



Full year 2017 and up to Q1 2018  
Issued in September 2018

# Telecommunications Markets Indicators in the Kingdom of Bahrain

## Content

Section	Page
Introduction	3
Disclaimer	4
Key market trends and observations	5
Services offered by active operators	6
Main telecoms indicators	7
Revenues in the telecom sector	8
Employment in the telecom sector	9
Fixed telephony services	10
Mobile services	15
International outgoing minutes	24
Broadband services	32
Leased line services	38
Benchmarking	44

## Introduction

---

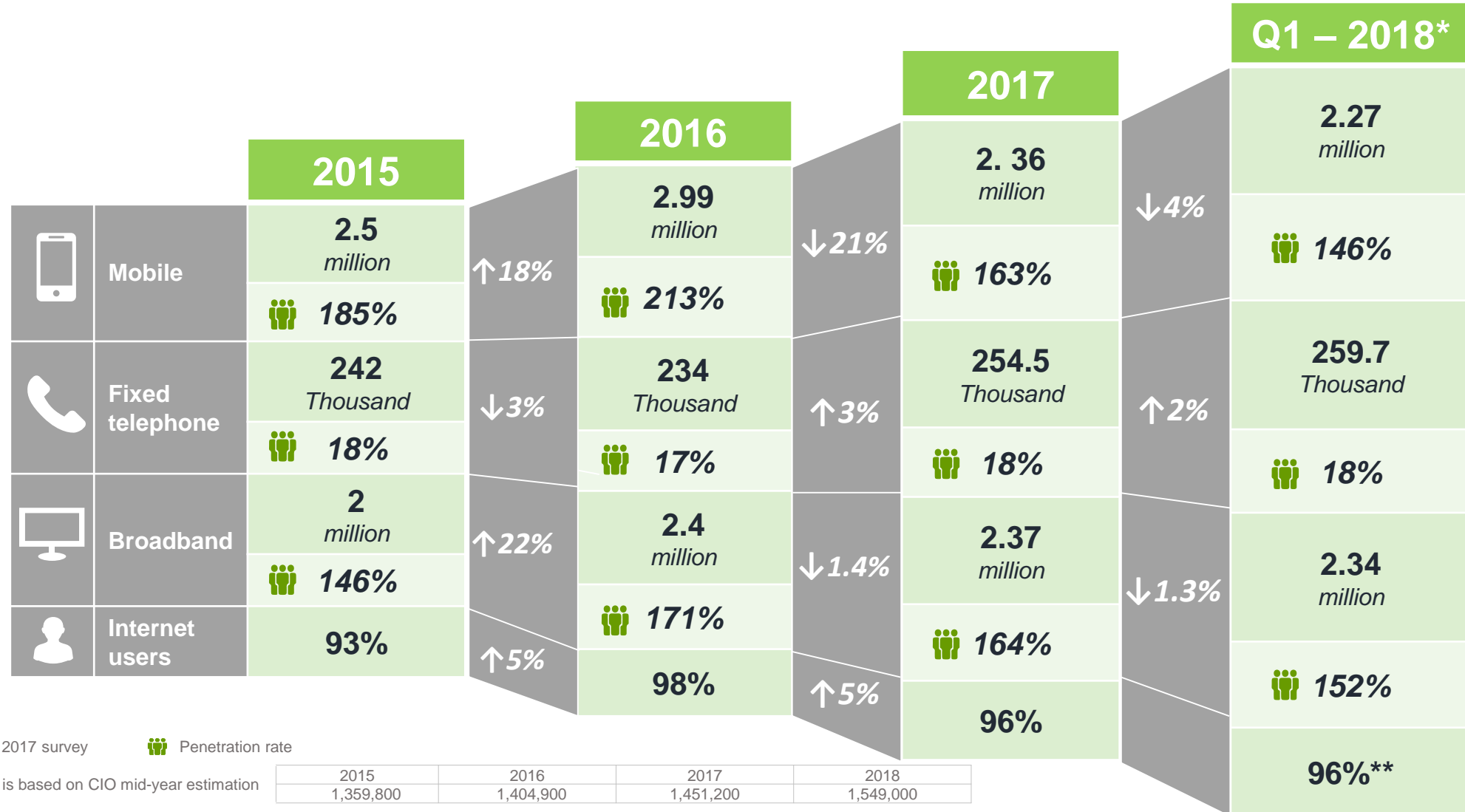
- The collection, analysis and dissemination of accurate and timely market information significantly enhances the design of effective, proportionate and efficient market regulation.
- The publication of this report is in accordance with Article 54 of the Telecommunications Law of Bahrain.
- Unless specified, 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.
- When publishing such information, TRA must have regard to the need to exclude any information which relates to the private affairs of a Person<sup>1</sup> and information which, if published, would or might in the opinion of TRA seriously and prejudicially affect the interests of any Person. TRA has taken the necessary steps to ensure that it complies with the requirements of Article 54, including not publishing information which may be considered confidential information<sup>2</sup>.
- This is the thirteenth Telecommunications Markets Indicators Report and it covers a large range of telecoms services indicators for 2017 up to Q1 2018 such as the number of subscribers, penetration rates, calls usage and telecoms revenues.

## Disclaimer

---

- This report contains information collected by the Telecommunications Regulatory Authority in Bahrain in accordance with the provisions of the Telecommunications Law. This report fulfills the requirement to undertake research and publish information as set out in Article 54 of the Law. It also fulfills the requirements of Article 25 of the Law to provide information to the Regulator as set out in the Individual Licenses granted to the Operators mentioned in this report.
- This report is not a binding legal document and also does not contain legal, commercial, financial, technical or other advice.
- The Telecommunications Regulatory Authority in Bahrain does not make any representations or warranties, either express or implied, that:
  - the information is free from inaccuracies, errors or omissions;
  - the information is exhaustive;
  - the information is of merchantable quality and fitness for any particular purpose.
- TRA, including its officers, board members, employees, agents and contractors, is not liable for:
  - any inaccuracy, error or omission in the information contained in this document; nor
  - any loss, damage, cost or expense whether direct, indirect, consequential or special, incurred by, or arising by reason of, any person using or relying on the information and whether caused by reason of any inaccuracy, error, omission or misrepresentation in the information or otherwise.
- The Telecommunications Regulatory Authority is not bound by it, nor does it necessarily set out the Authority's final or definitive position on particular matters. To the extent that there might be any inconsistency between the contents of this document and the due exercise by it of its functions and powers, and the carrying out by it of its duties and the achievement of relevant objectives under law, such contents are without prejudice to the legal position of the Authority. Inappropriate reliance ought not therefore to be placed on the contents of this document.

# Key Indicators



\*\* Based on 2017 survey Penetration rate

\* Population is based on CIO mid-year estimation

# Services offered by active operators

Operator Name	National Fixed	International Calls	Mobile	Internet	Leased line	Other data service	Others
Ascentech telecoms		✓					
Batelco	✓	✓	✓	✓	✓	✓	
Bahrain Internet Exchange						✓	IP Transit –Peering – Colocation - Lawful Intercept - Number Portability- IPLC
BT Solutions LTD					✓	✓	
Equant Global Network - EGN BV					✓		IPVPN
Etisalcom Bahrain	✓	✓		✓	✓		MPLS
Gateway Gulf				✓			Data Center Co-location & Services Provider
Golden Sands Electronic and Phone							Bulk SMS
Gulf Electronic Tawasul					✓		
IMC							International calls through wholesale
Infonas	✓	✓		✓	✓	✓	
Kalaam telecom	✓	✓		✓	✓		
Mada Communication					✓		International Transit voice services
Menatelecom	✓	✓		✓	✓	✓	
Moving Gulf Telecom		✓					
Northstar Technology		✓		✓	✓		
Nuetel Communications	✓	✓		✓	✓	✓	IPTV - ICT
Orbit Data Systems				✓			
Rapid telecoms	✓	✓		✓	✓	✓	
Sita						✓	
Viacloud	✓	✓		✓	✓		
<b>Viva Bahrain</b>	✓	✓	✓	✓	✓		
<b>Vodafone Enterprise Bahrain</b>						✓	IPVPN -Ethernet Wireline - Ethernet VPN
Zain Bahrain	✓	✓	✓	✓	✓	✓	
Zajil					✓		

# Main telecom indicators

Indicator	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	YoY Growth 2016-2017	CAGR 2008 – 2017
Number of fixed line telephony	220,386	237,621	227,353	248,479	260,000	251,000	247,000	242,000	234,000	254,540	2%	2%
Fixed line telephony penetration	20%	20%	19%	21%	21%	20%	19%	18%	17%	18%		
Total mobile subscribers	1,440,782	1,401,974	1,567,745	1,693,650	2,123,903	2,210,190	2,322,860	2,533,208	2,994,865	2,364,477	(21%)	6%
Mobile penetration	130%	119%	128%	142%	172%	173%	176%	186%	213%	163%		
Total broadband subscribers	114,502	161,815	306,235	567,884	1,148,264	1,507,956	1,679,681	1,983,617	2,407,837	2,372,742	(1.4%)	40%
Broadband penetration	10%	13%	25%	48%	93%	118%	128%	145%	171%	164%		
Percentage of individuals using the Internet	52%	53%	55%	77%	88%	90%	91%	93%	98%	99%		
Telecommunications revenues (BD in million)	303	338	360	406	409	423	430	450	430	426	(1%)	4%
Number of employees in the telecommunications sector	2469	2504	2584	2708	3141	3000	3,092	3206	3230	2,914	(10%)	3%

- Notes:
- 1- The number of subscribers refers to the end of the period.
  - 2- Number of broadband subscribers include fixed wired, wireless and mobile.
  - 4- The source of Percentage of individuals using the Internet is the ITU and TRA residential survey.
  - 5- Penetration is based on mid-year population estimated by CIO

# Revenues in the telecom sector

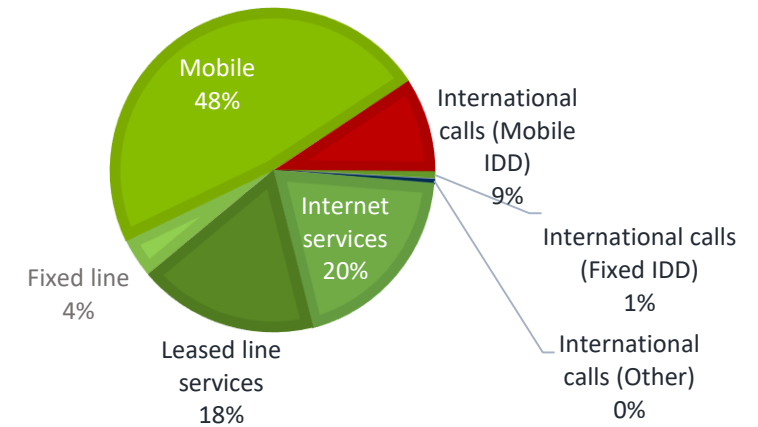
Telecommunication services generated BD 426 million in revenue in 2017 compared to BD 430.6 million in 2016 a decline of (2%).

Telecommunication sector revenues represent about 4% of the GDP as of 2017.

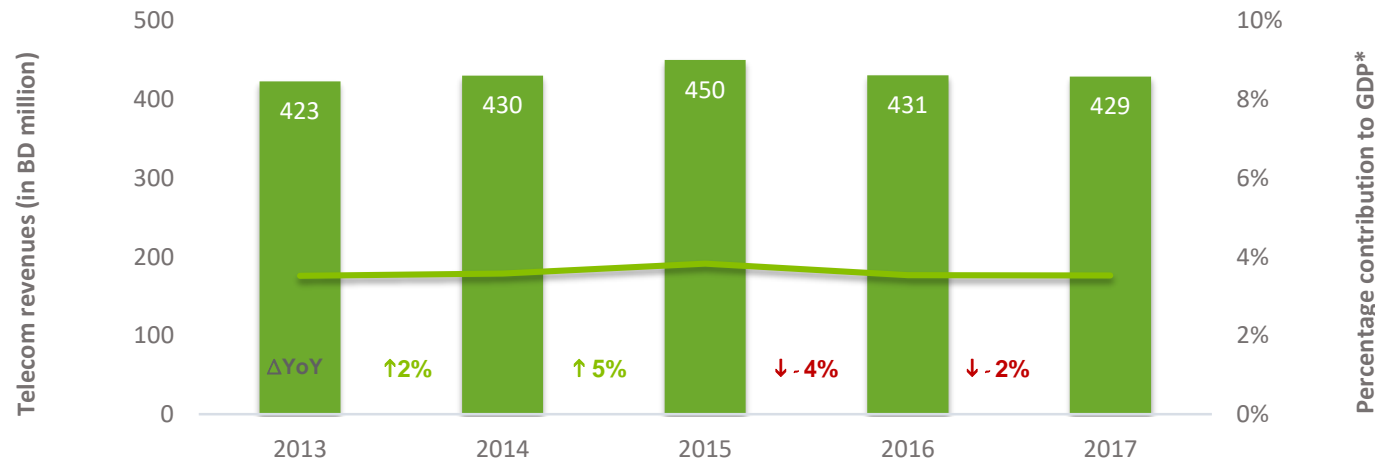
The proportion of mobile revenue increased to reach 48% in 2016, comparing to 38% in 2015, despite the decrease in the overall revenue, and the mobile revenue specifically.

Mobile services revenue account for more than half of the telecom retail services revenue (As it reached 54% if we include revenues generated from international calls using Mobile).

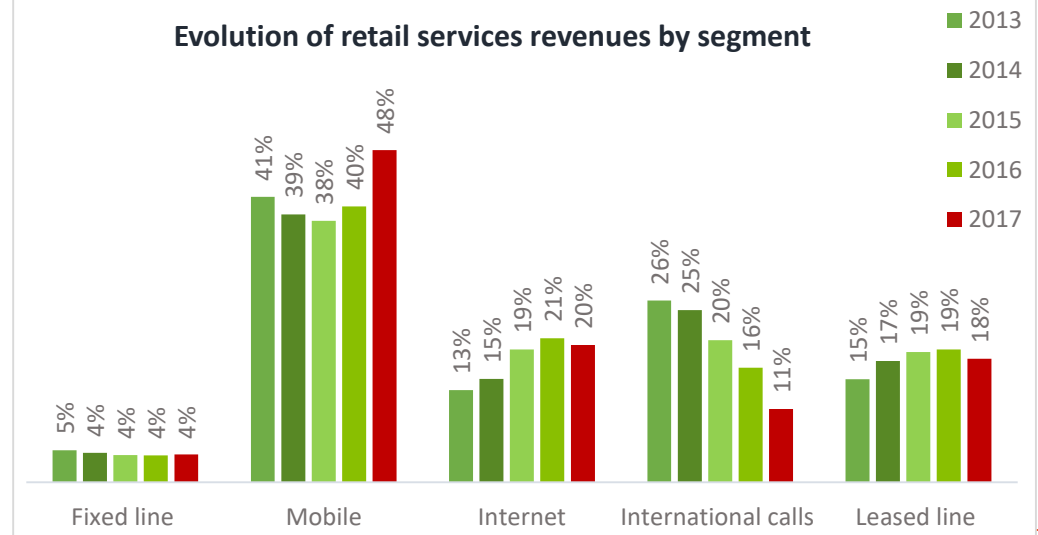
Break down of retail services revenue in 2017



Telecom sector revenues (in BD million)



Evolution of retail services revenues by segment

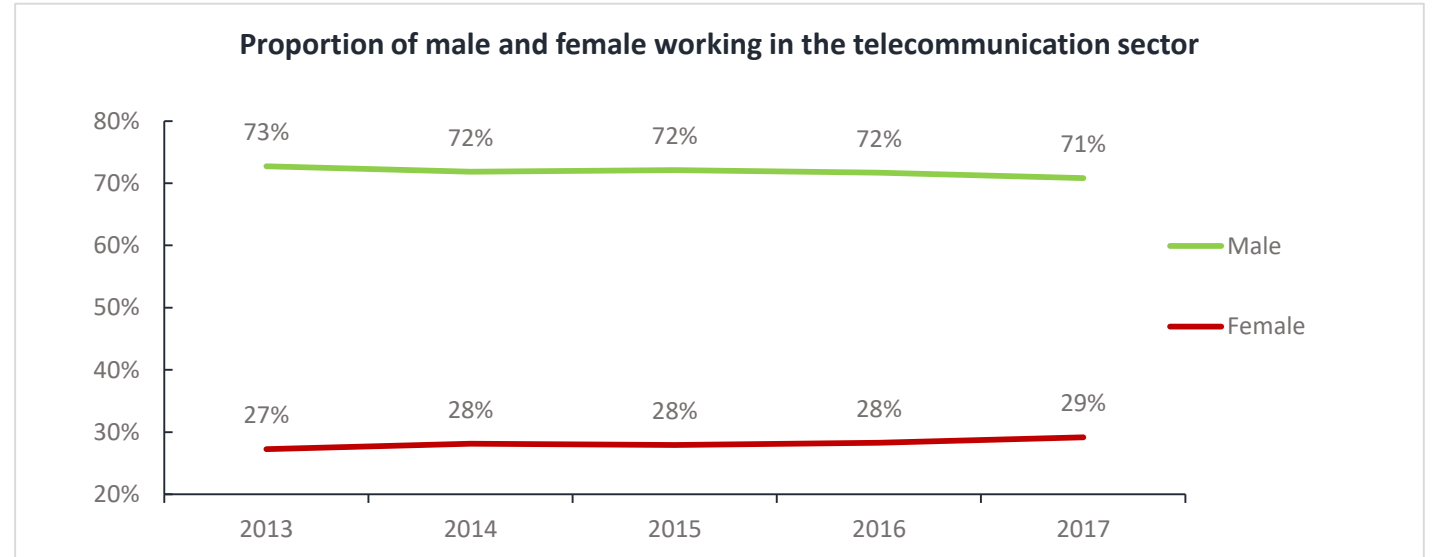


# Employment in the telecom sector

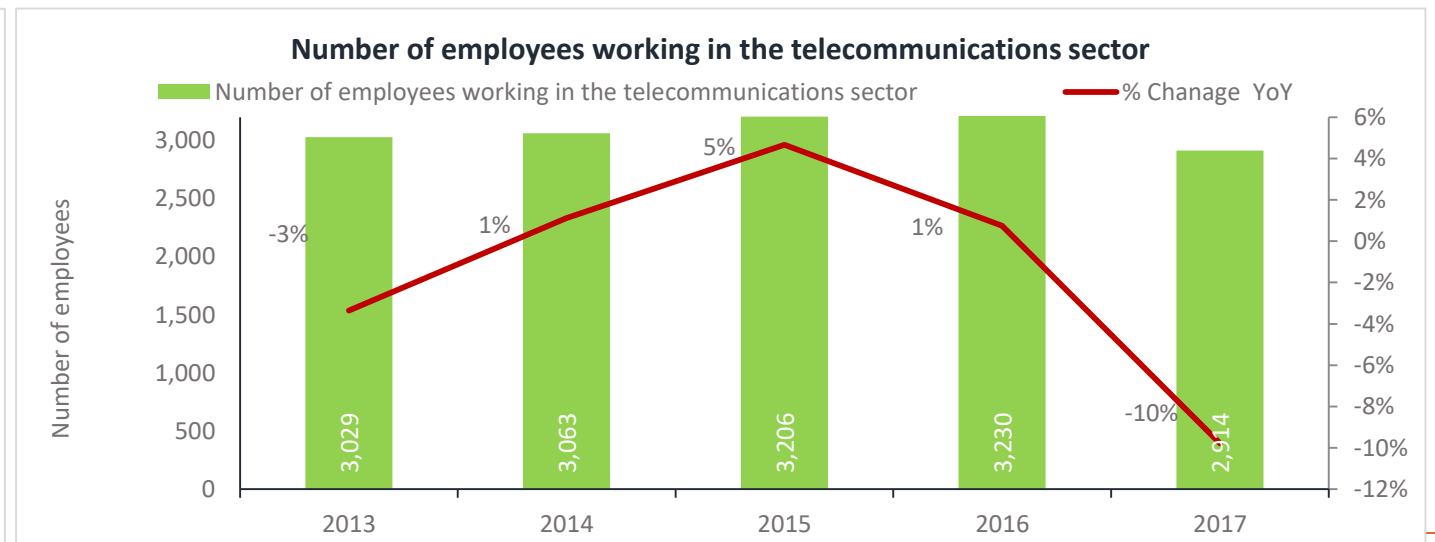
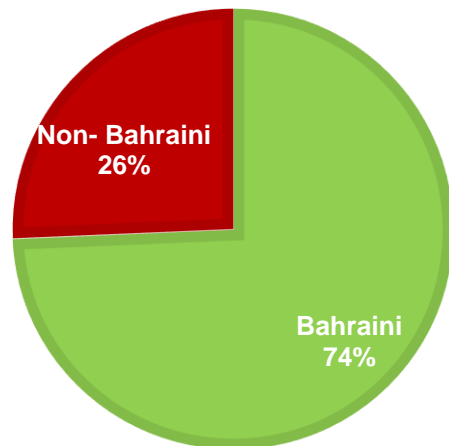
2,914 employees are working in the telecommunication sector in 2017.

