

# Telecommunications markets indicators in the Kingdom of Bahrain

September 2013

2013



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# Introduction

The collection, analysis and dissemination of accurate and timely market information significantly enhances the design of effective, proportionate and efficient market regulation.

The publication of this report is in accordance with Article 54 of the Telecommunications Law of Bahrain.

Unless specified, the analysis presented in this report is based on data collected from licensed operators by TRA. TRA would like to thank licensed operators for the information provided and looks forward to their continued collaboration in the future.

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This is the eighth telecommunications Markets Indicators Report and it covers a large range of telecoms services indicators up to Q4 2012 such as the number of subscribers, penetration rates, calls usage and telecoms revenues. Some subscriber numbers and penetration rates cover the period up to Q2 2013.

<sup>1</sup> Note that Person is defined in the Telecommunications Law to mean any natural or artificial person or public authority.

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# Key market trends and observations - 1

## ▶ Overall

- ▶ BD409 million annual gross turnover of telecoms sector in 2012.
- ▶ Telecoms revenues represented 4% of GDP in 2012.
- ▶ Mobile services revenues represent 42% of retail services revenues followed by international calls (27%), leased lines (15%), internet (12%) and fixed telephony (4%).
- ▶ In 2012 approximately 3,100 employees worked directly in the telecoms sector.
- ▶ 8% Compound Annual Growth Rate in the number of employees between 2006 and 2012.
- ▶ The sector achieves a high degree of Bahrainisation (80%).

## ▶ Fixed line service

- ▶ By the end of Q2 2013, there were approximately 257,000 fixed lines in Bahrain, representing fixed line penetration of 21%.
- ▶ Fixed telephony domestic traffic decreased by 27% between 2011 and 2012 due to the increasing use of mobile.
- ▶ On average, a fixed subscriber made 150 minutes of national calls per month (294 for business and 92 for residential users).
- ▶ Monthly ARPU decreased from BD4.3 in 2011 to BD3.9 in 2012.

## ▶ Mobile services

- ▶ At the end of Q2 2013, there were about 2.25 million mobile subscribers in Bahrain, representing a mobile penetration rate of 182%.
- ▶ Prepaid subscribers represented 82% of mobile subscribers at the end of Q2 2013.
- ▶ 5.8 billion minutes of domestic calls generated from mobiles in 2012, an increase of 15% since 2011.
- ▶ 244 domestic mobile minutes (excluding PPCC traffic) per month and per mobile subscriber in 2012 compared to 261 minutes in 2011 (-6%).
- ▶ Monthly mobile ARPU decreased during 2012 to BD8.1 (BD9.9 in 2011). ARPU for prepaid was BD5.0 per month and BD21.2 per month for postpaid (excluding PPCC traffic).
- ▶ At the end of 2012, there were 270,000 BlackBerry subscribers, representing 13% of mobile subscribers. 28.6% growth in BlackBerry subscribers between 2011 and 2012.
- ▶ At the end of Q2 2013, about 1 million mobile voice subscribers were active mobile broadband subscribers, which represents 45% of total mobile voice subscribers.

# Key market trends and observations - 2

## ▶ International calls

- ▶ After the stabilization of international call traffic in 2011, the international outgoing minutes grew by 28% between 2011 and 2012.
- ▶ international calls revenues increased by 18% between 2011 and 2012.
- ▶ Average revenue per minute continued to drop, from 34 fils per minute in 2011 to 31 fils per minute in 2012 (compared to 226 fils per minute in 2005)
- ▶ International outgoing minutes originated on mobile represented 95% of total international outgoing minutes in 2012.
- ▶ During 2012, 85% of total international minutes were made to South Asian countries, while only 57% of international revenues were generated from calls to South Asian countries.
- ▶ Proportion of PPCC mobile originated international traffic dropped from 25% in 2011 to 19% in 2012 compared to 63% in 2009, due to increasing competition from direct dial services.

## ▶ Internet services

- ▶ At the end of Q2 2013, there were approximately 1.38 million broadband subscribers, representing a broadband penetration of 112%.
- ▶ Mobile broadband subscriptions continue to grow rapidly and represented 87% of the broadband customer base in Q2 2013. The number of standard dedicated mobile broadband subscriptions (based on dongles, USB, tablets) more than doubled between 2011 and Q2 2013. The number of data add-on subscriptions and smartphone plans also increased dramatically.

# TRA highlights during Q1, Q2 2013

## ▶ **Determinations**

During Q1 and Q2 2013, TRA issued the following determinations and decisions:

- ▶ Dominance Determination for Wholesale International Services (20 February 2013);
- ▶ 2013 Cost of Capital Final Determination (20 February 2013);
- ▶ Dominance Designation for Termination Services on VIVA's Mobile Network (16 May 2013) .

## ▶ **Consultations**

During Q1 and Q2 2013, TRA consulted on the following:

- ▶ TRA Three Year Work Plan ( 2013 – 2015 ) (14 March 2013);

## ▶ **Work Plan**

- ▶ TRA has issued the Three Year Work Plan ( 2013 – 2015 ) Final (6 June 2013)

# Services offered by active operators

Operator Name	National Fixed	International Calls	Mobile	Internet	Leased line	Other data service
2Connect	✓	✓		✓	✓	✓
Ascentech telecoms		✓				
Batelco	✓	✓	✓	✓	✓	✓
Bahrain Internet eXchange						✓
BT Solutions LTD					✓	
EQUANT EGN BV						✓
Etisalcom	✓	✓		✓	✓	
Greenisis (Bahrain Broadband)				✓		
Kalaam telecoms	✓	✓		✓	✓	
Light Speed	✓	✓		✓	✓	✓
Mena telecoms	✓	✓		✓	✓	
Moving Gulf		✓				
Northstar		✓		✓	✓	
Nuetel Communications	✓	✓		✓	✓	
Orbit				✓		
Rapid telecoms	✓	✓		✓	✓	
Rawabi telecoms & Software	✓	✓		✓	✓	
Viacloud		✓				
VIVA Bahrain		✓	✓	✓	✓	
Zain Bahrain	✓	✓	✓	✓		

Data services: For example, national frame relay service, international managed leased line services and international MPLS/IPVPN service.

# Main telecoms indicators

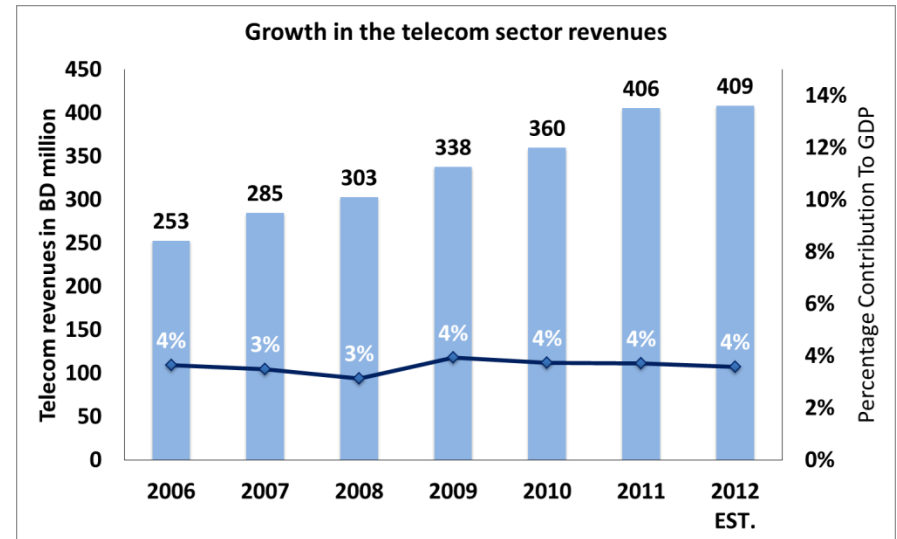
Indicator	2006	2007	2008	2009	2010	2011	2012	Q2 2013	Growth 2011-2012	CAGR 2006 - 2012
<b>Fixed line services</b>										
Number of fixed lines	194,196	205,036	221,843	240,187	232,447	248,479	260,000	257,000	5%	5%
Fixed line penetration	20%	20%	20%	20%	18%	21%	21%	21%		
<b>Mobile services</b>										
Total mobile subscribers	907,433	1,115,979	1,440,782	1,401,974	1,567,745	1,693,650	2,123,903	2,252,668	25%	15%
Mobile penetration	94%	107%	130%	119%	127%	142%	172%	182%		
<b>Internet services</b>										
Total broadband subscribers	38,628	68,253	110,010	158,335	306,235	567,884	1,254,808	1,378,145		
Broadband penetration	4%	7%	10%	13%	25%	48%	102%	112%		
Percentage of individuals using the Internet	28%	33%	52%	53%	55%	77%	88%			
Telecommunications revenues (BD in million)	253	285	303	338	360	406	409		1%	8%
Number of employees in the telecommunications sector	1,942	2,381	2,469	2,504	2,584	2,708	3,141		16%	8%

## Notes:

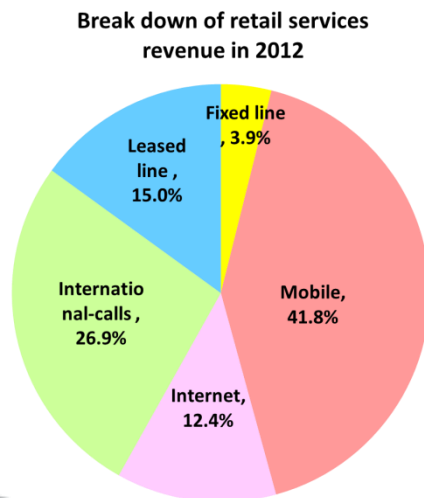
- 1- The number of subscribers refers to the end of the period.
- 2- Number of broadband subscribers include fixed, mobile and wireless.
- 3- 2011 and 2012 revenues include handsets sales.
- 4- GAGR: Compound Annual Growth Rate
- 5- The new number of total broadband subscriptions for 2010-2012 have been revised to ensure better alignment with the ITU definition of active mobile broadband subscribers (see definition in slide 38). Comprehensive Pay-per-use figures are not available for 2011 and earlier.

# Revenues in the telecoms sector

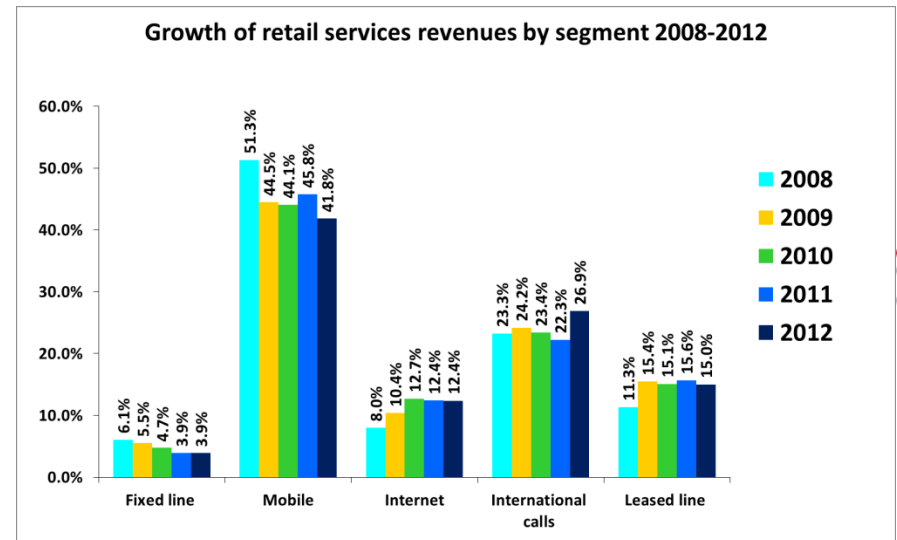
- ▶ Telecom revenues reached BD 409 million in 2012.
- ▶ 8% compound annual growth rate between 2006 and 2012.
- ▶ Mobile services revenues account for nearly half of the telecoms retail services revenue.
- ▶ telecoms revenues contribute 4% to GDP.



Source: TRA analysis based on operators data. 2011 and 2012 revenues including handsets revenues.



