
















Telecommunications Markets Indicators in the Kingdom of Bahrain

Full year 2019 and up to Q1 2020
Issued in October 2020

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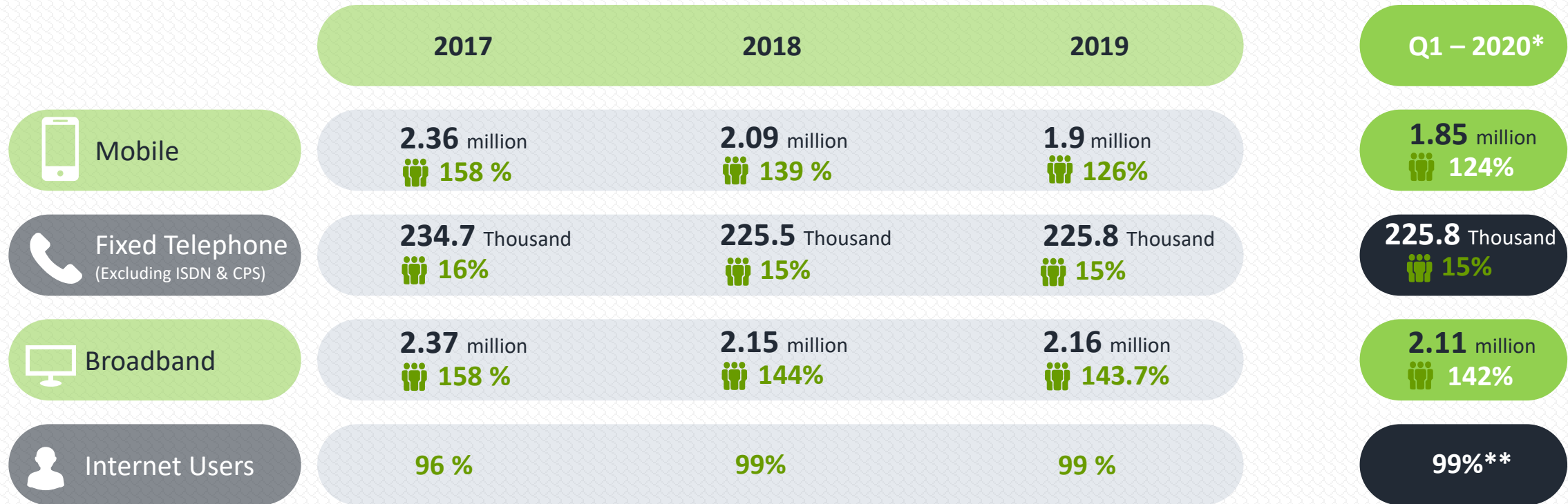
INTRODUCTION

- ◆ 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 fifteenth Telecommunications Markets Indicators report and it covers a large range of telecoms services indicators for 2019 up to Q1 2020 such as the number of subscribers, penetration rates, calls usage and telecoms revenues.

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KEY INDICATORS



** Based on 2018 survey  Penetration rate

* Population is based on CIO mid-year estimation

2017	2018	2019	Q1 2020
1,501,116	1,503,091	1,484,756	1,484,756

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
Etisacom Bahrain	✓	✓		✓	✓		MPLS
Golden Sands Electronic and Phone							Bulk SMS
Gulf Electronic Tawasul					✓		
IMC							International calls through wholesale
Infonas	✓	✓		✓	✓	✓	
Kalaam telecom	✓	✓		✓	✓		
Mobitel							Bulk SMS
Northstar Technology		✓		✓	✓		
Nuetel Communications	✓	✓		✓	✓	✓	IPTV - ICT
Orbit Data Systems				✓			
Rapid telecoms	✓	✓		✓	✓	✓	
STC Bahrain	✓	✓		✓	✓		
Sita						✓	
Viacloud	✓	✓		✓	✓		
Vodafone Enterprise Bahrain						✓	IPVPN -Ethernet Wireline - Ethernet VPN
Zain Bahrain	✓	✓	✓	✓	✓	✓	
Zain Global Communications Services					✓		International transit voice services
Zajil					✓		

MAIN TELECOM INDICATORS

Indicator	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	YoY Growth 2018-2019	CAGR 2010 – 2019
Number of fixed line telephony (excluding ISDN)	232,558	248,480	259,723	251,643	246,696	242,439	234,368	238,969	228,717	226,390	(1%)	(0.25%)
Fixed line telephony penetration	19%	21%	21%	20%	19%	18%	16%	16%	15%	15%		
Total mobile subscribers	1,567,746	1,693,650	2,123,903	2,210,190	2,328,994	2,541,688	2,994,865	2,364,477	2,092,714	1,900,361	(9%)	2%
Mobile penetration	128%	142%	176%	176%	177%	185%	210%	158%	139%	126%		
Total broadband subscribers	424,061	642,412	1,148,264	1,507,971	1,679,681	1,977,402	2,407,837	2,372,742	2,160,052	2,152,496	(0.3%)	19.8%
Broadband penetration	35%	54%	93%	118%	128%	145%	171%	158%	144%	143.7%		
Percentage of individuals using the Internet	55%	77%	88%	90%	91%	93%	98%	96%	99%	99%		
Telecommunications revenues (BD in million)	360	406	409	423	430	453	435	424	431	446	4%	2.5%
Number of employees in the telecommunications sector	2584	2708	3141	3000	3,092	3206	3230	2,914	2,837	2,743	(3%)	0.6%

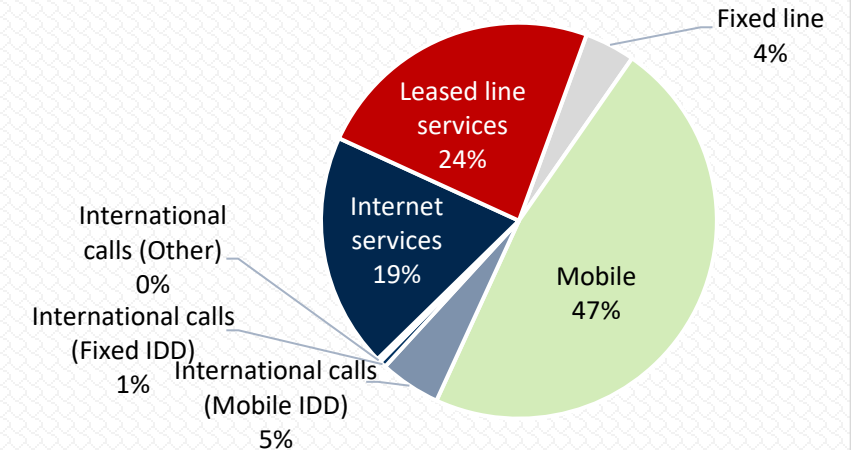
Notes:

- 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

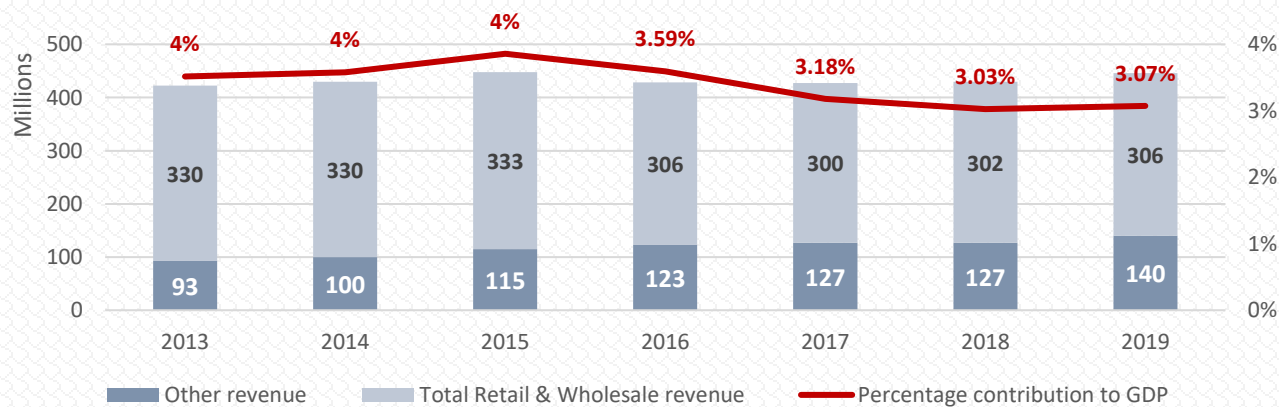
REVENUES IN THE TELECOM SECTOR

- Telecommunication services generated **BD 446 million** in 2019 compared to BD 430 million in 2018, an increase of around 4%.
- Telecommunication sector revenues represent 3% of the GDP as of 2019.
- The proportion of mobile revenue to total retail revenue slightly increased to reach 47% in 2019, compared to 46% in 2018.
- Between 2018 and 2019 total retail revenue increased by 2% while reported wholesale revenue decreased by 18%. Other revenue increased by 10% for the same period.

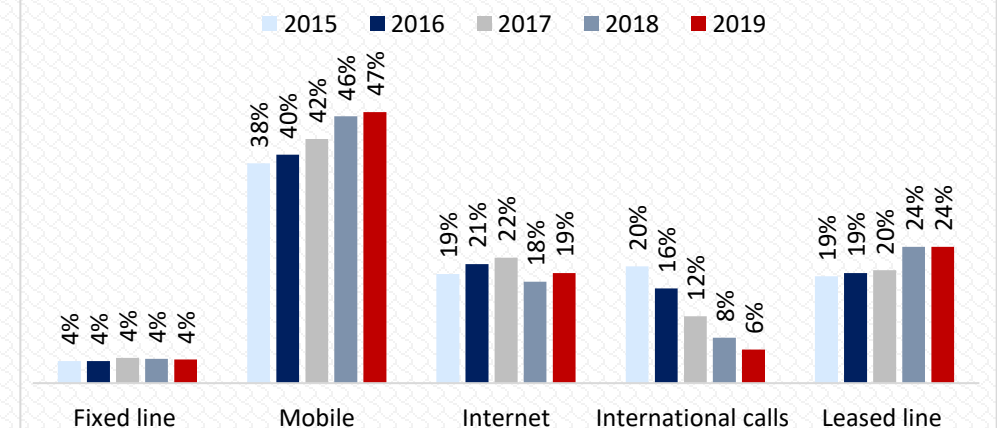
Break down of retail services revenue in 2019



Telecom Sector Revenue (in BD Million)*



Evolution of retail services revenues by segment

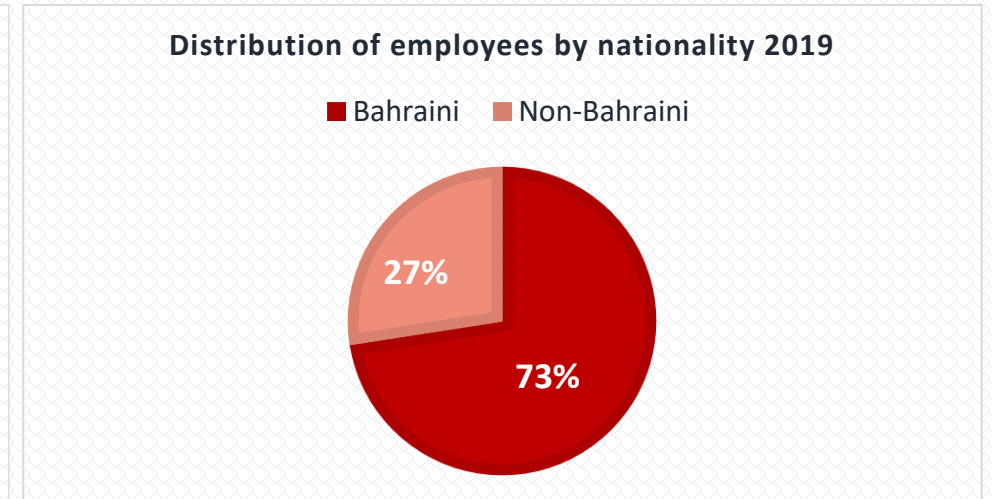
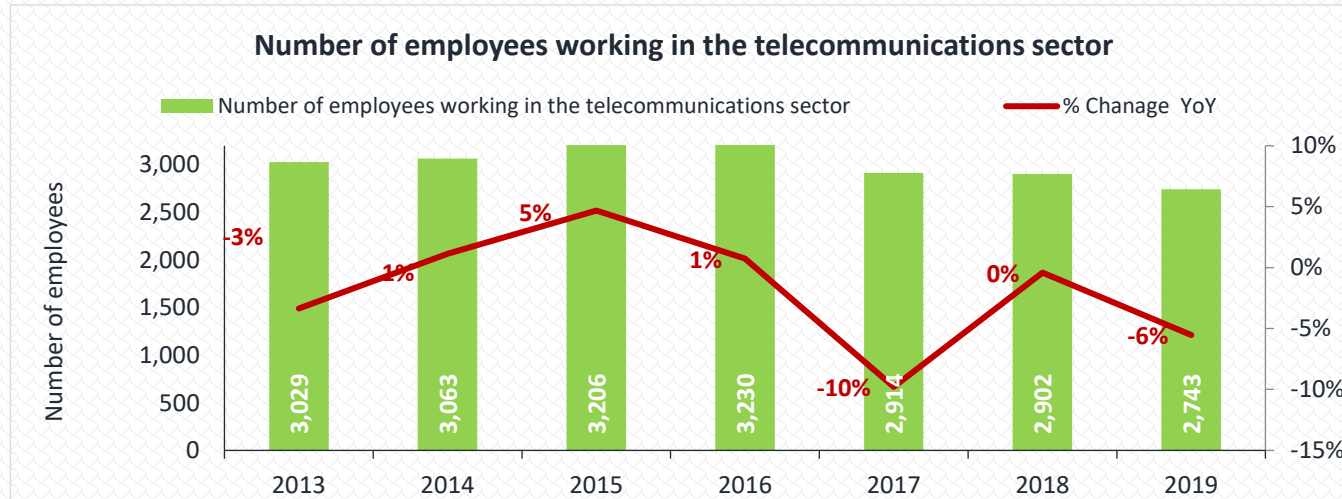
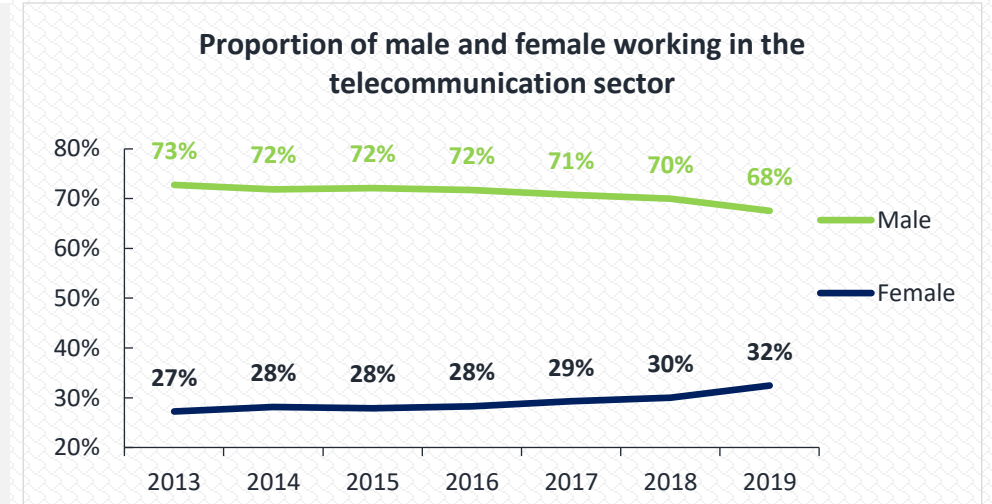


*Drop in wholesale revenue is due to an operator reporting wholesale leased lines revenue under Retail as of 2019

**Other revenue includes but is not limited to (Hardware revenues, ICT, advanced services, etc..)

EMPLOYMENT IN THE TELECOM SECTOR

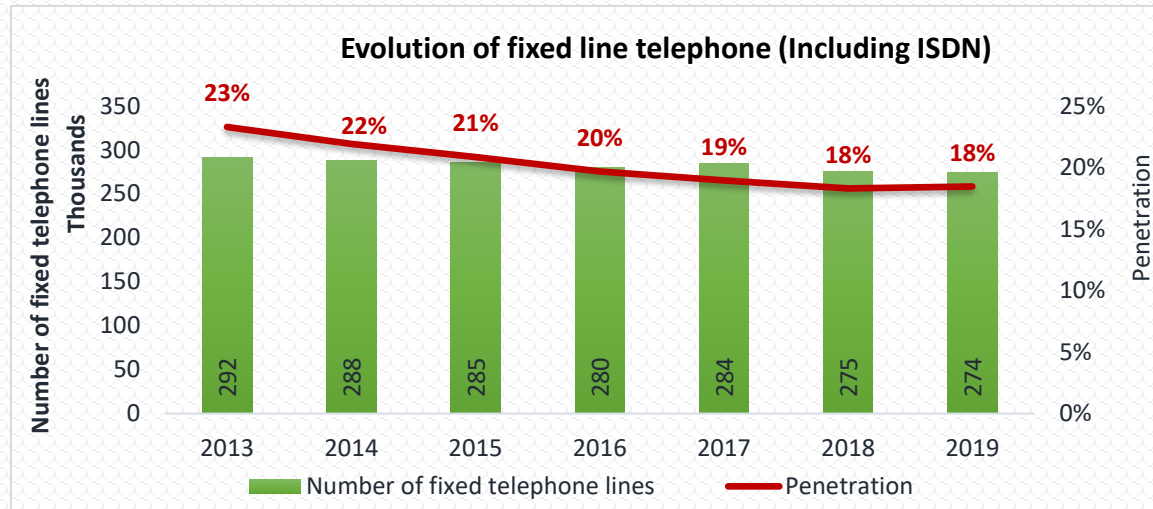
- **2,743** employees are working in the telecommunication sector as of 2019.
- The sector achieves high degree of Bahrainisation, **73%** of the employees in the sector are Bahrainis in 2019.
- Females represent **32%** of employees in the telecom sector.



FIXED LINE TELEPHONY SERVICES



FIXED LINE TELEPHONY SERVICES



- There were 273,558 fixed-line telephony services (including ISDN) in operation at the end of 2019, compared to 274,733 fixed telephone lines in services at the end of 2018.
- As for ISDN service, Basic-rate ISDN has declined by 9% between 2018 & 2019 while Primary-rate ISDN service increased by 1%.

Number of	2014	2015	2016	2017	2018	2019
**ISDN	2,610	2,560	2,591	2,525	2,428	2,350
Basic-rate	1,324	1,206	1,139	1,086	958	867
Primary-rate	1,286	1,354	1,452	1,439	1,470	1,483

* Including ISDN subscribers (Basic ISDN = 2 lines, Primary ISDN= 30 lines)

^ Revised numbers due to an operator resubmission

** ISDN subscriptions refers to the number of subscriptions to the Integrated Services Digital Network. This can be separated into basic-rate and primary-rate interface service.