The sector achieves high degree of Bahrainisation, 74% of the employees in the sector are Bahrainis in 2017 compared to 72% in 2016 and 70% in 2015

females represents 29% of employees in the telecom sector.



Distribution of employees by nationality 2017



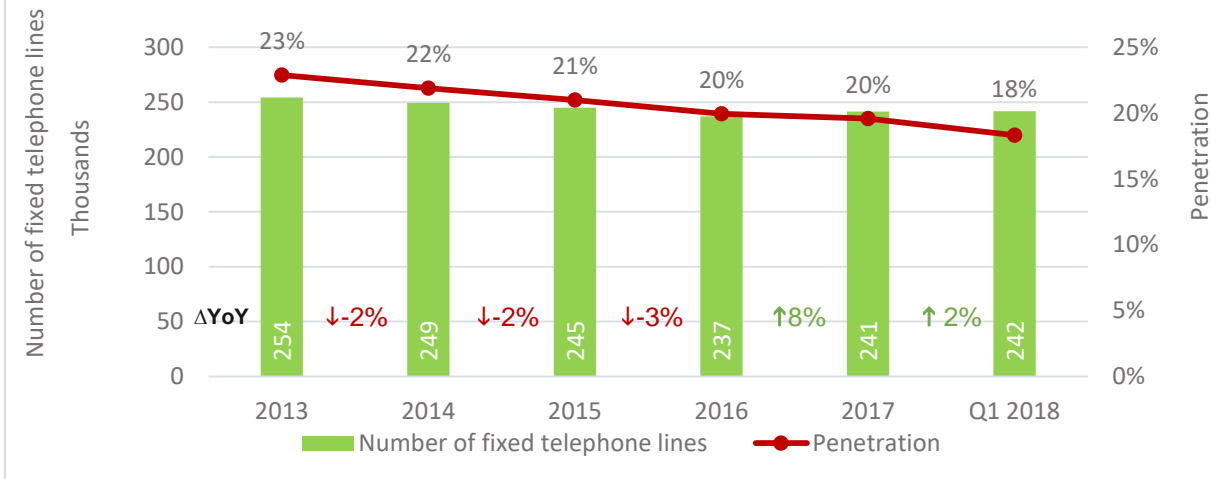
## Fixed line telephony services<sup>^</sup>

End of Q1 2018

**241,745** Number of total fixed lines  
**15%** Penetration rate

**283,699** Number of fixed lines, including total ISDN lines  
**18%** Penetration rate

Evolution of fixed line telephone



Number of	2013	2014	2015	2016	2017	Q1 2018**
<b>ISDN</b>	2,639	2,610	2,560	2,591	2,525	2,474
<b>Basic-rate</b>	1,398	1,324	1,206	1,139	1,086	1,064
<b>Primary-rate</b>	1,241	1,286	1,354	1,452	1,439	1,410

\* Including ISDN subscribers

\*\* Number of ISDN is estimated for Q1 2018

<sup>^</sup> Revised numbers due to an operator resubmission

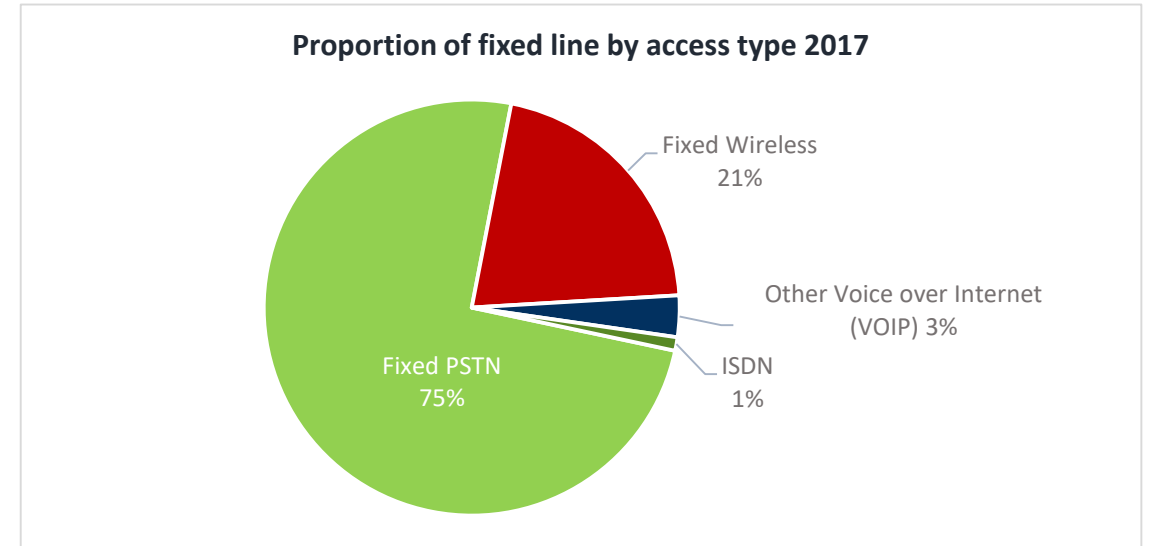
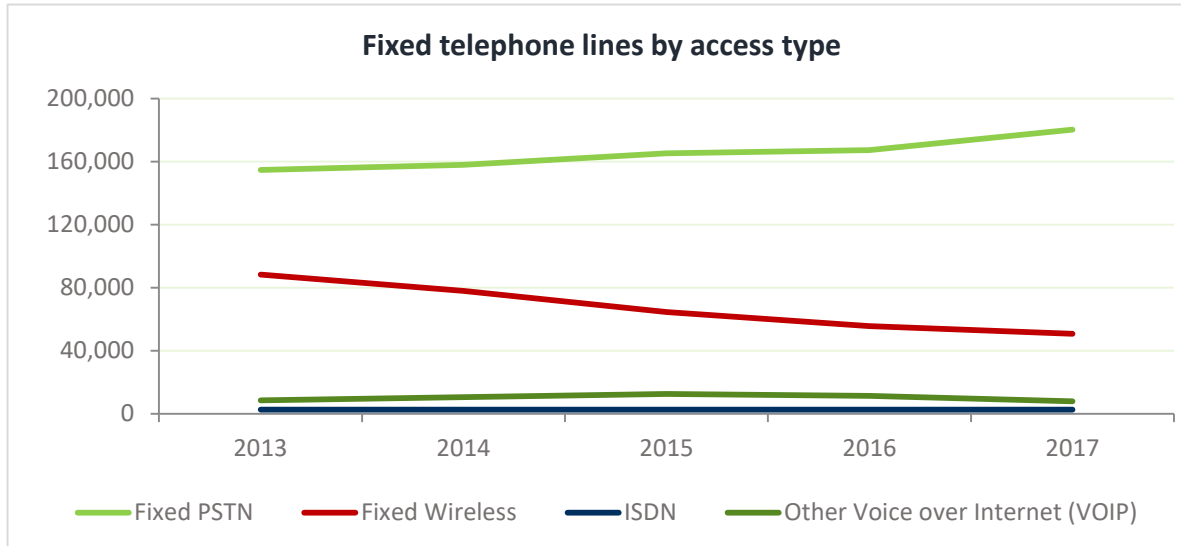
- There were 241,745 fixed-line telephony services in operation at the end of Q1 2018, compared to 241,494 fixed telephone lines in services at the end of 2017.
- ISDN voice channel equivalents are included in the penetration rate. Basic-rate voice-channel equivalents is the number of basic-rate ISDN subscriptions multiplied by 2, and primary-rate voice-channel equivalents is the number of primary-rate ISDN subscriptions multiplied by 30.

\*Mid-year population estimated by CIO

2017	1,451,200
2018	1,549,000



## Fixed line telephony by access type

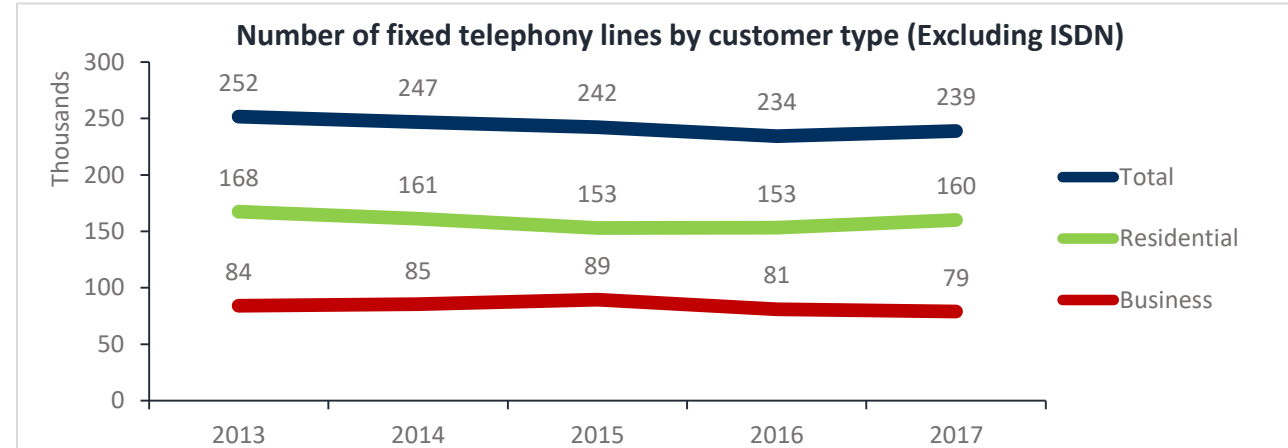


- The number of fixed wired telephony services increased by almost 8% between 2017 and 2016, as the increase demand on fiber was contrasted by decreasing demand on VOIP services.
- The number of fixed wireless telephone services decreased by 9% over the same period.

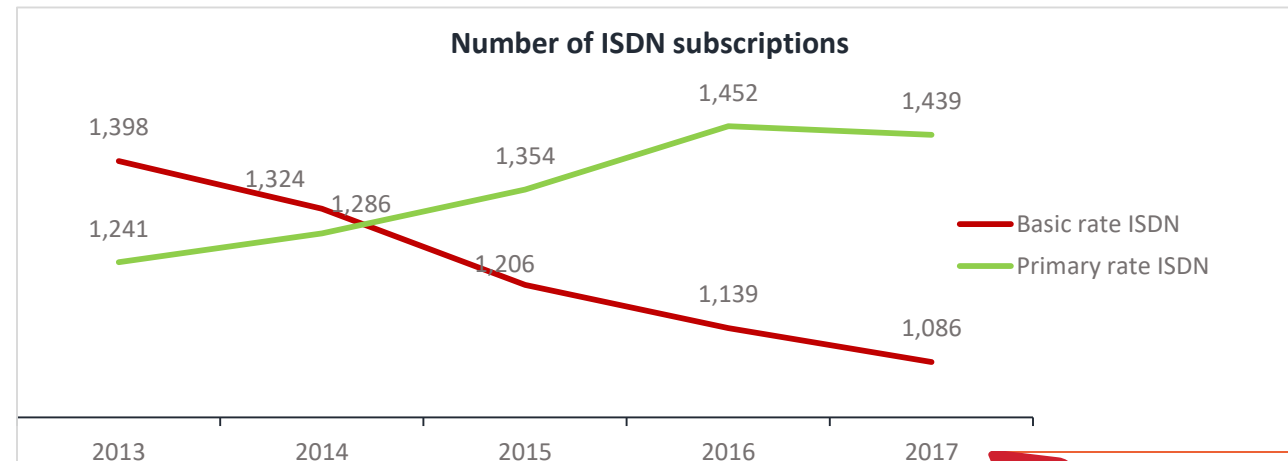


## Fixed line telephony services by customer type

- The increase in the total number of fixed telephony lines in 2017 mirrors the increase in residential services, as the total number of residential lines increased by 4% while business lines decreased by 2% to 79 thousands.



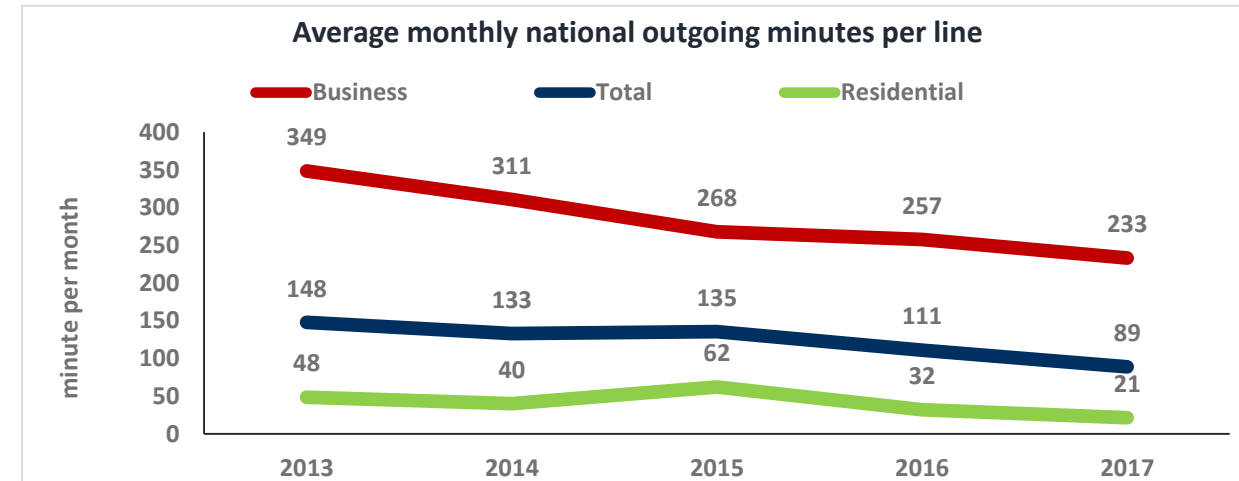
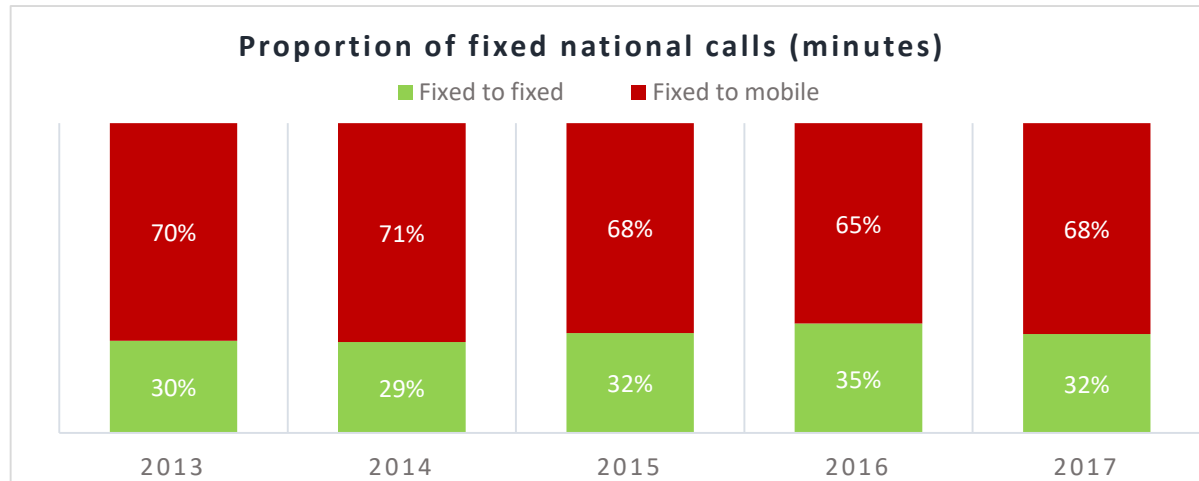
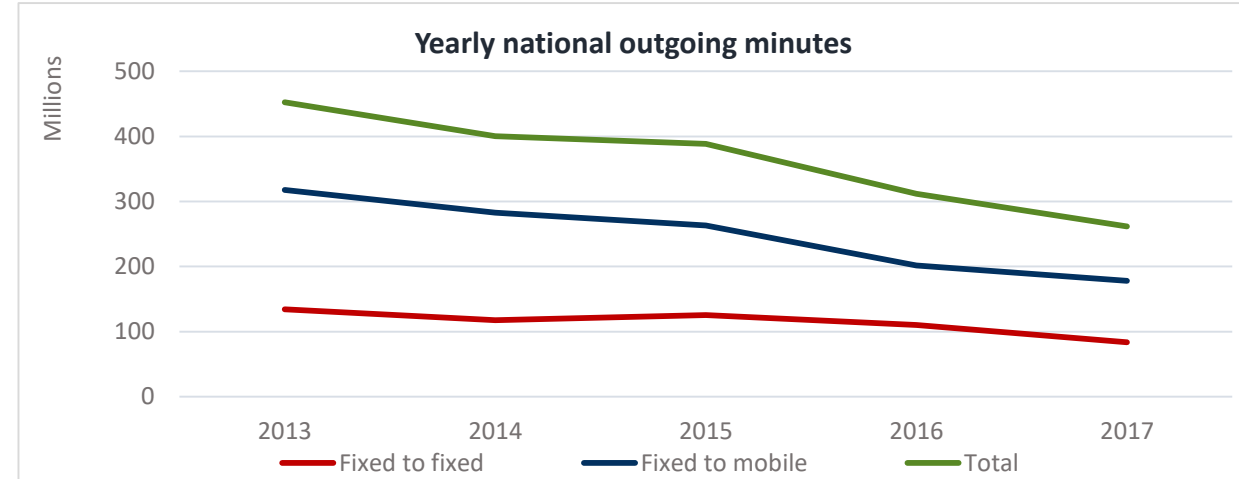
- By the end of 2017 there were decrease in primary rate ISDN services by 1% to reach 1,439 while the basic rate ISDN decreased by 5% to reach 1,086.





