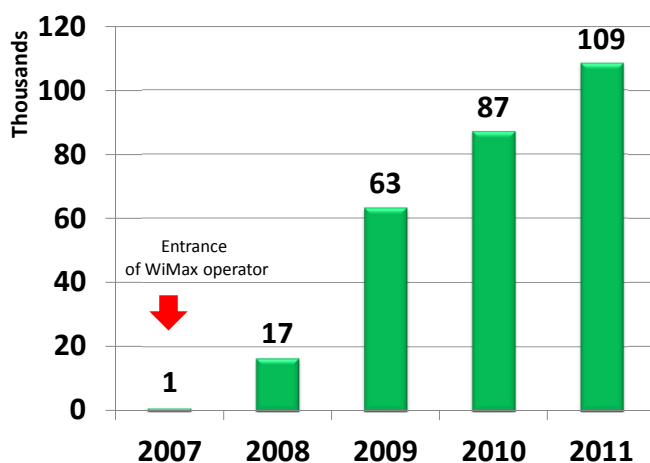
### Monthly data collection

- For the two WiMAX we ask them to provide the number of WiMax broadband subscribers on a monthly basis (see below).

Wi Max broadband subscribers	Last day of Jan 2012	Last day of Feb 2012	Last day of Mar 2012
<b>Prepaid</b>			
New adds during the period			
Number of subscribers at the end of the period			
<b>Postpaid</b>			
New adds during the period			
Number of subscribers at the end of the period			

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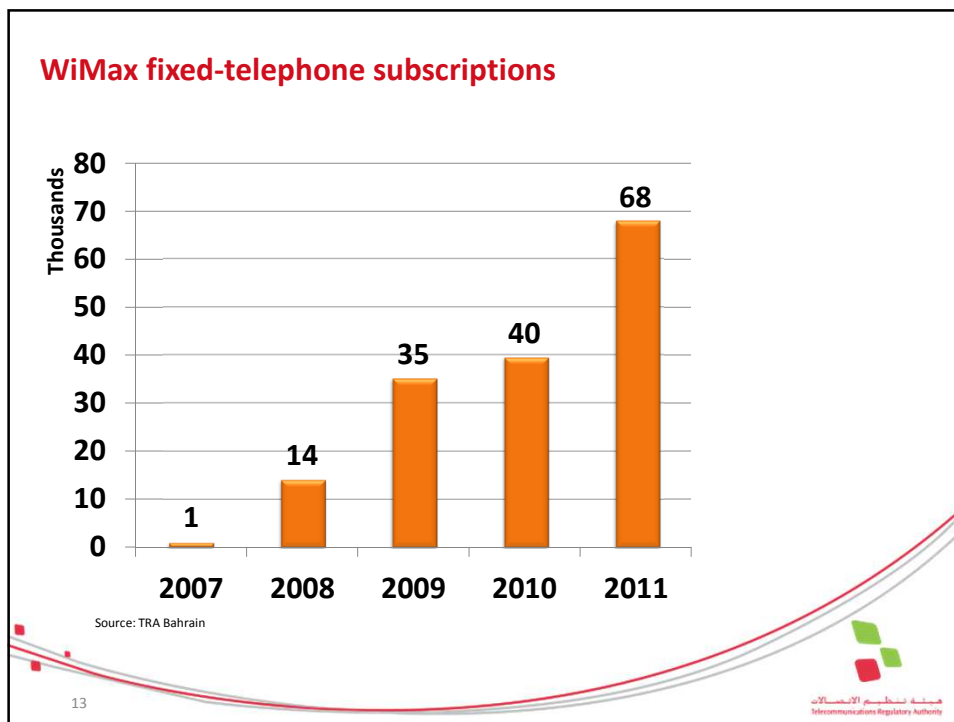
### WiMax subscriptions in Bahrain



- 97% of WiMax subscribers are residential.
- WiMax subscription is 9 per 100 inhabitants.

Source: TRA Bahrain


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### Challenges

- No ITU specific definition for the number of WiMAX broadband subscription.
- The operators in Bahrain provide postpaid and prepaid WiMax.
- In Bahrain WiMax operators offer bundle of services (Broadband and Fixed telephony).
- With the small size of Bahrain, the requirements of WiMax license to cover within 48 months of the effective date of the license provide radio coverage of at least 95% of the population in the licensed area and the advanced WiMax devices (e.g. MYKEY). Is it still fixed wireless?

The key issue is the removal of the mobility restriction => is it still fixed wireless?



MYKEY CONNECT BD 12  
WIMAX USB DEVICE

MYKEY MAX BD 17  
WIMAX USB DEVICE

MYKEY BD 10  
WIMAX USB DEVICE

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## Conclusion

- ITU to clarify the definition of Terrestrial fixed wireless broadband subscriptions to clearly define WiMax subscriptions
  - with removal of the mobility restriction is it still fixed wireless
  - does it include postpaid and and prepaid
  - what is the definition of WiMax prepaid
- Given the importance of fixed wireless and mobile broadband, it is important that such platforms are taken into account when collecting data on and developing measures of access and usage of broadband and other ICT services.

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# Thank You..!

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