*Mid-year population estimated by CIO:

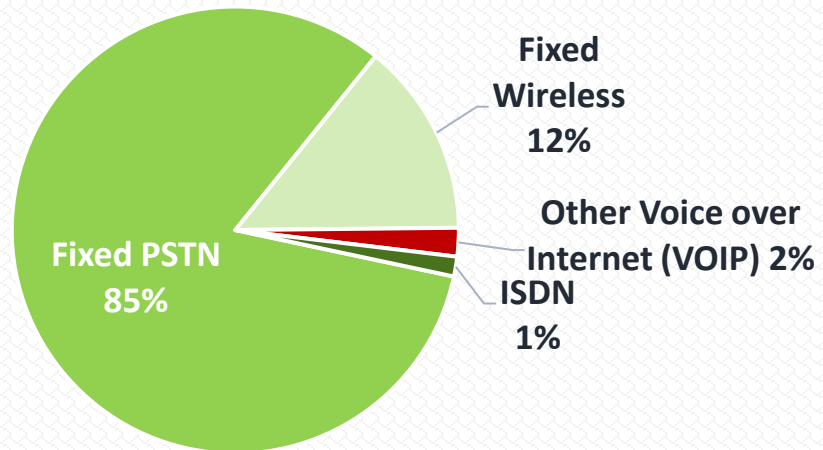
2018	1,503,091
2019	1,484,756

2019	226,390	Number of total fixed lines
	15%	Penetration rate
	273,558	Number of fixed lines, including total ISDN lines
	18%	Penetration rate

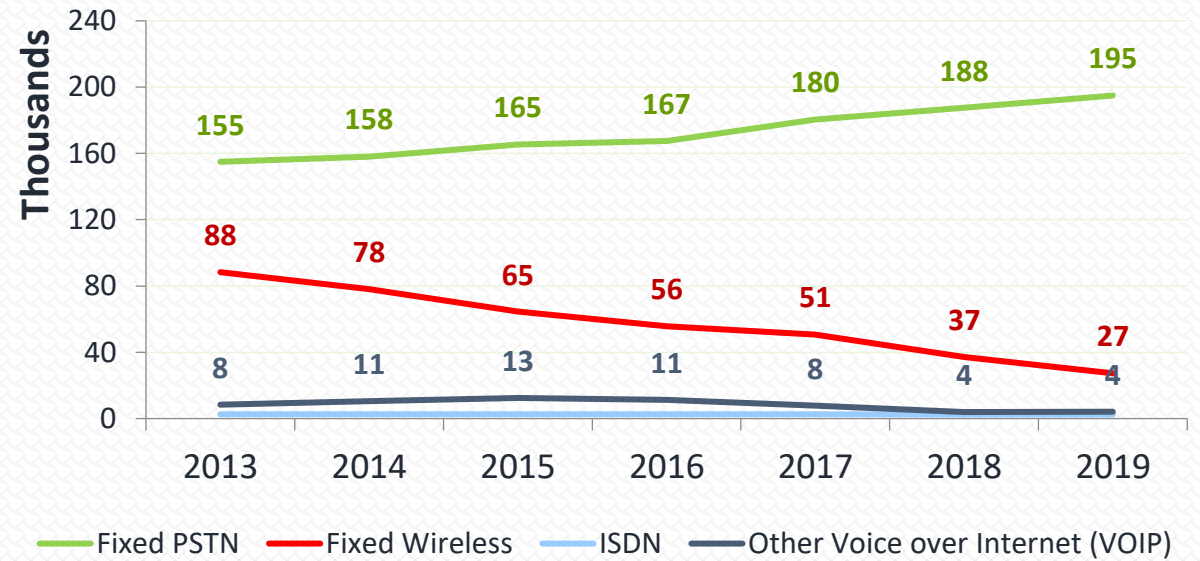
FIXED LINE TELEPHONY BY ACCESS TYPE

- Fixed PSTN subscriptions dropped by 1% between 2018 & 2019.
- As for the significant decrease in Fixed Wireless and VOIP subscriptions, this is due to subscribers switching from Fixed Wireless and VOIP to Fixed PSTN.

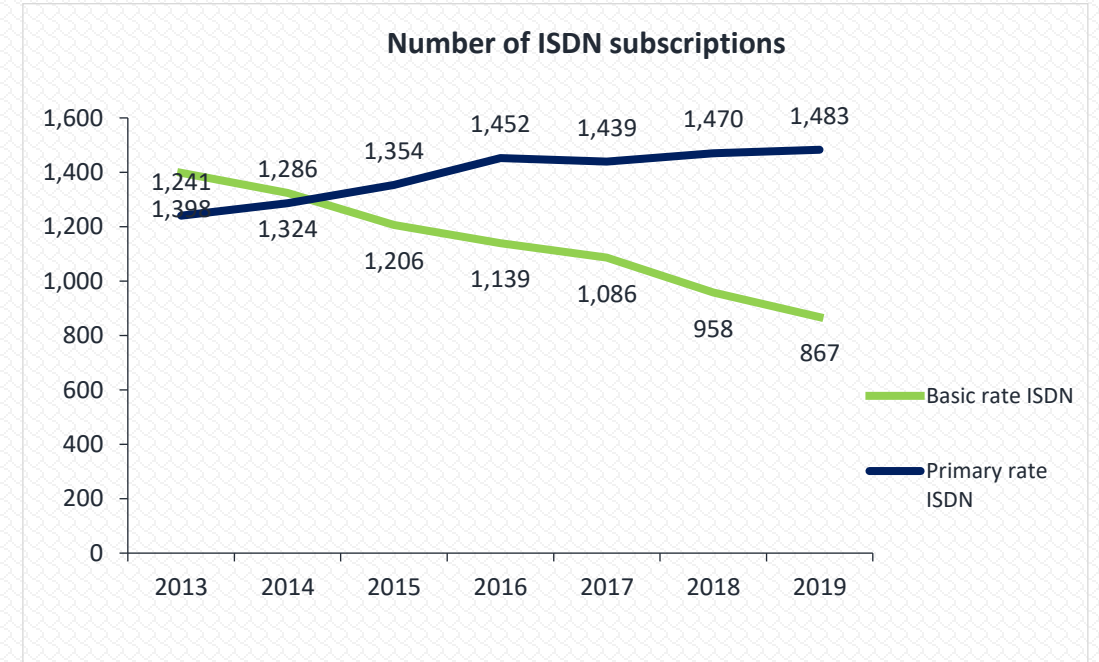
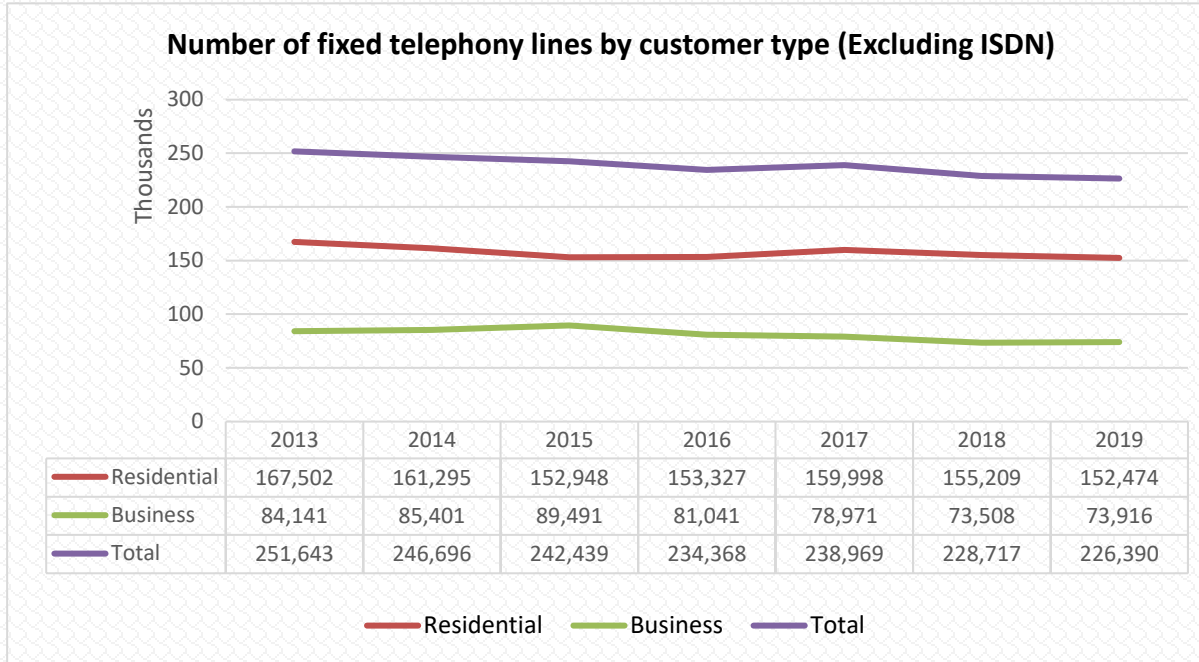
Proportion of fixed line by access type 2019



Fixed telephone lines by access type



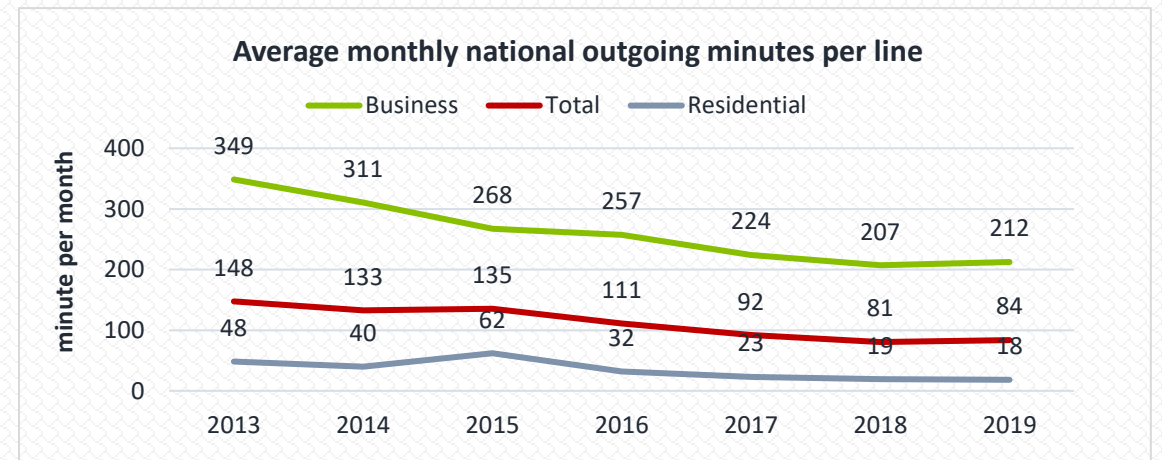
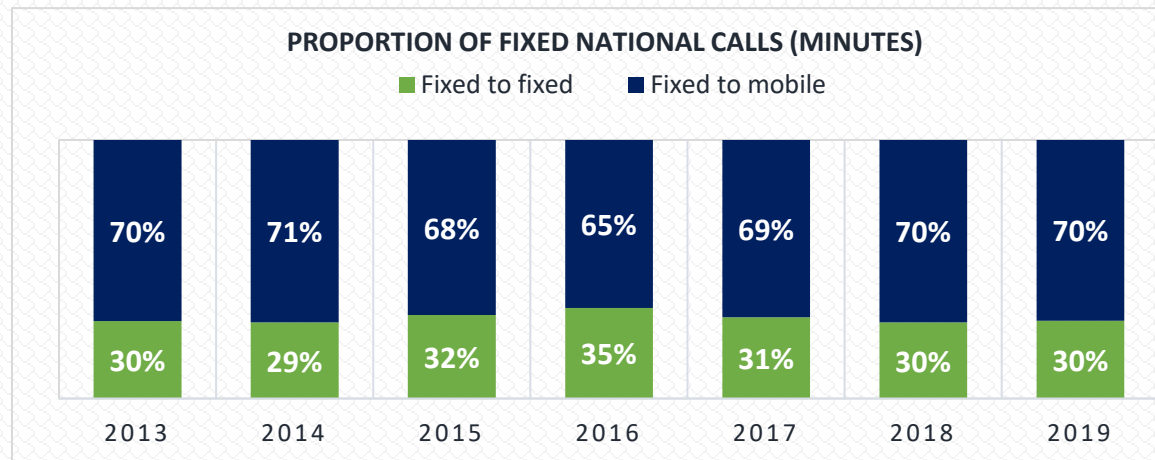
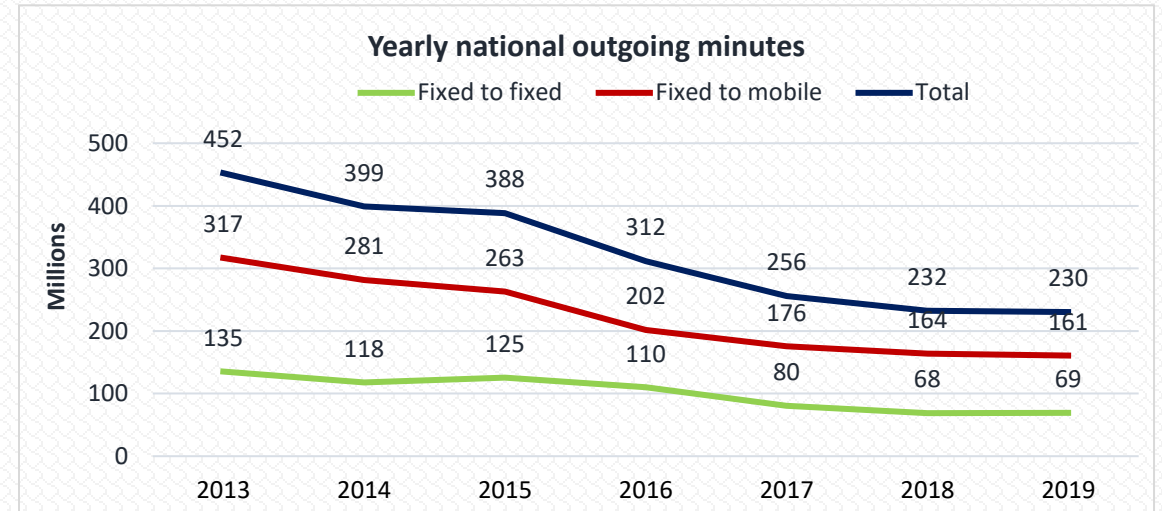
FIXED LINE TELEPHONY SERVICES BY CUSTOMER TYPE



- Total number of fixed telephony lines has slightly decreased by 1%, whereas the total number of residential lines decreased by 2% and the total number of business lines dropped by 0.5% relative to 2018.
- Primary rate ISDN increased by 1% while Basic rate ISDN declined by 9%. Since 2013, Primary rate ISDN increased by 20% while Basic rate ISDN decreased by 38%

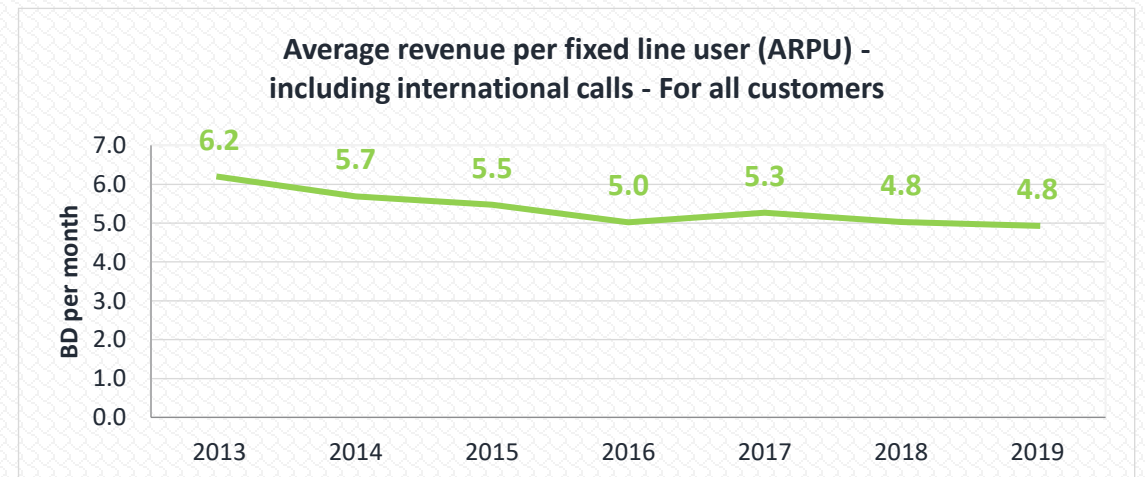
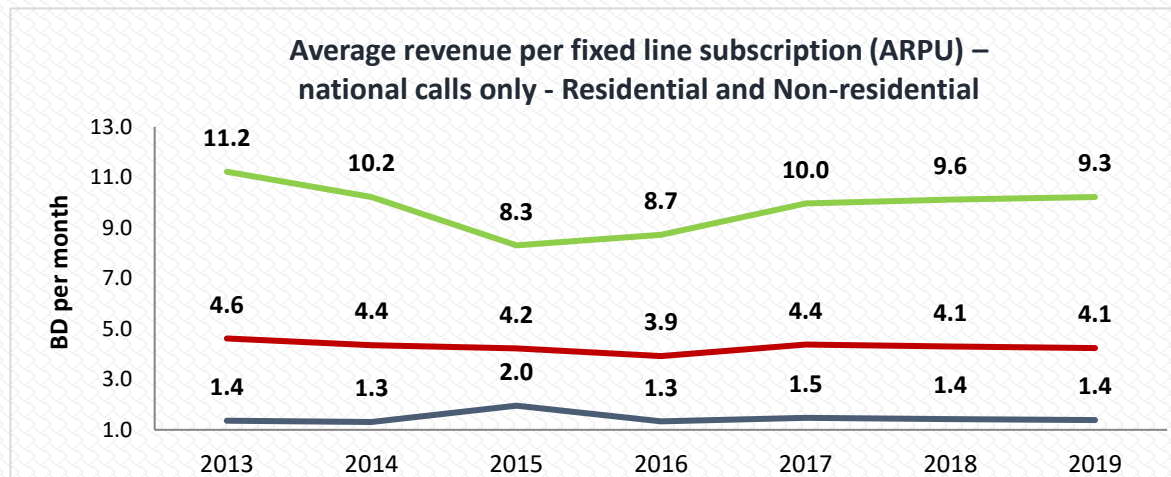
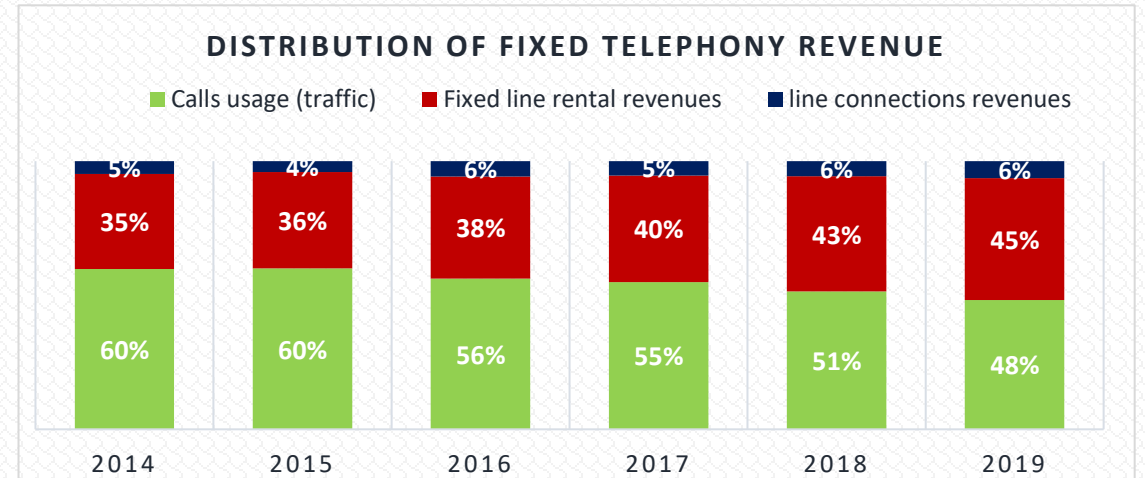
FIXED LINE TELEPHONY OUTGOING MINUTES

- The outgoing fixed call minutes fell by around 1% from 232.1 to 230 million minutes in 2019 as consumers increasingly use mobile and internet-based voice and messaging services instead of fixed line telephony calls.
- Average monthly national outgoing minutes continued to decline as the average minutes for residential fixed lines declined by 5%. However, average minutes for business fixed lines increased by 2% compared to a 3% decline in 2018 .