# Fixed line telephony outgoing minutes

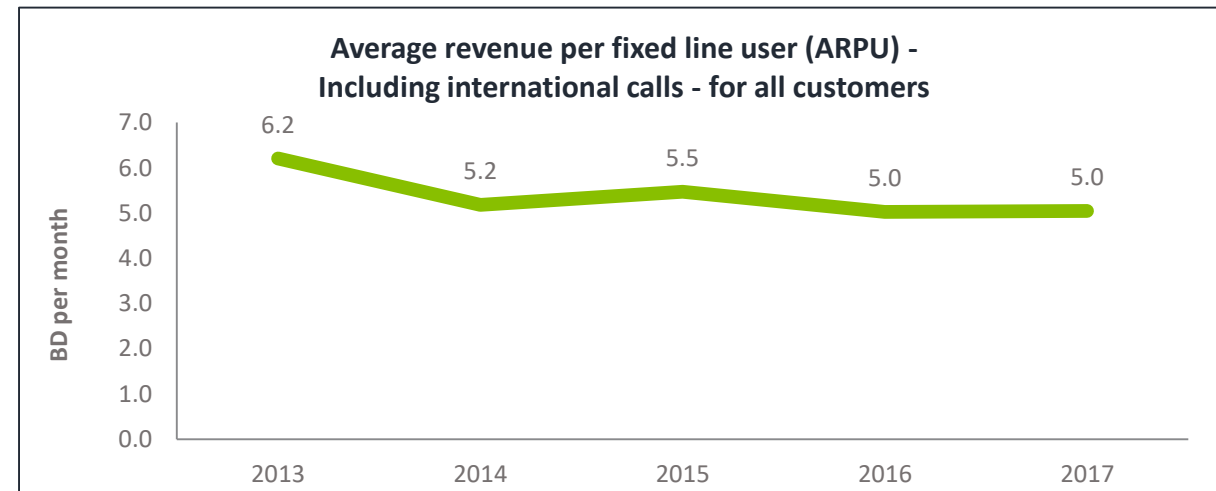
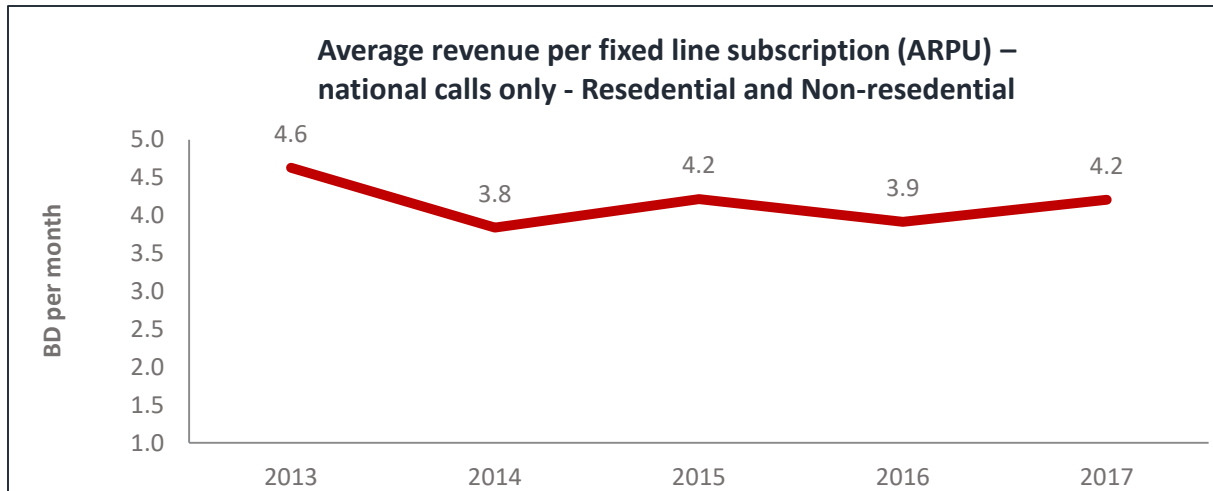
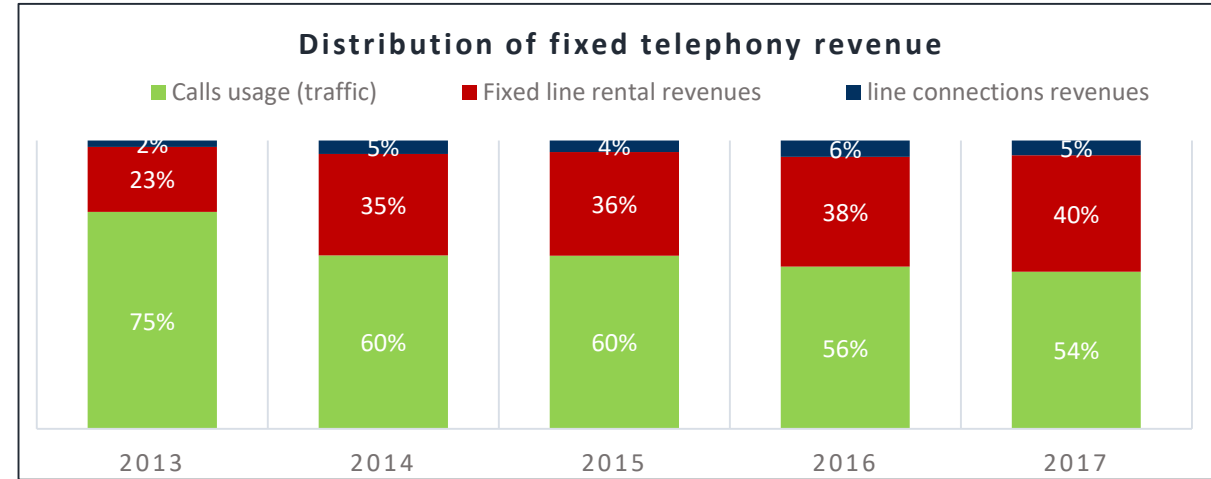
- The outgoing fixed call minutes fell by (16%) from 311.5 million to 261.6 million minutes in 2017 as consumers increasingly used mobile and internet based voice and messaging services instead of fixed line telephony calls.
- 68% of national traffic originated from fixed lines are fixed-to-mobile calls.





# Fixed line telephony service revenue

- Fixed line revenues increased by 13% between 2016 and 2017, the main driver of this was due to increase in number of subscriptions, which positively affected the fixed line rental revenue.
- The average monthly revenue per user for national calls only increased from BD 3.9 on 2016 to BD 4.2 on 2017. While the average revenue including international calls stayed constant at BD 5.



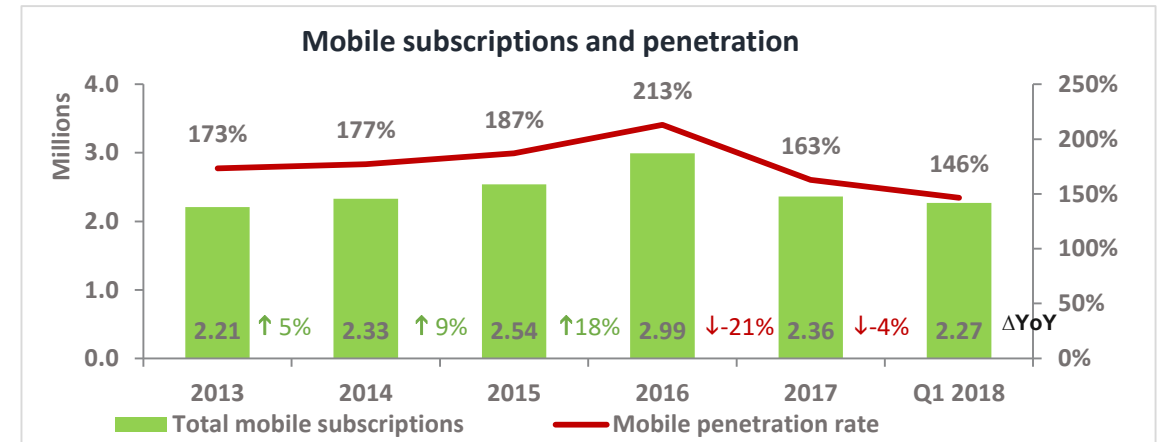


## Mobile services

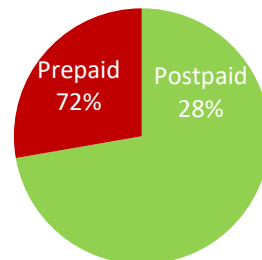
End of Q1  
2018

**2,267,287** Number of total mobile subscriptions  
**146%** Penetration rate  
**72%** Percentage of prepaid subscriptions

- At the end of 2017 the number of subscriptions decreased by 21% for the first time after years of increase. This is due mainly to termination of unlimited data offers by operators for both pre-paid and post-paid packages that were offered during 2016.
- At the end of Q1 2018 there was further increase in postpaid subscriptions as the postpaid subscriptions presented 28% of total mobile subscriptions, over the same period there was further decrease in the penetration rate due to the increased population\* denominator and decrease in total number of mobile subscriptions.
- At the end of Q1 2018 there were about 2.27 million mobile subscribers in Bahrain, a decreased of (4%) compared to end of 2017.



### Proportion of prepaid and postpaid subscriptions as of Q1 2018



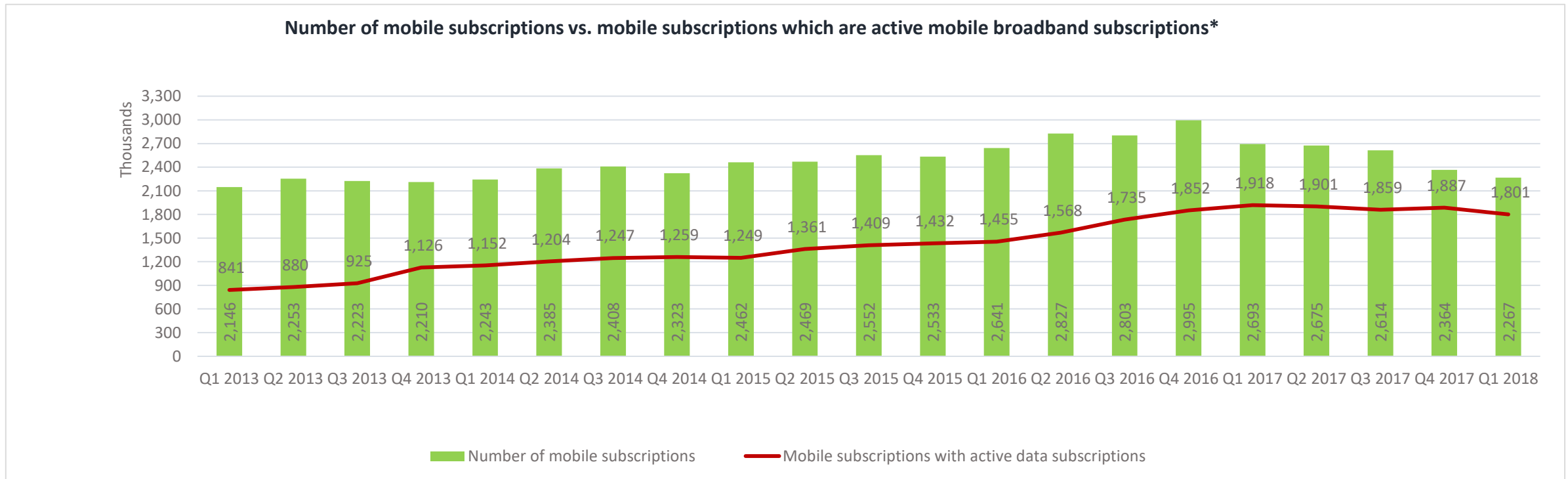
	2013	2014	2015	2016	2017	Q1 2018
Total	2,210,190	2,328,994	2,541,688	2,994,865	2,364,477	2,267,287
% of Prepaid	80%	78%	78%	81%	74%	72%
% of Postpaid	20%	22%	22%	19%	26%	28%

\*Mid-year population estimated by CIO

2017	1,451,200
2018	1,549,000

# Mobile subscriptions having data subscriptions

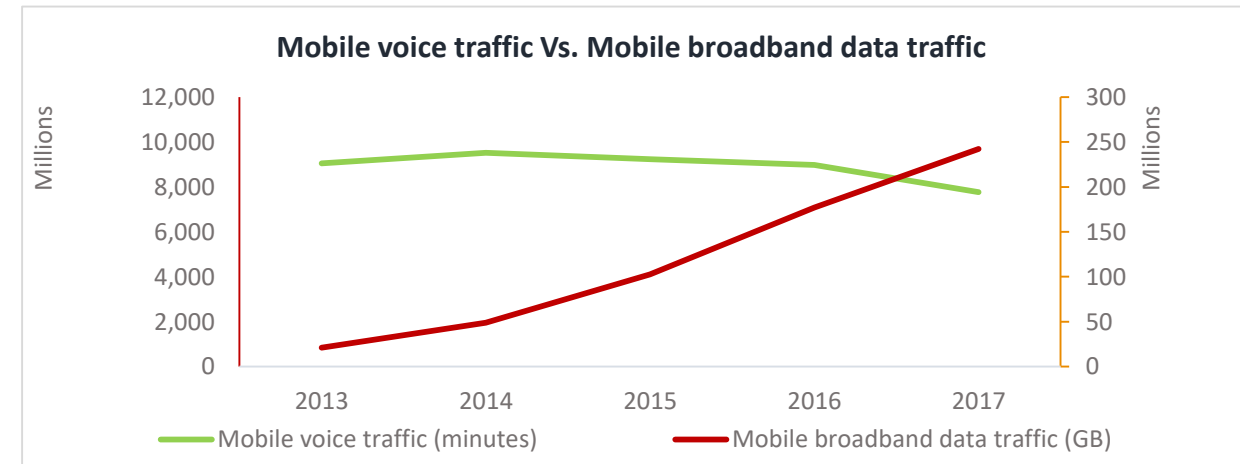
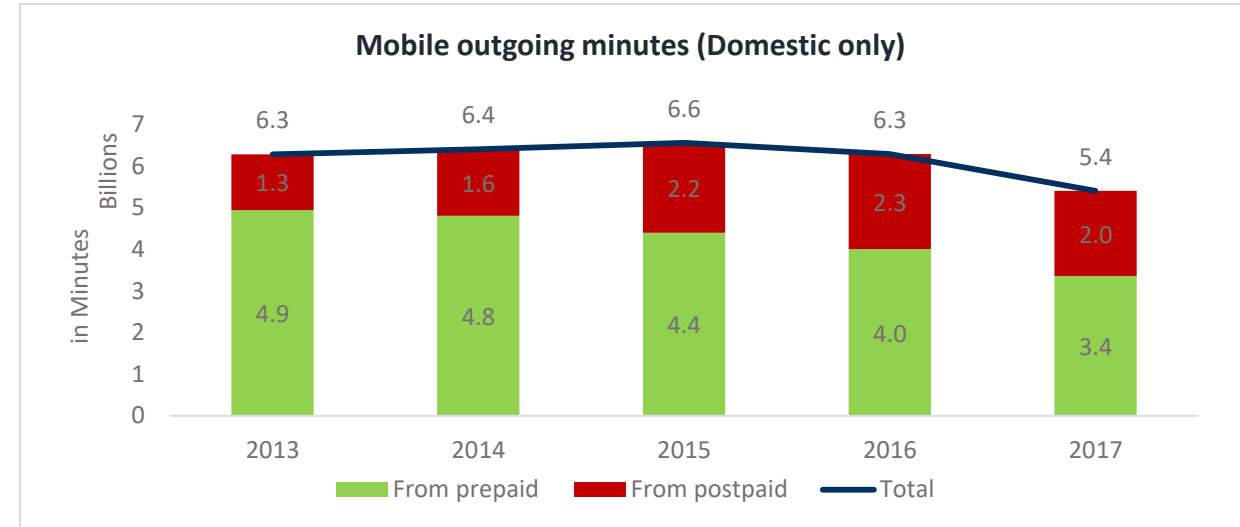
- At the end of Q1 2018, there were 1.8 million mobile subscribers with mobile data subscription (pay per use, add-on and bundles) compared to 841,000 in Q1 2013 (increase by 114%).
- Active mobile broadband subscriptions (pay per use, add-on and bundles) represent 80% of total mobile subscriptions at the end of Q1 2018 compare to 71% of total mobile subscriptions at the end of Q1 2017.



\*(Pay per use, Add-on and Bundles)

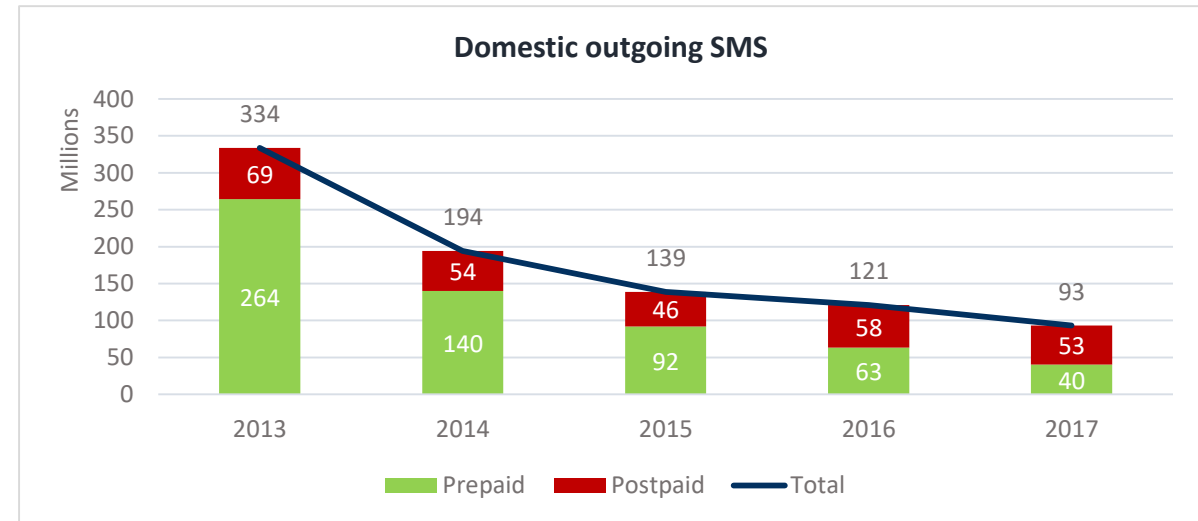
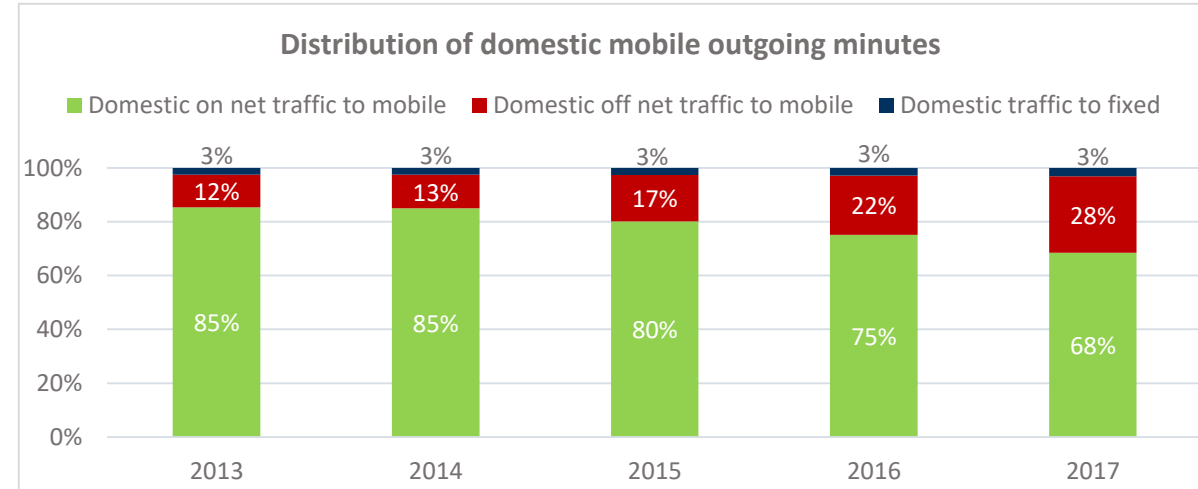
## Mobile traffic

- At the end of Q4 2017, mobile generated 5.4 billion domestic minutes, representing a reduction of (14%) comparing to the pervious year 2016.
- The compound annual growth rate is -3.7% in domestic mobile originated traffic between 2013 and 2017.
- Comparing 2017 to 2016, the domestic postpaid mobile outgoing minutes decreased by (10%), while the traffic originated from prepaid decreased by (16%). That was mainly due to termination of unlimited on-net packages that was offered during 2016.
- The mobile broadband subscribers consumed almost 241 petabyte of data during 2017, up by 36% from 2016 were data consumed was 177 petabyte during that year, at the same time mobile voice traffic decreased by (13%) over the same period, from 8,981 million minutes during 2016 to 7,771 million minutes during 2017.