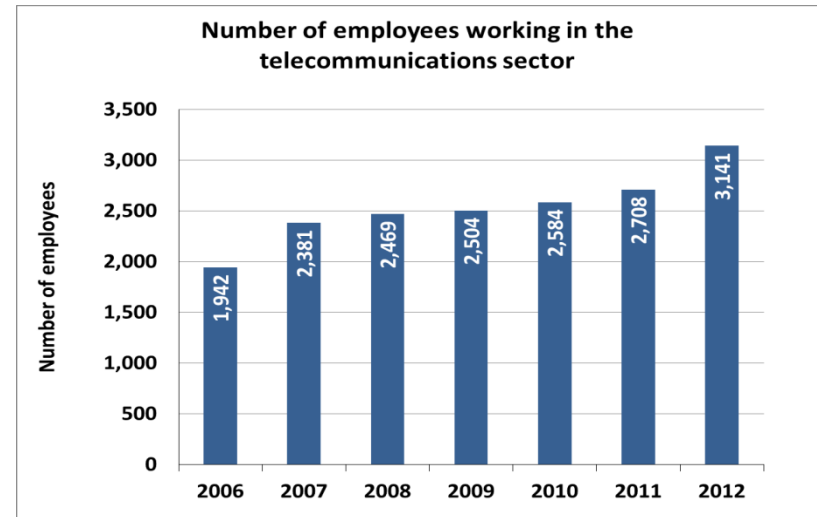
Source: TRA analysis based on operators data.  
Note: Mobile and fixed services revenues do not include international calls revenue.



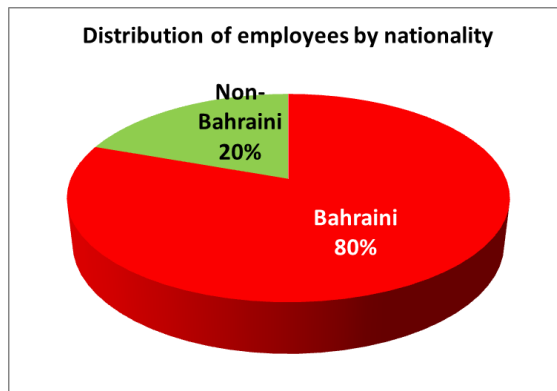
Source: TRA analysis based on operators data.

# Employment in the telecoms sector

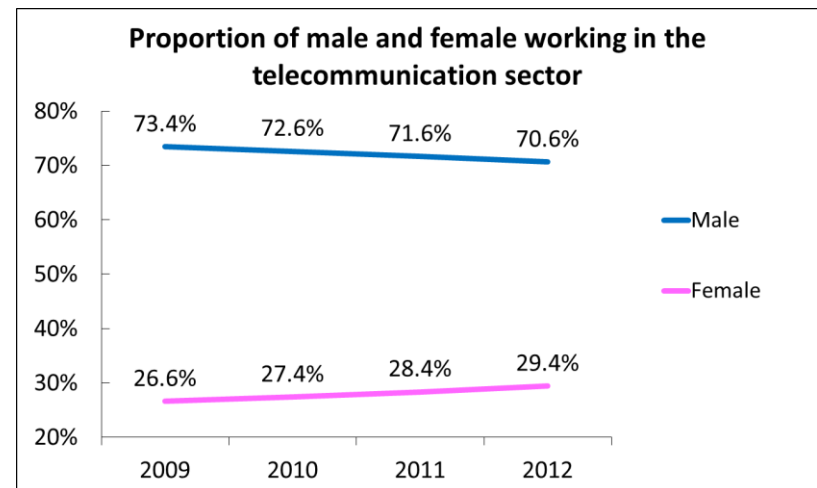
- ▶ About 3,100 employees are working in the telecommunications sector.
- ▶ 8% Compound Annual Growth Rate in the number of employees between 2006 and 2012.
- ▶ The sector achieves a high degree of Bahrainisation (80%).
- ▶ 29% of employees are female.



Source: TRA analysis based on operators data.



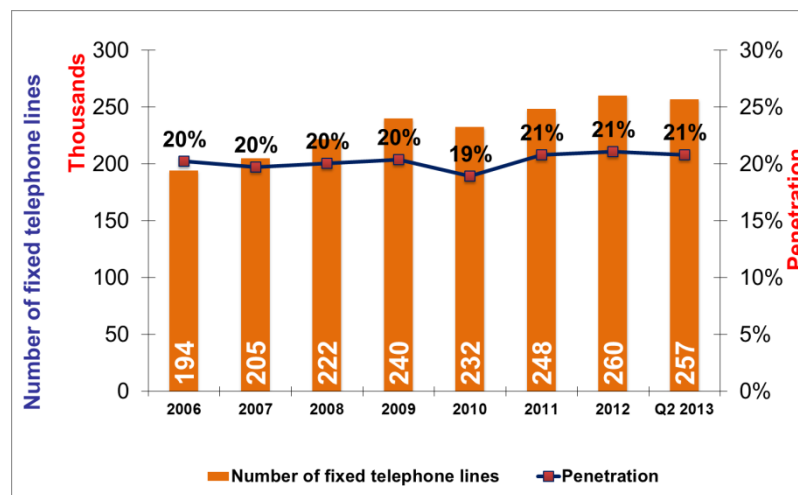
Source: TRA analysis based on operators data.



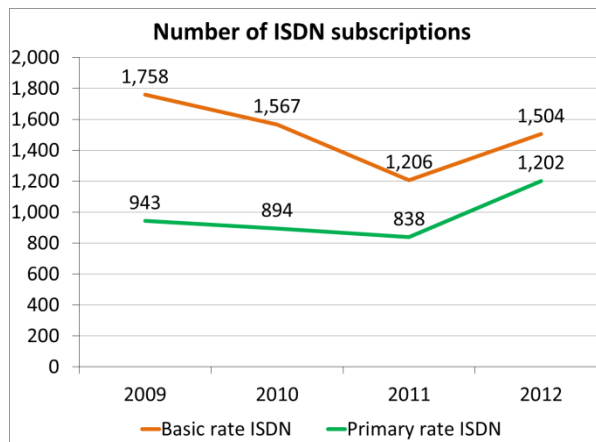
Source: TRA analysis based on operators data.

# Fixed telephony services

- ▶ By the end of Q2 2013, there were approximately 257,000 fixed lines.
- ▶ Fixed wireless services as a proportion of total fixed lines has increased from less than 1% in 2007 to 27% in 2011 and 35% in Q2 2013 due to the offers of Menatelecom and Zain.
- ▶ By the end of 2012 there were 1,504 Basic rate ISDN and 1,202 Primary rate ISDN services.
- ▶ Including the number of ISDN voice-channel equivalents\* in the total number of fixed lines the fixed line penetration rate was 24% in 2012.



Source: TRA analysis based on operators data.



Source: TRA analysis based on operators data.

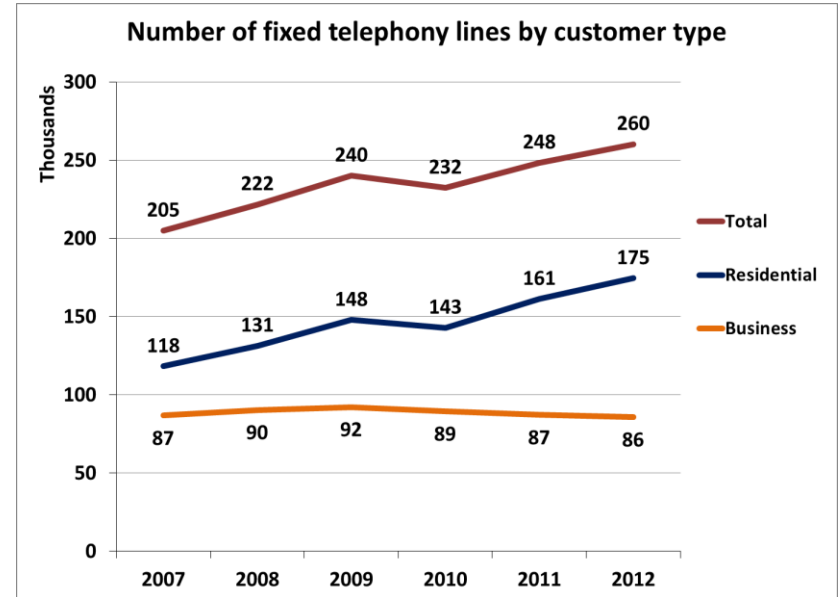
Note: The reason of increase in the number of ISDNs is that Batelco has changed the reporting system.

Note:

\* Basic-rate voice-channel equivalents is the number of basic-rate ISDN subscriptions multiplied by 2, and primary-rate voice-channel equivalents is the number of primary-rate ISDN subscriptions multiplied by 30.

# Number of fixed telephony lines by customer type

- ▶ The increase in residential fixed lines during 2012 was due to an increase in the number of fixed wireless services, which grew by 33% in 2012.
- ▶ The fixed wireless operators started offering bundles of telephony and broadband in 2012.



Source: TRA analysis based on operators data.  
Number of fixed lines including: PSTN, Fixed wireless and voice-over-IP (VoIP).

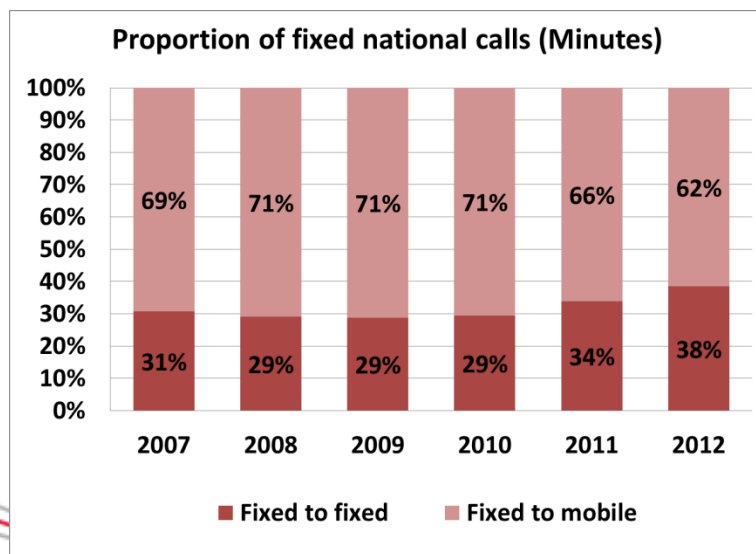
# Fixed line outgoing minutes

- ▶ Fixed telephony national traffic decreased by 27% between 2011 and 2012 due to substitution towards mobile.
- ▶ 62% of national traffic originated from fixed lines are fixed-to-mobile calls.
- ▶ 9% reduction in average national monthly minutes per residential line from 2011 to 2012.

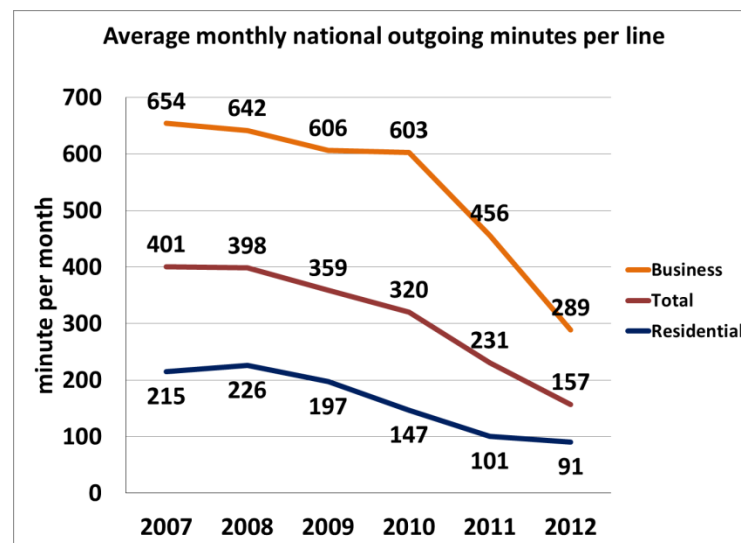
## Fixed lines national outgoing minutes (volume)

Yearly national outgoing minutes in million	2007	2008	2009	2010	2011	2012	Growth 2011 - 2012
Fixed to fixed	299	310	319	297	241	186	-17%
Fixed to mobile	674	712	690	612	421	298	-32%
<b>Total</b>	<b>973</b>	<b>1,022</b>	<b>1,009</b>	<b>909</b>	<b>662</b>	<b>484</b>	<b>-27%</b>

Source: TRA analysis based on operators data.