FIXED LINE TELEPHONY SERVICE REVENUE

- Fixed line revenues declined by 4% between 2018 and 2019. This was mainly due to the drop in number of subscriptions, which affected the fixed line rental revenue.
- The average monthly revenue per user for national calls only remained at 4.1 in 2019 as well. Similarly, the average revenue including international calls remained at 4.8.





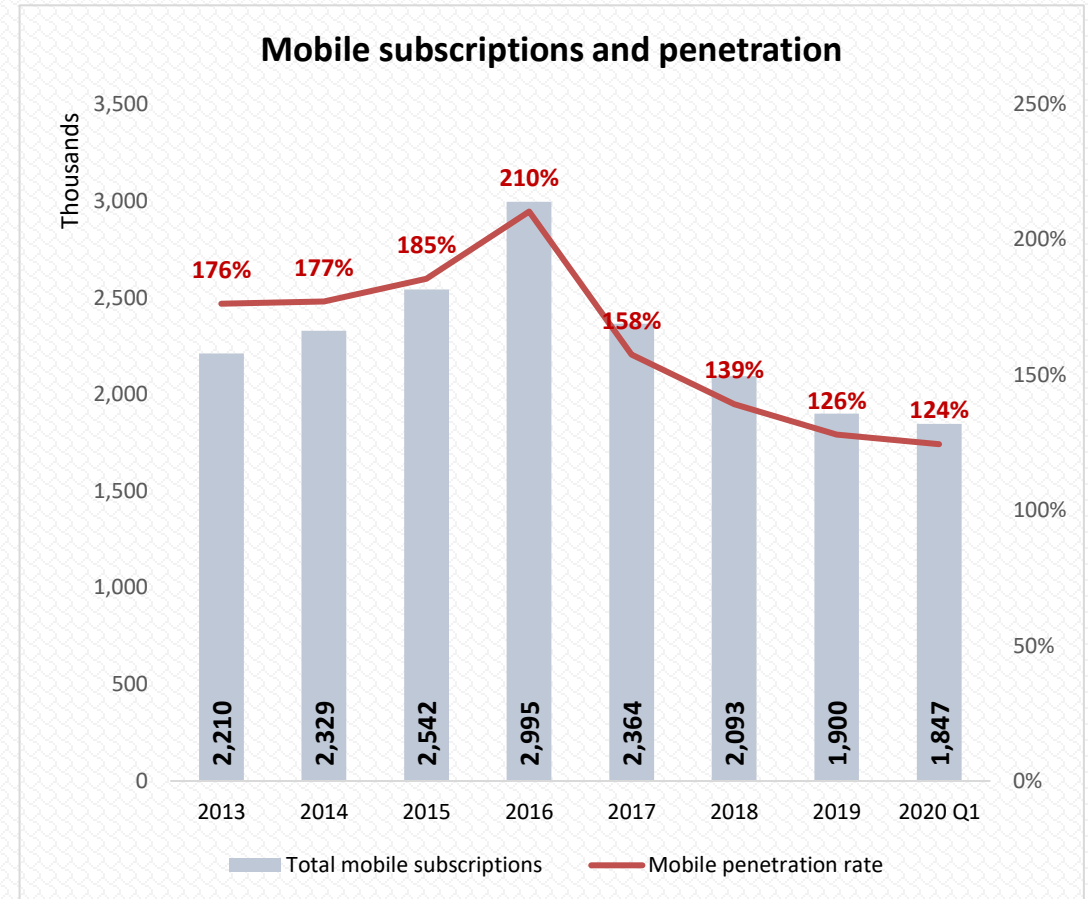
MOBILE SERVICES

MOBILE SERVICES

- At the end of 2019 the number of mobile subscriptions decreased by 9% relative to the previous year.
- At the end of 2019 postpaid subscriptions dropped by 15% compared to the end of 2018 while prepaid subscriptions dropped by 7% for the same period.

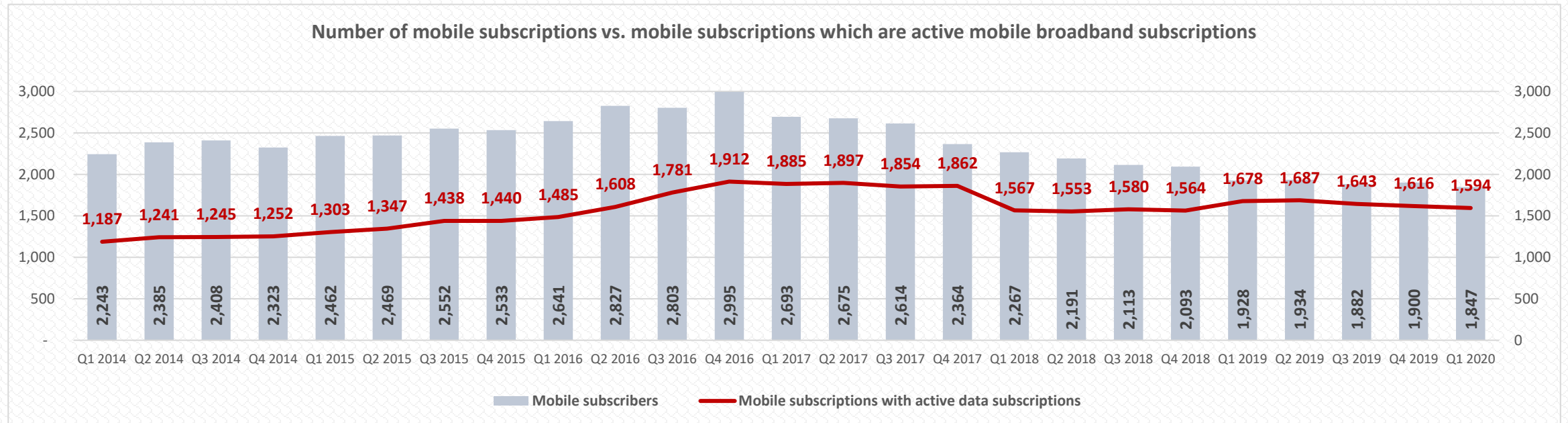
End of Q1 2020	1,847,352	Number of total mobile subscriptions
	124%	Penetration rate

	2015	2016	2017	2018	2019	Q1 2020
Total	2,541,688	2,994,865	2,364,477	2,092,714	1,900,361	1,847,352
% of Prepaid	78%	81%	74%	69%	71.5%	71%
% of Postpaid	22%	19%	26%	31%	28.5%	29%



MOBILE SUBSCRIPTIONS WITH ACTIVE DATA SUBSCRIPTIONS

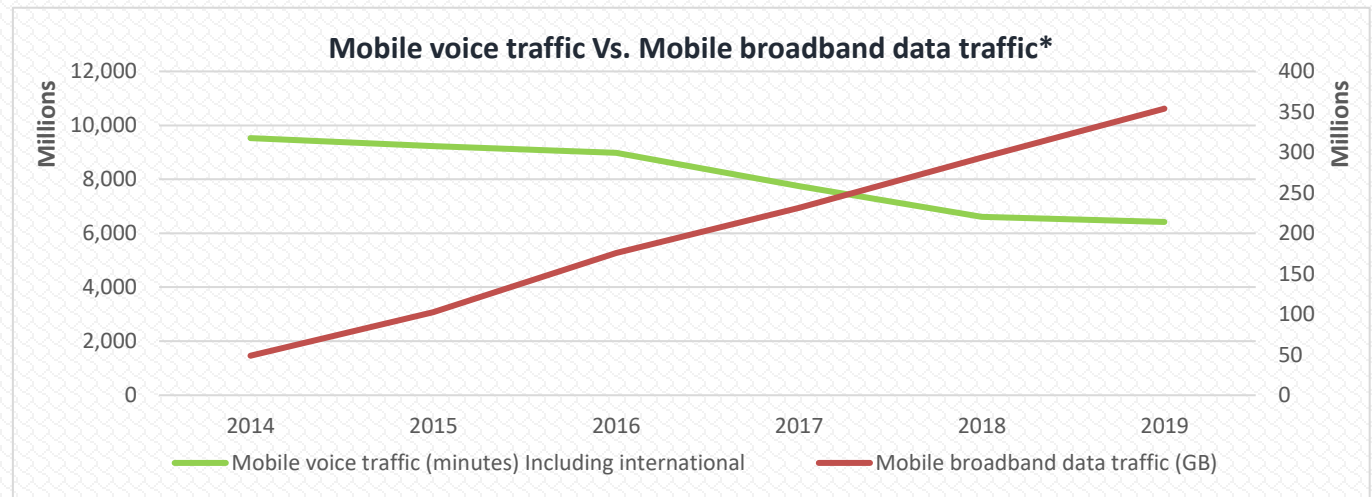
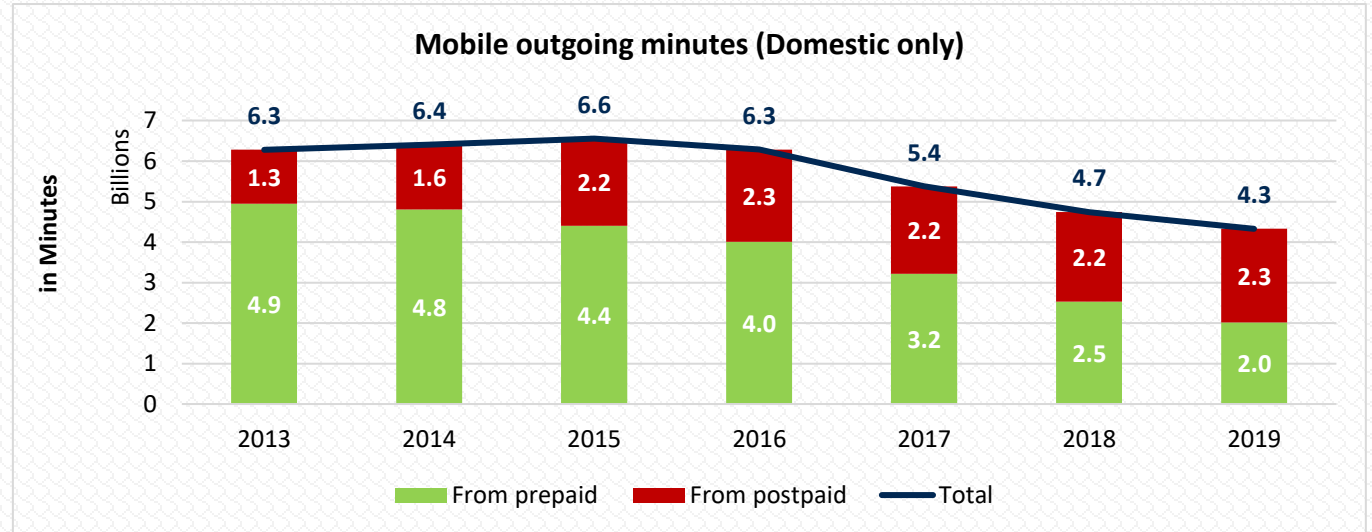
- At the end of Q1 2020, there were 1.59 million mobile subscribers with mobile data subscription (pay per use, add-on and bundles) compared to 1.19 million subscribers in Q1 2014 (Increased by 34%).
- Active mobile broadband subscriptions (pay per use, add-on and bundles) represent 86% of total mobile subscriptions at the end of Q1 2020 compared to 87% of total mobile subscriptions at the end of Q1 2019.



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

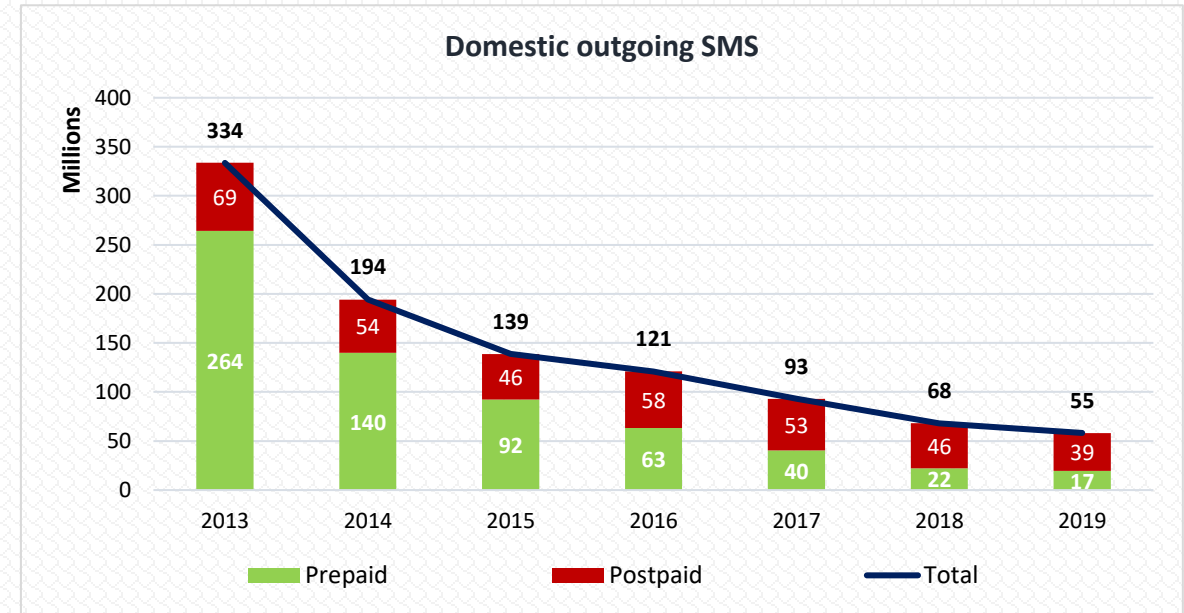
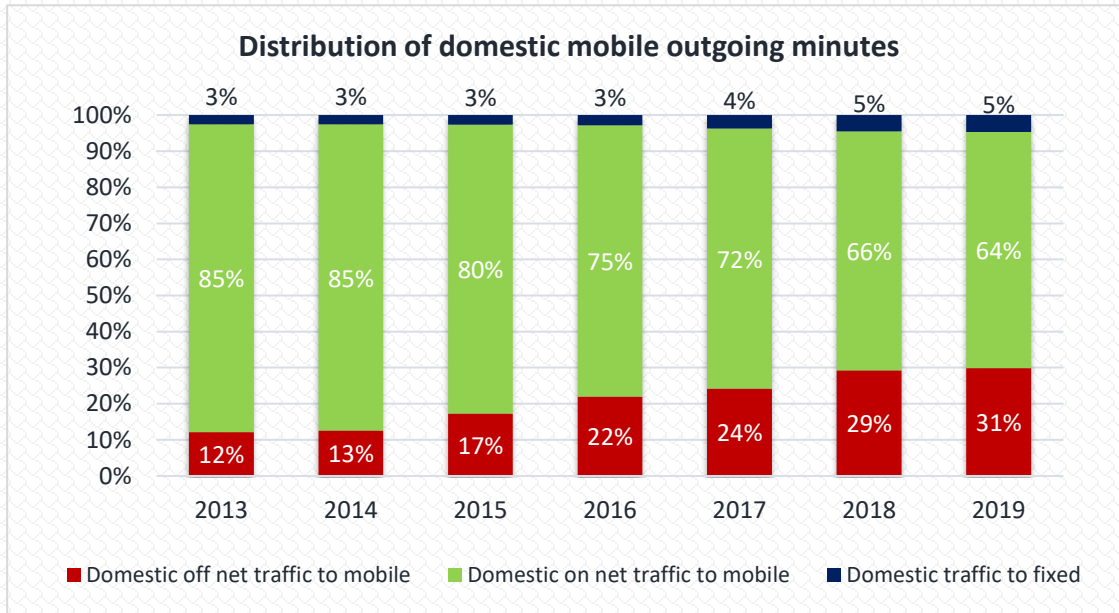
MOBILE TRAFFIC

- At the end of Q4 2019, mobile generated 4.3 billion domestic minutes, representing a (9%) drop compared to the previous year (2018).
- The compound annual growth rate is (7.5%) in domestic mobile originated traffic between 2014 and 2019.
- Comparing 2019 to 2018, the domestic postpaid mobile outgoing minutes increased by 5%, while the traffic originated from prepaid decreased by (20%), which was mainly due to the increase in percentage of postpaid subscribers.
- While total mobile voice traffic (including international calls) decreased by (3%), data traffic increased by around 21% relative to 2018.



*Data traffic is used for all Internet activities

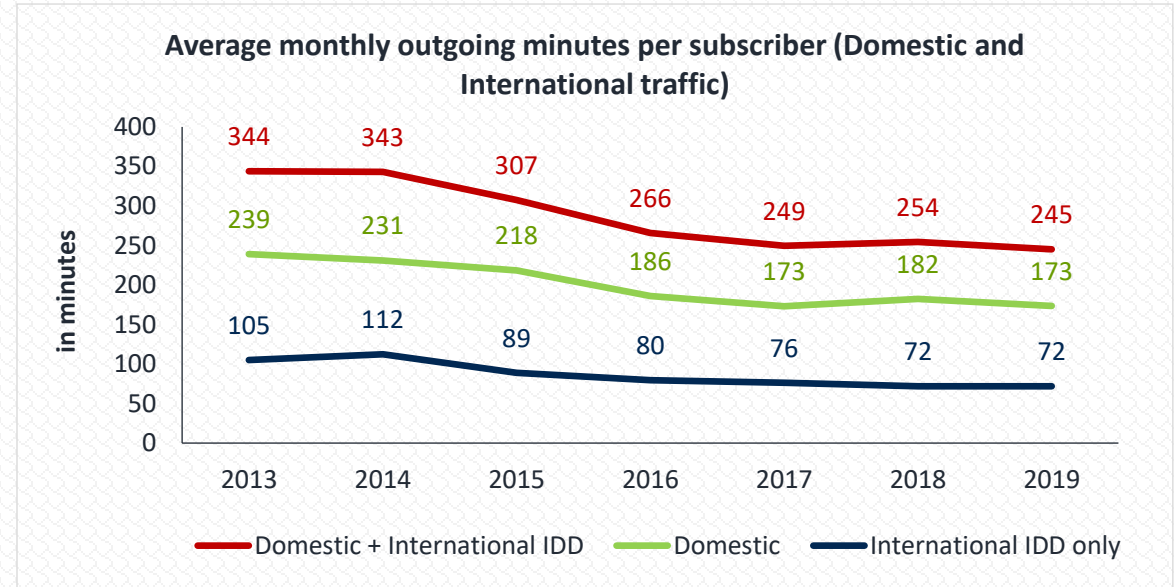
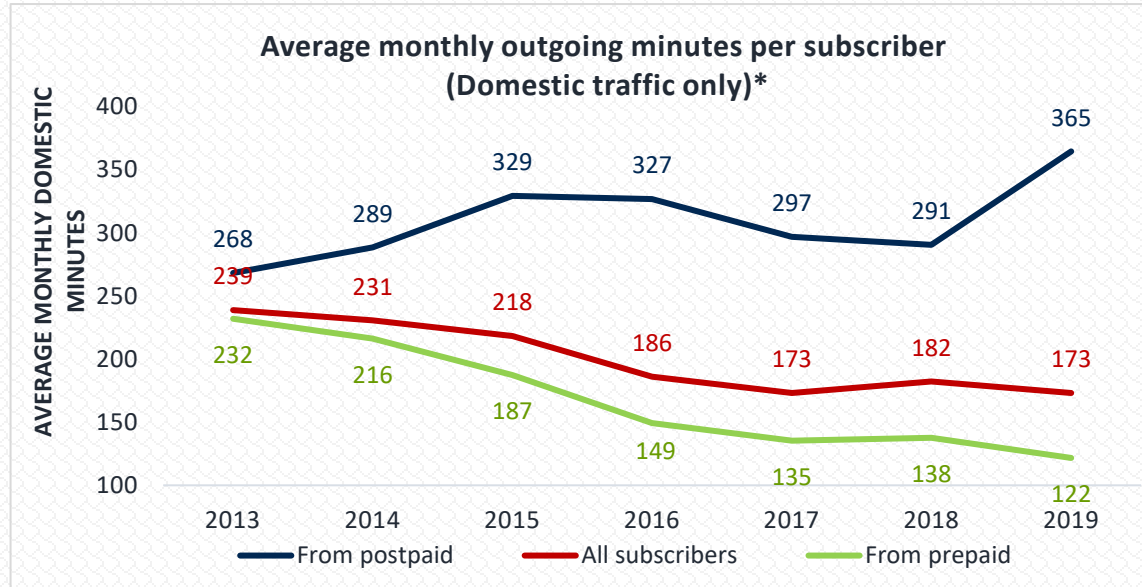
MOBILE TRAFFIC



- In 2019, domestic mobile originated on-net traffic dropped to 64% relative to the previous year.
- In 2019 the off-net voice traffic has slightly increased to reach 31% compared to 29% during 2018, one driver of this increase is the new mobile packages which removed unlimited on-net calls and increased free-local minutes.