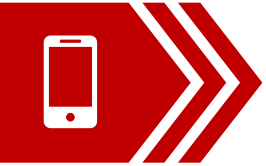


## Mobile traffic

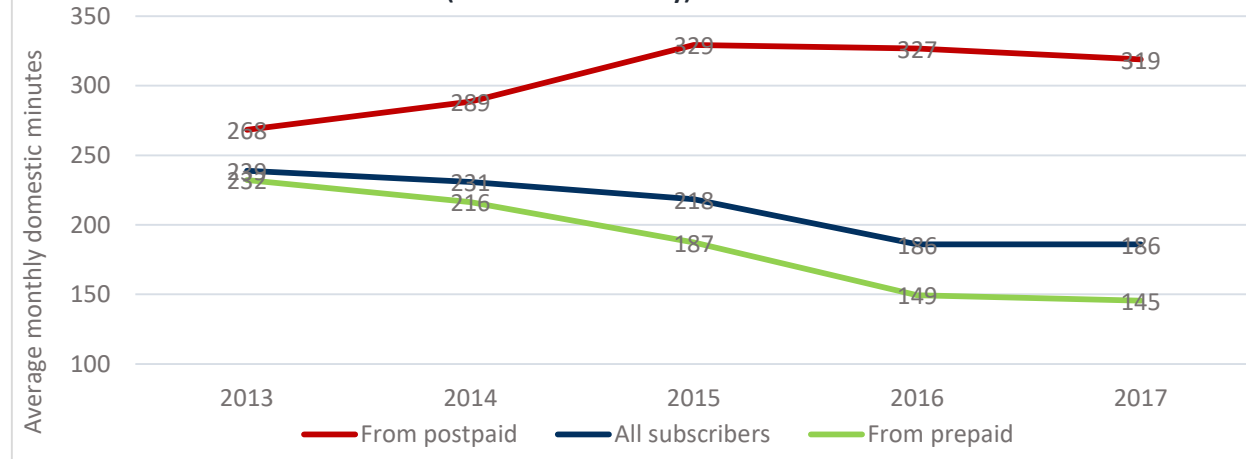
- In 2017, domestic mobile originated on-net traffic decreased further to reach 68% comparing to 75% in 2016.
- On 2017 the off-net voice traffic has increased further to reach 28% comparing to 22% during 2016, one driver of this increase is the new mobile packages which removed unlimited on-net calls and increased free-local minutes.
- Increase use of over-the-top (OTT) services/applications (e.g. WhatsApp) has led to decline in total SMS as it dropped by (23%) between 2016 to 2017 mainly due to the increase in mobile data services/applications (e.g. Sanpchat, WhatsApp).



# Mobile average monthly outgoing minutes

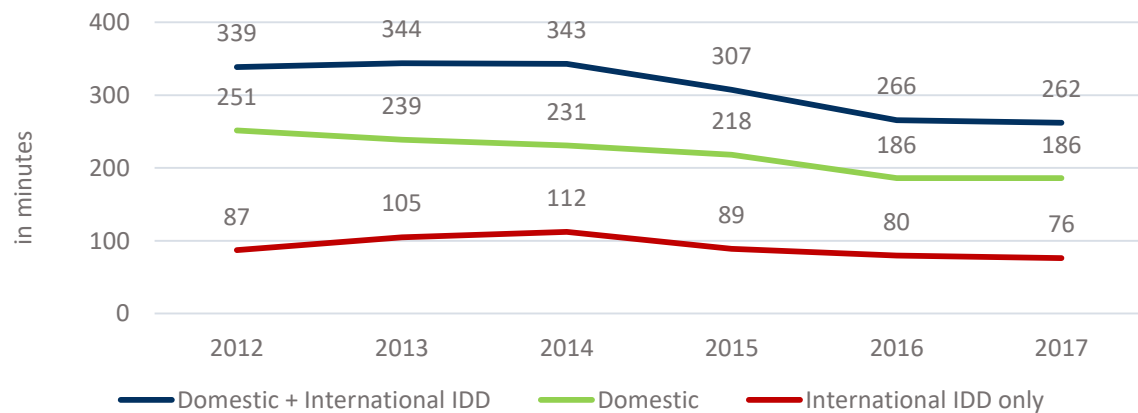


Average monthly outgoing minutes per subscriber (Domestic traffic only)



- As shown in the figures, the average monthly domestic traffic (in minutes) for postpaid subscribers decreased from 327 minutes in 2016 to 319 minutes in 2017, a decrease of (2 %)
- The average monthly domestic traffic (in minutes) for prepaid customers dropped further from 149 minutes in 2016 to 141 minutes in 2017, a drop of (5%)

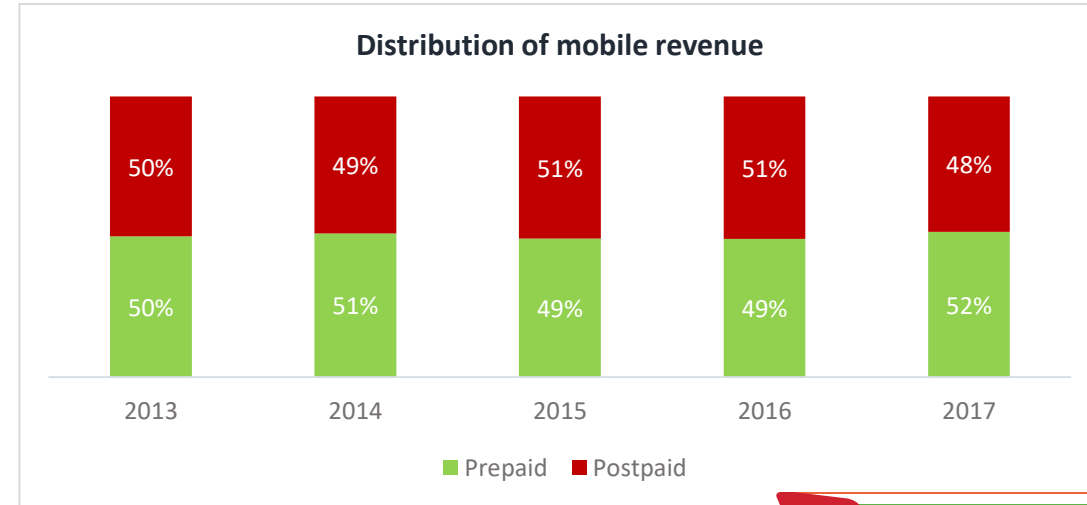
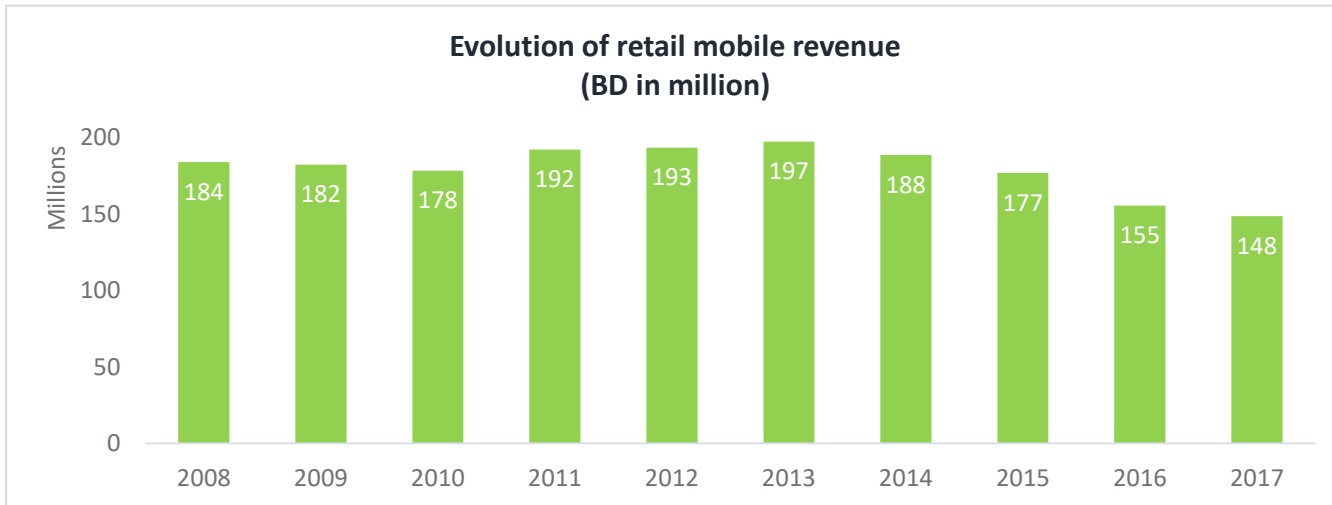
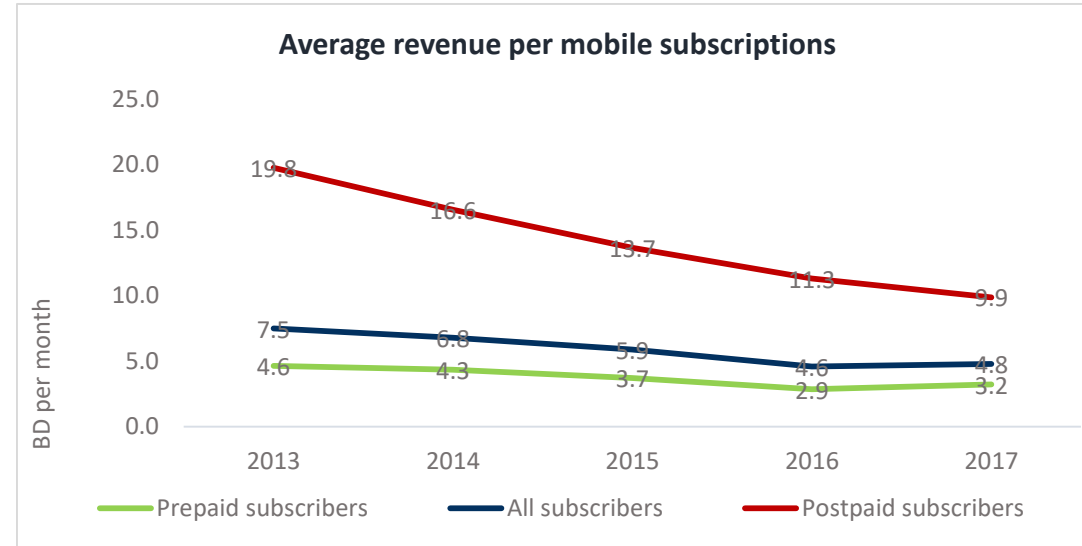
Average monthly outgoing minutes per subscriber (Domestic and International traffic)



- The average monthly volume of international direct dial (IDD) calls has decreased by (5%) between 2016 and 2017 from 80 minutes in 2016 to 76 minutes in 2017.

# Mobile revenue

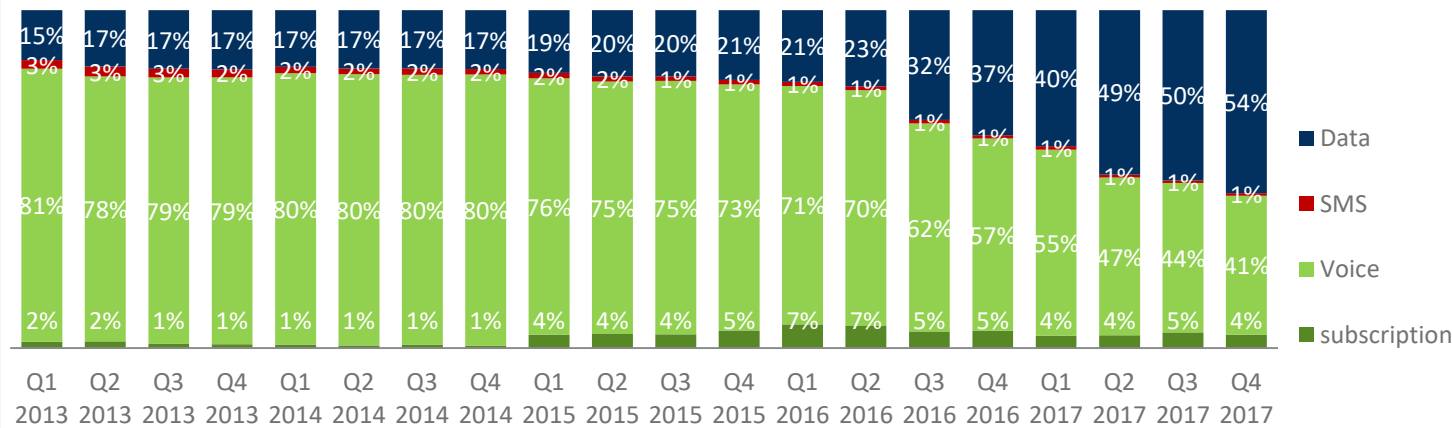
- Although mobile operators have changed their packages in 2017, Mobile revenues still dropped by (4%) between 2016 and 2017.
- Even though postpaid mobile subscriptions represent 26% of total mobile subscriptions at the end of 2017, the revenue generated from postpaid mobile subscriptions represent 48% of the total retail mobile revenue in 2017.
- ARPU for postpaid subscribers has continued its decline while prepaid ARPU has increased between 2016 to 2017 by 10%.





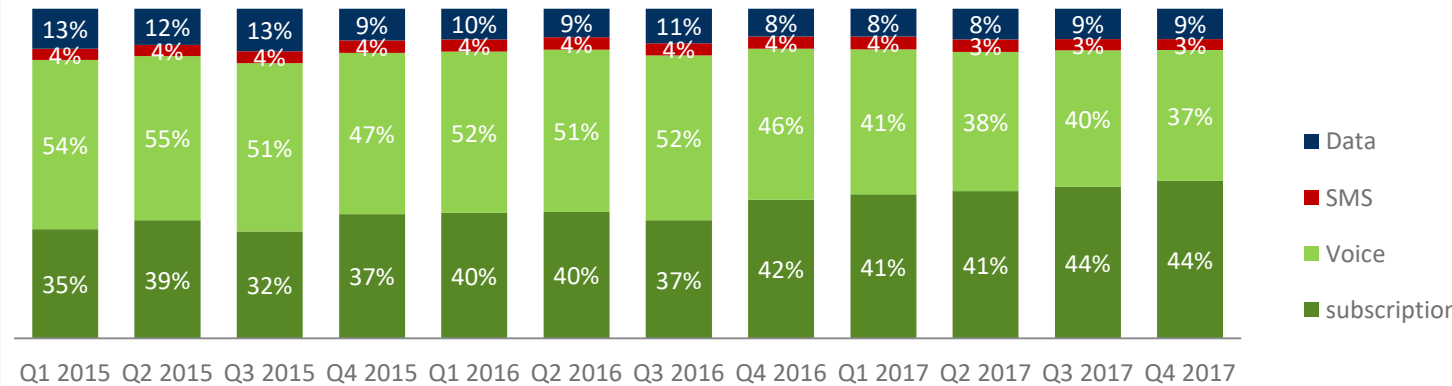
# Distribution of mobile revenue

Distribution of mobile revenue - Prepaid

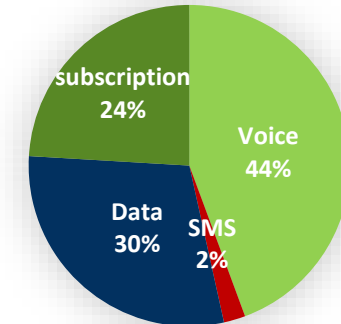


- In general, voice services continue to be the main source of revenues for mobile operators, despite the decrease of voice revenues, followed by data which exhibited a continuing increase.
- In 2017, prepaid data revenue has become the main source of revenue generating 54% in Q4 2017, at the same time voice revenue declined to 41% from 57% in Q4 2016.
- For postpaid, subscription became the main source of revenue increasing to 44% in Q4 2017 while voice has decreased to 37% and data remained stable at 9%

Distribution of mobile revenue - Postpaid

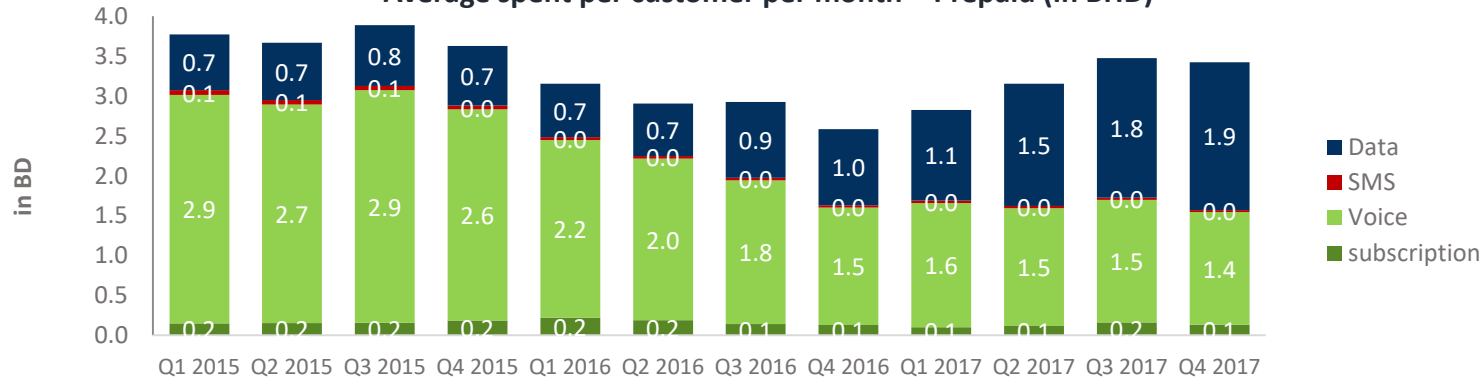


Distribution of mobile revenue (prepaid + postpaid) - 2017



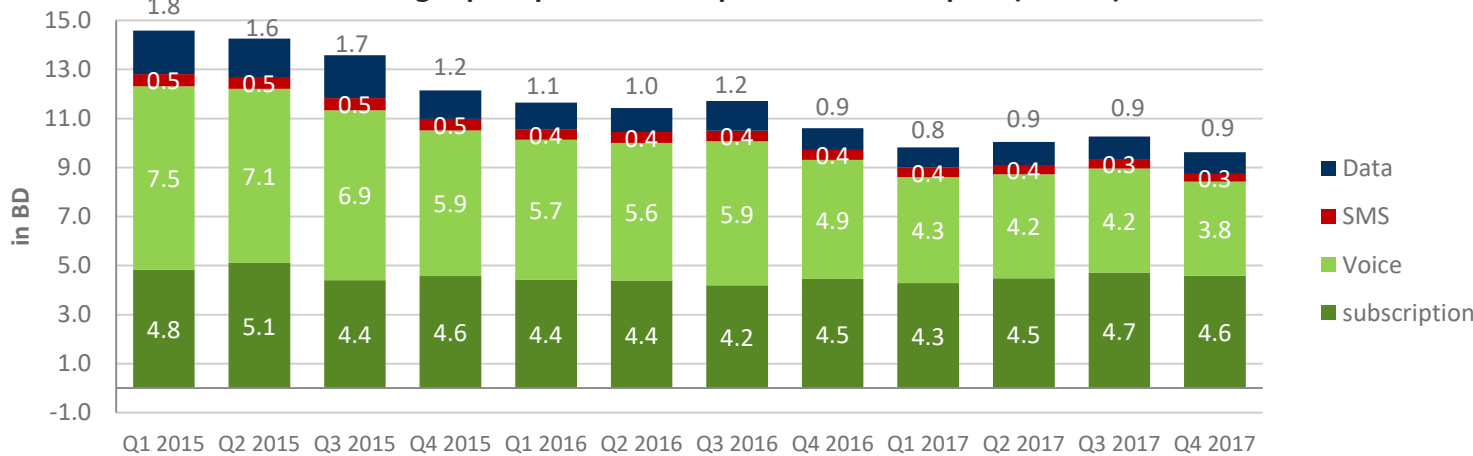
# Mobile Average spend per subscriber per month

Average spent per customer per month – Prepaid (In BHD)

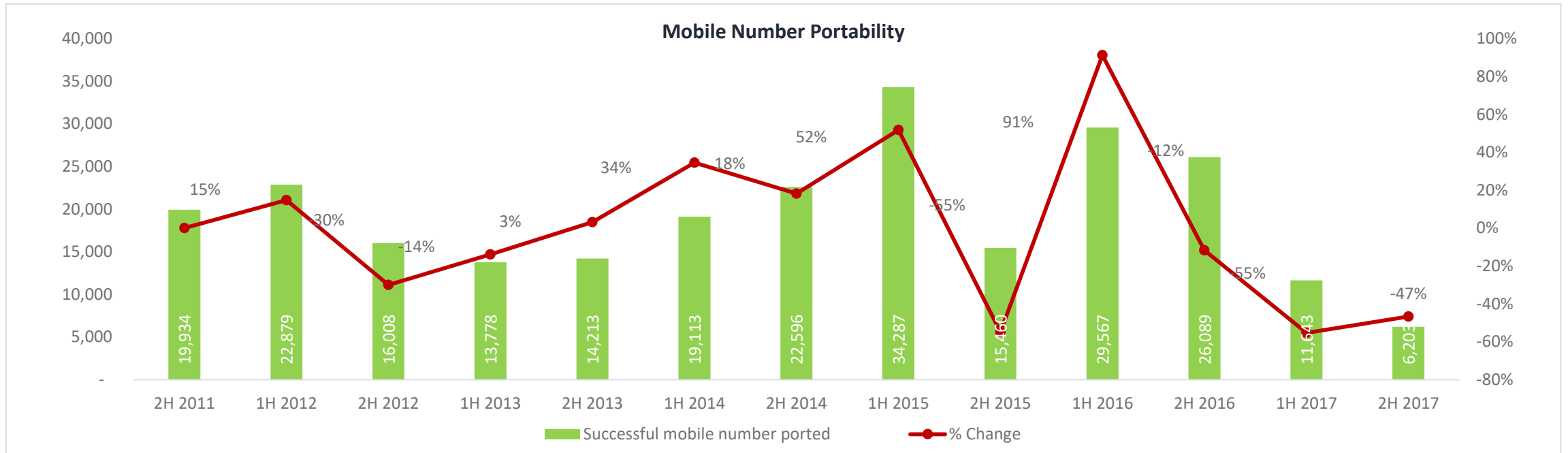


- During Q4 2017, prepaid subscribers spent BD 3.4 monthly for their subscription, phone calls, SMS and data, comparing to BD 2.6 spent on the same services during Q4 2016.
- While in Q4 2017, postpaid subscribers spent BD 9.6 monthly for the same services comparing to 10.7 during Q4 2016.
- For prepaid subscribers, the average monthly spend per subscriber for voice decreased from BD1.5 during Q4 2016 to BD 1.4 during Q4 2017, at the same time, data revenue increased from BD1 to BD1.9 indicating a shift in the source of revenue.
- During Q4 2017, the average monthly spend per postpaid subscriber for data remained at BD 0.9 while voice revenue has decreased from BD 4.9 in Q4 2016 to BD 3.8 in Q4 2017, a decrease of 22%.