Source: TRA analysis based on operators data.



Source: TRA analysis based on operators data.

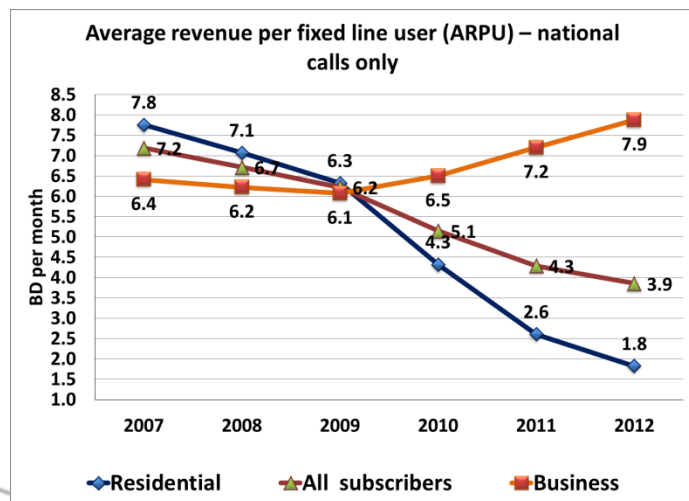
# Fixed line service revenue

## Fixed line revenue

BD in million	2007	2008	2009	2010	2011	2012	Growth 2011-2012
Residential	10.8	10.5	10.7	7.6	4.7	3.7	-21%
Non-residential	6.6	6.6	6.8	7.0	7.5	8.1	8%
<b>Total</b>	<b>17.4</b>	<b>17.1</b>	<b>17.5</b>	<b>14.6</b>	<b>12.2</b>	<b>11.8</b>	<b>-4%</b>

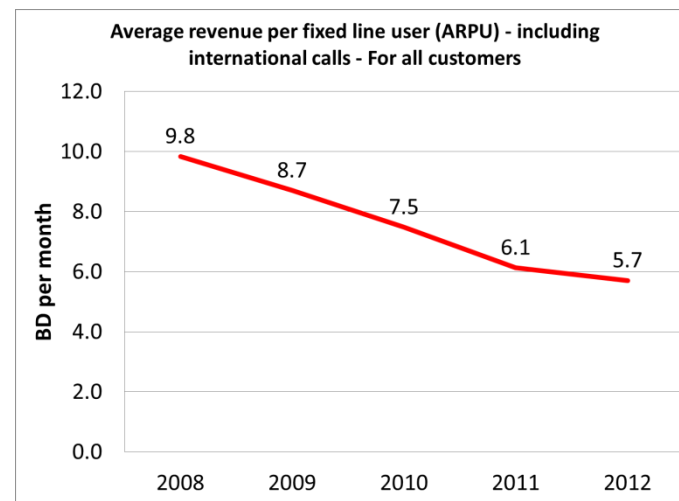
Source: Source: TRA analysis based on operators data.

- Fixed line revenues dropped by 4% between 2011 and 2012. The main driver is the reduction in the revenues earned from residential fixed telephony services, as residential customers switched to mobile services.



Source: TRA analysis based on operators data.

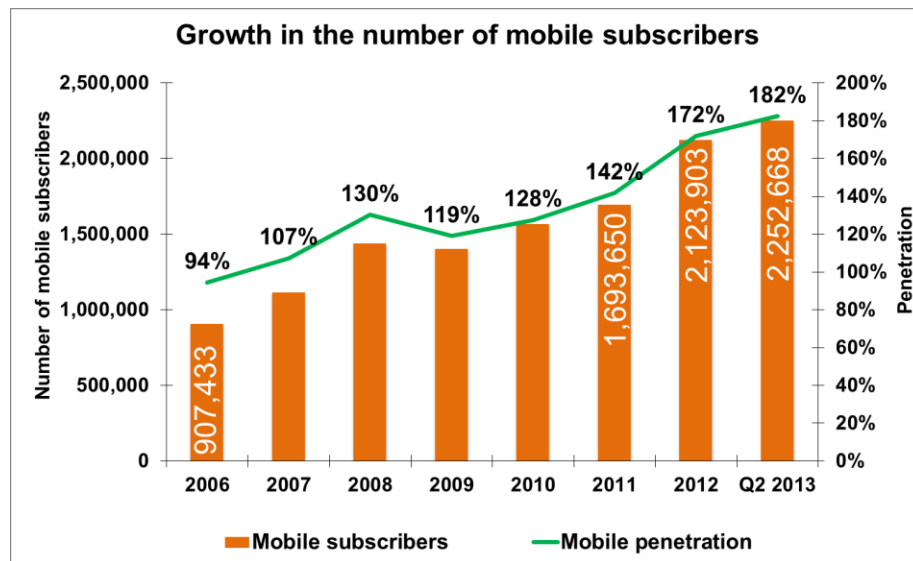
Note: Revenue includes national calls revenue, monthly rental and subscription fees.



Source: TRA analysis based on operators data.

# Mobile services

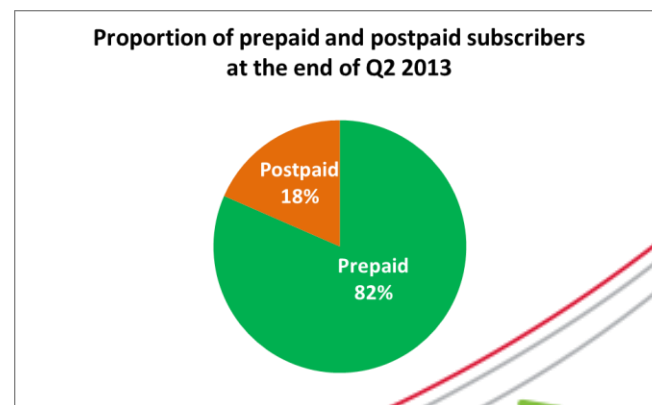
- ▶ At the end of Q2 2013 there were about 2.25 million mobile subscribers in Bahrain, an increase of 33% compared to 2011
- ▶ At the end of Q2 2013 mobile penetration in Bahrain was 182%.
- ▶ The mobile market in Bahrain remains predominantly prepaid. Prepaid subscribers represented 82% of mobile subscribers at the end of Q2 2013.



Source: TRA analysis based on operators data.

Mobile subscribers	2009	2010	2011	2012	Q2 2013	Growth 2011-Q2 2013
<b>Prepaid</b>	1,156,196	1,289,274	1,379,820	1,720,958	1,837,192	<b>33%</b>
<b>Postpaid</b>	245,778	278,471	313,830	402,945	415,476	<b>32%</b>
<b>Total</b>	<b>1,401,974</b>	<b>1,567,745</b>	<b>1,693,650</b>	<b>2,123,903</b>	<b>2,252,668</b>	<b>33%</b>

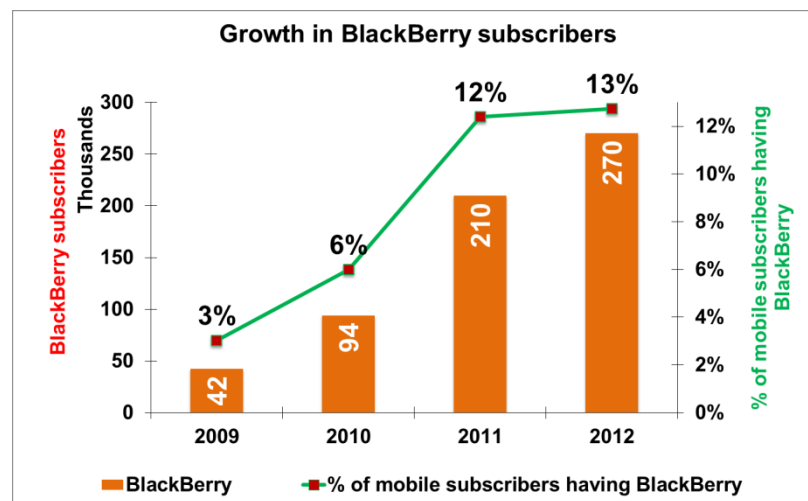
Source: TRA analysis based on operators data.



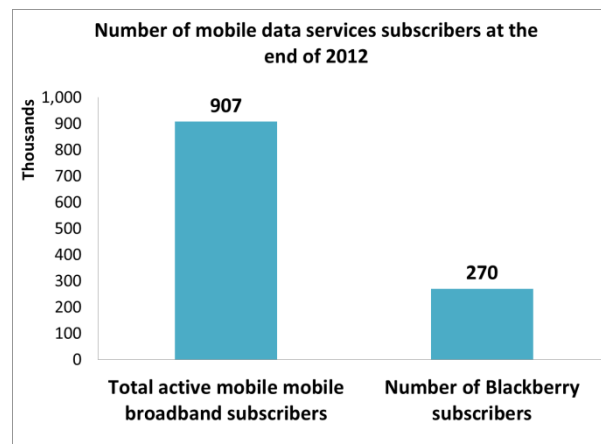
Source: TRA analysis based on operators data.

# BlackBerry and mobile data add-on subscribers

- ▶ At the end of 2012, there were 270,000 BlackBerry subscribers, representing 13% of mobile subscribers.
- ▶ 28.6% growth in BlackBerry subscribers between 2011 and 2012.
- ▶ At the end of 2012, there were about 907,000 active mobile broadband subscribers (including BlackBerry subscribers).



Source: TRA analysis based on operators data.



Source: TRA analysis based on operators data.

# Mobile traffic

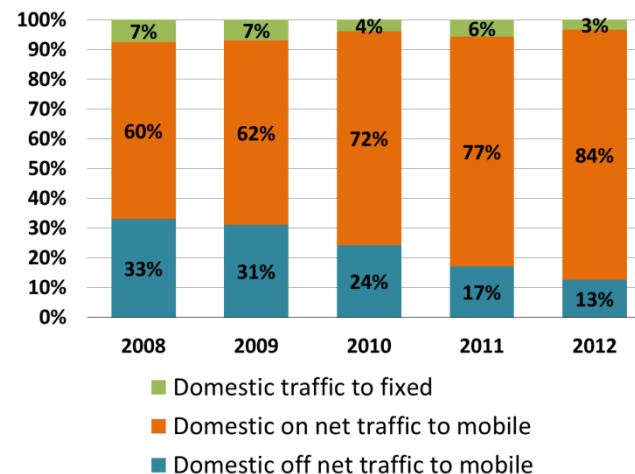
## Mobile domestic outgoing minutes (volume)

Mobile outgoing minutes (Domestic only, in millions)	2008	2009	2010	2011	2012	Growth 2011 - 2012
From prepaid	1,081	1,235	2,730	3,904	4,672	20%
From postpaid	753	783	1,015	1,152	1,128	-2%
<b>Total</b>	<b>1,834</b>	<b>2,018</b>	<b>3,745</b>	<b>5,056</b>	<b>5,801</b>	<b>15%</b>

Source: TRA analysis based on operators data.

- ▶ 15% growth in domestic mobile originated traffic between 2011 and 2012.
- ▶ Most domestic mobile traffic originates from prepaid subscribers (80%).
- ▶ Domestic prepaid mobile outgoing minutes grew by 20% between 2011 and 2012.
- ▶ Although the number of postpaid mobile subscribers grew by 28%, the domestic postpaid mobile outgoing minutes dropped by 2%.
- ▶ In 2012, 84% of domestic mobile originated traffic was on-net traffic to mobile.
- ▶ Number of SMS dropped by 37% from 2011 to 2012 mainly due to the increase in Blackberry service and mobile data services.

Distribution of domestic mobile outgoing minutes



Source: TRA analysis based on operators data.