- Increased use of over-the-top (OTT) services/applications (e.g. WhatsApp) has led to further decline in total SMS as it dropped by (19%) between 2018 and 2019 mainly due to the increase in mobile data services/applications (e.g. Snapchat, WhatsApp).

MOBILE AVERAGE MONTHLY OUTGOING MINUTES

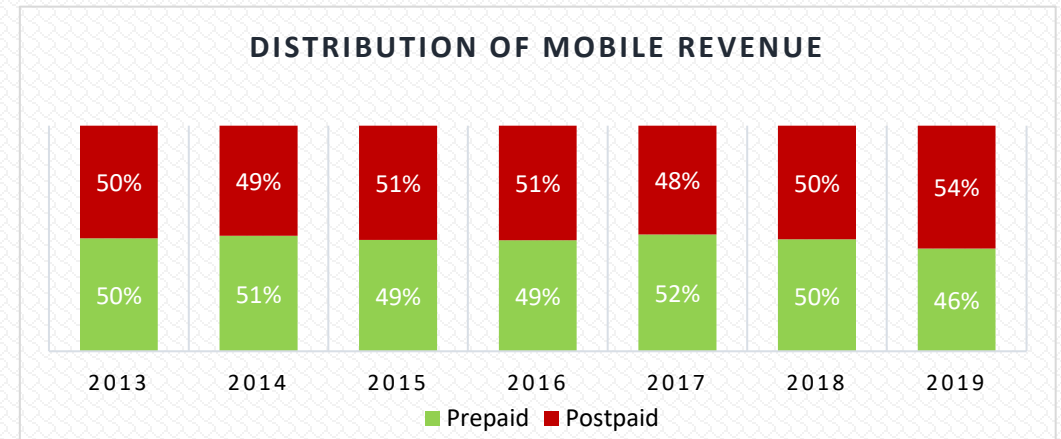
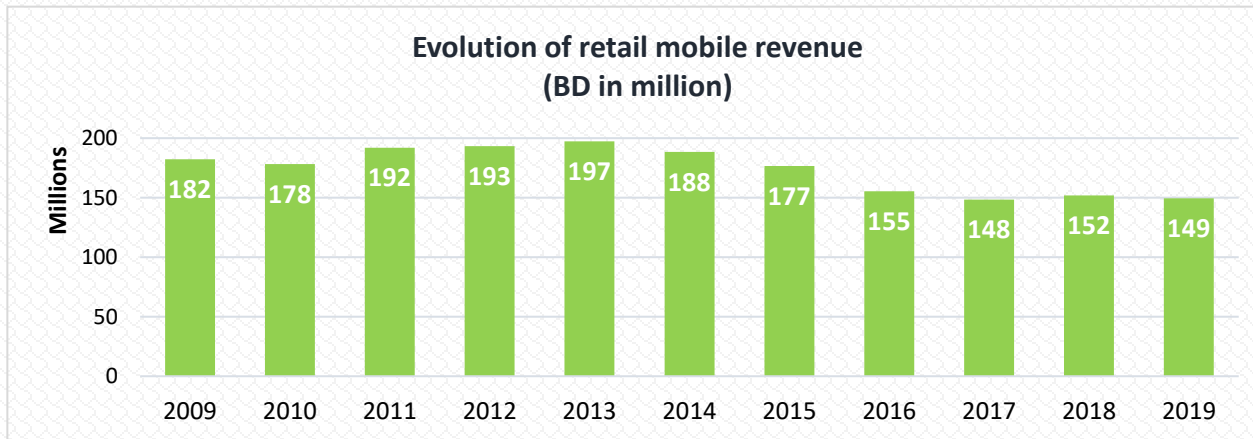
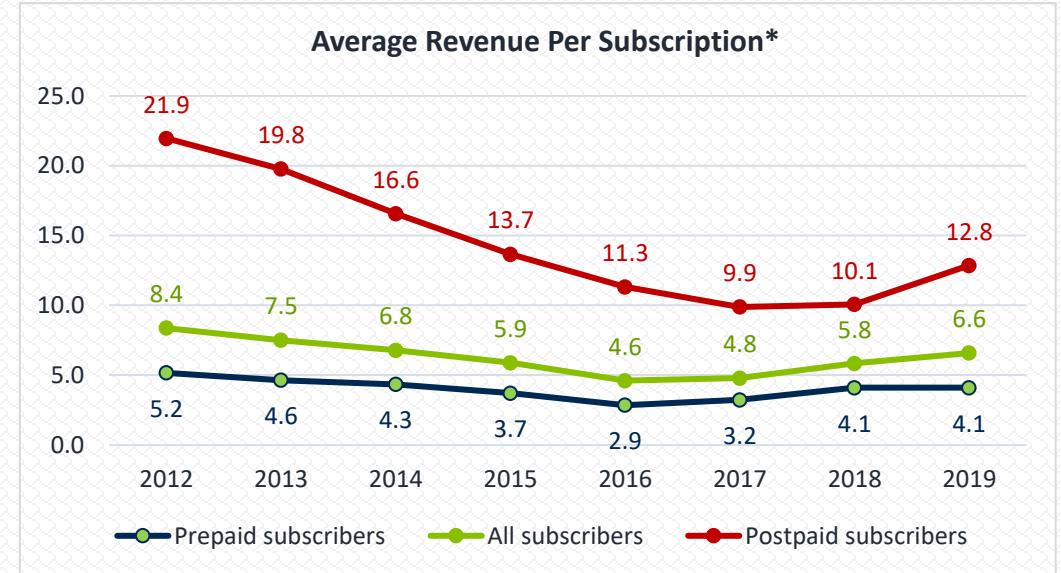


- As shown in the figures above, the average monthly domestic traffic (in minutes) for postpaid subscribers increased from 290.57 minutes in 2018 to 364.5 minutes in 2019, a 25% increase relative to the previous year.
- The average monthly domestic traffic (in minutes) for prepaid customers dropped from 137.7 minutes in 2018 to 121.6, a drop of (12%).
- Similar to the previous year, the average monthly volume of international direct dial (IDD) calls remained at 72 minutes in 2019 as well.

**Increase in postpaid average monthly outgoing minutes per subscriber (domestic traffic) is due to a drop in average mobile subscriptions (mainly postpaid) relative to the previous year seeing as an operator has revised its data, hence a higher figure.*

MOBILE REVENUE

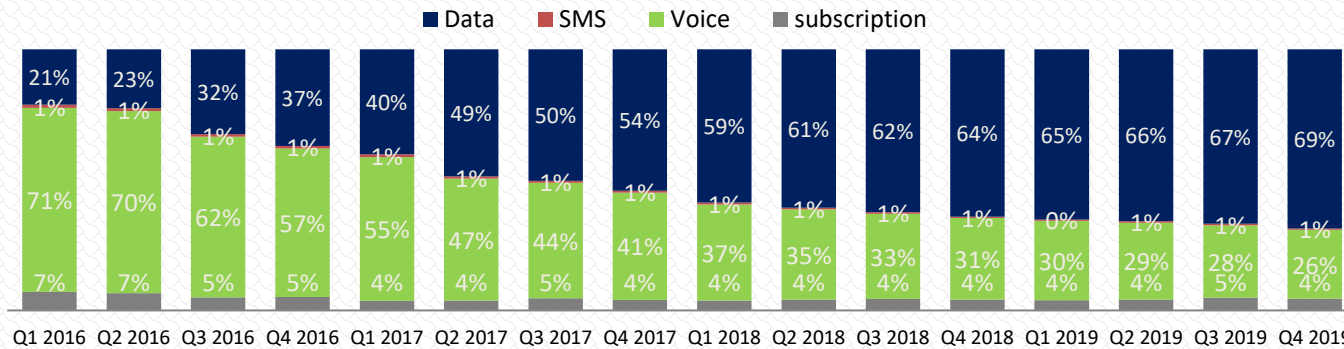
- Between 2018 and 2019, Mobile revenue slightly dropped by (2%) to reach BHD149 Million.
- Revenue generated from postpaid mobile subscriptions represented 54% of the total retail mobile revenue in 2019.
- ARPU for postpaid subscribers has increased by around 28% relative to 2018. On the other hand, prepaid ARPU remained stable between 2018 and 2019. Overall, Mobile ARBU increased by around 13%.



*Increase in postpaid ARPU is mainly attributed to an increase in Data services and Subscriptions' revenues and a drop in the average number of subscriptions, hence a higher figure.

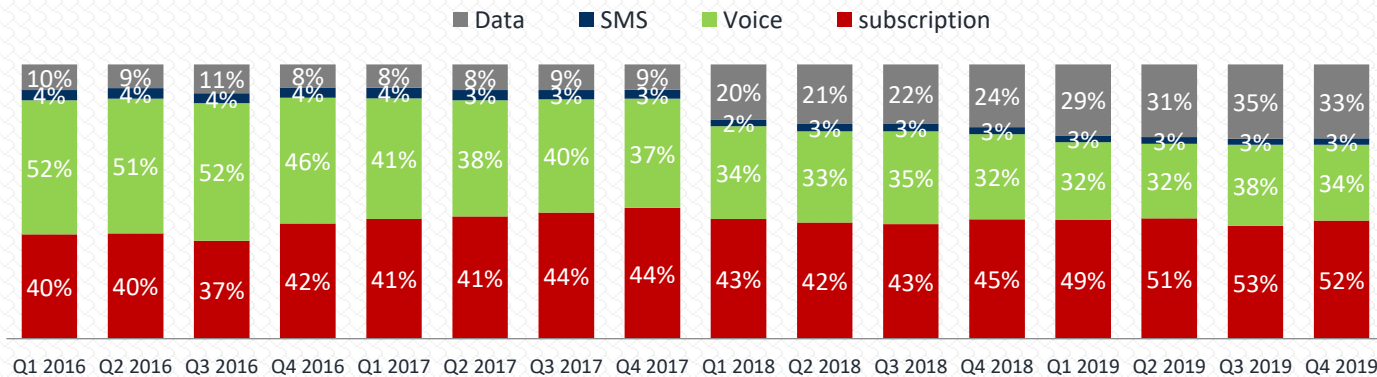
DISTRIBUTION OF MOBILE REVENUE

Distribution of mobile revenue - Prepaid

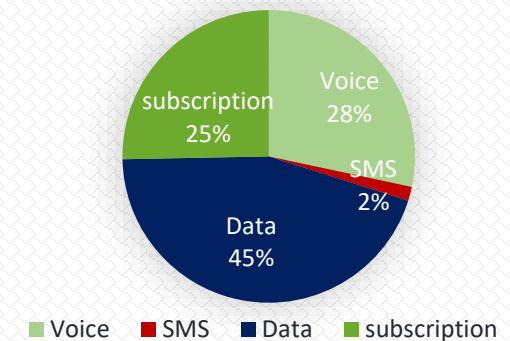


- Evidently, Data services are the main source of revenue for mobile operators. Followed by Voice revenues which have slightly dropped relative to the previous year. Subscription on the other hand has slightly increased, followed by SMS, which remains constant.
- In 2019, prepaid data revenue has become the main source of revenue generating 69% in Q4 2019, at the same time voice revenue declined to 26% from 31% in Q4 2018.
- For postpaid, subscription became the main source of revenue increasing to 52% in Q4 2019 and voice increased to 34%. Data has also increased to 33% compared to 24% in Q4 2018.

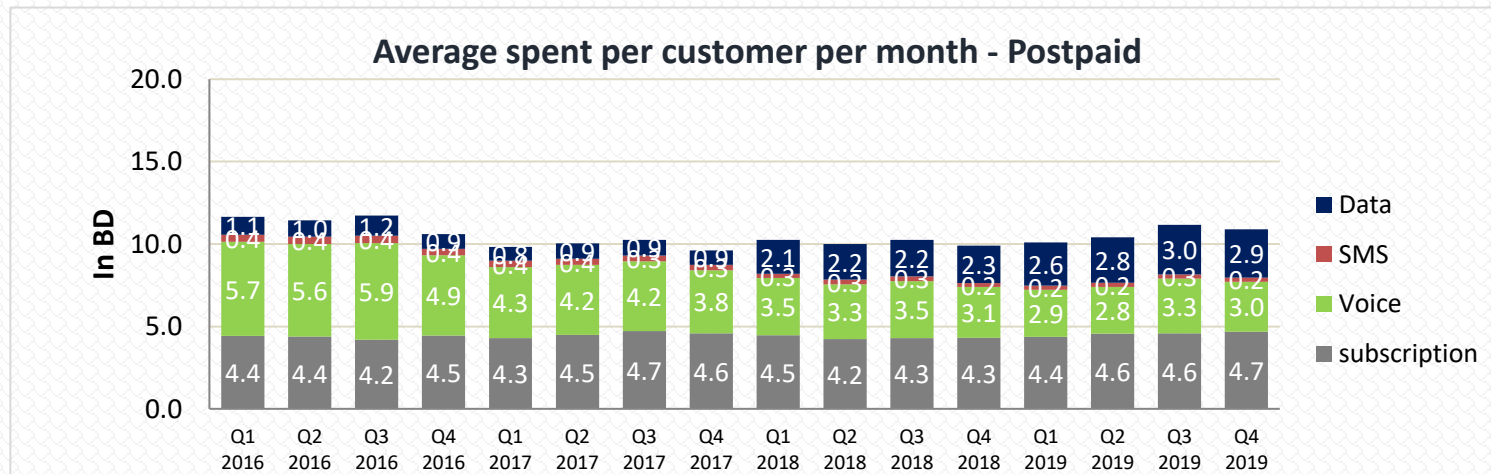
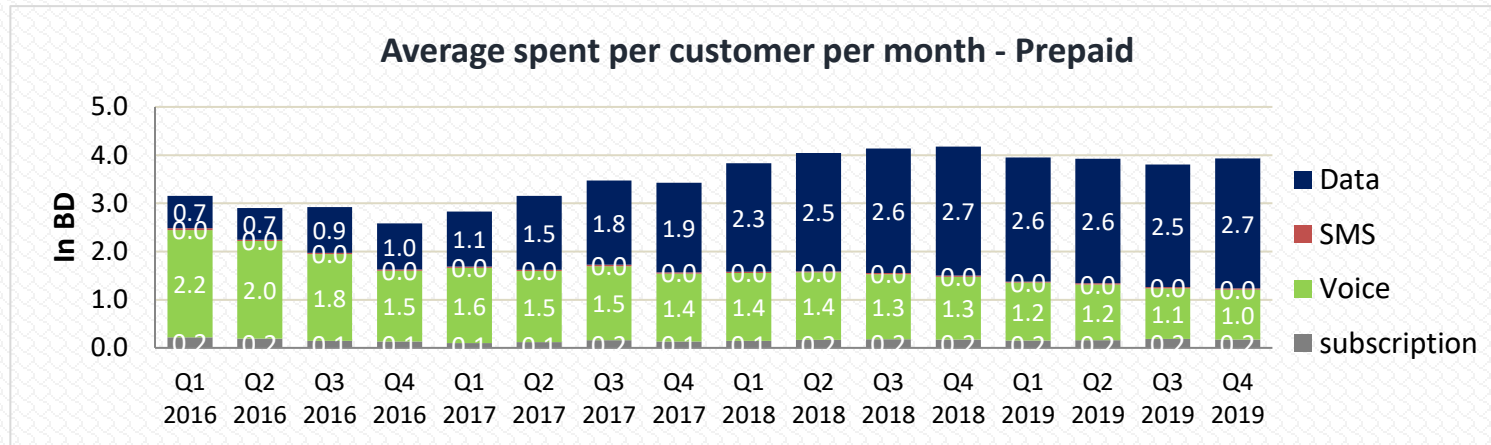
Distribution of mobile revenue - Postpaid



Distribution of mobile revenue (prepaid+postpaid) - 2019

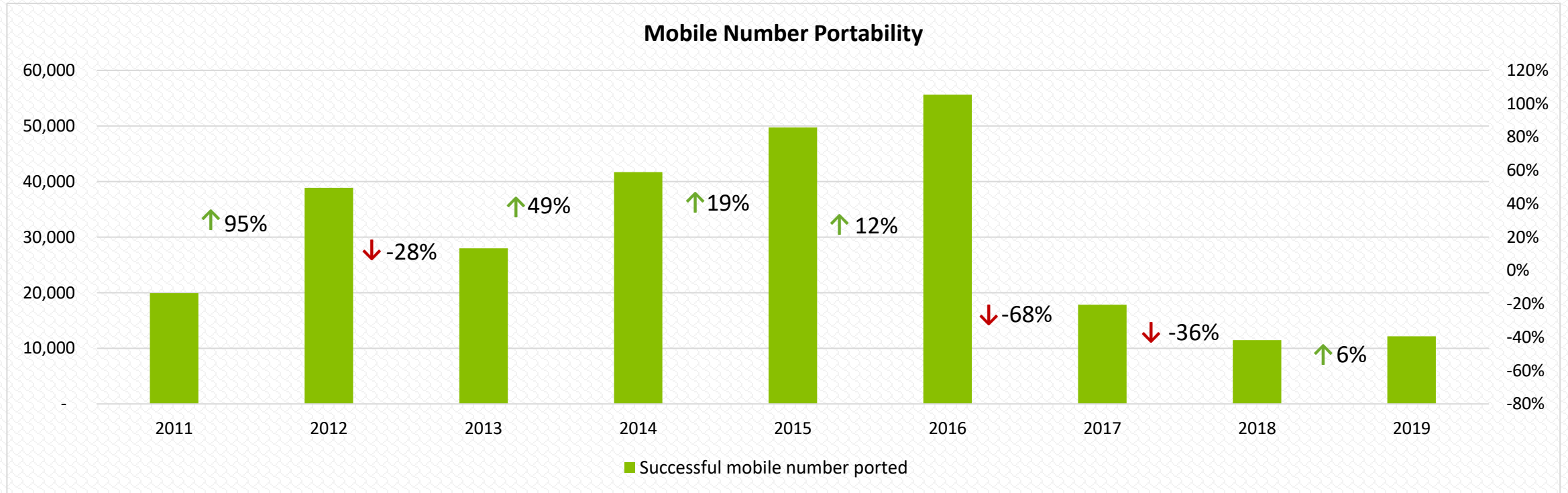


MOBILE AVERAGE SPEND PER SUBSCRIBER PER MONTH



- During Q4 2019, prepaid subscribers spent BD 3.9 monthly for their subscription, phone calls, SMS and data, comparing to BD 4.2 spent on the same services during Q4 2018.
- While in Q4 2019, postpaid subscribers spent BD 10.9 monthly for the same services comparing to BD 9.9 during Q4 2018.
- For prepaid subscribers, the average monthly spend per subscriber for voice decreased from BD1.3 during Q4 2018 to BD 1.0 during Q4 2019, at the same time, data revenue remained at BD2.7.
- During Q4 2019, the average monthly spend per postpaid subscriber for data increased to BD 2.9 while voice revenue slightly decreased from BD 3.1 in Q4 2018 to BD 3.0 in Q4 2019.