Average spent per customer per month – Postpaid (In BHD)



# Mobile number portability

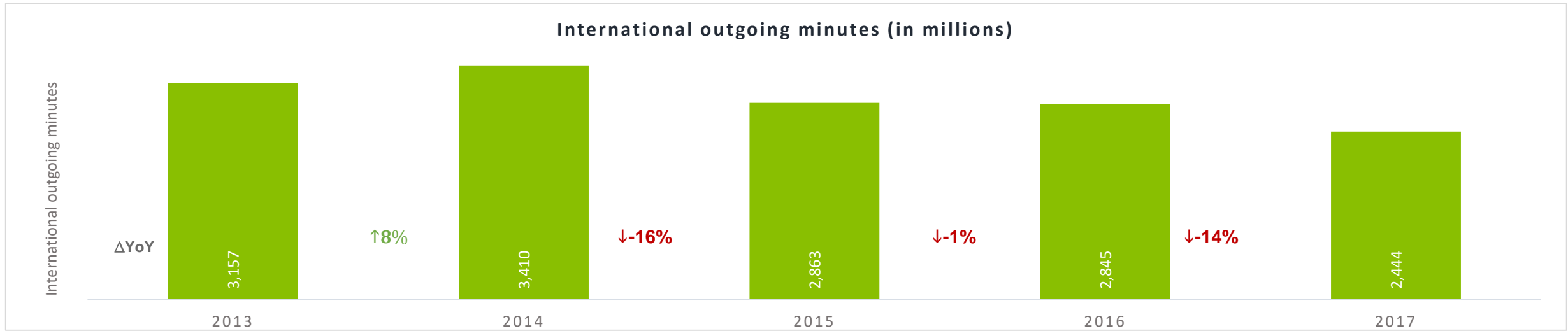


The volume of mobile numbers successfully ported decreased substantially. By the end of H2 2017, the successful mobile number ported were 6,203, the lowest since the introduction of mobile number portability in Bahrain.

A total of approximately 251,770 mobile numbers had been ported successfully since the introduction of number portability in July 2011.

International outgoing minutes

End of 2017	2,443,987,735	International outgoing minutes
	98.6%	of calls originated from mobile
	92%	of outgoing traffic went to Zone 2



- During 2017 international outgoing minutes have dropped further to reach 2,444 million minutes comparing to 2,845 million minutes during 2016.
- OTT continue to place competitive pressure on traditional voice service provider as evident by the consecutive drops.

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

- Despite the drop of (14%) in international outgoing minutes between 2016-2017, the international calls revenue has decreased by (30%) over the same period.
- This decline indicates ongoing competitive pressure on pricing, as well as change in the overall subscribers' behaviour and usage.

International outgoing minutes

Minutes (in millions)	2013	2014	2015	2016	2017	% Change 2016-2017
GCC	124.3	104.3	79.9	70.8	65.3	(8%)
Zone 2	2,763	3,060	2,562	2,606	2,259	(13%)
Zone 3	82.5	66.4	63.9	48.7	35.6	(27%)
Zone 4	187	177	157.7	120.3	84	(30%)
<b>Total</b>	<b>3,156.8</b>	<b>3,410.3</b>	<b>2,833</b>	<b>2,845.5</b>	<b>2,443.9</b>	<b>(14%)</b>

International calls revenue

Revenues (BD in millions)	2013	2014	2015	2016	2017	% Change 2016-2017
GCC	12.4	11.00	8.6	6.7	5.2	(23%)
Zone 2	49.2	48.78	41.7	30.2	20.26	(33%)
Zone 3	6.3	5.2	4.3	3.5	2.38	(31%)
Zone 4	13.09	11.69	8.8	6.6	4.9	(25%)
<b>Total</b>	<b>80.9</b>	<b>76.67</b>	<b>63.2</b>	<b>47</b>	<b>32.7</b>	<b>(30%)</b>

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

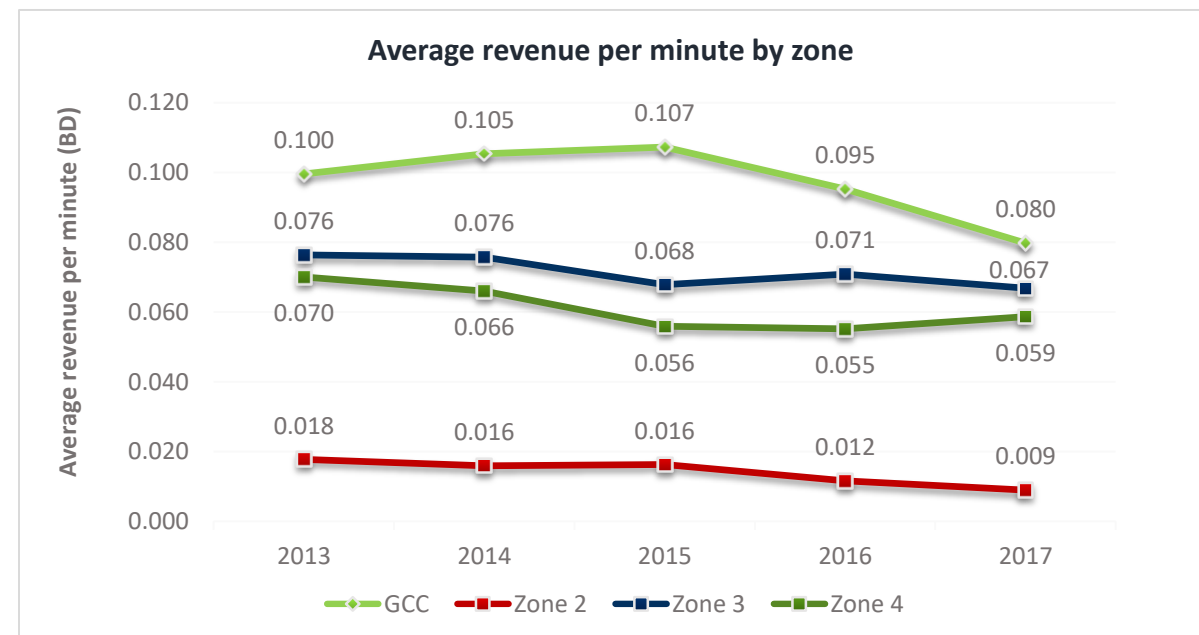
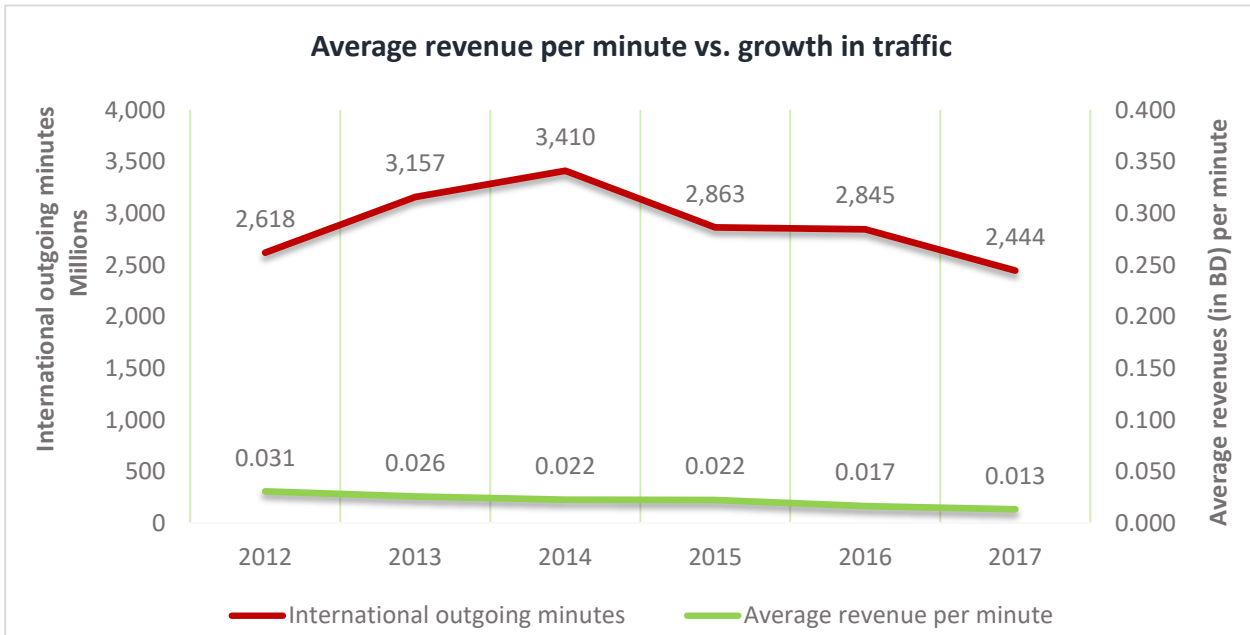
Zone 2: Calls to South Asian countries (Bangladesh, India, Pakistan, the Philippines and Sri Lanka).

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.

# Average revenue per minute for international calls

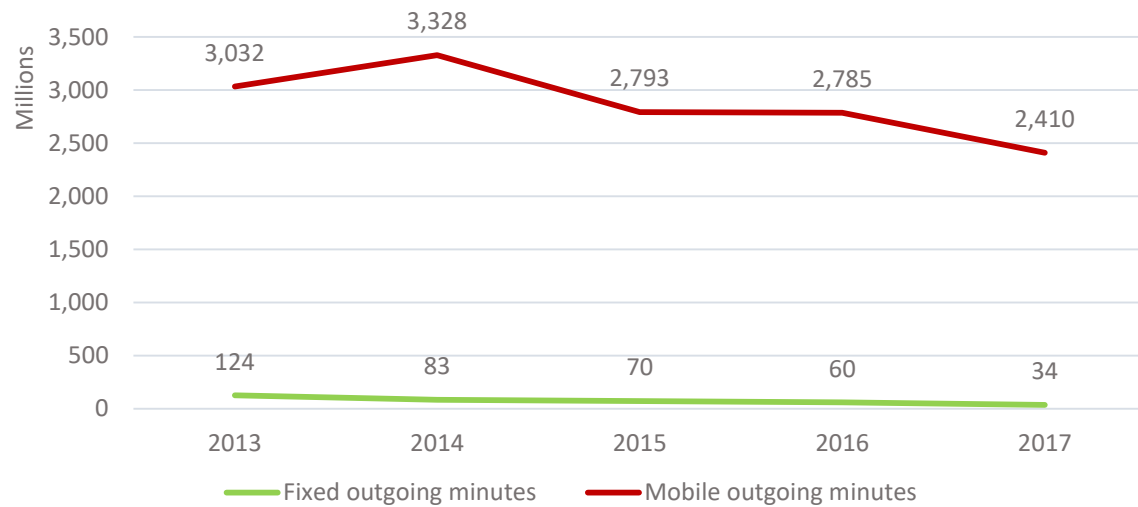
- The average revenue per minute for international calls has fallen by almost 48% from 2013 to 2017.
- Despite the substantial decrease in traffic, the average revenue per minute dropped by (19%) between 2016 and 2017.
- Comparing to 2016, on 2017 the biggest decrease in average revenue per minute was mainly from Zone 2 followed by GCC, (23%) and (16%) consecutively.



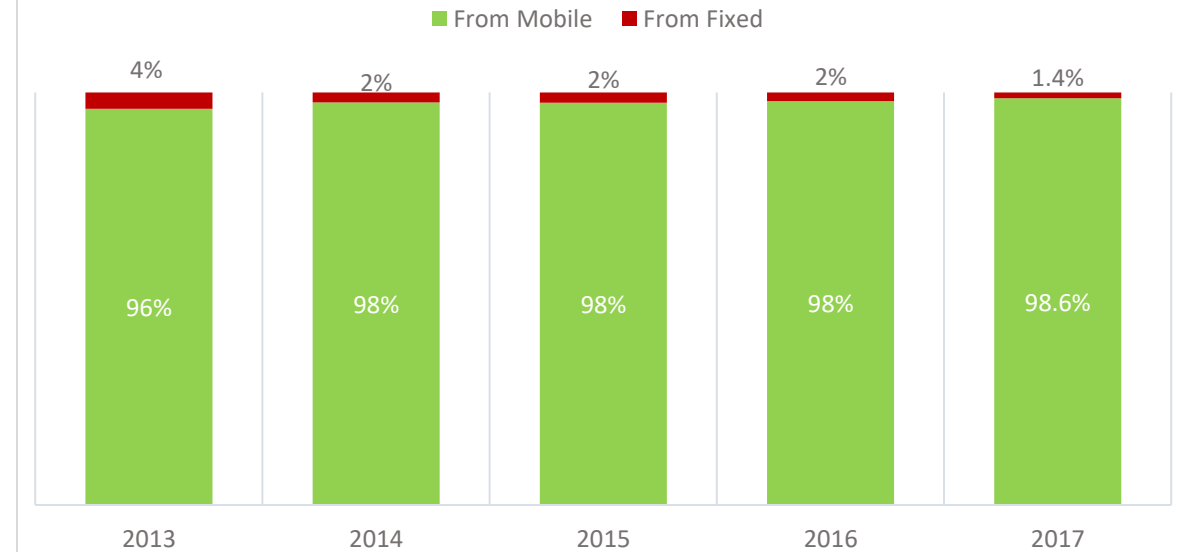


# International outgoing minutes

International outgoing traffic (minutes)



Proportion of international outgoing minutes



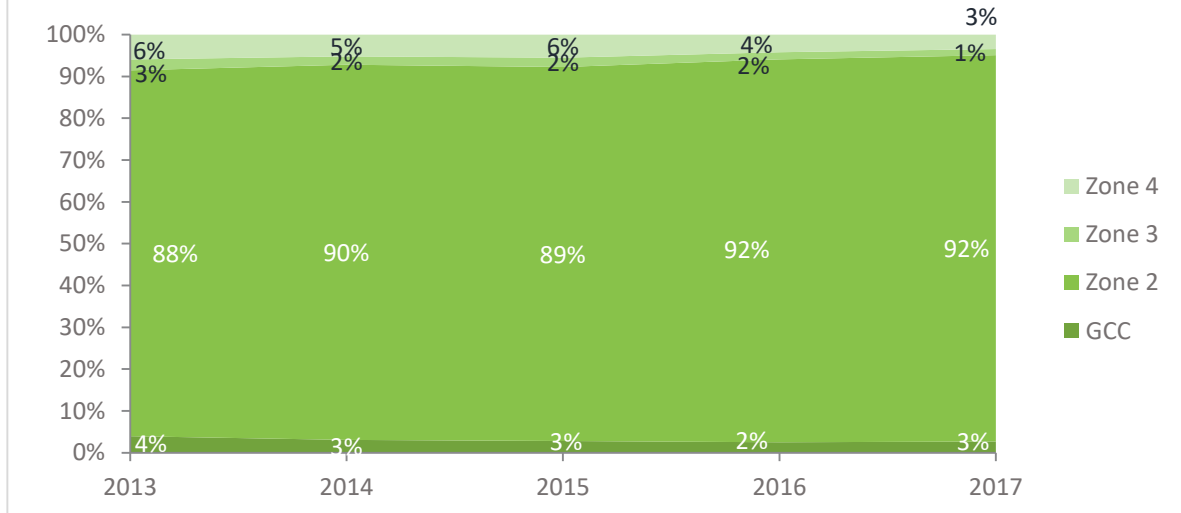
- International outgoing minutes originated on mobile<sup>1</sup> decreased by (13%) comparing 2017 to 2016, while minutes originated on fixed fell by (43%) over the same period due to significant decrease in calls originated from prepaid card.
- International outgoing minutes originated on mobile represented 98.6% of the total international outgoing minutes in 2017.

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



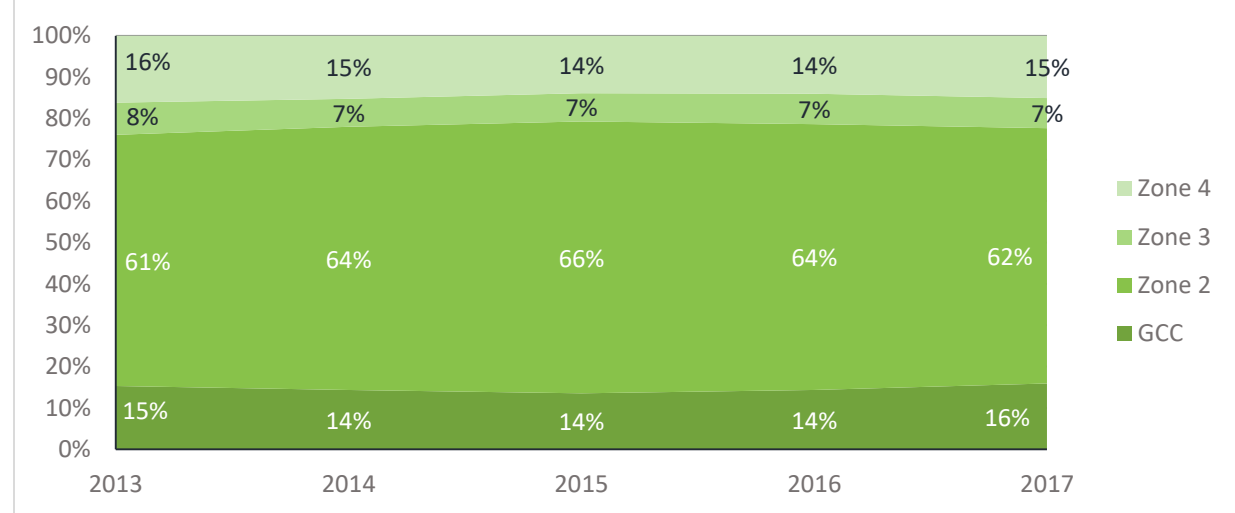
## International traffic Vs. Revenues by destination called

International Calls Traffic Distribution



- 92% of total international calls **minutes** were made to Zone 2 (South Asian countries) in 2017.