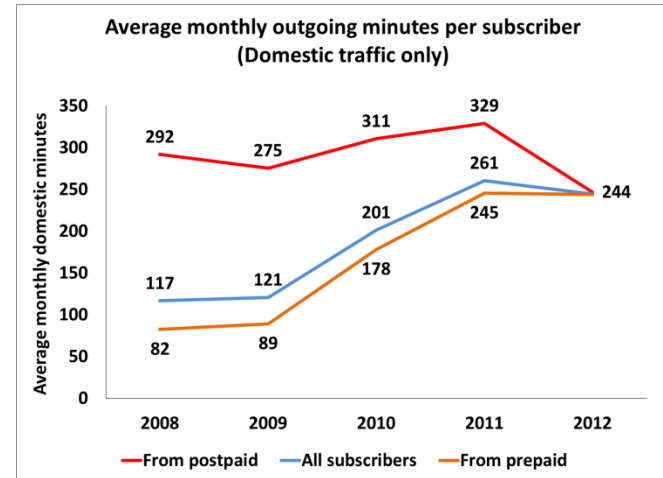
## Number of SMS

Total SMS (millions)	2008	2009	2010	2011	2012	Growth 2011 - 2012
Prepaid	161.6	214.9	791.3	417.3	255.9	-39%
Postpaid	108.9	146.6	202.5	155.9	107.5	-31%
<b>Total</b>	<b>270.5</b>	<b>361.5</b>	<b>993.8</b>	<b>573.2</b>	<b>363.4</b>	<b>-37%</b>

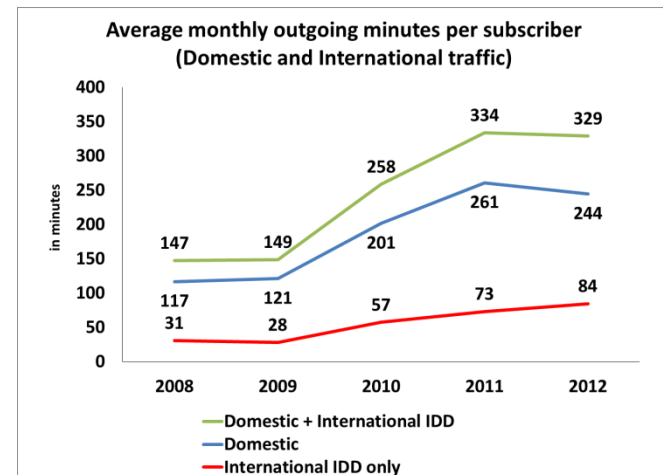
Source: TRA analysis based on operators data.

# Average monthly outgoing minutes

- ▶ As shown in the figure the average monthly domestic traffic for postpaid subscribers dropped from 329 minutes in 2011 to 244 minutes in 2012, a result of an increase in data usage, an increase in the number of postpaid subscribers (+ 28%) and a reduction in domestic traffic originated by postpaid subscribers (-2%).
- ▶ The average monthly domestic traffic for prepaid customers in 2012 remains unchanged compared to 2011.
- ▶ The average monthly volume of international direct dial (IDD) calls has increased by 15% between 2011 and 2012.



Source: TRA analysis based on operators data.



Source: TRA analysis based on operators data.

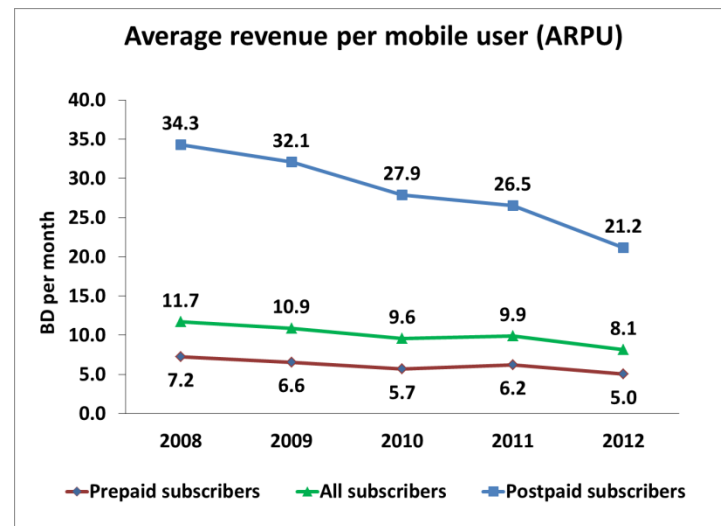
# Mobile revenue

## Mobile revenue

Revenue (BD in millions)	2007	2008	2009	2010	2011	2012	Growth 2011 – 2012
Prepaid	65.9	95.3	90.9	86.9	99	96.3	-2.6%
Postpaid	58.8	88.4	91.2	91.2	92.9	96.8	4.2%
<b>Total</b>	<b>124.7</b>	<b>183.7</b>	<b>182.1</b>	<b>178.1</b>	<b>191.9</b>	<b>193.1</b>	<b>0.7%</b>

Source: TRA analysis based on operators data

Note: Revenues including connection charges, monthly subscription fees and usage charges (including international direct dial usage) .

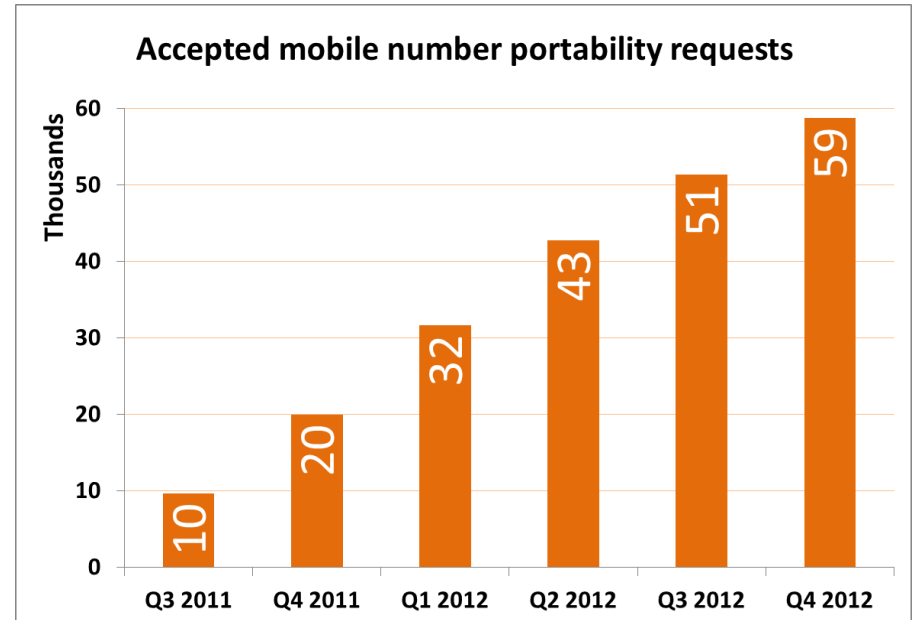


Source: TRA analysis based on operators data

- ▶ While traffic grew significantly, mobile revenues remained almost unchanged. This indicates the continuing competitive pressures on mobile prices.

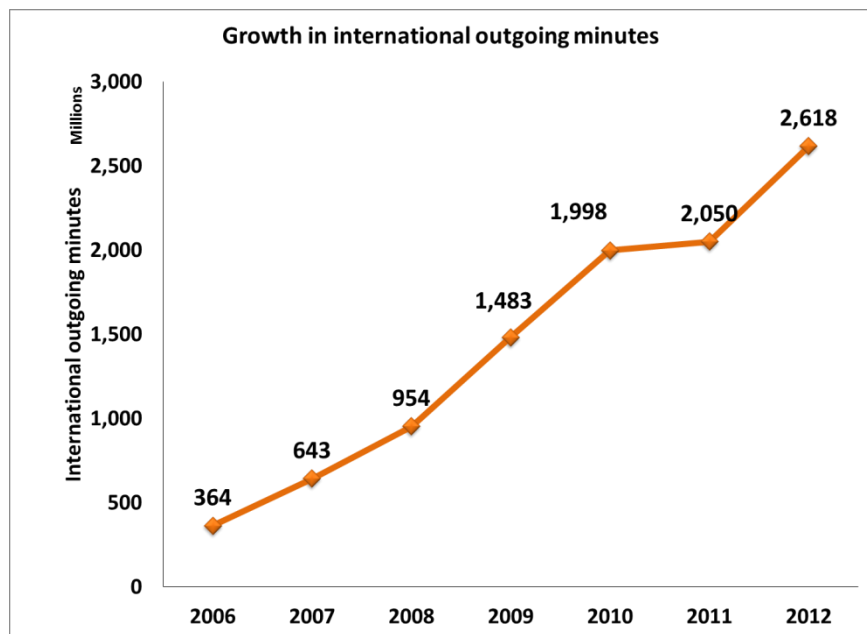
# Mobile Number Portability

- ▶ Since the introduction of number portability in July 2011, the volume of mobile numbers successfully ported has gradually increased. By the end of 2012, a total of approximately 59,000 mobile numbers had been ported successfully.
- ▶ This represents 2.8% of the mobile customer base.



Source: TRA analysis based on operators data

# International Outgoing minutes



Source: TRA analysis based on operators data.

- ▶ After little growth in 2011, the volume of international outgoing minutes grew by 28% between 2011 and 2012.
- ▶ 18% increase in international calls revenue between 2011 and 2012.

**GCC countries** (Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates).

**Zone 2:** Calls to South Asian countries (Bangladesh, India, Pakistan, the Philippines and Sri Lanka).

**Zone 3:** Calls to other major destinations (Australia, Canada, France, Germany, Greece, Italy, Iran, New Zealand, Thailand, UK, USA and Yemen).

**Zone 4:** Calls to all other international destinations.

## International outgoing minutes

Minutes (in millions)	2006	2007	2008	2009	2010	2011	2012	Growth 2011 - 2012
GCC <sup>1</sup>	93.10	109.00	106.00	131.00	193.00	108.30	123.60	14%
Zone 2	167.00	400.00	686.50	1,128.00	1,570.00	1,713.80	2,236.0	30%
Zone 3	40.30	59.00	53.00	83.30	84.00	53.30	87.10	63%
Zone 4	63.00	74.10	108.30	140.70	151.00	174.60	170.90	-2%
<b>Total</b>	<b>363.40</b>	<b>642.10</b>	<b>953.80</b>	<b>1,483.00</b>	<b>1,998.00</b>	<b>2,050.00</b>	<b>2,617.60</b>	<b>28%</b>

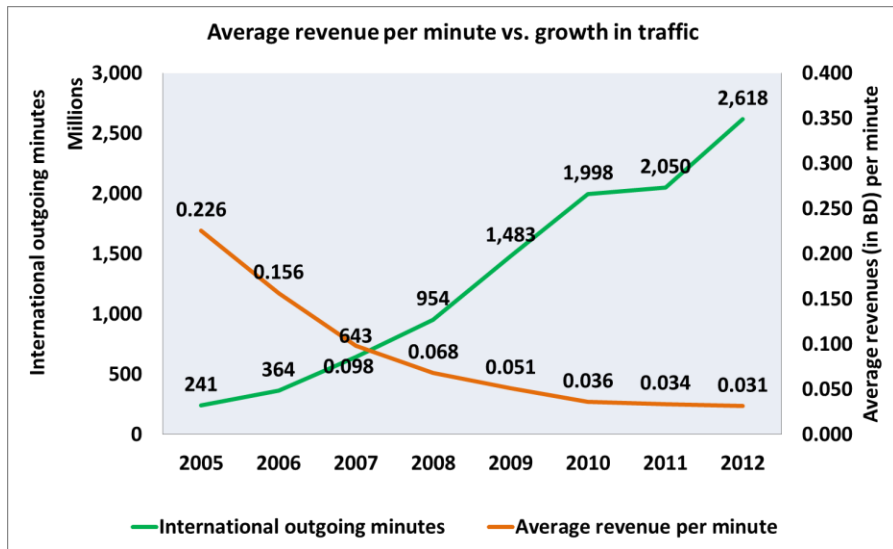
Source: TRA analysis based on operators data.