MOBILE NUMBER PORTABILITY



- The volume of mobile numbers successfully ported slightly increased compared to 2018. By the end of 2019, the successful mobile number ported were 12,182, a slight increase compared to 11,462 in 2018, which is the second lowest figure since the introduction of mobile number portability in Bahrain.
- A total of approximately 275,414 mobile numbers had been ported successfully since the introduction of number portability in July 2011.

A man in a blue sweater is sitting on a bench, talking on a white smartphone. A dark suitcase is next to him. The background is blurred, suggesting an airport or travel setting. A green semi-transparent box is overlaid on the left side of the image, containing the text.

INTERNATIONAL OUTGOING MINUTES

INTERNATIONAL OUTGOING MINUTES

- During 2019 international outgoing minutes dropped even further to reach 1,649 million minutes compared to 1,958 million minutes during 2018.
- OTT continues to place competitive pressure on traditional voice service providers as evident by the consecutive drops.

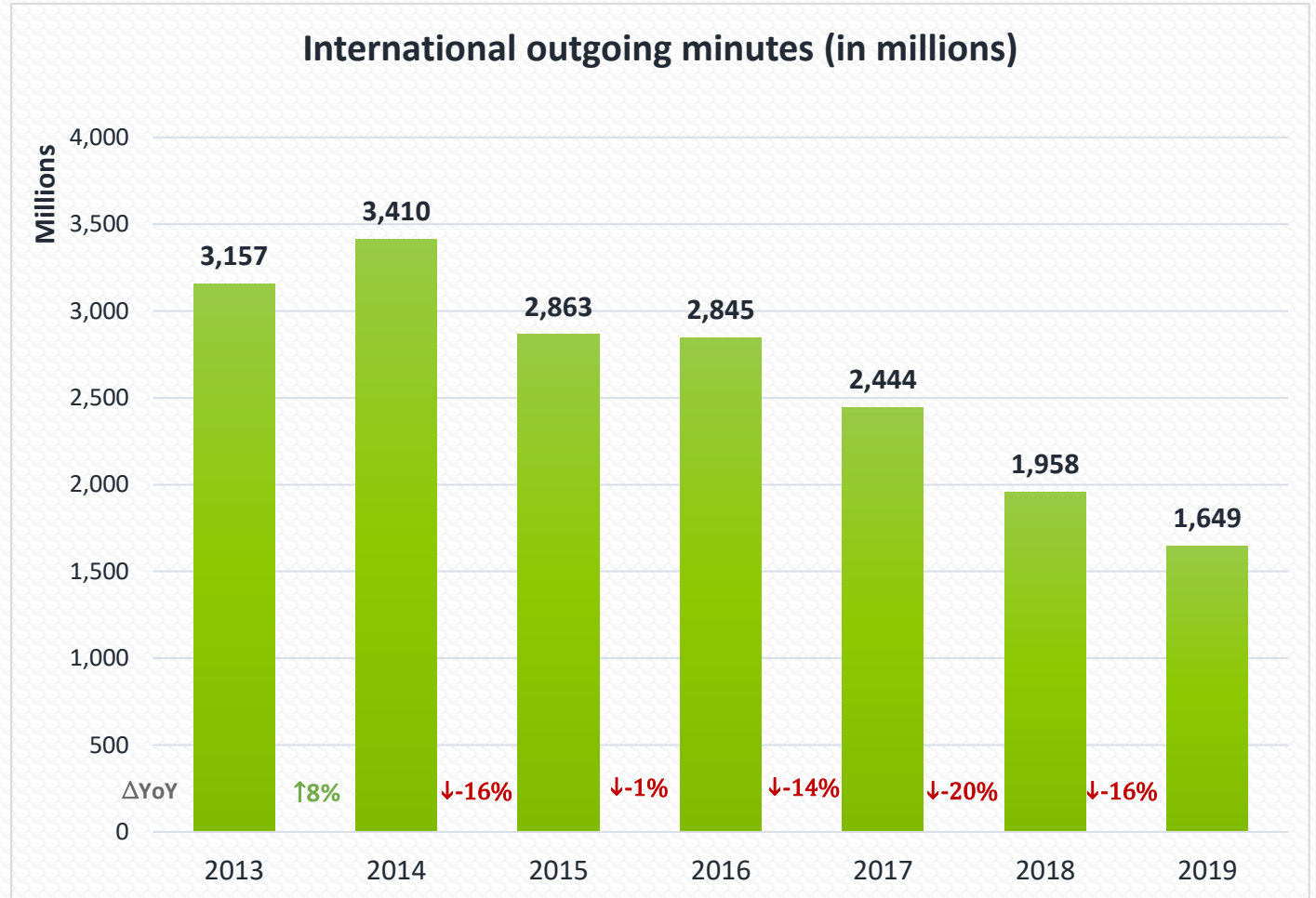
2019	1,648,774,574	International outgoing minutes
	99%	of calls originated from mobile
	93%	of outgoing traffic went to Zone 2

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

- International outgoing minutes dropped by (16%) between 2018-2019 and International calls revenue also decreased by (25%) over the same period.
- This decline indicates ongoing competitive pressure on pricing, as well as change in the overall subscribers' behavior and usage.

International outgoing minutes

Minutes (in millions)	2015	2016	2017	2018	2019	% Change 2018-2019
GCC	79.9	70.8	65.3	58.7	49.6	(15%)
Zone 2	2,562	2,606	2,259	1,805	1,529	(15%)
Zone 3	63.9	48.7	35.6	32.9	26.9	(18%)
Zone 4	157.7	120.3	84	58.6	42.5	(28%)
Total	2,833	2,845.5	2,443.9	1,995	1,649	(16%)

International calls revenue

Revenues (BD in millions)	2015	2016	2017	2018	2019	% Change 2018-2019
GCC	8.6	6.7	5.2	4.48	3.86	(14%)
Zone 2	41.7	30.2	20.26	12.2	8.6	(30%)
Zone 3	4.3	3.5	2.38	1.93	1.67	(13%)
Zone 4	8.8	6.6	4.9	3.97	2.9	(27%)
Total	63.2	47	32.7	22.6	17.06	(25%)

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

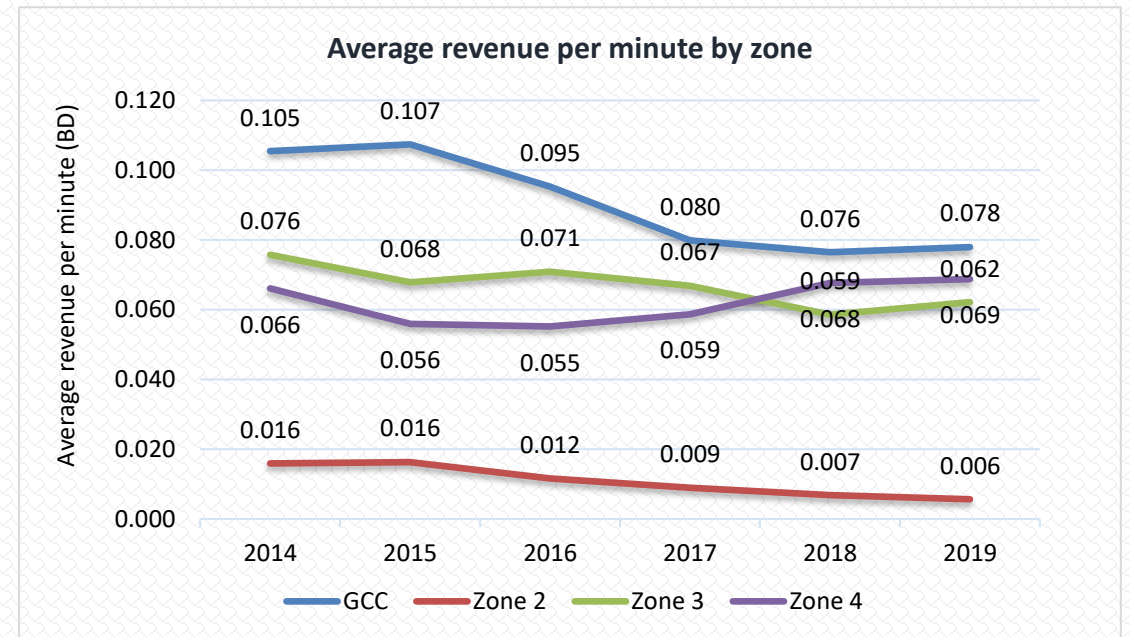
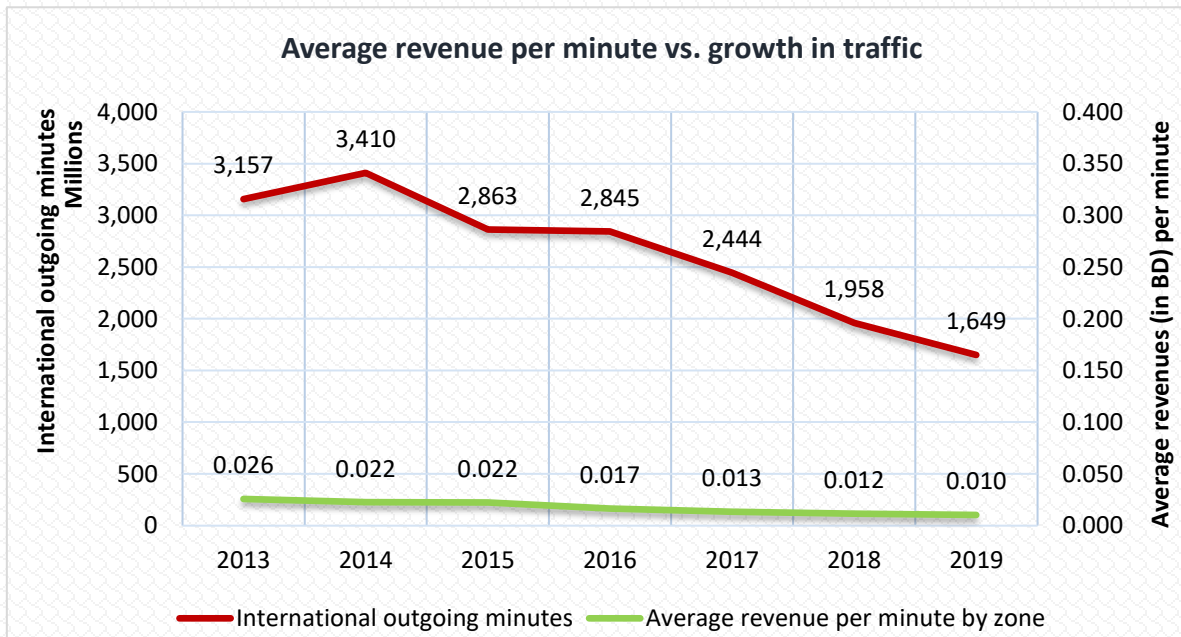
Zone 2: Calls to South Asian countries (Bangladesh, India, Pakistan, the Philippines and Sri Lanka).

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

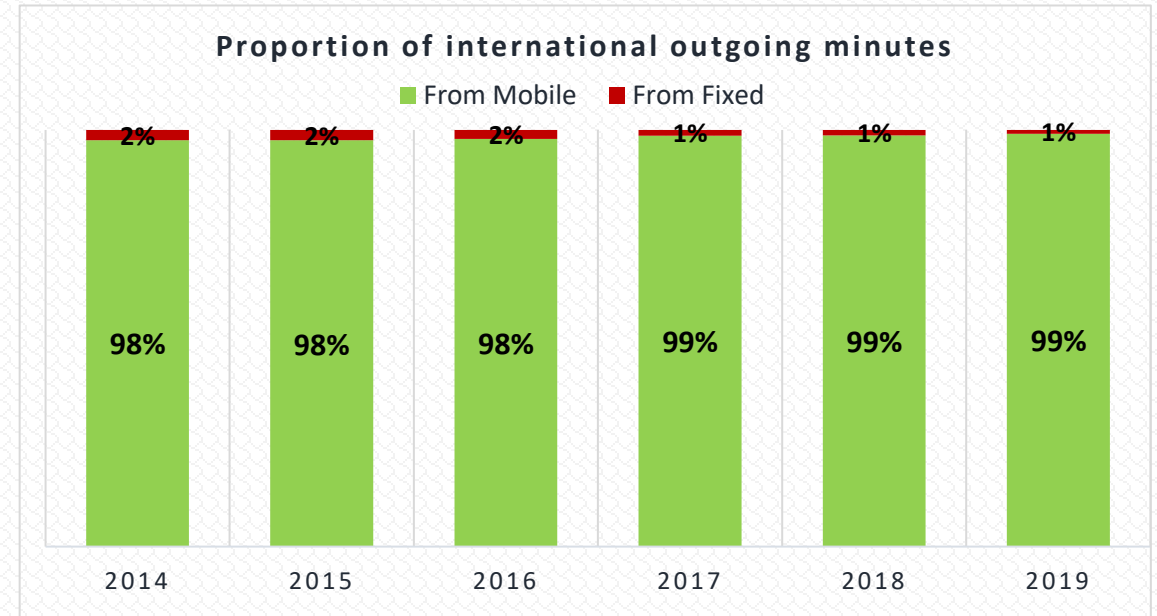
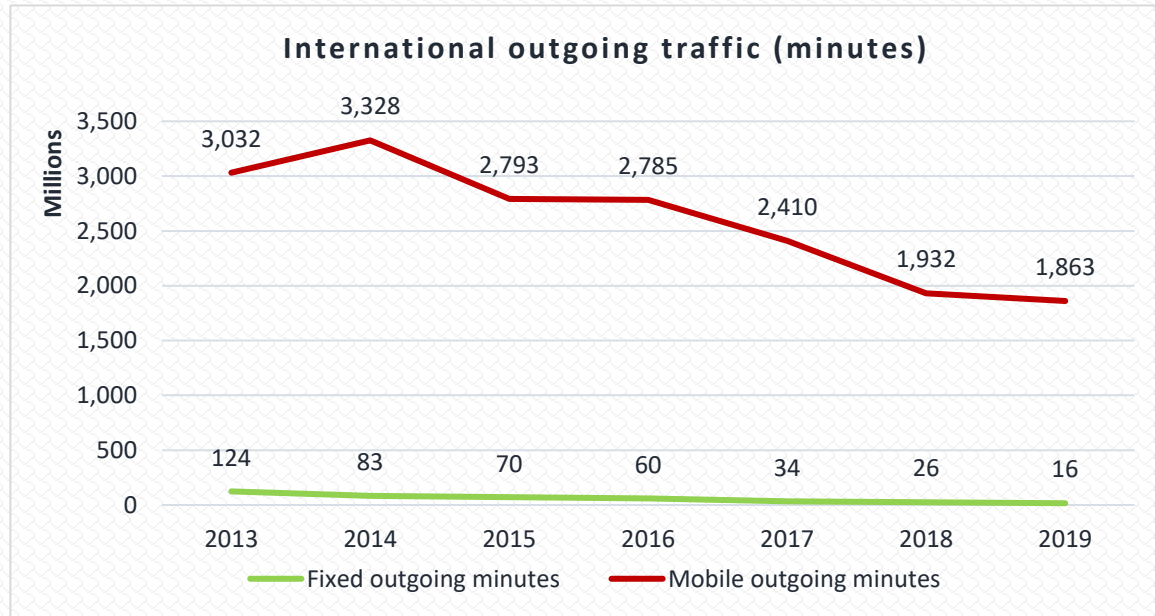
Zone 4: Calls to all other international destinations.

AVERAGE REVENUE PER MINUTE FOR INTERNATIONAL CALLS

- The average revenue per minute for international calls has fallen by almost 54% from 2014 to 2019.
- Despite the substantial decrease in traffic, the average revenue per minute dropped by (11%) between 2018 and 2019.
- In comparison to 2018, the biggest decrease in average revenue per minute in 2019 was mainly from Zone 2 (17% drop).



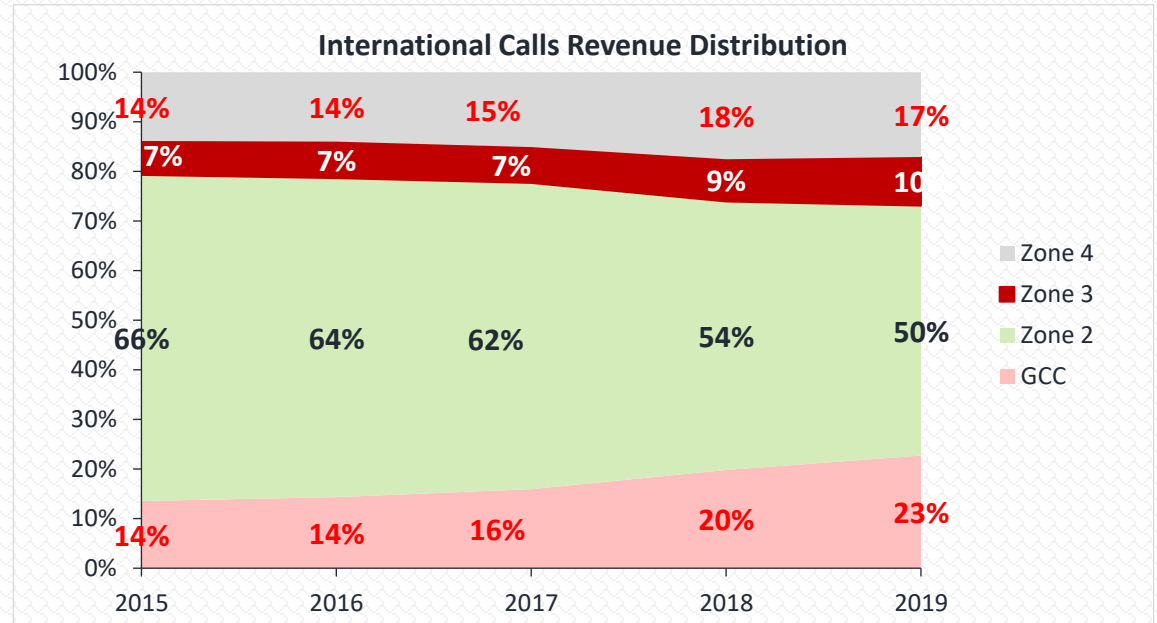
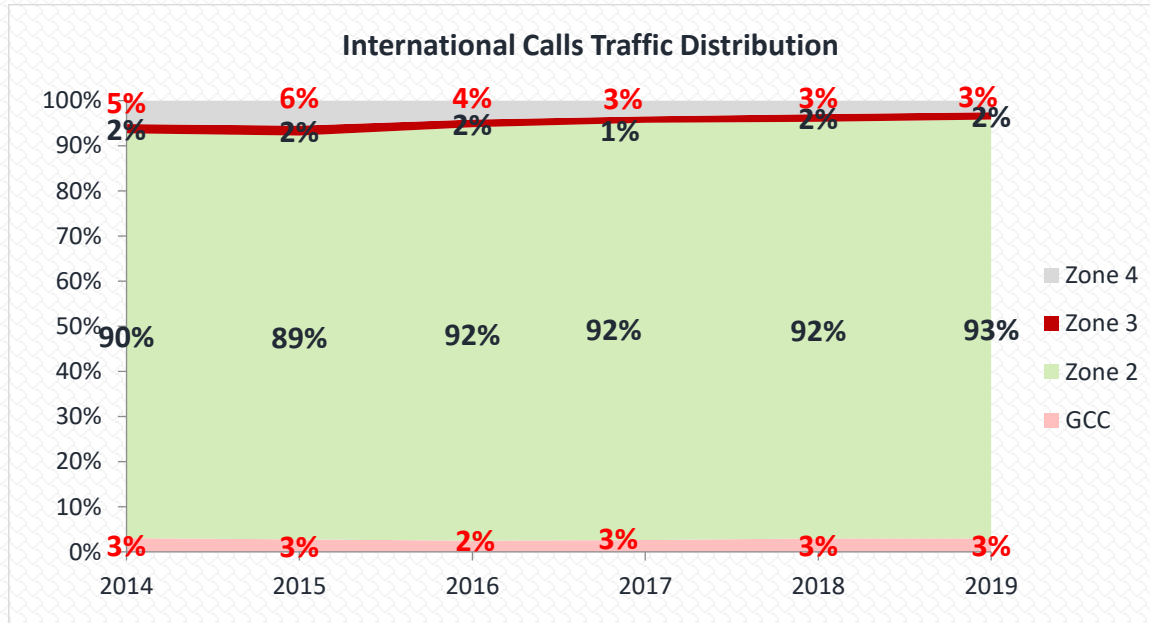
INTERNATIONAL OUTGOING MINUTES



- In 2019, International outgoing minutes originated from mobile decreased by (3.6%) compared to 2018, while minutes originated from fixed fell by (36%) over the same period due to significant decrease in calls originated from prepaid cards.
- International outgoing minutes originated on mobile represented 99% of the total international outgoing minutes in 2019.