International Calls Revenue Distribution



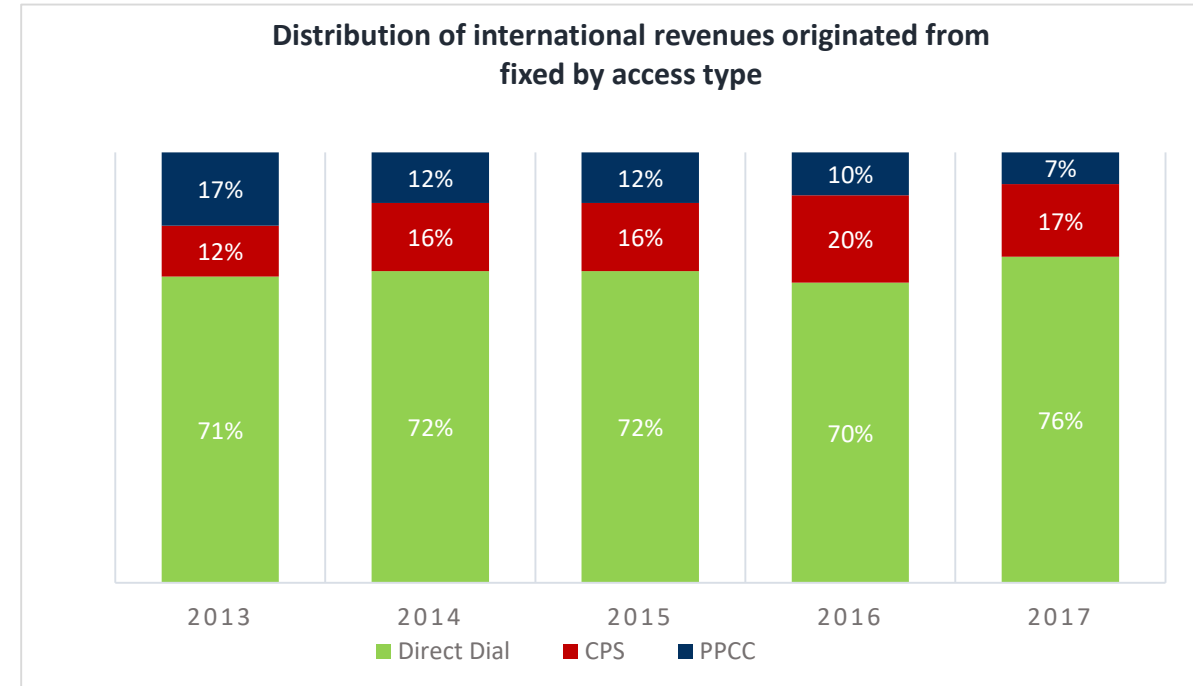
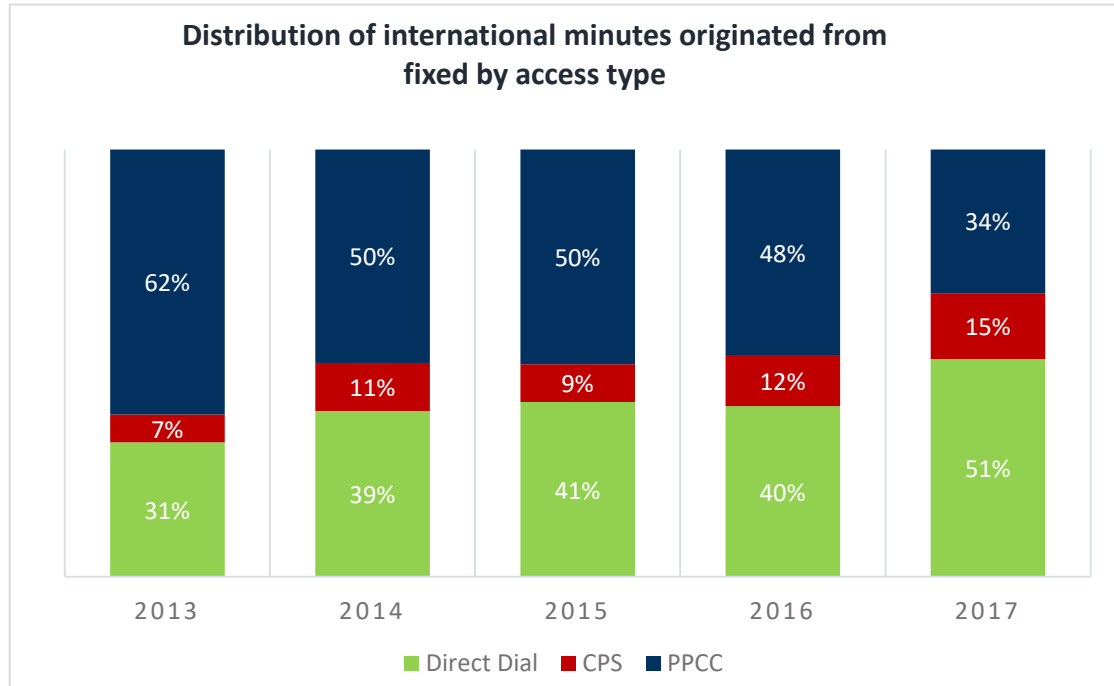
- 62% of international **revenues** were generated from calls to Zone 2 (South Asian countries) in 2017.

The average revenue per minute earned from calls to South Asian countries (Zone 2) continues to be relatively low.

By end of 2017, the total international voice traffic in minutes was 2,443,987,735 with revenue of BD 32,746,394 .



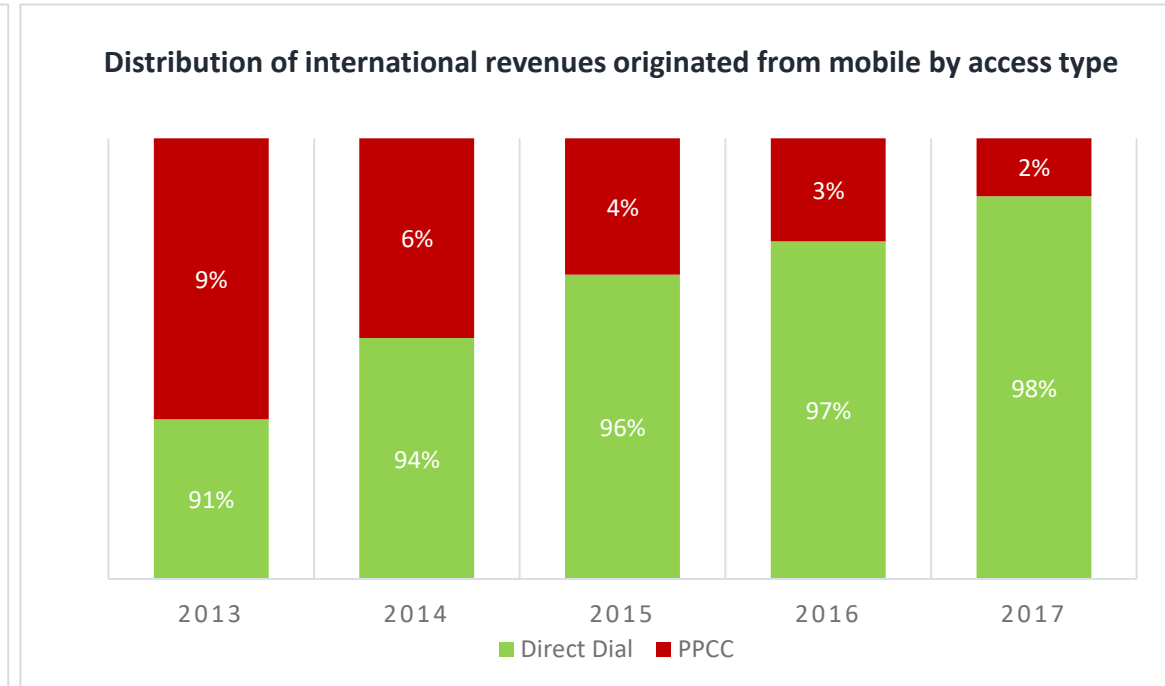
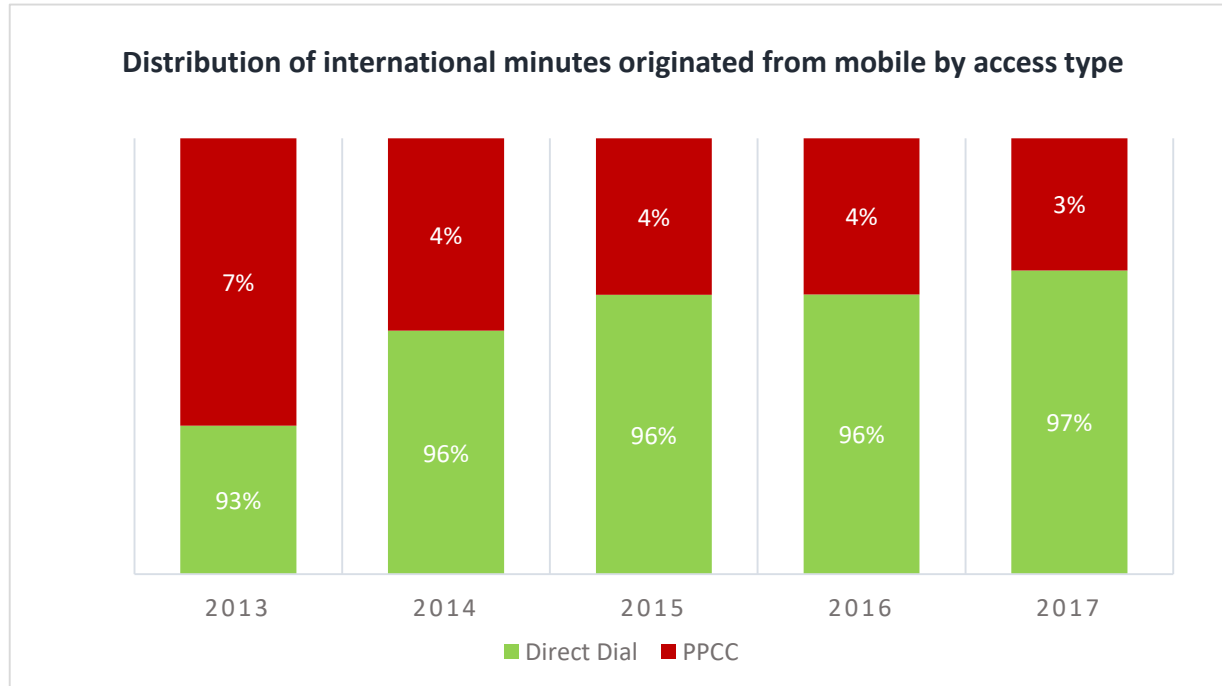
# Distribution of international outgoing minutes/revenues by access type - Fixed telephony



- While the CPS has 15% only from total fixed originated minutes on 2017, its revenue has represented 17% of total fixed telephony traffic revenues.
- At the same time, percentage of revenue from direct dial in 2017 increased from 70% to 76%.



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

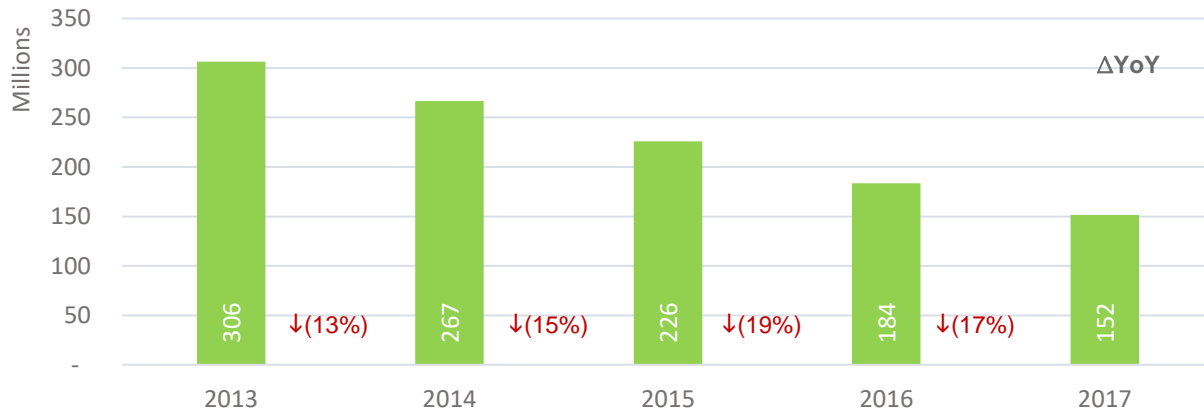


- In 2017, international direct dial traffic originated from mobile represented 97% of the total traffic, up from 96% in 2016 and 2015. The pricing of mobile-originated international direct dial services has become even more competitive in recent years.
- The direct dial represented 98% of total revenues originated from mobile

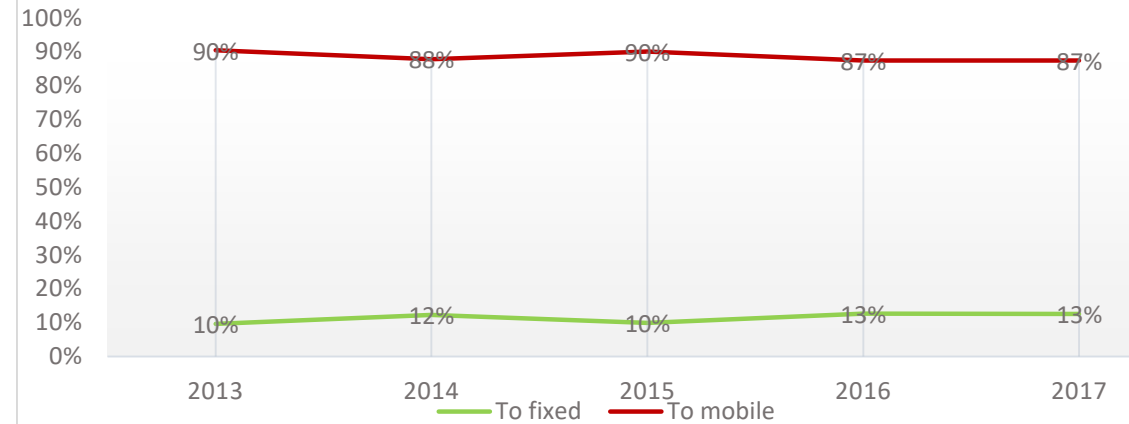


# International incoming call minutes

Yearly international incoming traffic



Proportion of international incoming minutes to mobile and fixed

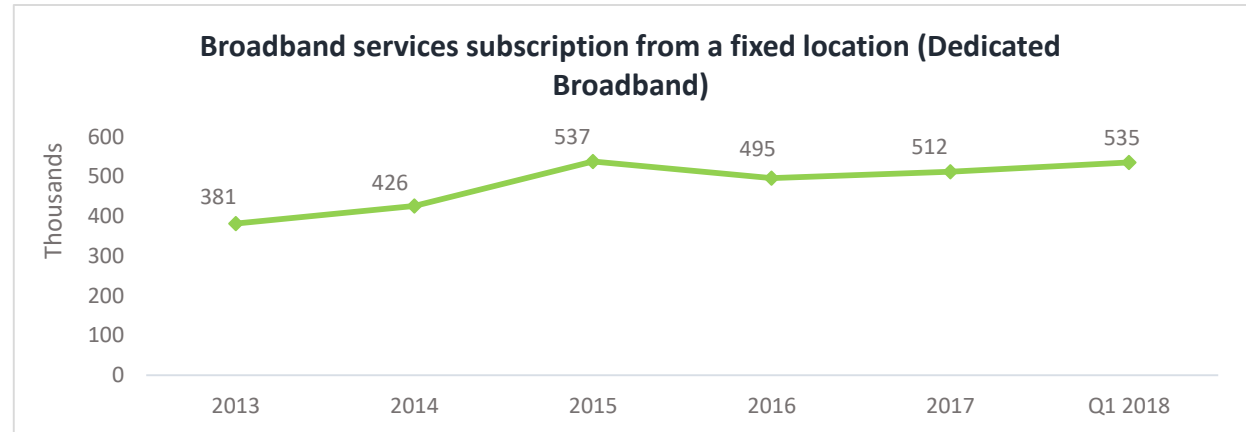
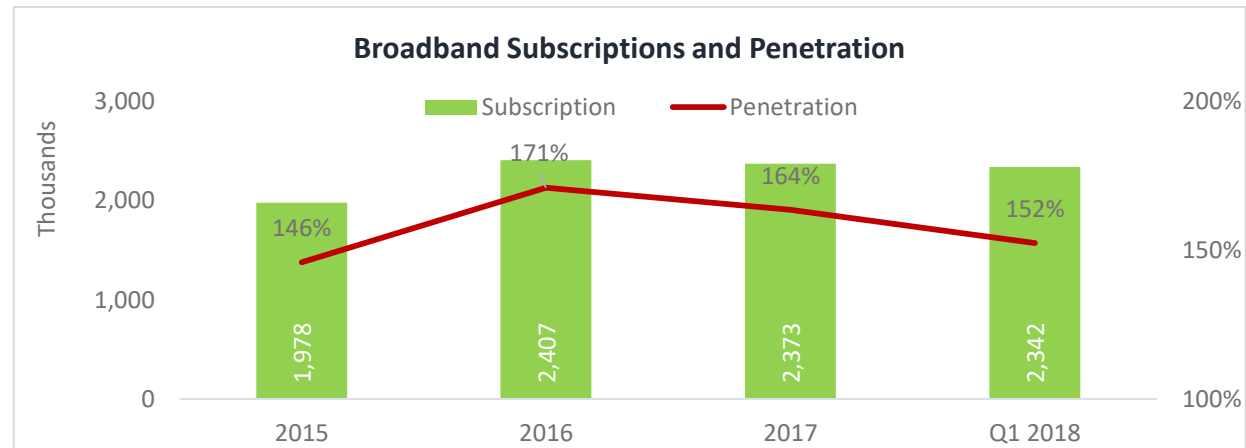


- In 2017, the total volume of international incoming minutes was 152 million minutes, compared to 184 million in 2016 a decrease by (17%).
- That compare to 2.4 billion international outgoing calls.
- About 87% of international incoming calls were made to mobile.

## Broadband services

End of Q1 2018	<b>2,341,533</b>	<b>Broadband subscription</b>
	<b>152%</b>	<b>Penetration rate</b>
	<b>91.5%</b>	<b>Mobile broadband subscriptions</b>

- At the end of Q1 2018, there were approximately 2.34 million broadband subscriptions compared to 2.373 million at the end of 2017 (1% decline), representing a broadband penetration of 152%.
- Comparing to end of 2017, penetration rate has decreased further due to decrease in subscription and increase in population base.
- Broadband subscription growth continues to be driven by growth in the number of mobile broadband subscriptions as it represented 91.5% of total broadband subscriptions at the end of Q1 2018.
- At the end of Q1 2018, there were 554.5 thousand subscriptions for dedicated broadband services.