## International calls revenue

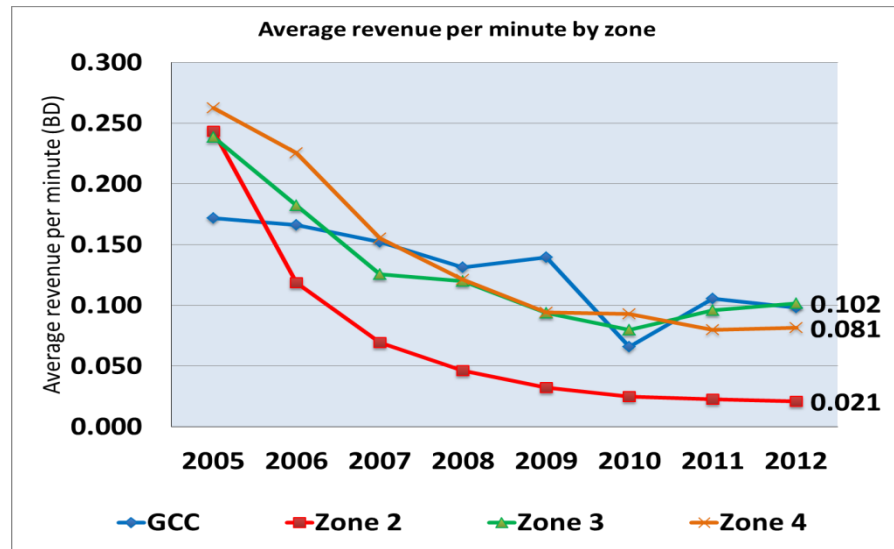
Revenues (BD in millions)	2006	2007	2008	2009	2010	2011	2012	Growth 2011 - 2012
GCC	15.40	16.60	13.93	18.30	12.70	11.40	12.14	6%
Zone 2	19.70	27.60	31.56	36.50	38.80	38.80	47.08	21%
Zone 3	7.30	7.40	6.36	7.80	6.70	5.10	8.86	73%
Zone 4	14.30	11.50	13.13	13.20	13.90	13.90	13.89	0%
<b>Total</b>	<b>56.70</b>	<b>63.10</b>	<b>65.00</b>	<b>75.80</b>	<b>72.10</b>	<b>69.20</b>	<b>81.98</b>	<b>18%</b>

Source: TRA analysis based on operators data.

# Price elasticity



Source: TRA analysis based on operators data.

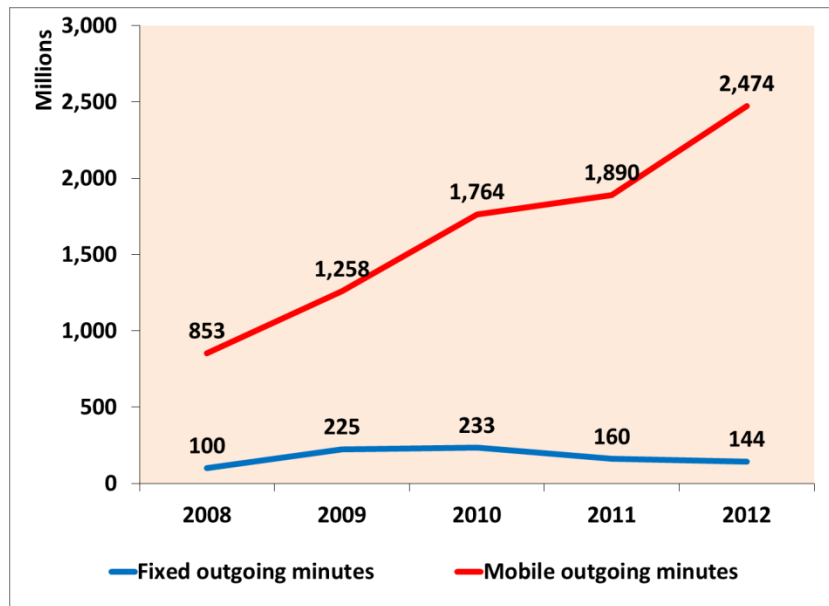


Source: TRA analysis based on operators data.

- ▶ The average revenue per minute for international calls has fallen by 80% over the last seven years, with a particularly large fall observed for zone 2.

# International Outgoing minutes

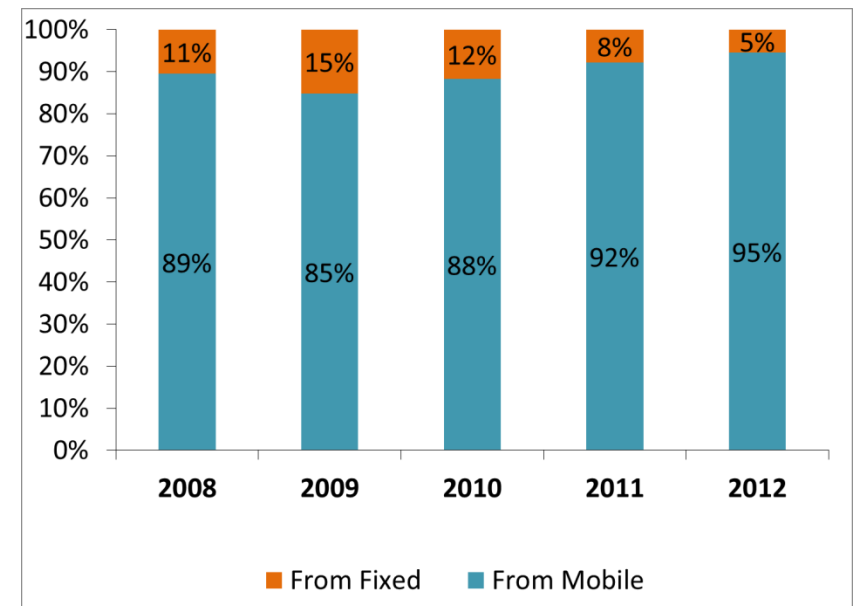
International outgoing minutes originated on mobile<sup>1</sup> grew by 31% between 2010 and 2011 while the minutes originated on fixed fell by 10%.



Source: TRA analysis based on operators data.

<sup>1</sup> Minutes including prepaid calling card traffic.

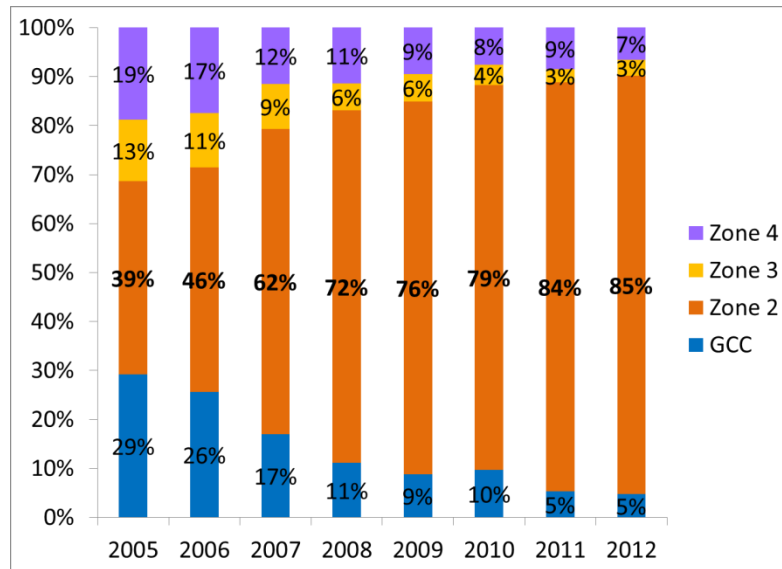
International outgoing minutes originated on mobile represented 95% of the total international outgoing minutes in 2012.



Source: TRA analysis based on operators data.

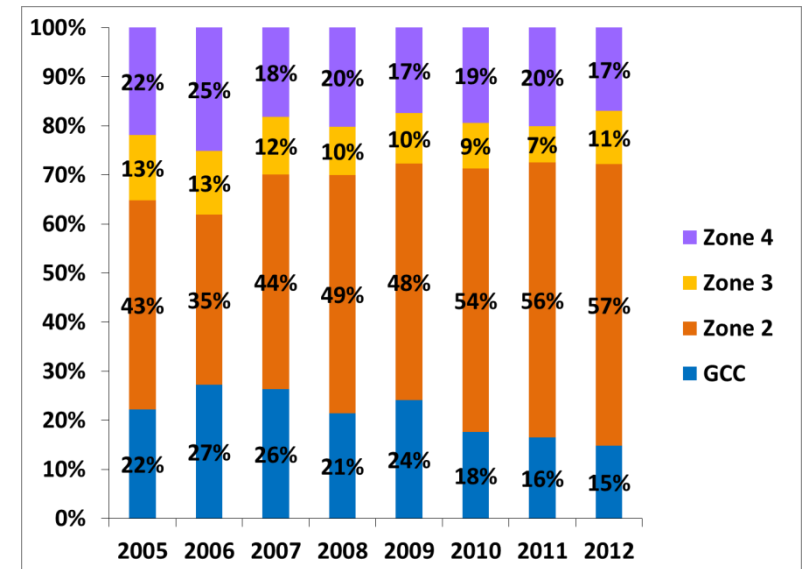
# International traffic vs. revenues by destination called

**85% of total international calls minutes were made to South Asian countries in 2012**



Source: TRA analysis based on operators data.

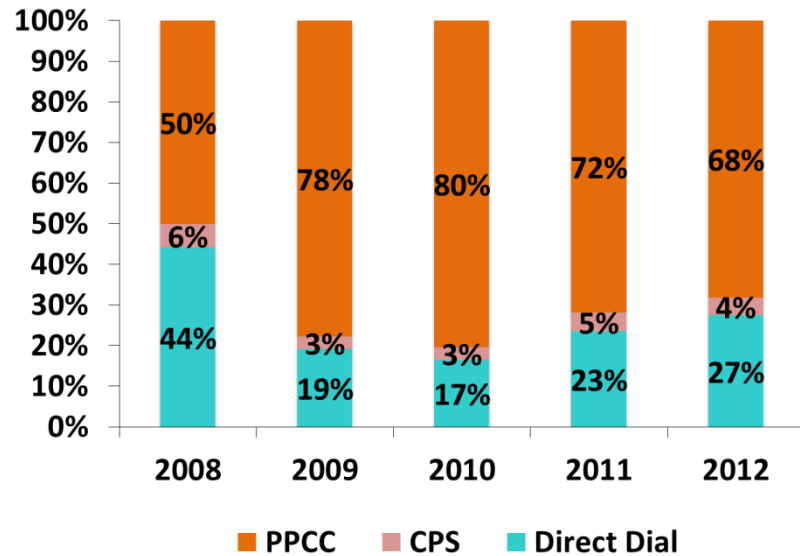
**57% of international revenues were generated from calls to South Asian countries in 2012**



Source: TRA analysis based on operators data.

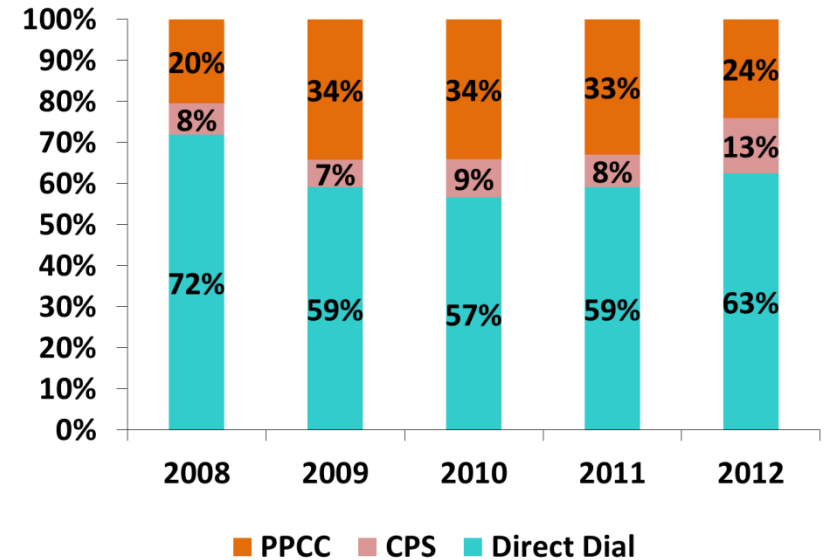
# Distribution of international outgoing minutes/revenues by access type - Fixed telephony

Distribution of international **minutes** originated from fixed by access type



Source: TRA analysis based on operators data.