**Minutes including prepaid calling card traffic..*

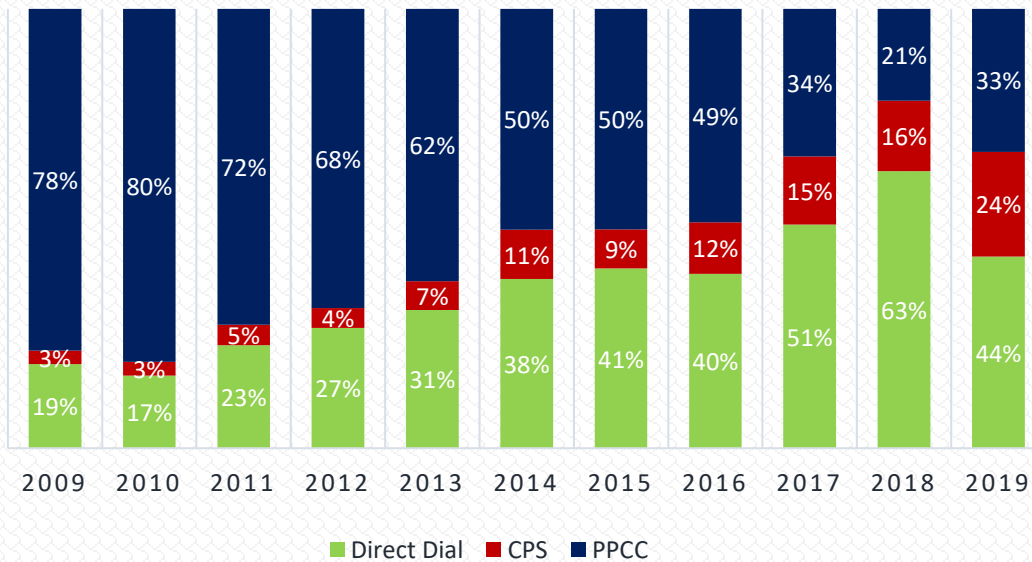
INTERNATIONAL TRAFFIC VS. REVENUES BY DESTINATION CALLED



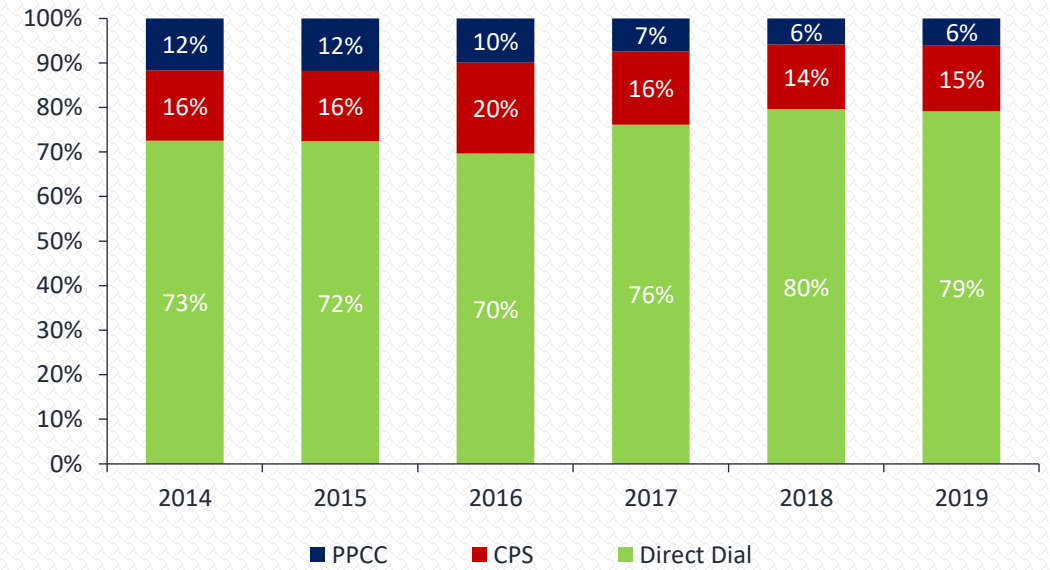
- 93% of total international calls **minutes** were made to Zone 2 (South Asian countries) in 2019.
- 50% of international **revenues** were generated from calls to Zone 2 (South Asian countries) in 2019.
- The average revenue per minute earned from calls to South Asian countries (Zone 2) continues to be relatively low.
- By end of 2019, the total international voice traffic in minutes was 1,648,774,574 with revenue of BD 17,063,327.

DISTRIBUTION OF INTERNATIONAL OUTGOING MINUTES/REVENUES BY ACCESS TYPE - FIXED TELEPHONY

DISTRIBUTION OF INTERNATIONAL MINUTES ORIGINATED FROM FIXED BY ACCESS TYPE

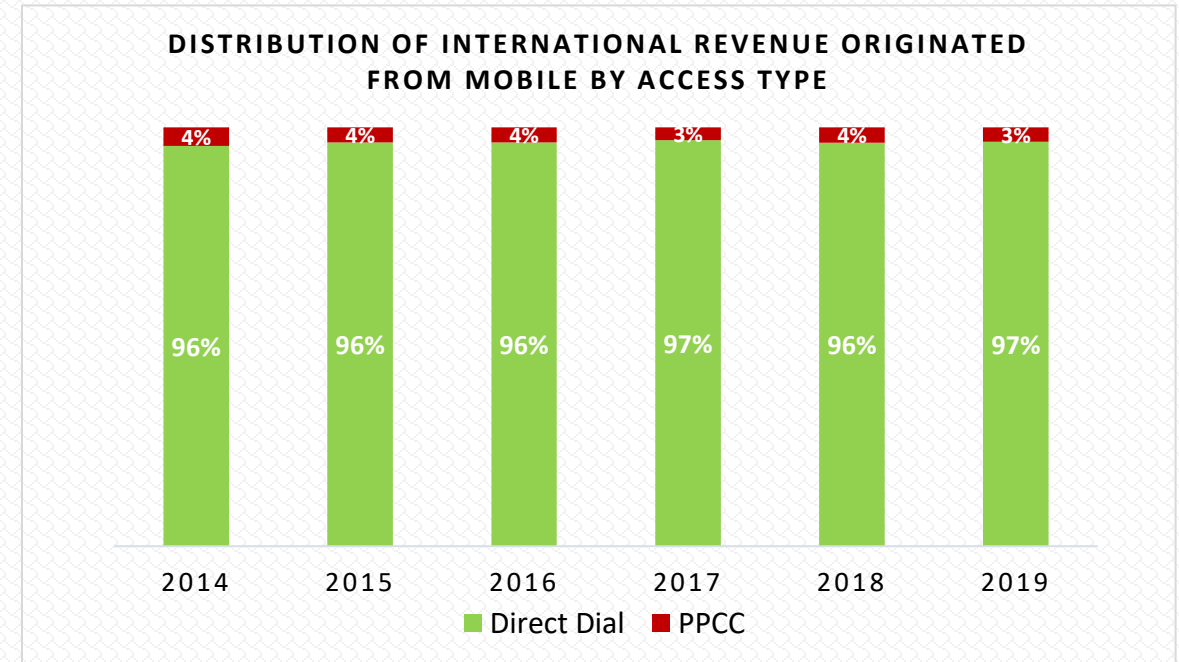
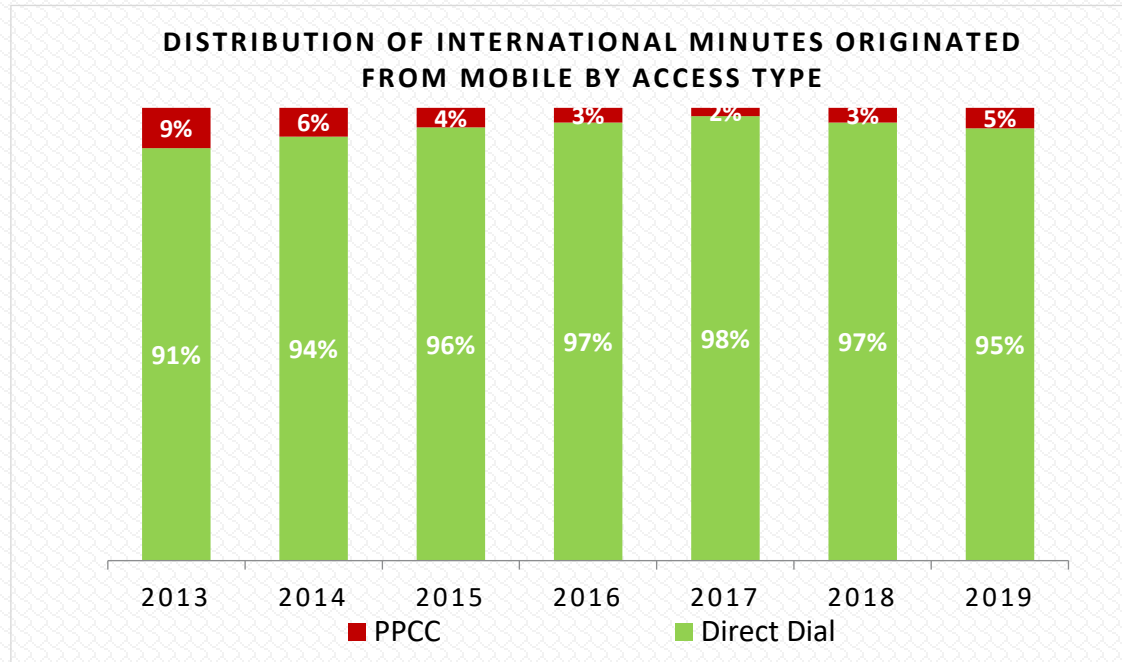


DISTRIBUTION OF INTERNATIONAL REVENUES ORIGINATED FROM FIXED BY ACCESS TYPE



- While the CPS has only 24% from total fixed originated minutes in 2019, its revenue has represented 15% of total fixed telephony traffic revenues.
- At the same time, percentage of revenue from direct dial in 2019 slightly dropped from 80% to 79%.

DISTRIBUTION OF INTERNATIONAL OUTGOING MINUTES/REVENUES BY ACCESS TYPE - MOBILE



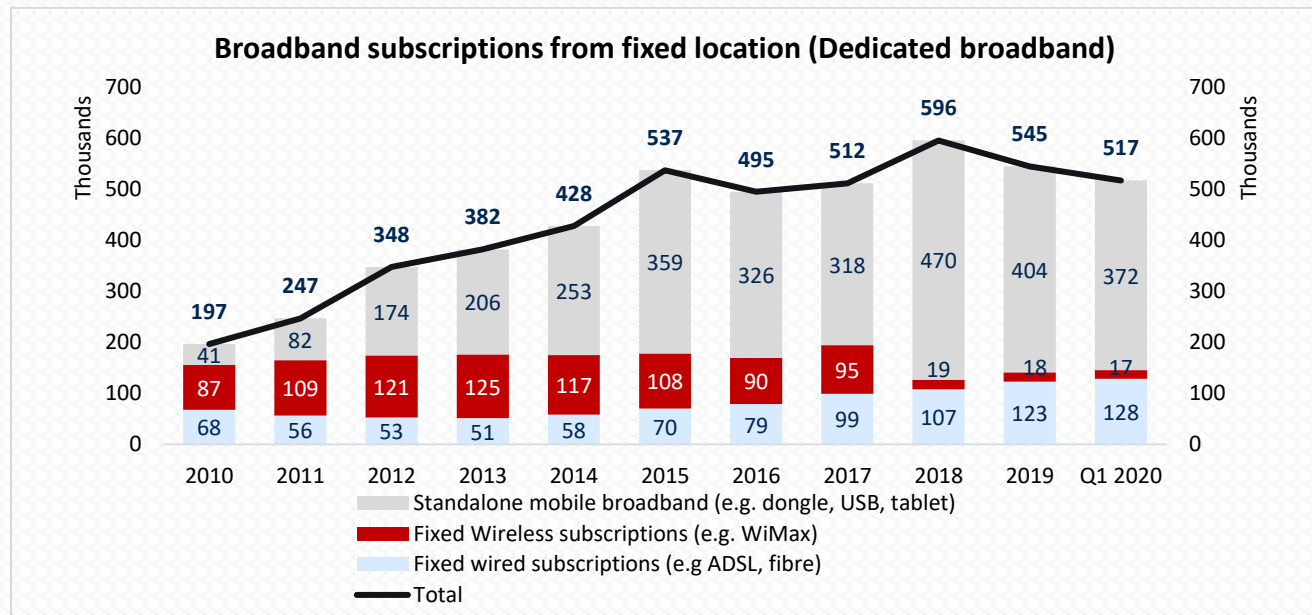
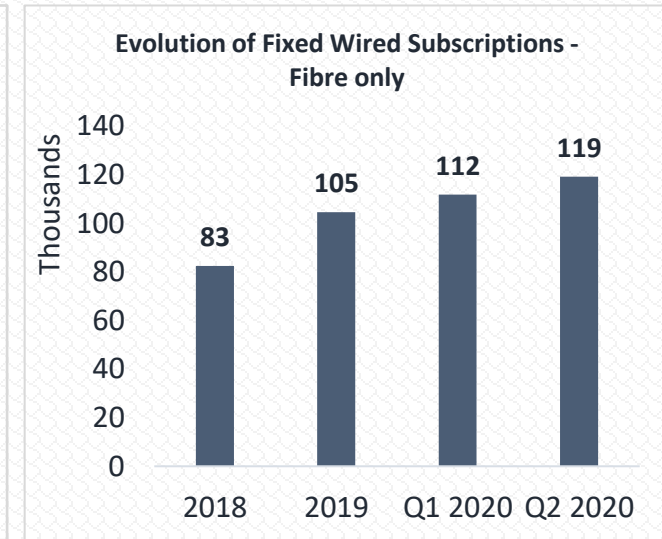
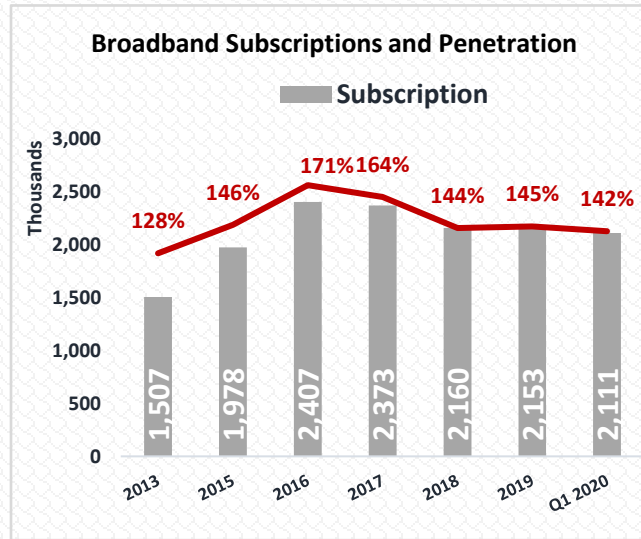
- In 2019, international direct dial traffic originated from mobile represented 95% of the total traffic. The pricing of mobile-originated international direct dial services has become even more competitive in recent years.
- The direct dial represented 97% of total revenues originated from mobile.

BROADBAND SERVICES



BROADBAND SERVICES

- At the end of Q1 2020, there were approximately 2.11 million broadband subscriptions compared to 2.2 million at the end of Q1 2019 (4% drop), representing a broadband penetration of 142%.
- In comparison to 2019, the penetration rate has dropped further due to a drop in subscriptions and population base as well.
- Broadband subscription growth is mainly driven by growth in the number of mobile broadband subscriptions as it represented around 93% of total broadband subscriptions at the end of Q1 2020. However, Fixed Broadband has also increased by 15% by the end of Q1 2020 relative to 2018.
- At the end of Q1 2020, there were 517 thousand subscriptions for dedicated broadband services.