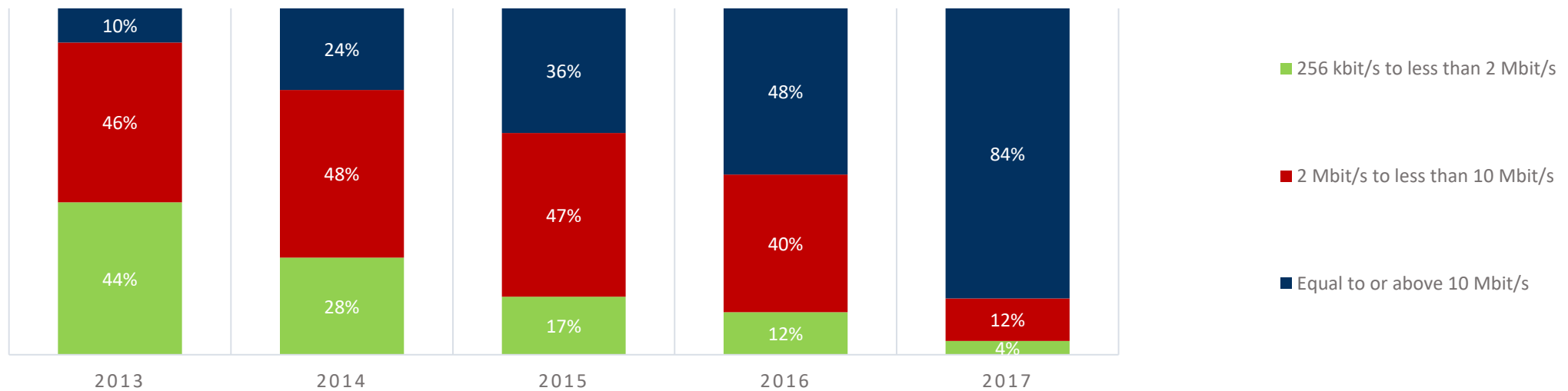
\*Mid-year population estimated by CIO

2017	1,451,200
2018	1,549,000



# Proportion of broadband subscribers by access speed

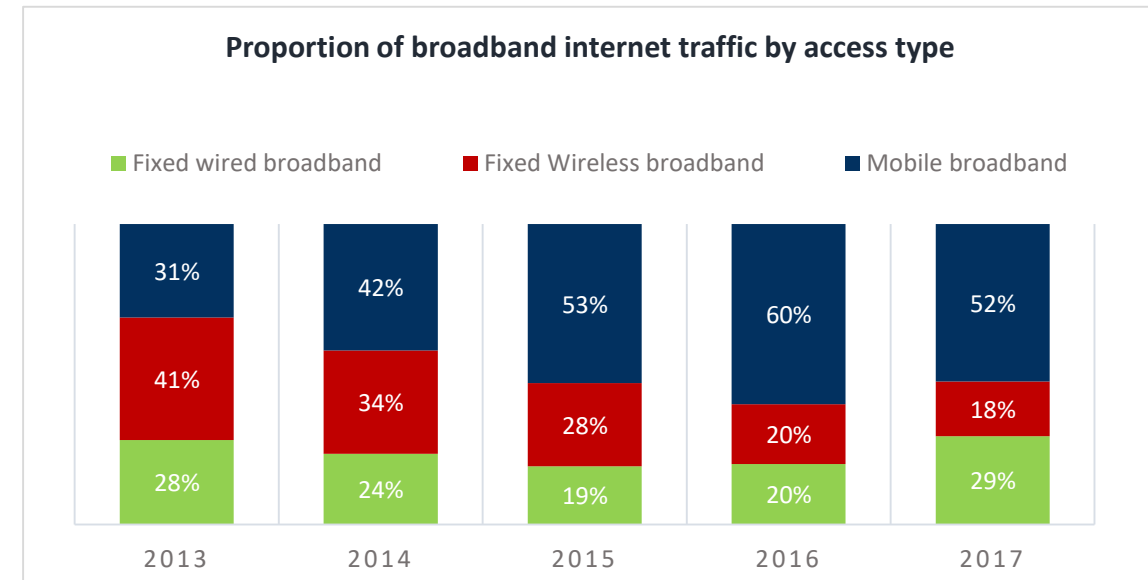
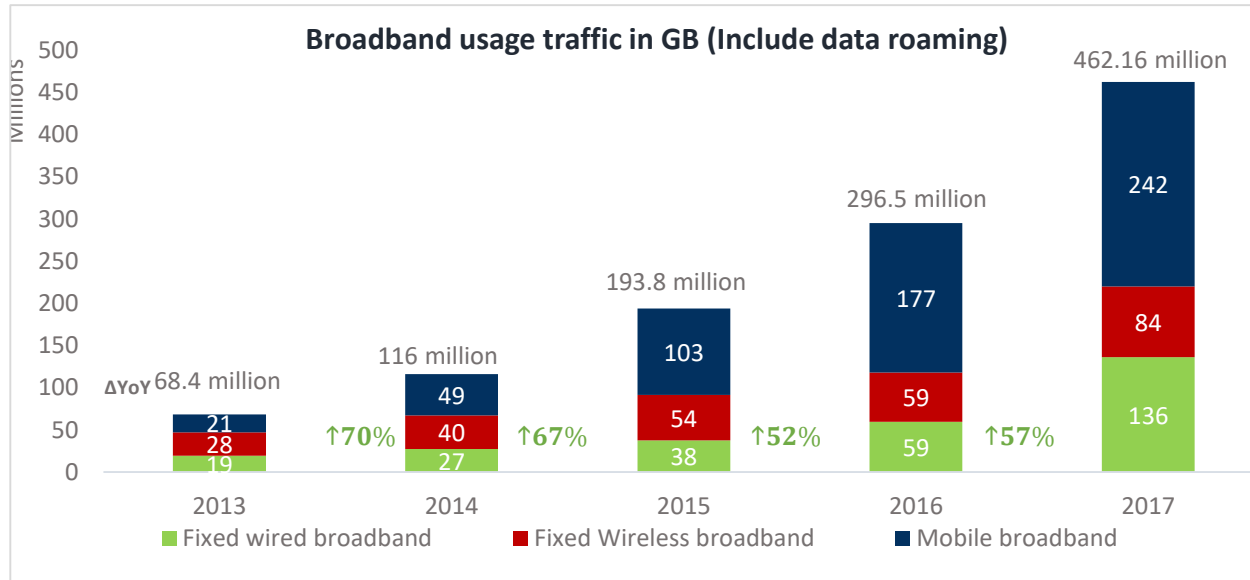
Proportion of fixed broadband subscribers by access speed



- By end of 2017 nearly 84% of fixed broadband subscribers were on plans with advertised speeds of 10 Mbps and above compared to only 10% in 2013.
- This indicate the increase use of subscribers for services that requires a higher speed plus the affordability in the prices of higher speed packages.



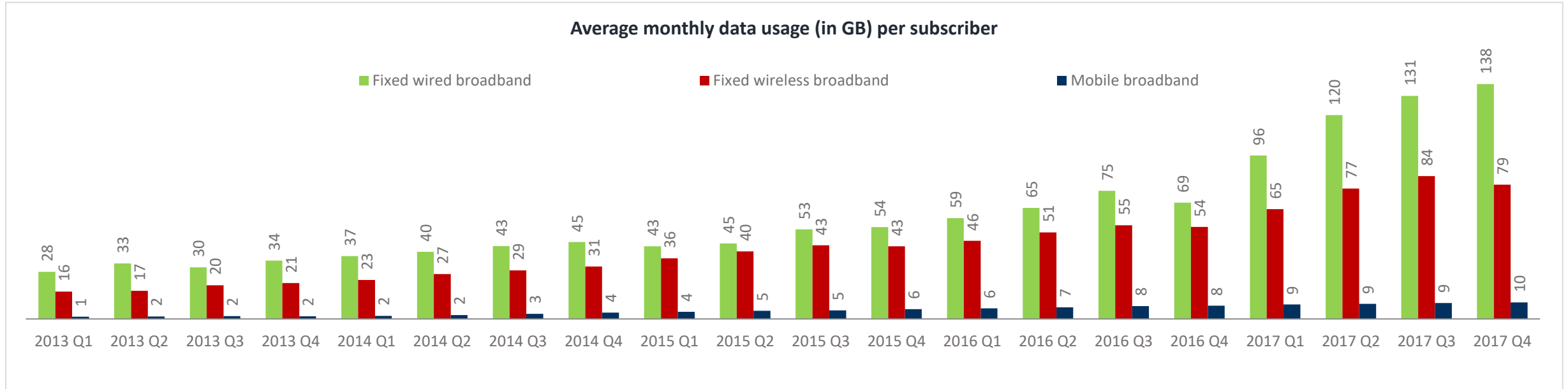
# Broadband usage



In 2017 total broadband usage reached about 462.16 million GB comparing to 68.4 million GB in 2013 (576% increase between 2013 and 2017)

- Between 2013 and 2017, Mobile broadband usage increased by 1052%.
- The traffic (in GB) generated from mobile broadband represented 52% of the total broadband usage in 2017, compared to 31% in 2013. This remarkable increase in Mobile Broadband traffic is being driven by the growing number of mobile subscribers, particularly smartphone users.
- Between 2016 and 2017, fixed wired broadband usage increased by 130%, fixed wireless usage increased by 43%, and mobile broadband usage increased by 37%.

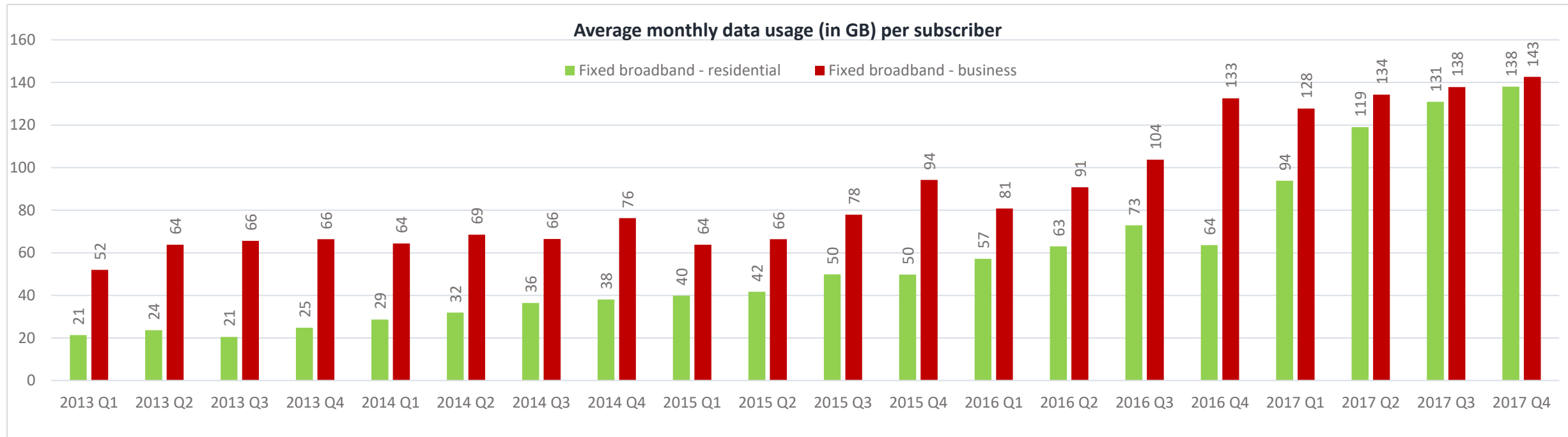
# Average usage (in GB) per broadband subscription



- The average usage (in GB) per subscriber per month varies based on the broadband access type.
- Fixed wired broadband subscribers generated the highest average monthly usage followed by fixed wireless subscribers and lowest usage was generated by mobile broadband subscribers (although the mobile broadband usage per subscriber is heavily influenced by low use pay-per-use subscribers).



# Average usage (in GB) per broadband subscription

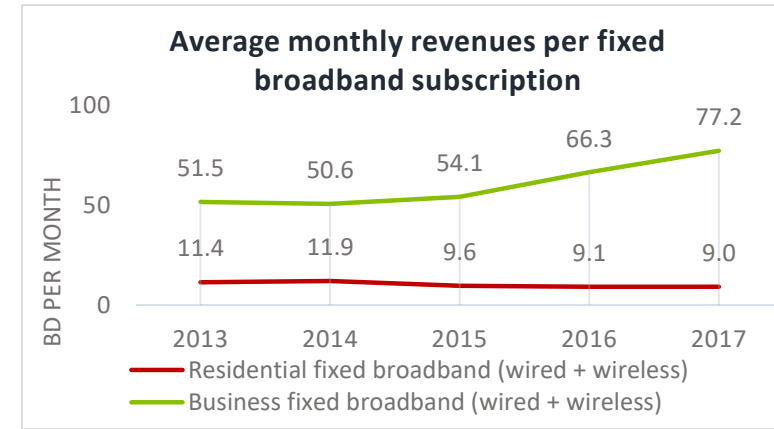
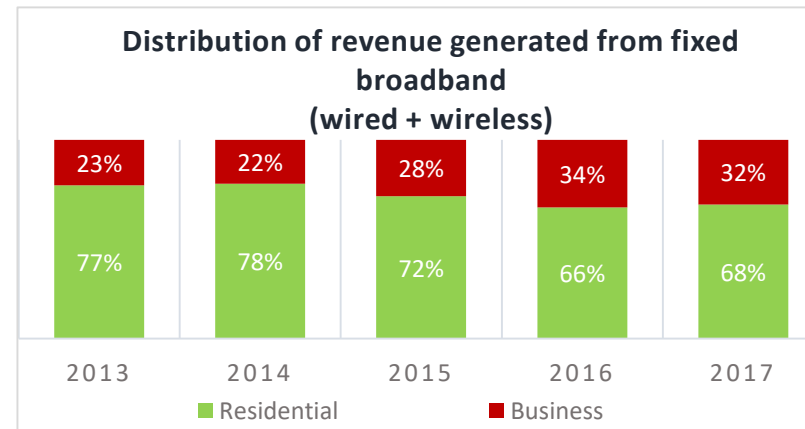
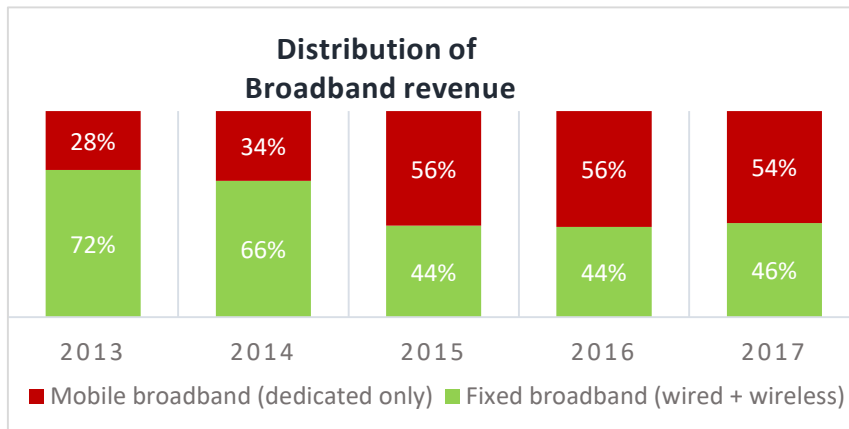
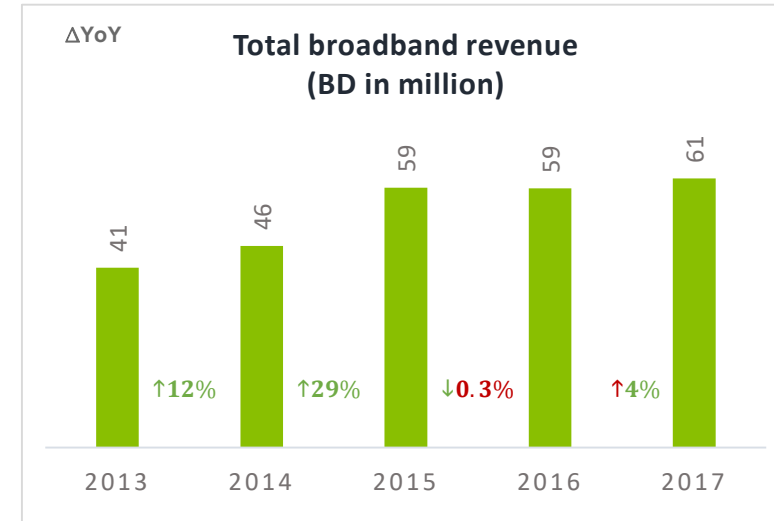


- During the last three quarters of 2017, the average monthly usage for fixed broadband residential subscribers almost equaled the average usage of fixed broadband business subscribers for the first time.



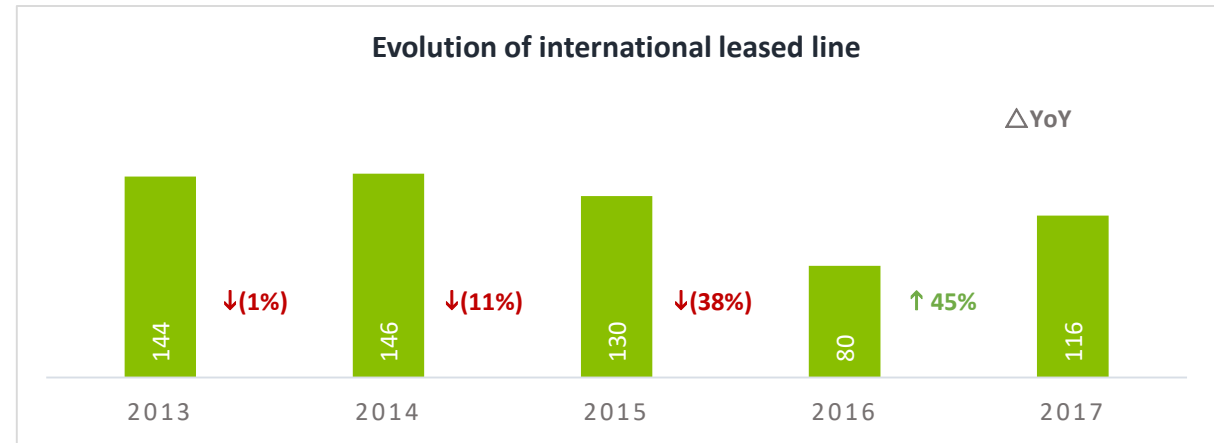
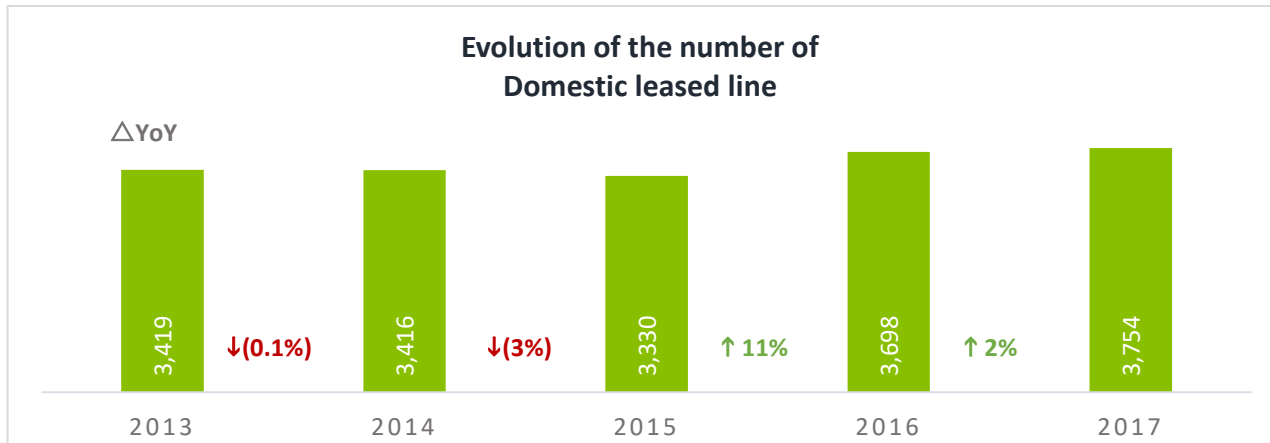
# Broadband revenue

- Broadband revenues increased to reach 61 million BD at the end of 2017, probably due to the increase in number of subscriptions and broadband usage.
- Revenue generated from mobile broadband represents about 54% of total broadband revenue in 2017 compared to 28% in 2013.
- Revenue generated from business fixed broadband represents about 32% of total fixed broadband revenue in 2017 compared to 22% in 2013.
- The reduction in residential broadband prices resulted in a drop in the average revenue per subscription by (1%) over the last year reaching BD9, while the average revenue per subscription of business broadband has increased by 16% over the same period to reach BD 77.2





End of 2017	3,754	Domestic leased lines
	80	International leased lines
	BD 54,565,145	Leased lines revenues

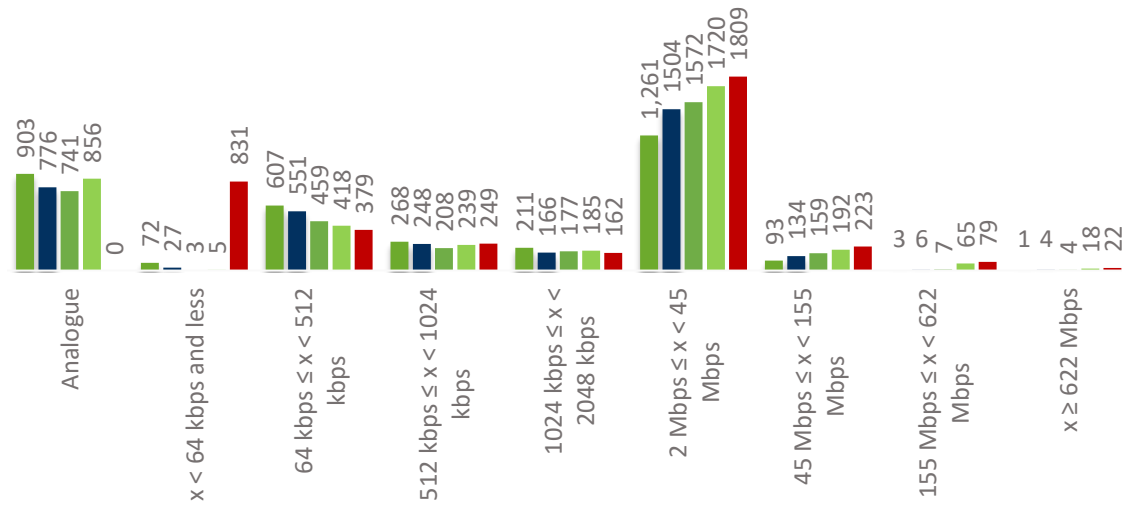


- The total number of domestic leased increased by 2% at the end of 2017 comparing to 2016, while the number of international leased lines increased by 45% over the same period.