Distribution of international **revenues** originated from fixed by access type

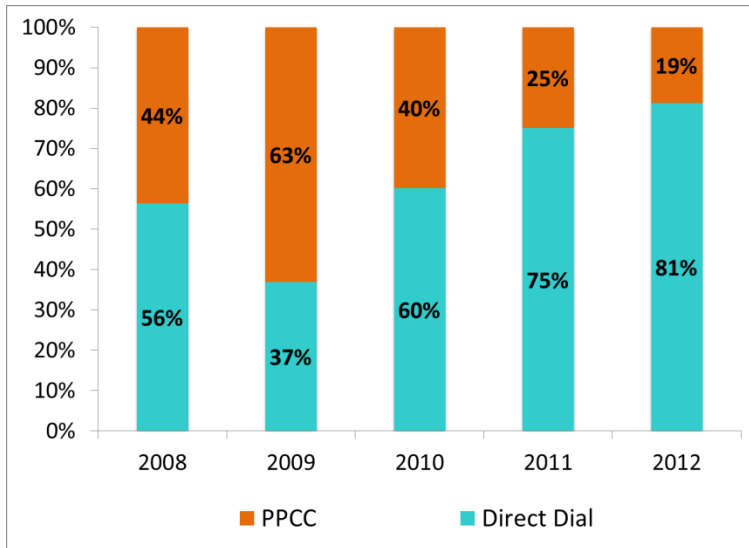


Source: TRA analysis based on operators data.

Although traffic originated from fixed lines using prepaid calling cards represented 68% of international fixed line traffic in 2012, it represented only 24% of revenues.

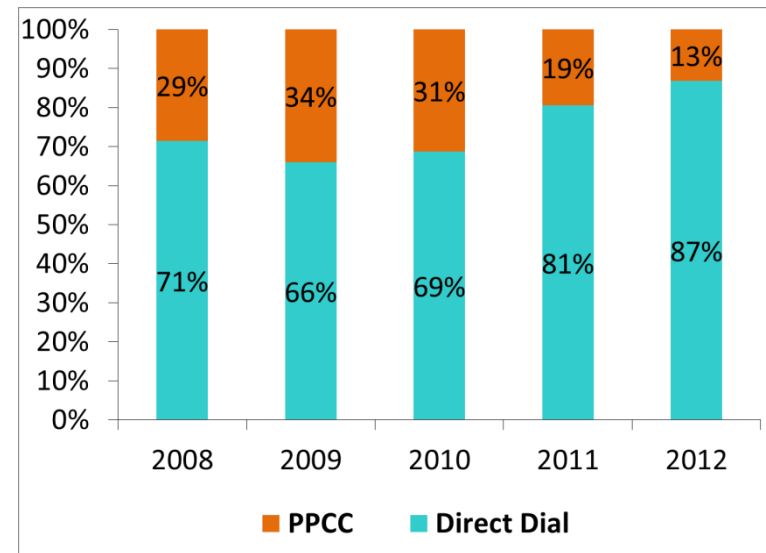
# Distribution of international outgoing minutes/revenues by access type - Mobile

Distribution of international **minutes** originated from mobile by access type



Source: TRA analysis based on operators data.

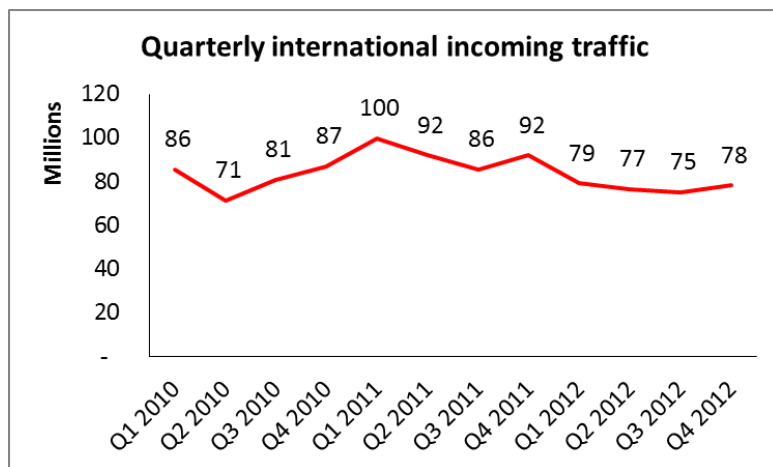
Distribution of international **revenues** originated from mobile by access type



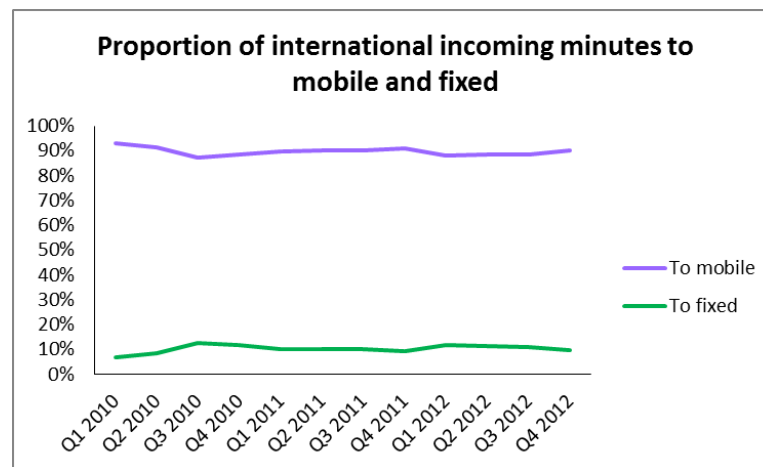
Source: TRA analysis based on operators data.

In 2012, international direct dial traffic originated from mobile represented 81% of the total traffic, up from 75% in 2011 and 60% in 2010.

# International incoming call minutes



Source: TRA analysis based on operators data.

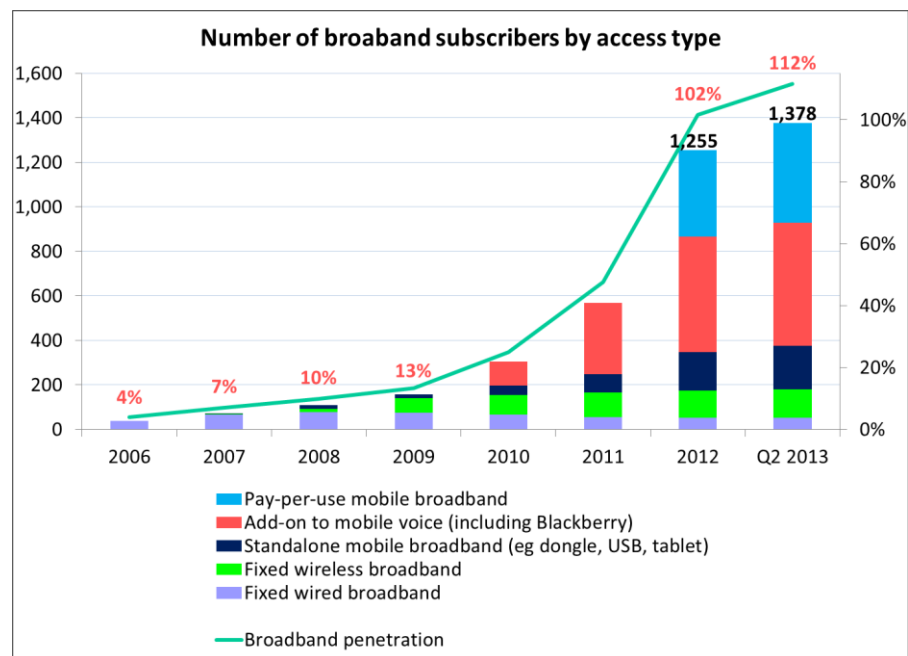


Source: TRA analysis based on operators data.

- ▶ In 2012, the total volume of international incoming minutes was 309 million minutes, compared to 370 million in 2011.
- ▶ About 90% of international incoming calls were made to mobile.

# Broadband services

- ▶ At the end of Q2 2013, there were approximately 1.38 million broadband subscribers, representing a broadband penetration of 112%.
- ▶ Much of the growth in broadband services in recent years has been driven by mobile broadband, which reflects the popularity of Smartphones and tablets. For example, during 2012:
  - ▶ Standalone mobile broadband services (includes tablets) increased by +112%
  - ▶ Add-on to mobile voice (includes Smartphone plans) increased by +62%



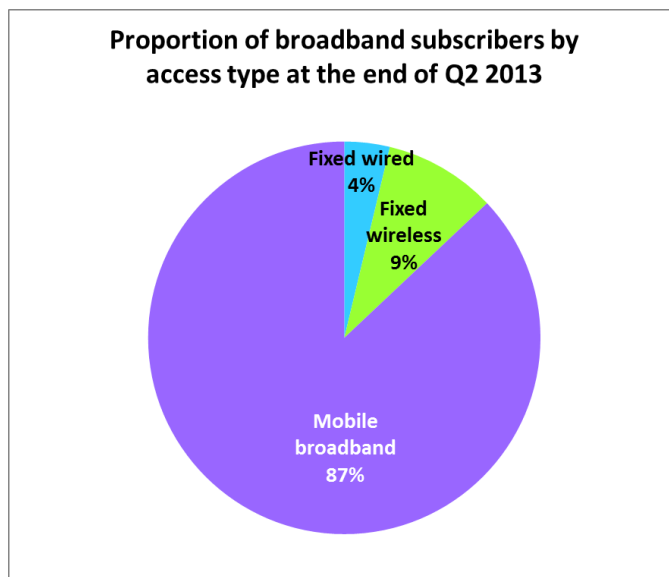
Source: TRA analysis based on operators data. Note that comprehensive Pay-per-use figures are not available for 2011 and earlier.

## Note

The new number of mobile broadband subscriptions for 2010-2012 have been revised to ensure better alignment with the ITU definition of active mobile broadband subscribers (see definition in slide 38). Comprehensive Pay-per-use figures are not available for 2011 and earlier.

# Broadband services

- ▶ Majority of broadband subscribers were mobile broadband subscribers:
  - ▶ mobile broadband subscribers represented about 87% of broadband subscribers at the end of Q2 2013.



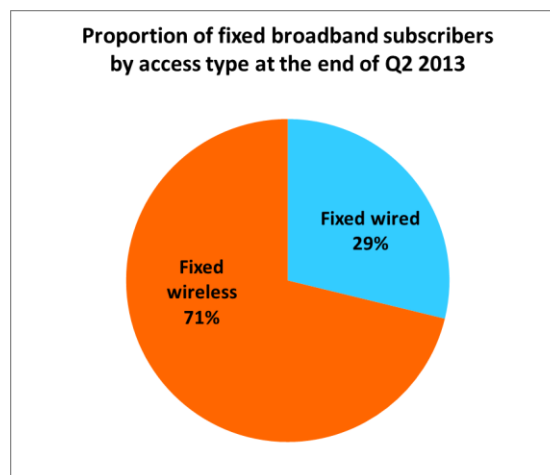
Source: TRA analysis based on operators data

# Fixed broadband subscriptions

- ▶ At the end of Q2 2013
  - ▶ Residential subscribers represented 93% of fixed broadband subscriptions.
  - ▶ Fixed wireless represented 71% of fixed broadband subscriptions.