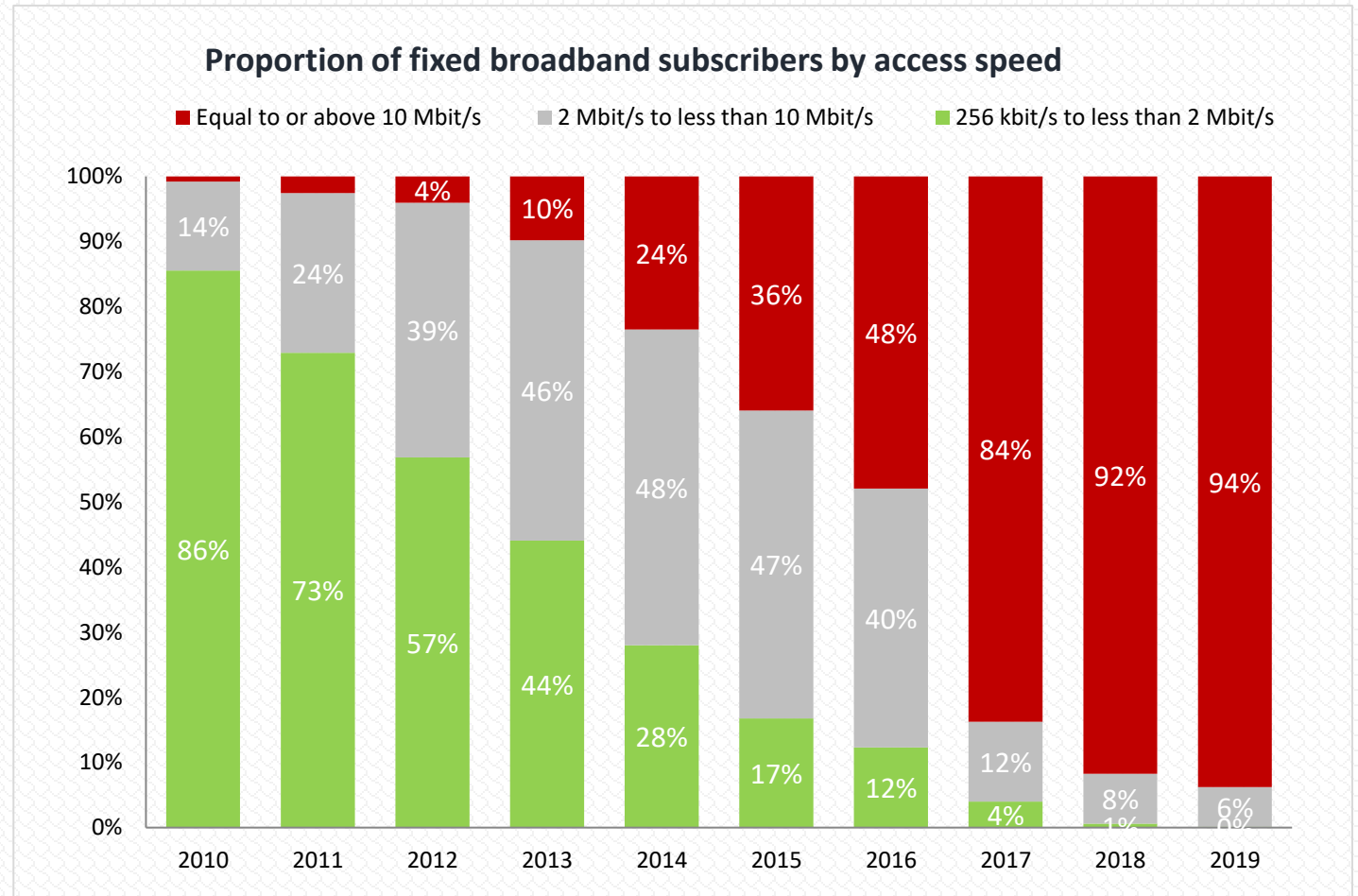


End of Q1 2020	2,111,405	Broadband subscription
	142%	Penetration rate
	93%	Mobile broadband subscriptions

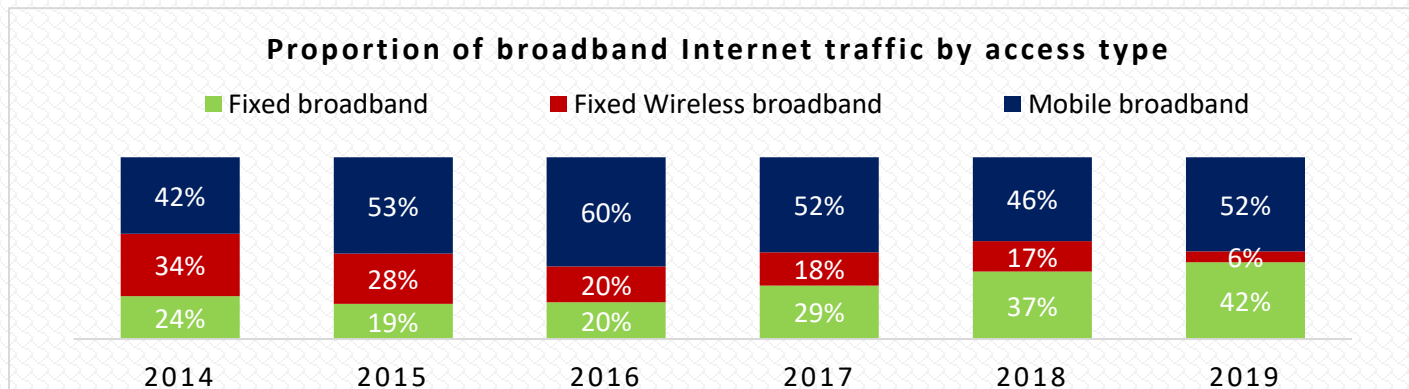
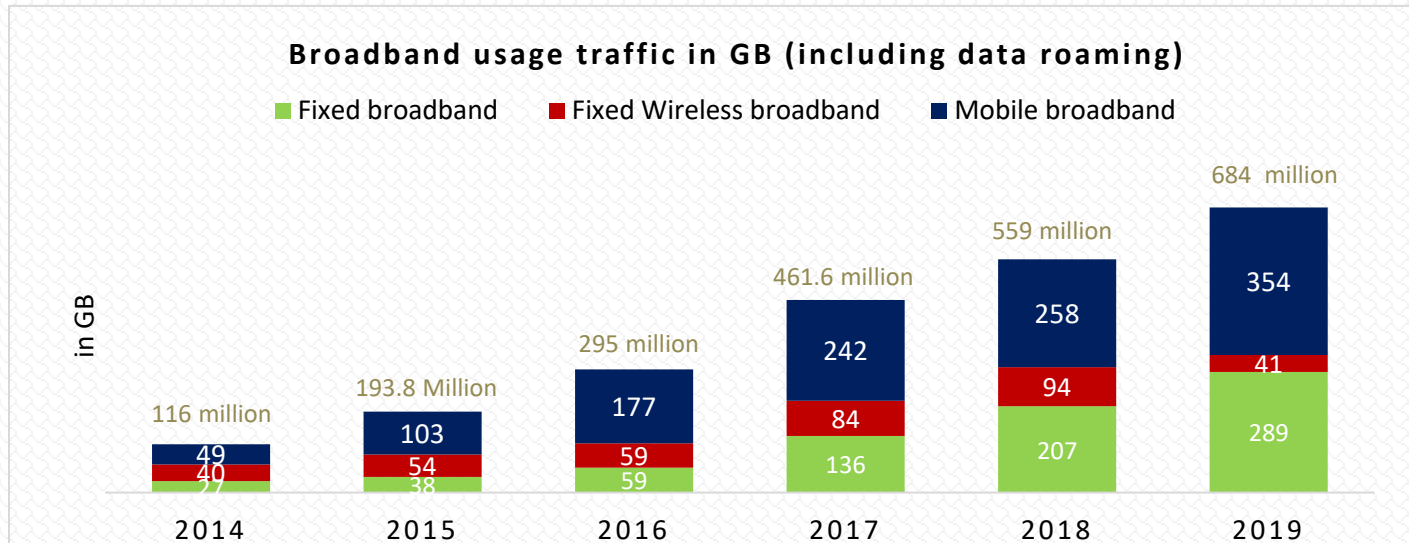
*In Dec 2018, an operator revised the number of Mobile broadband subscribers which led to a drop in the total number of Mobile broadband subscribers. Other operators have also revised their data as of 2019, hence the significant change in dedicated broadband figures compared to previous years.

PROPORTION OF BROADBAND SUBSCRIBERS BY ACCESS SPEED

- By the end of 2020 94% of fixed broadband subscribers were on plans with advertised speeds of 10 Mbps and above compared to only 10% in 2013.
- This indicates the increased use of subscribers for services that require a higher speed plus the affordability of the prices of higher speed packages.



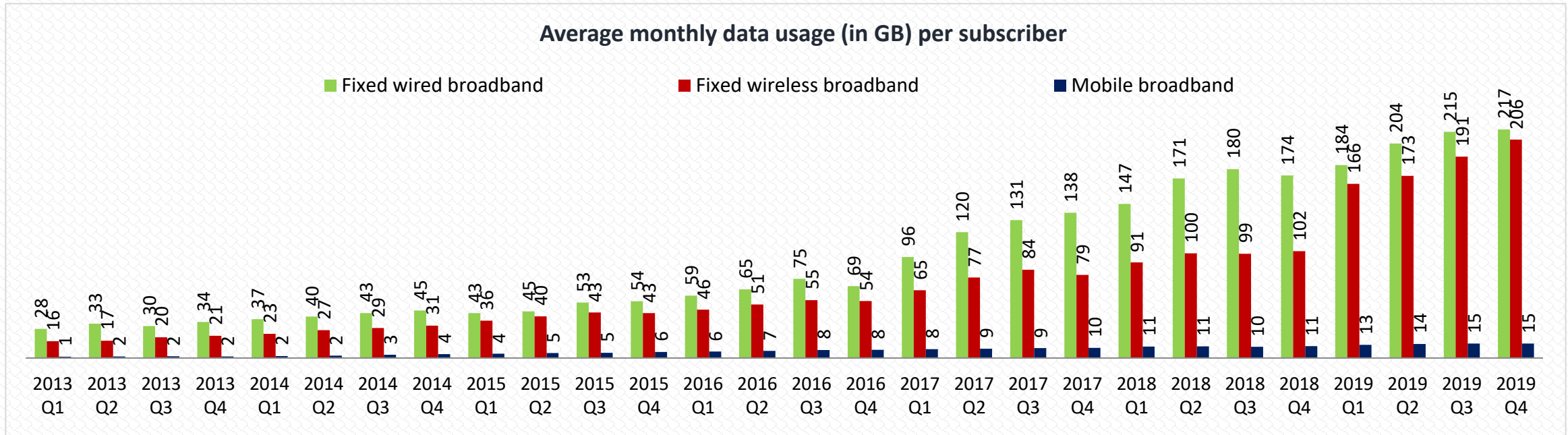
BROADBAND USAGE



- In 2019 total broadband usage reached about 684 million GB compared to 116 million GB in 2014 (Fivefold increase between 2014 and 2019)
- Between 2014 and 2019, Mobile broadband usage increased Sixfold.
- The traffic (in GB) generated from mobile broadband represented 52% of the total broadband usage in 2019, compared to 42% in 2014. This increase in Mobile Broadband traffic may be due to extra data allowance offered by Mobile Network Operators.
- Between 2018 and 2019, fixed wired broadband usage increased by 39% due to the increase in fibre uptake and monthly data allowance. Fixed wireless usage dropped by 56.5%, and mobile broadband usage increased by 37%.

**Drop in Fixed Wireless Broadband is due to an operator reporting fixed wireless under standalone mobile broadband*

AVERAGE USAGE (IN GB) PER BROADBAND SUBSCRIPTION

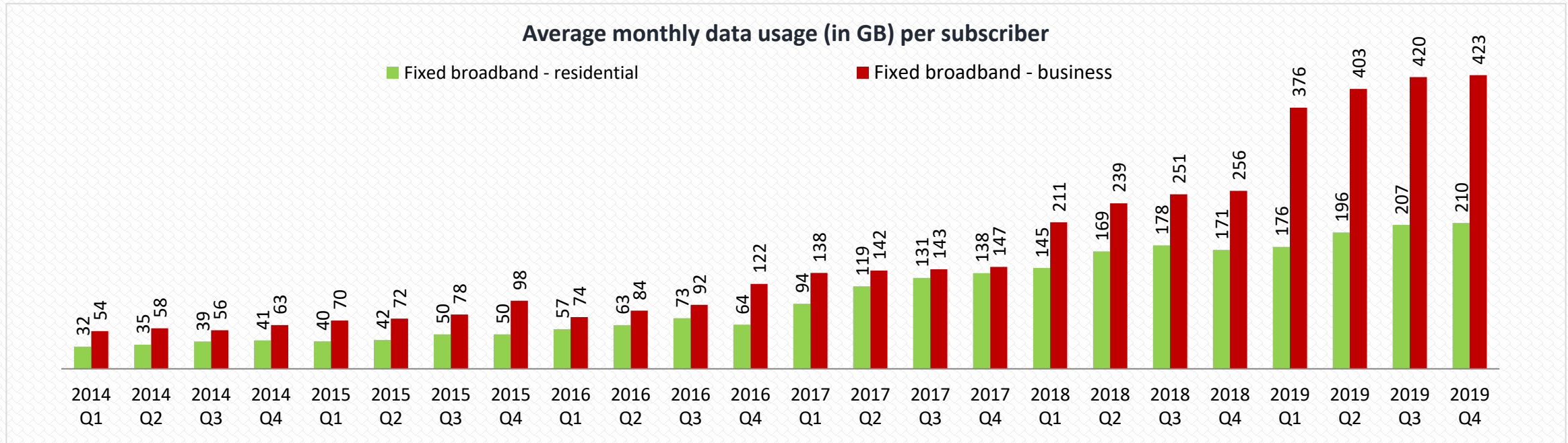


*Mobile broadband includes dedicated mobile broadband and broadband added to voice

** The increase in Fixed wireless broadband's average usage is due to the drop in subscriber base but customers with high usage remained

- 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. 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

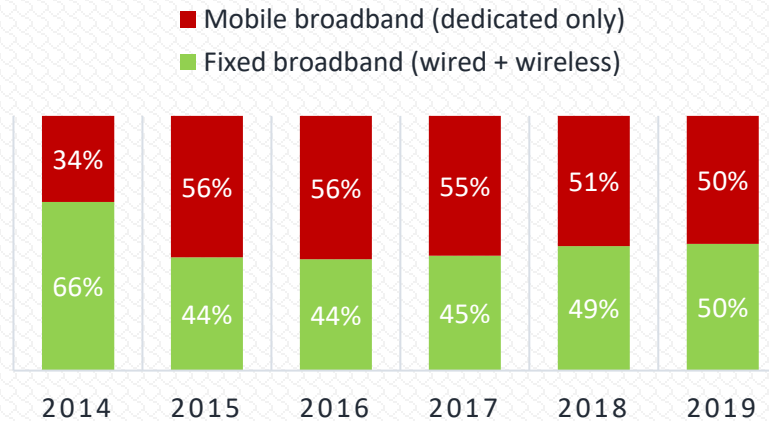


- Average monthly usage for Fixed broadband subscriptions continue to increase in 2019. Comparing Q4 2019 to Q4 2018, usage per month for residential fixed broadband subscribers increased by 35%, while usage per month for business fixed broadband subscribers increased by 94%.

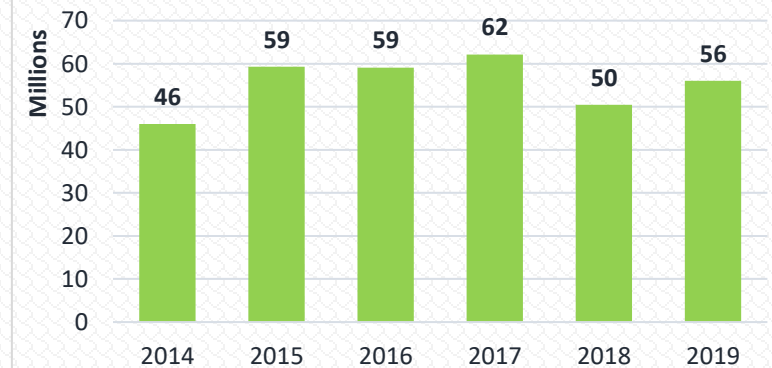
BROADBAND REVENUE

- Broadband revenues increased to reach 56 million BD at the end of 2019, indicating the increase in competitive pressure in broadband market.
- Revenue generated from mobile broadband represents 50% of total broadband revenue in 2019 compared to 51% in 2018.
- Revenue generated from business fixed broadband represents 19% of total fixed broadband revenue in 2019 compared to 22% in 2014.
- The reduction in residential broadband prices resulted in a significant increase in the average revenue per subscription by 58% over the last year reaching BD14.6, while the average revenue per subscription of business broadband has decreased by (8)% over the same period to reach BD 65.

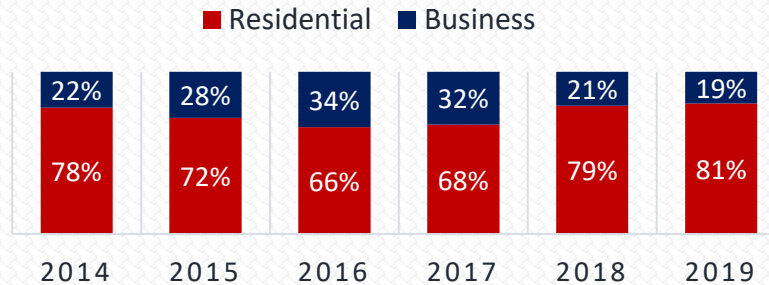
Distribution of broadband revenue



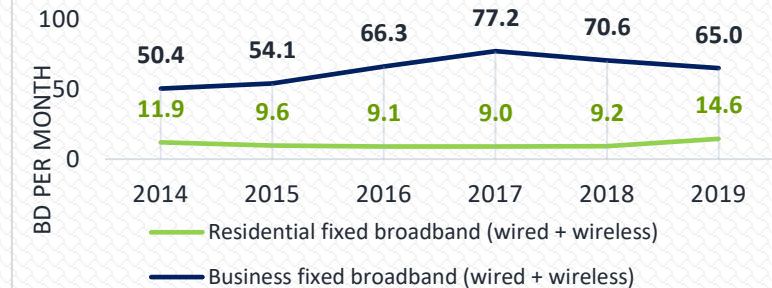
Total broadband revenue (BD in million)



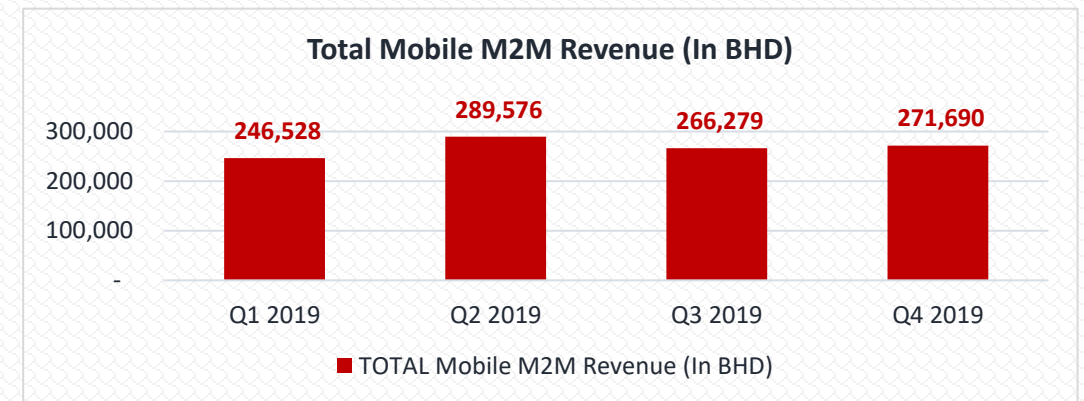
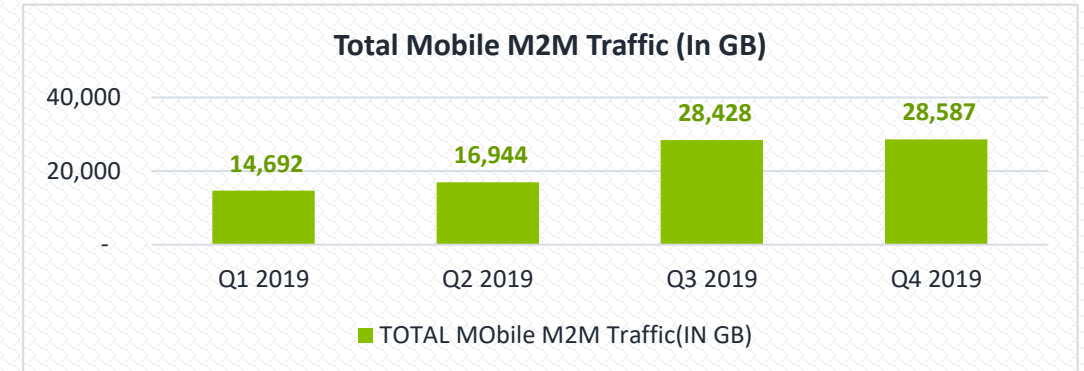
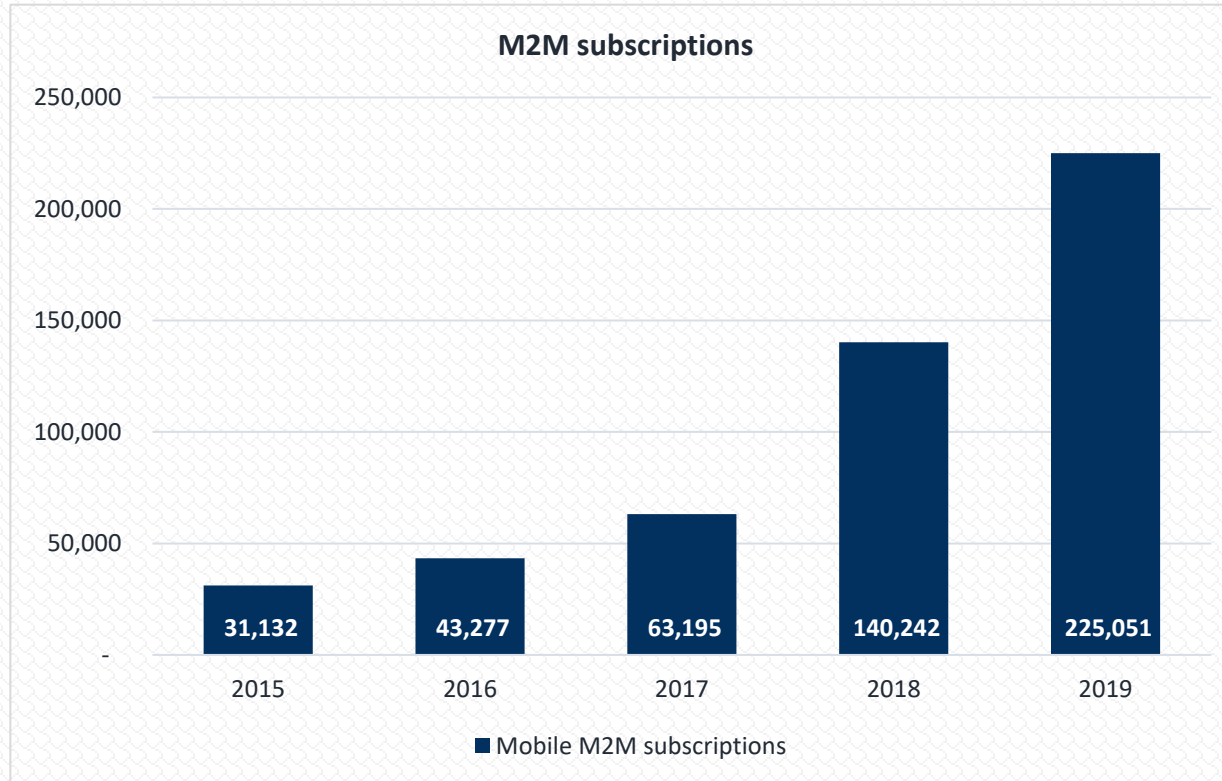
Distribution of revenue generated from fixed broadband (wired + wireless)