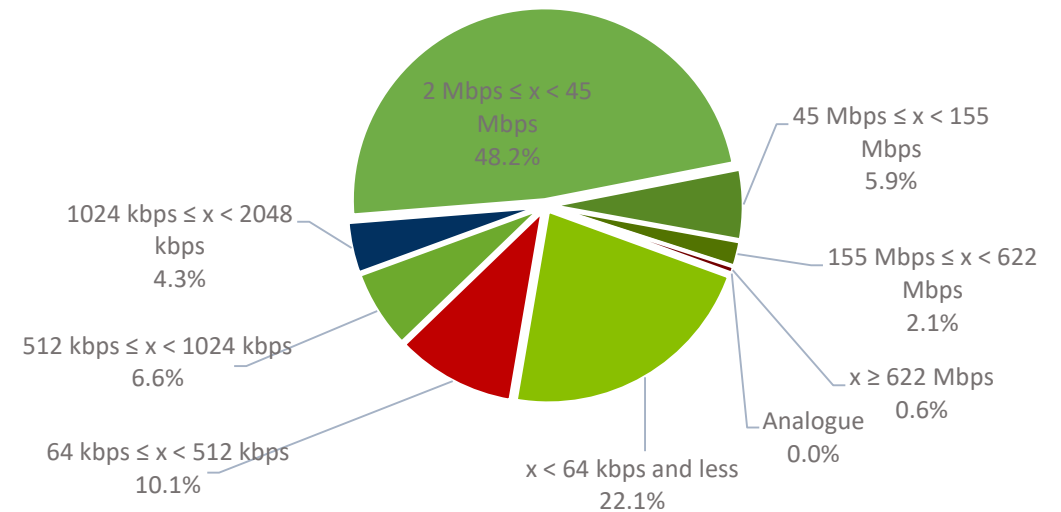
# Domestic leased line

Evolution of domestic leased line for each speed

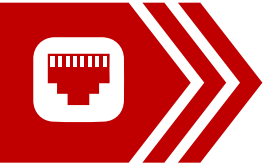
■ 2013 ■ 2014 ■ 2015 ■ 2016 ■ 2017



Distribution of domestic leased line by speed 2017

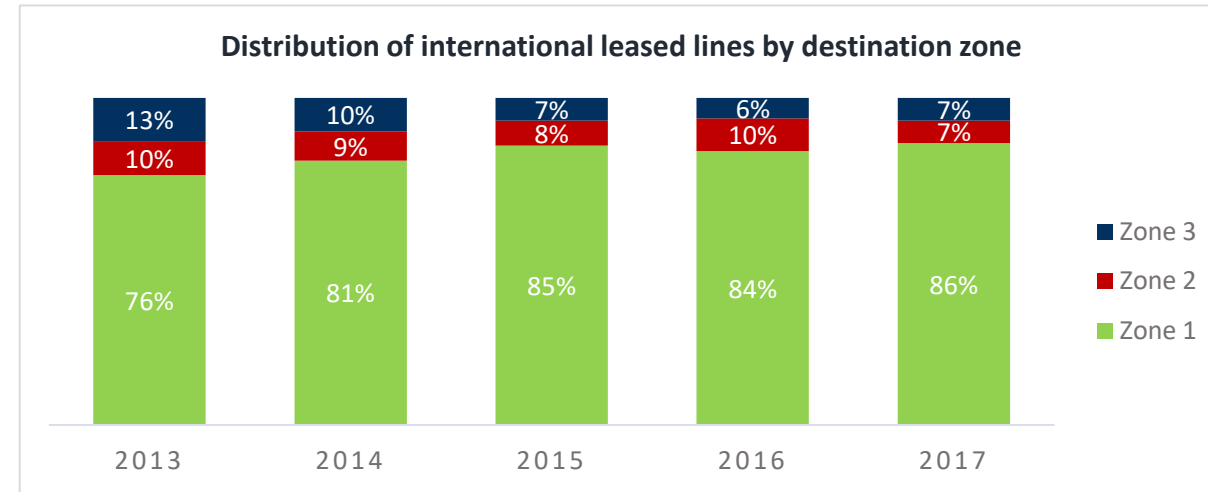


- The total number of domestic leased increased by 2% at the end of 2017 comparing to 2016.
- While there has been a further drop in slower speed services, that drop was corresponded by increase in higher speed services. During 2017 all analogue domestic leased lines were shifted to a leased line with speed lower than 64 kbps.
- A similar pattern has been observed in respect of international leased lines in recent years.



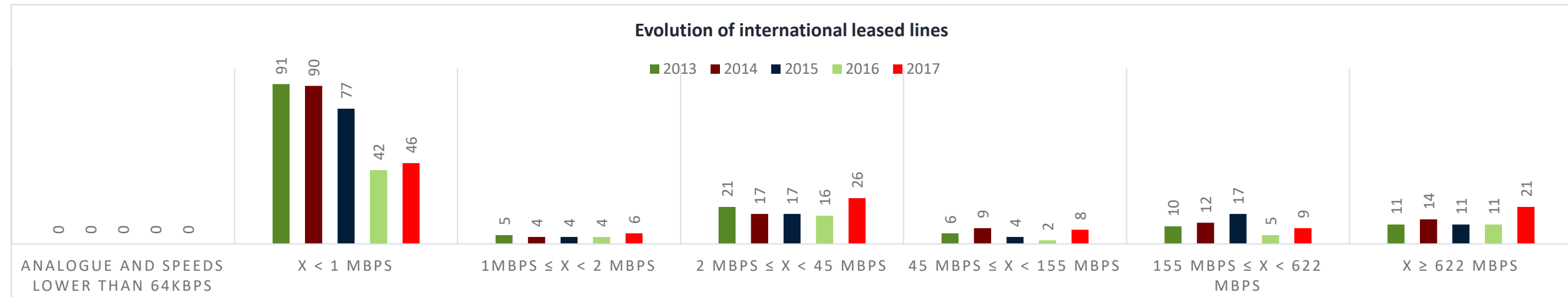
# International leased lines

- Total Number of International leased lines increased from 80 lines at the end of 2016 to 116 Lines in 2017.
- 45% of international leased lines are for speed less than 2Mbps.
- 86% of international leased lines are destined to GCC area.



**Evolution of international leased lines**

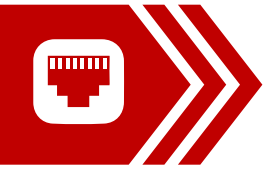
■ 2013 ■ 2014 ■ 2015 ■ 2016 ■ 2017



Zone 1 (GCC)

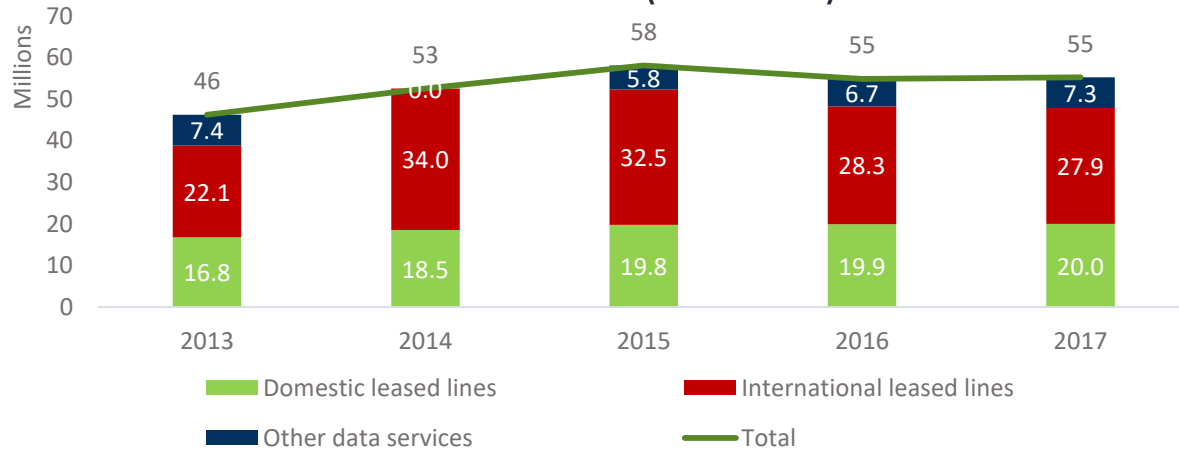
Zone 2 (rest of Middle East, Turkey, Cyprus, Greece, India, Pakistan, South Africa)

Zone 3 (Continental USA, Canada, Europe, SE Asia)

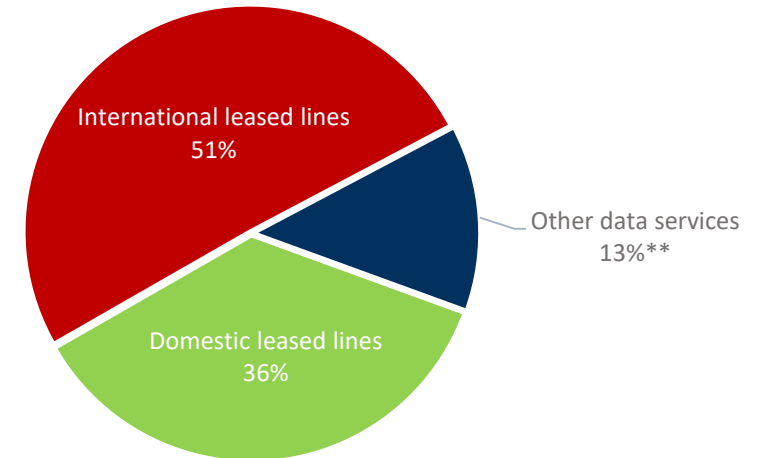


## Leased line revenues

Leased lines revenue (in BD million)

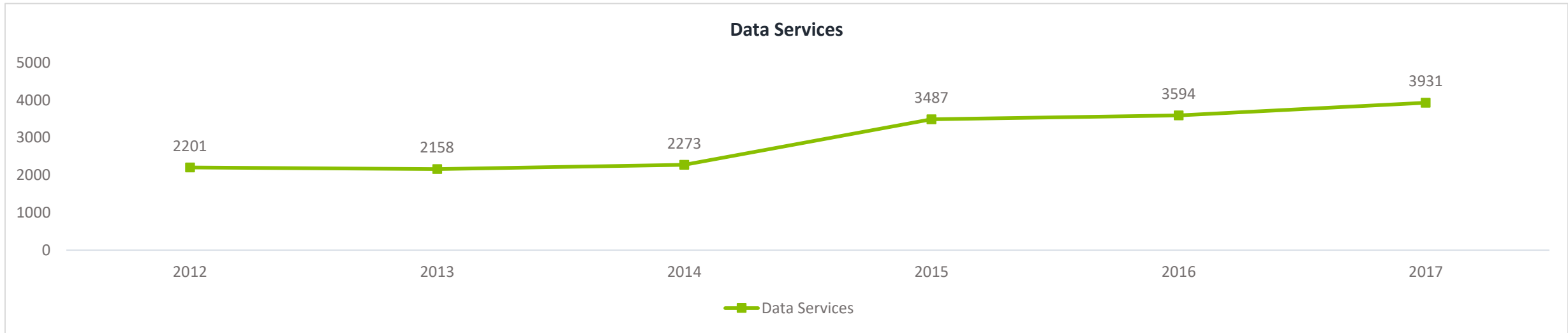


Distribution of leased lines revenue



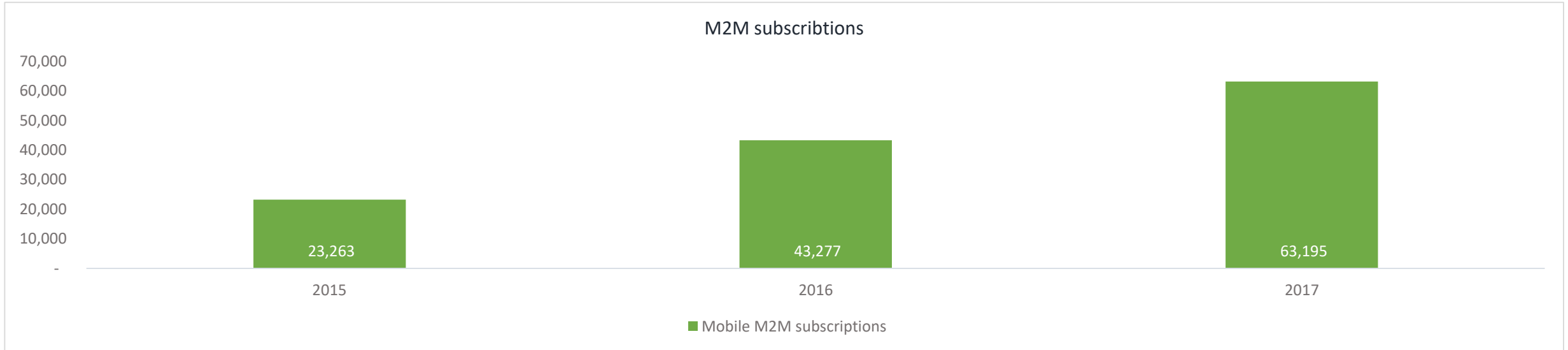
- The revenue generated from leased lines services declined by (0.6%) in 2017, that revenue decrease was mainly from the drop in international leased lines revenues.
- Although, the number of international leased lines increased by 45% , revenue dropped by 1.4% indicating increased competition and reduction in prices.
- During 2017 the data services revenues has increased by almost 10% compared to 2016.

# Data Services



- Since 2012, data services have grown by 78%.
- Most of the data services is National MPLS service, or 73% in 2017.
- Other major data services reported include: International MPLS and Local Analogue Circuits.

# Mobile M2M subscriptions

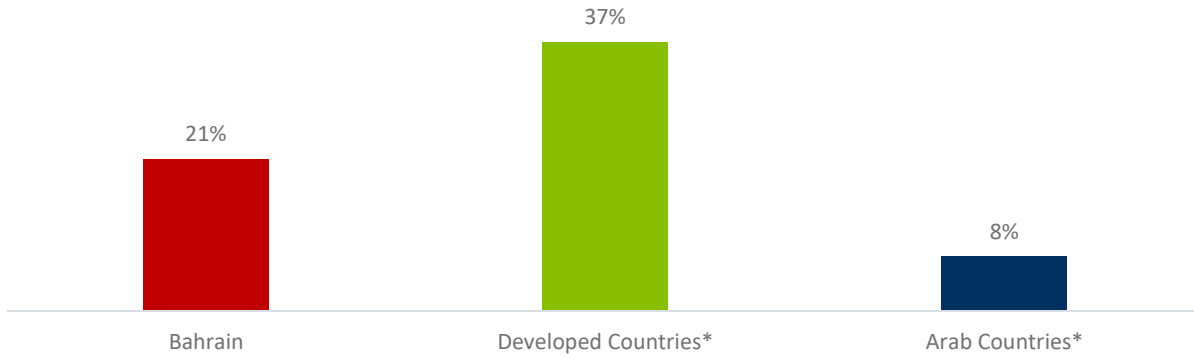


- Subscription to M2M have grown by 20,000 subscription year on year.
- These subscriptions include banking services, vehicle tracking, Point of Sales, Smart meters among other services.

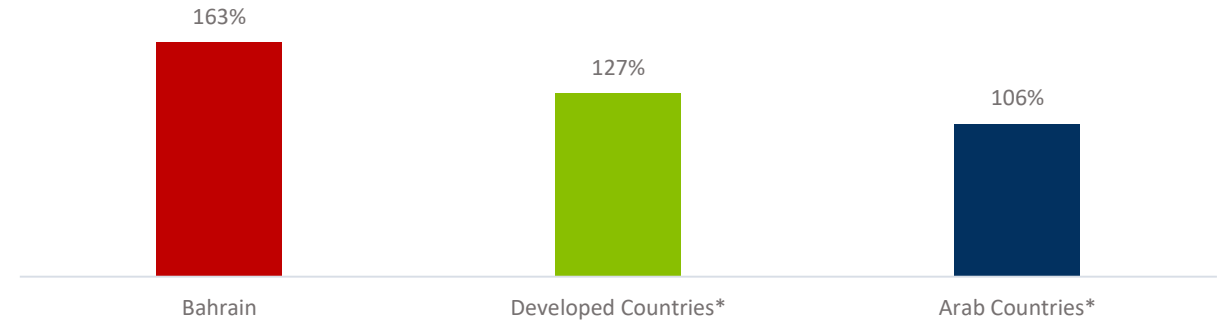
# Benchmarking of telecom service penetration rates with GCC countries

Bahrain compares very well with other Arab Countries and with Developed countries in terms of telecom services penetration. Specifically in Mobile penetration and Percentage of Individual using the internet.

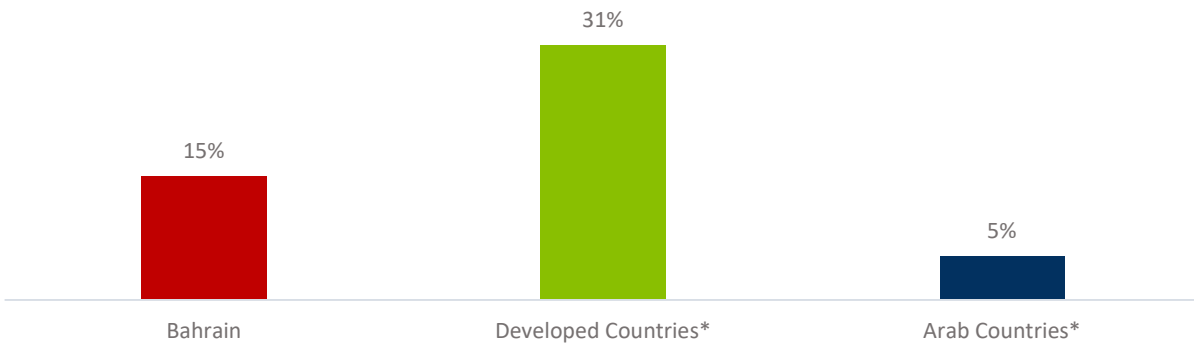
### Fixed Telephone Lines Penetration 2017



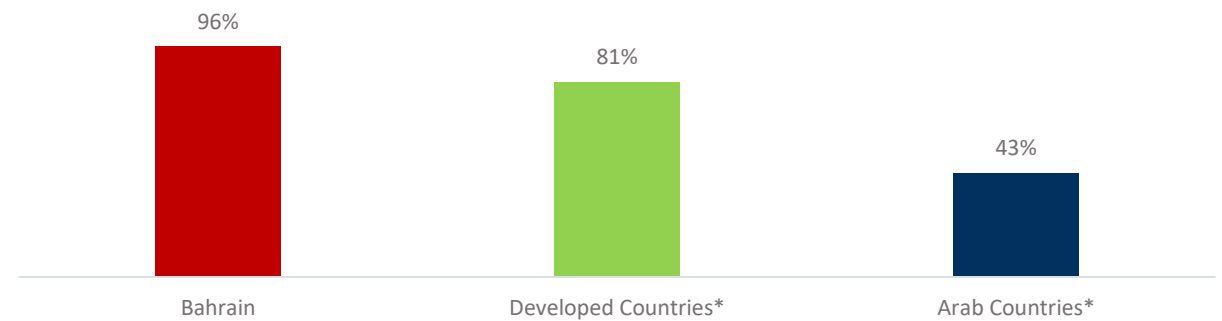
### Mobile Cellular Subscriptions Penetration 2017



### Fixed Broadband Penetration 2017



### Percentage of Individuals Using the Internet 2017



\* Estimate by ITU

# List of acronyms

ADSL	Asymmetric Digital Subscriber Line
BD	Bahraini Dinar
CPS	Carrier Pre-Selection
CAGR	Compound Annual Growth Rate
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
Fixed-telephone subscriptions	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.
Prepaid mobile subscribers	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).
Postpaid mobile subscribers	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.
Active mobile-broadband subscriptions	<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>Standard mobile-broadband subscriptions (ITU code i271mb_active): 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. 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>Dedicated mobile-broadband subscriptions (ITU code i271md): 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

5<sup>th</sup> Floor Bldg 436, Block 852,  
Road No.3618,  
Seef, Manama  
PO Box 10353  
Kingdom of Bahrain  
Phone: 0000 1752

[www.tra.org.bh](http://www.tra.org.bh)