Fixed broadband (e.g. ADSL, fiber, WiMax)	2010	2011	2012	Q2 2013
Residential	144,929	153,878	162,012	166,241
Non Residential	9,943	10,981	11,729	12,513
<b>Total</b>	<b>154,872</b>	<b>164,859</b>	<b>173,741</b>	<b>178,754</b>

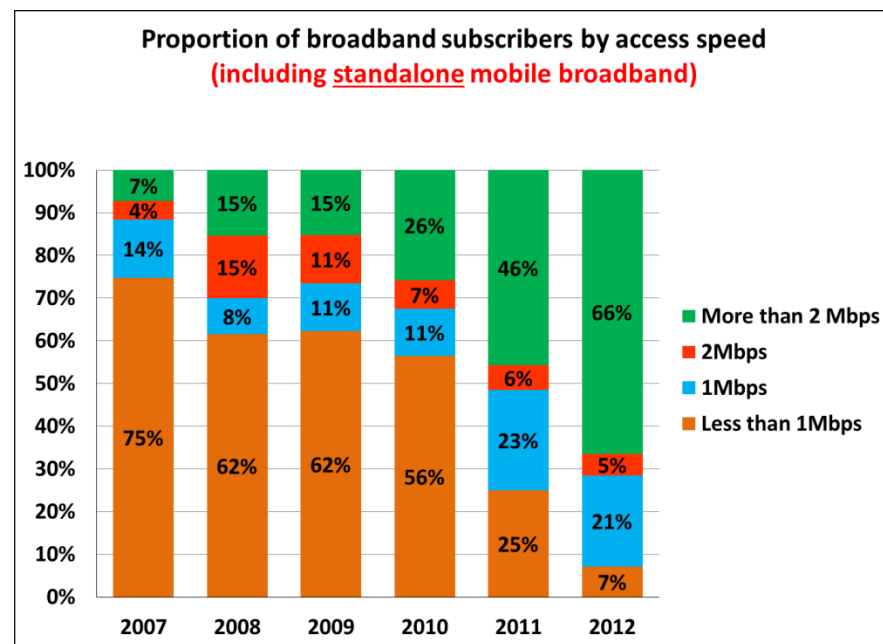
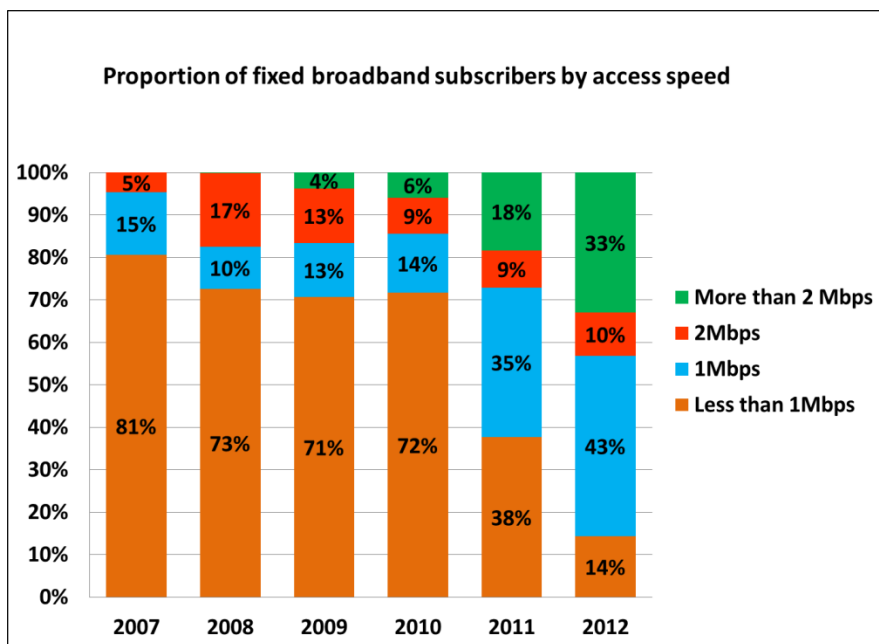
Source: TRA analysis based on operators data



Source: TRA analysis based on operators data

# Proportion of broadband subscribers by access speed

- ▶ About 86% of fixed (wired and wireless) broadband subscribers at the end of 2012 were on plans with advertised speeds of 1Mbps and above compared to 62% in 2011.
- ▶ When standalone mobile broadband subscribers are included, the proportion of broadband subscribers on plans with advertised speeds of at least 1Mbps increases to 93%.



Source: TRA analysis based on operators data

Source: TRA analysis based on operators data

# Broadband revenue

▶ Although the number of broadband subscribers increased by dramatically in 2012 compared to 2011, broadband revenues dropped by -2% due to reductions in broadband prices. Based on the 2012 Price Benchmarking Study of telecoms services in Arab countries, Fixed broadband prices in Bahrain have fallen by up to 53% between 2011 and 2012. Also, mobile broadband prices in Bahrain declined by up to 63% between 2011 and 2012.

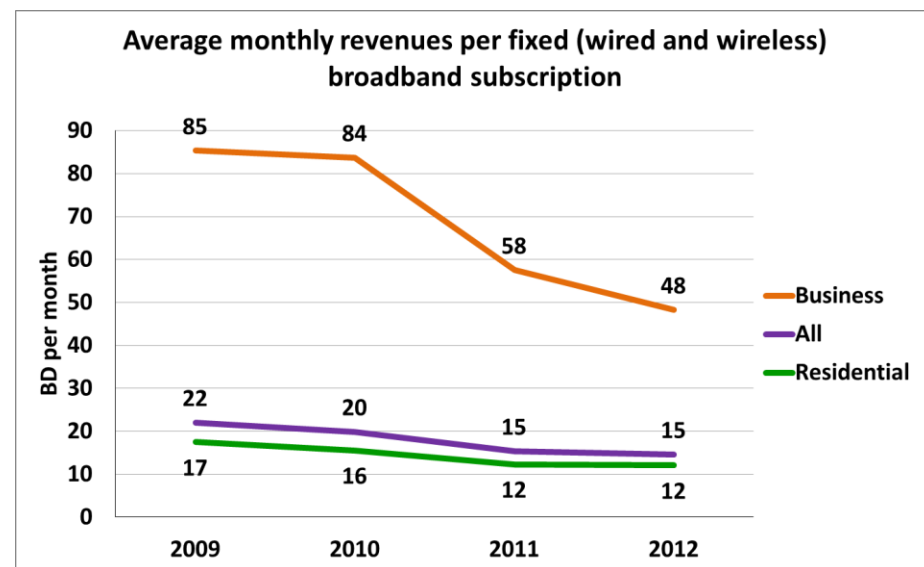
▶ The reduction in broadband prices resulted in a drop in ARPU by 19% for Business and 2% for Residential between 2011 and 2012. Most of the reduction in Business ARPUs is due to lower Business ARPUs on fixed wireless.

## Broadband revenue

Revenue (BD in million)	2009	2010	2011	2012	Growth 2011 – 2012
Residential	24	28.97	30.5	30.8	1%
Business	8.5	9.95	8.1	6.9	-14%
<b>Total</b>	<b>32.5</b>	<b>38.92</b>	<b>38.6</b>	<b>37.7</b>	<b>-2%</b>

Source: TRA analysis based on operators data

Note: Broadband revenues include fixed (wired and wireless) and mobile broadband



Source: TRA analysis based on operators data

# Leased lines

## Number of domestic leased lines

Leased line speed	2010	2011	2012
Analogue	1132	962	931
x < 64 kbps and less	110	114	86
64 kbps ≤ x < 512 kbps	954	707	666
512 kbps ≤ x < 1024 kbps	286	308	277
1024 kbps ≤ x < 2048 kbps	233	313	231
2 Mbps ≤ x < 45 Mbps	794	1026	1059
45 Mbps ≤ x < 155 Mbps	48	57	64
155 Mbps ≤ x < 622 Mbps	1	1	2
x ≥ 622 Mbps	2	2	1
<b>Total</b>	<b>3,560</b>	<b>3,490</b>	<b>3,317</b>

Source: TRA analysis based on operators data

▶ The number of domestic leased lines (including analogue) have been declining, due to a fall in the number of lower speed services.

▶ A similar pattern has been observed in respect of international leased lines in recent years.

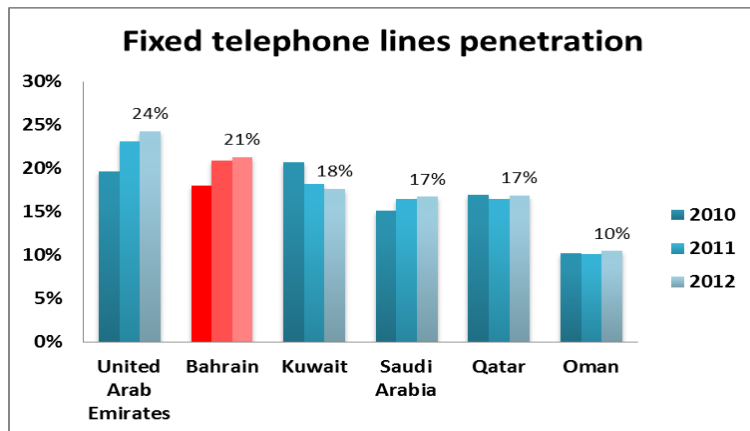
## Number of International Leased Lines

Destinations	Speed	2008	2009	2010	2011	2012
<b>Zone 1</b>	Analogue and Speeds lower than 64Kbps	29	14	6	0	0
	x < 1 Mbps	146	126	113	101	86
	1Mbps ≤ x < 2 Mbps	4	9	5	7	6
	2 Mbps ≤ x < 45 Mbps	56	53	35	31	22
	45 Mbps ≤ x < 155 Mbps	10	9	10	13	11
	155 Mbps ≤ x < 622 Mbps	0	7	6	9	7
	x ≥ 622 Mbps	1	1	4	4	3
	<b>Total</b>		<b>246</b>	<b>219</b>	<b>179</b>	<b>165</b>
<b>Zone 2</b>	Analogue and Speeds lower than 64Kbps	7	9	2	0	0
	x < 1 Mbps	14	19	13	13	10
	1Mbps ≤ x < 2 Mbps	2	0	0	1	1
	2 Mbps ≤ x < 45 Mbps	2	10	10	6	5
	45 Mbps ≤ x < 155 Mbps	0	0	0	0	0
	155 Mbps ≤ x < 622 Mbps	0	1	1	3	3
	x ≥ 622 Mbps	0	2	2	3	1
	<b>Total</b>		<b>25</b>	<b>41</b>	<b>28</b>	<b>26</b>
<b>Zone 3</b>	Analogue and Speeds lower than 64Kbps	1	0	1	0	0
	x < 1 Mbps	18	35	44	38	18
	1Mbps ≤ x < 2 Mbps	0	0	1	1	1
	2 Mbps ≤ x < 45 Mbps	9	9	10	9	6
	45 Mbps ≤ x < 155 Mbps	2	3	2	4	3
	155 Mbps ≤ x < 622 Mbps	0	2	3	3	5
	x ≥ 622 Mbps	3	2	2	1	2
	<b>Total</b>		<b>33</b>	<b>51</b>	<b>63</b>	<b>56</b>
<b>Grand total</b>		<b>304</b>	<b>311</b>	<b>270</b>	<b>247</b>	<b>190</b>

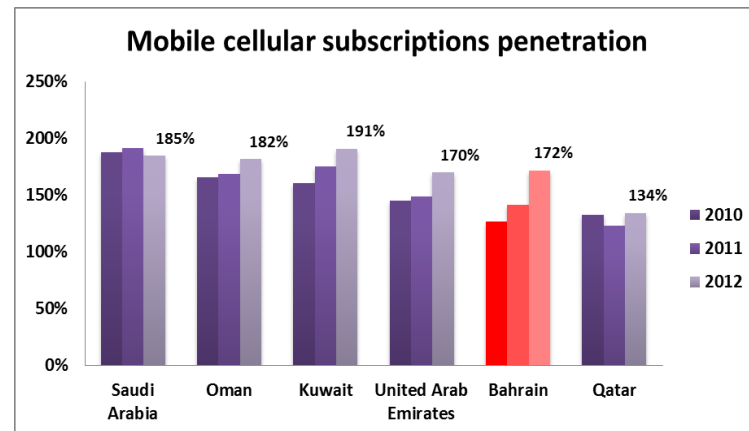
Source: TRA analysis based on operators data.

# Benchmarking of telecoms service penetration rates with GCC countries

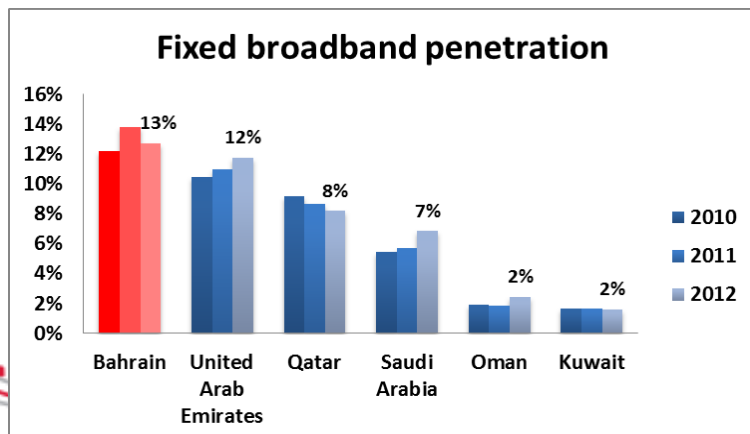
Bahrain compares well with other GCC countries in terms of telecom services penetration.



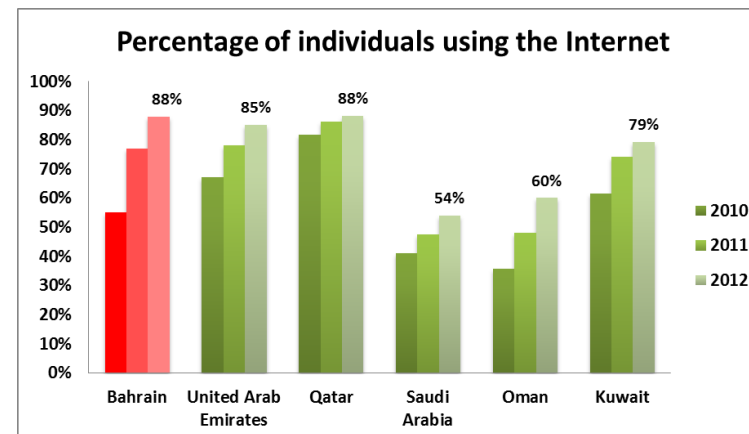
Source: International telecommunication Union (ITU) and TRA analysis



Source: International telecommunication Union (ITU) and TRA analysis



Source: International telecommunication Union (ITU) and TRA analysis



Source: International telecommunication Union (ITU) and TRA analysis

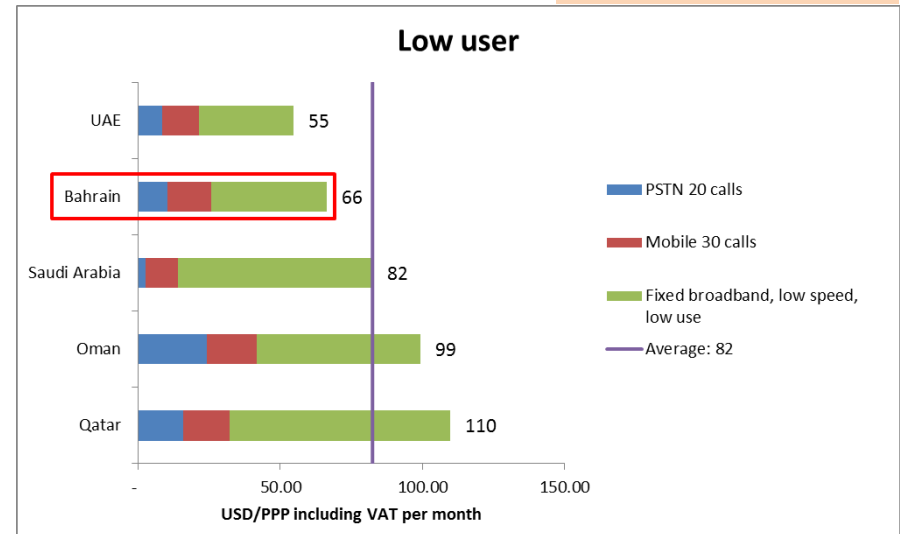
# Retail telecom price benchmarking

Bahrain result in BD => 16.3

▶ Bahrain performs well for low and medium users compared to other GCC countries

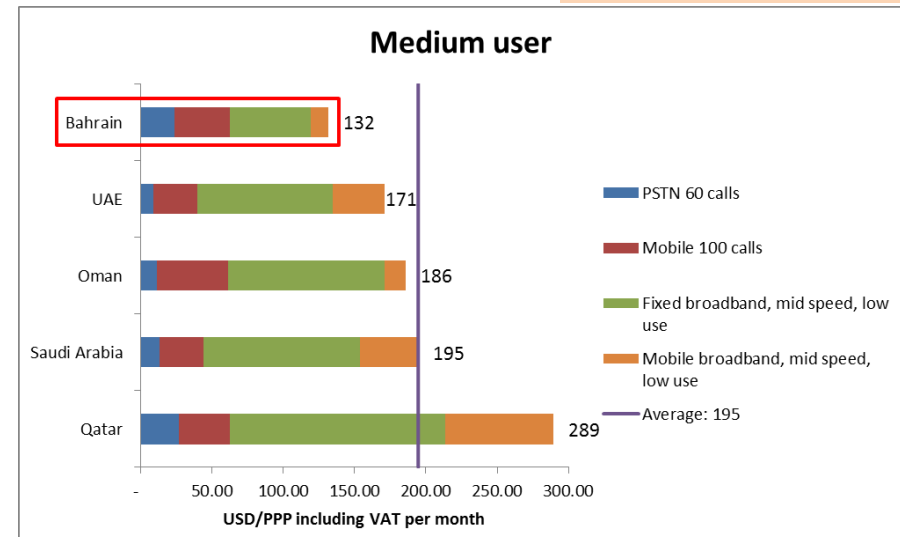
▶ For a low user, Bahrain compares very favourably to its GCC counterparts, and is second cheapest country after the UAE.

▶ Medium users in Bahrain enjoy the lowest total costs in the GCC.



Source: Retail Price Benchmarking for Arab countries for 2012

Bahrain result in BD => 32.6

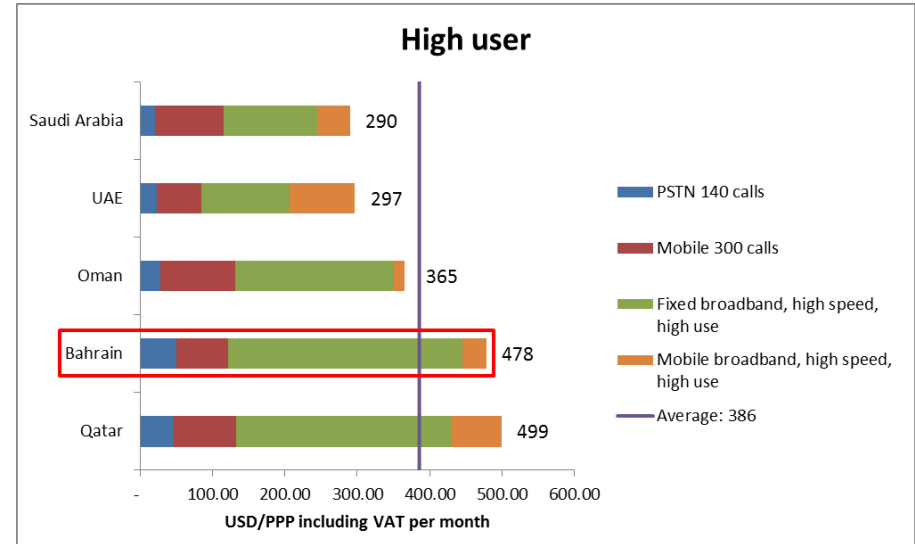


Source: Retail Price Benchmarking for Arab countries for 2012

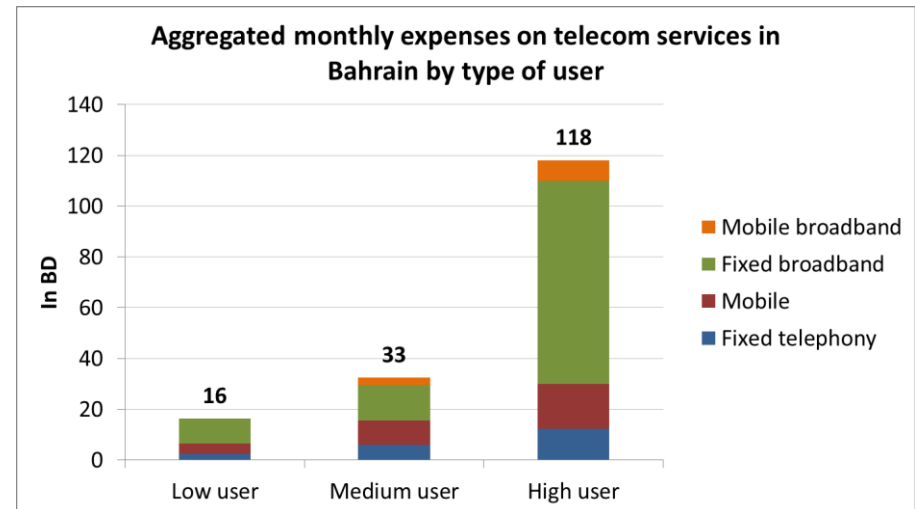
# Retail telecom price benchmarking

Bahrain result in BD => 118

▶ For the high user, Bahrain is the second most expensive country across the GCC countries, with Qatar slightly more expensive.



Source: Retail Price Benchmarking for Arab countries for 2012



Source: Retail Price Benchmarking for Arab countries for 2012

# List of Acronyms

ADSL	Asymmetric Digital Subscriber Line
BD	Bahraini Dinar
CPS	Carrier Pre-Selection
GCC	Gulf Cooperation Council
IDD	International Direct Dial
ITU	International Telecommunication Union
Kb/s	Kilobit per second
Mb	Megabit
Mbps	Megabit per second
OLO	Other licensed operators
PPCC	Pre-Paid Calling Card
PSTN	Public Switched Telephone Network
PPP	Purchasing power parity
SMS	Short Message Service
TRA	Telecommunications Regulatory Authority

# Definitions

Indicator	Definition
<b>Fixed-telephone subscriptions</b>	Fixed-telephone subscriptions refers to the sum of active number of analogue fixed-telephone lines, voice-over-IP (VoIP) subscriptions, fixed wireless local loop (WLL) subscriptions.
<b>Prepaid mobile subscribers</b>	Prepaid mobile-cellular telephone subscriptions (ITU code i271p) Refers to the total number of mobile-cellular telephone subscriptions that use prepaid refills. These are subscriptions where, instead of paying an ongoing monthly fee, users purchase blocks of usage time. Only active subscriptions should be included (those used at least once in the last three months for making or receiving a call or carrying out a non-voice activity such as sending or reading an SMS or accessing the Internet).
<b>Postpaid mobile subscribers</b>	Postpaid mobile-cellular telephone subscriptions Refers to the total number of mobile-cellular subscriptions where subscribers are billed after their use of mobile services, at the end of each month. The postpaid service is provided on the basis of a prior arrangement with a mobile cellular operator. Typically, the subscriber's contract specifies a limit or allowance of minutes, text messages, etc. The subscriber will be billed at a flat rate for any usage equal to or less than that allowance. Any usage above that limit incurs extra charges. Theoretically, a subscriber in this situation has no limit on use of mobile services and, as a consequence, unlimited credit.
<b>Active mobile-broadband subscriptions</b>	<p>Active mobile-broadband subscriptions refers to the sum of standard mobile-broadband and dedicated mobile broadband subscriptions to the public Internet. It covers actual subscribers, not potential subscribers, even though the latter may have broadband enabled-handsets. The indicator can be further broken down into:</p> <p><b>Standard mobile-broadband subscriptions (ITU code i271mb_active):</b> Refers to active mobile-cellular subscriptions with an advertised data speed of 256 kbit/s or greater that allow access to the greater Internet via HTTP and have been used to make a data connection using Internet protocol (IP) in the previous three months. Standard SMS and MMS messaging do not count as active Internet data connections, even if they are delivered via IP.</p> <p>This includes mobile subscriptions that use mobile-broadband services on a pay-per-use basis. It excludes mobile subscriptions with a separate monthly data plan for mobile-broadband access (see Indicator 25b, Dedicated mobile broadband subscriptions).</p> <p><b>Dedicated mobile-broadband subscriptions (ITU code i271md):</b> Refers to subscriptions to dedicated data services (over a mobile network) that allow access to the greater Internet and that are purchased separately from voice services, either as a standalone service (e.g. using a data card such as a USB modem/dongle) or as an add-on data package to voice services that requires an additional subscription. All dedicated mobile-broadband subscriptions with recurring subscription fees are included as 'active data subscriptions' regardless of actual use. Prepaid mobile-broadband plans require use in the last three months if there is no monthly subscription. This indicator could also include mobile WiMAX subscriptions.</p>

# Thank You..!