Average monthly revenues per fixed broadband subscription



MOBILE M2M SUBSCRIPTIONS



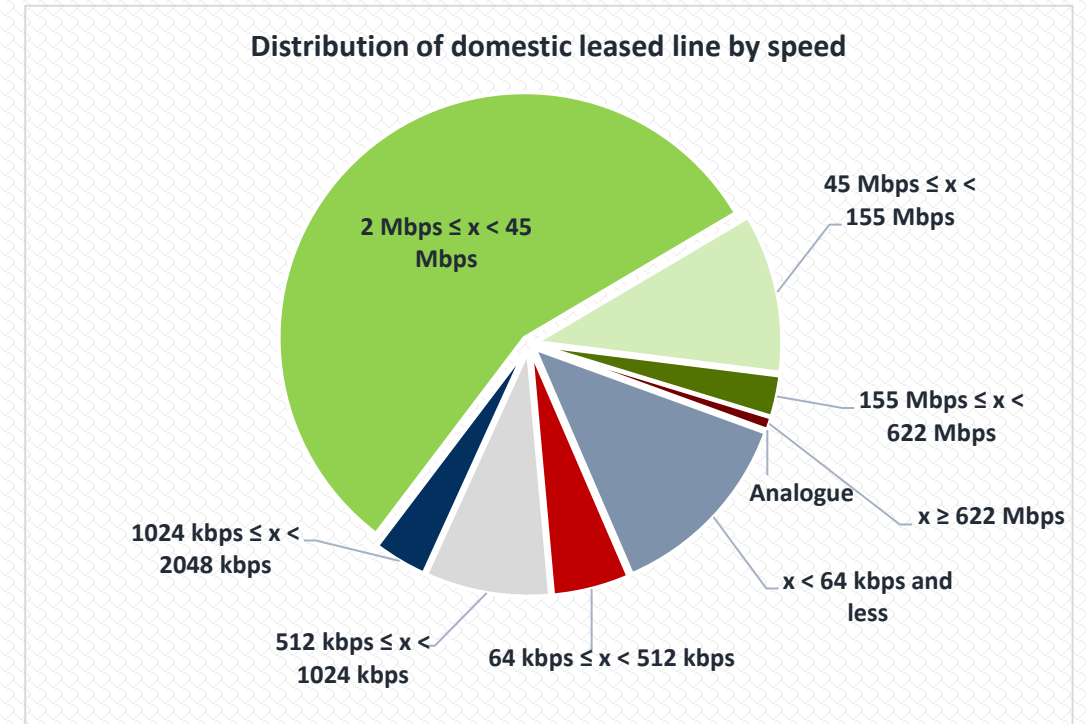
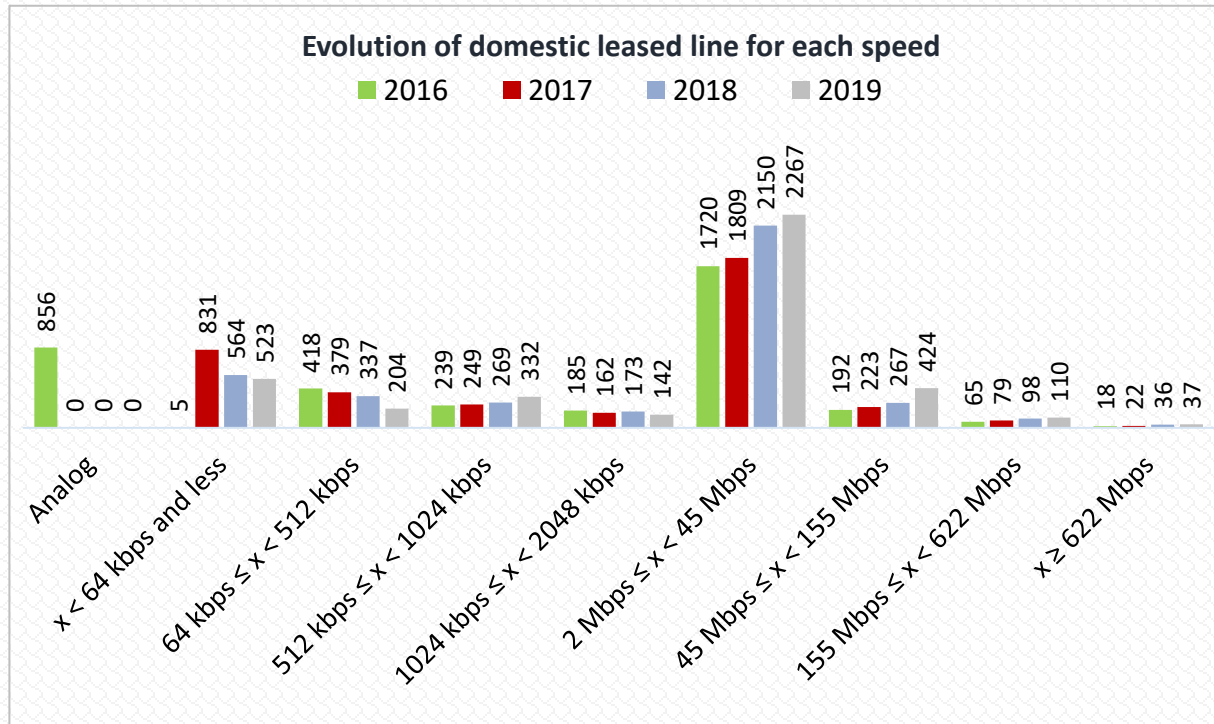
- M2M subscriptions have grown by around 20,000 subscriptions year on year. However, in the last two years subscriptions grew by 161,856 subscriptions.
- These subscriptions include banking services, vehicle tracking, Point of Sales, Smart meters among other services.

A close-up photograph of a network switch or patch panel. Several Ethernet cables with RJ45 connectors are plugged into the ports. The cables are colored white, green, blue, pink, and yellow. Above the ports, there are labels with numbers and triangles: 1▲, 13▼, 2▲, 14▼, 3▲, 15▼, 4▲, 16▼, 5▲, 17▼, 6▲, 18▼. Small green LEDs are visible below the cables, indicating active connections. A semi-transparent green rectangular overlay covers the left side of the image, containing the text 'LEASED LINE'.

LEASED LINE

LINK
ACT

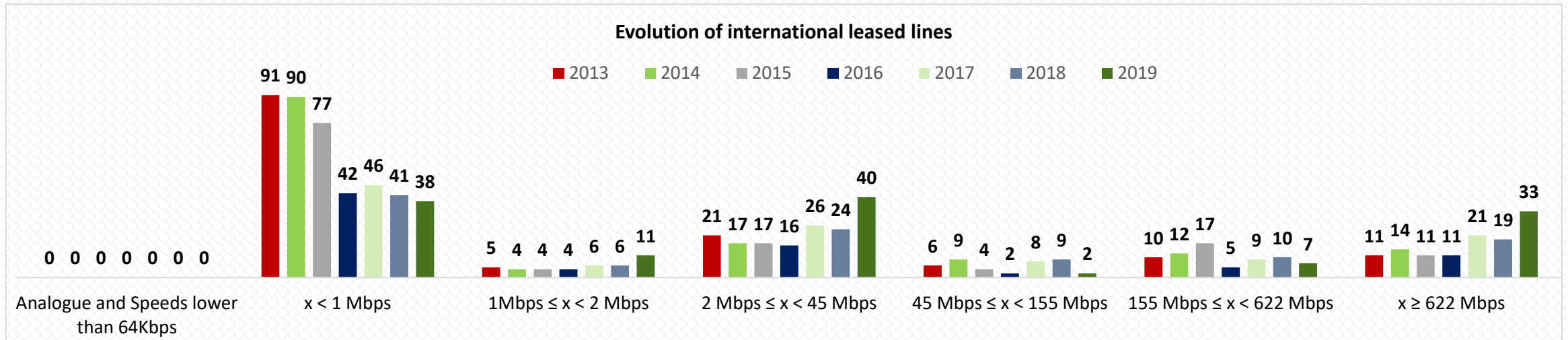
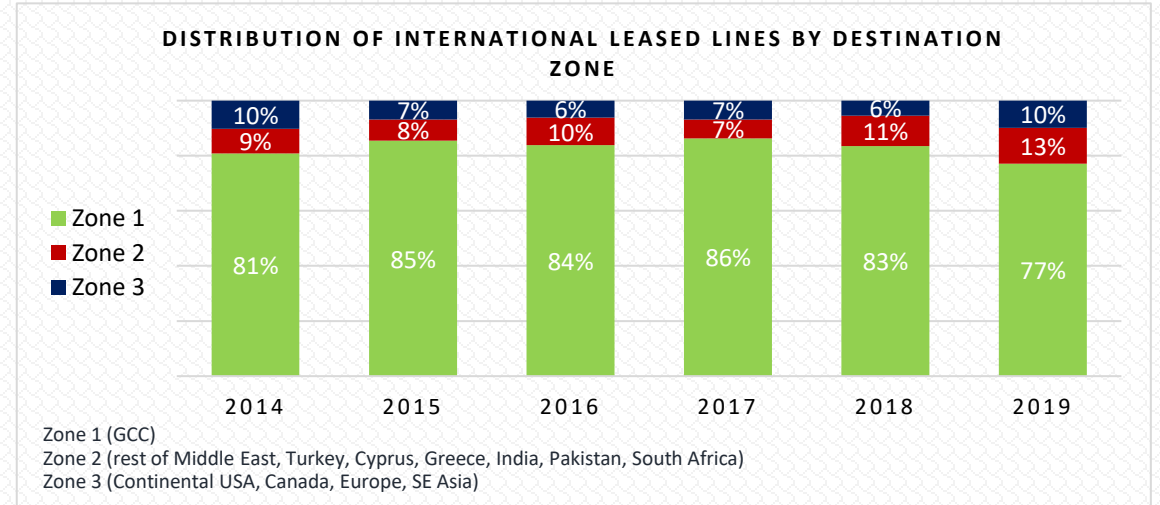
DOMESTIC LEASED LINE



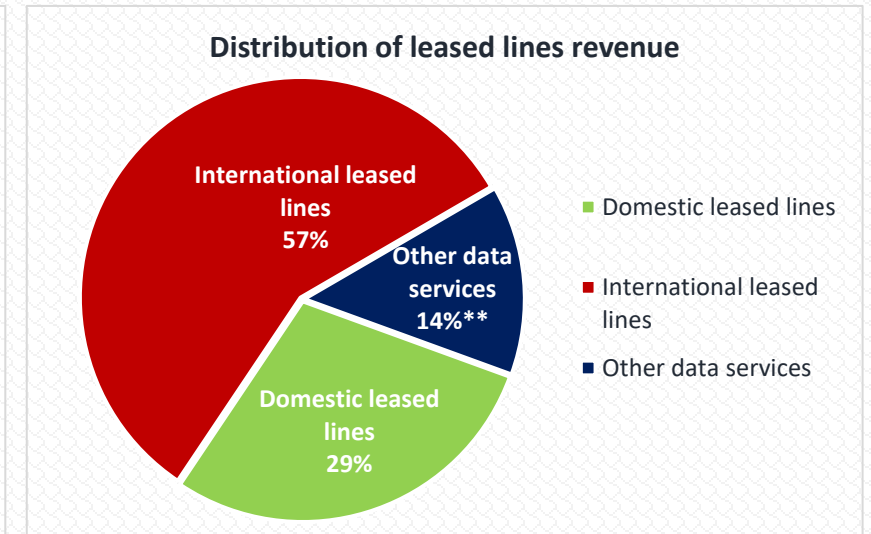
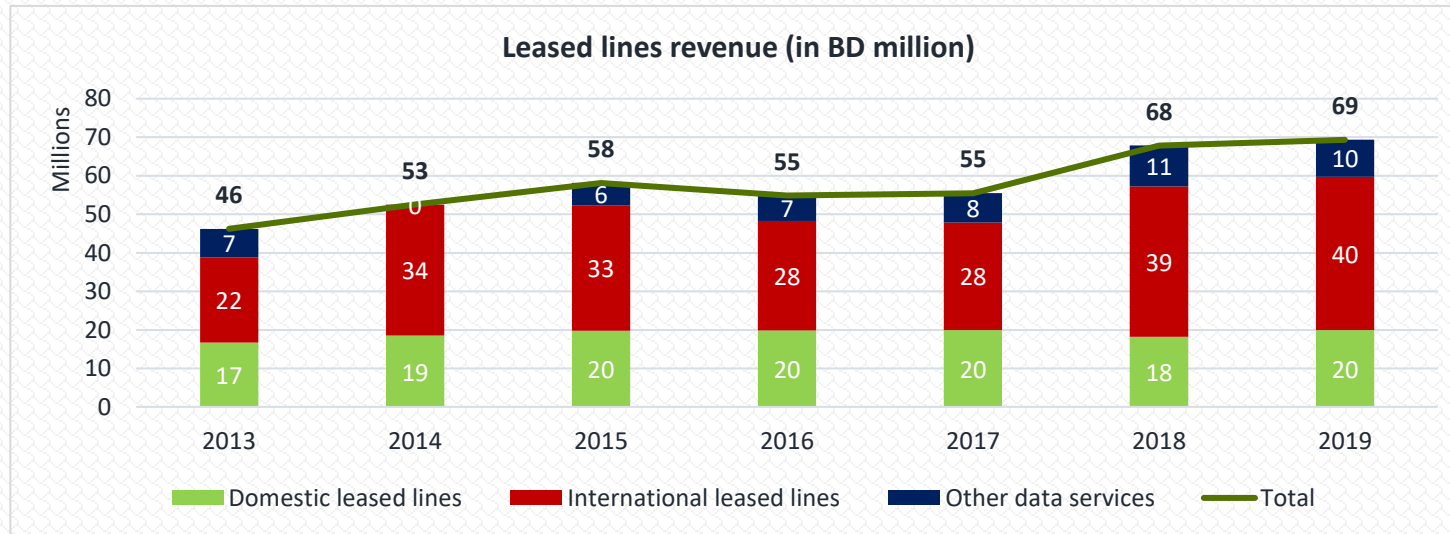
- The total number of domestic leased increased by 4% from 3894 lines in 2018 to 4035 lines in 2019.
- While there has been a further drop in slower speed services, that drop was corresponded by an increase in higher-speed services.

INTERNATIONAL LEASED LINES

- Total Number of International leased lines increased from 109 lines at the end of 2018 to 131 lines in 2019.
- 37% of international leased lines are for speed less than 2Mbps.
- 77% of international leased lines are in the GCC area.



LEASED LINE REVENUES



- The revenue generated from leased lines services increased by 2.2% in 2019. While domestic leased lines revenue decreased by 9.8% in 2019, international leased lines revenue increased by 1.6% and other data services revenue decreased by 8.9% in the same year.

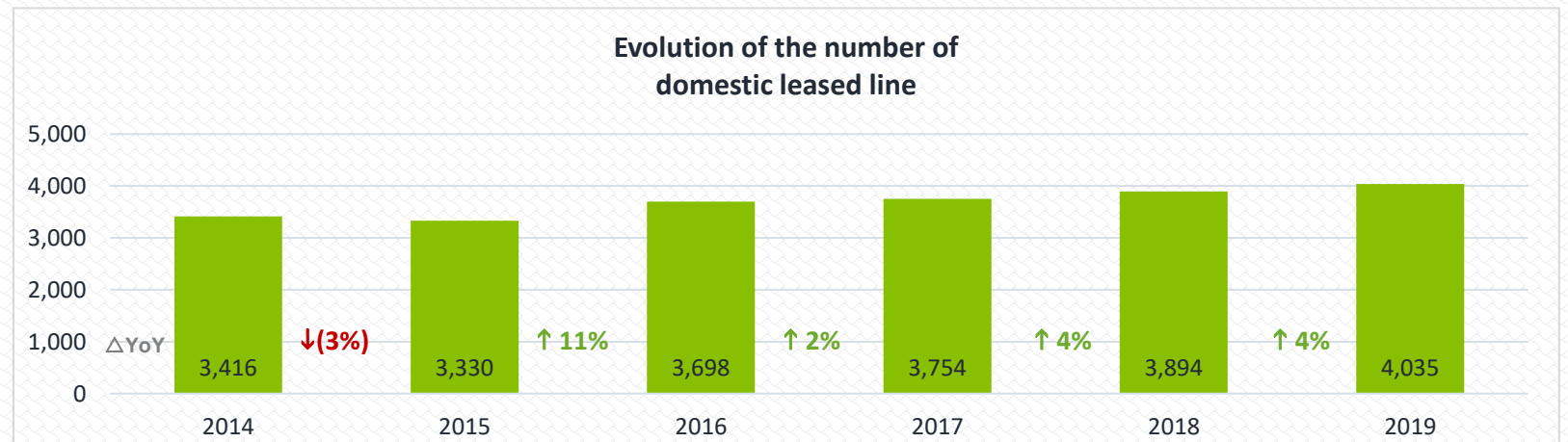
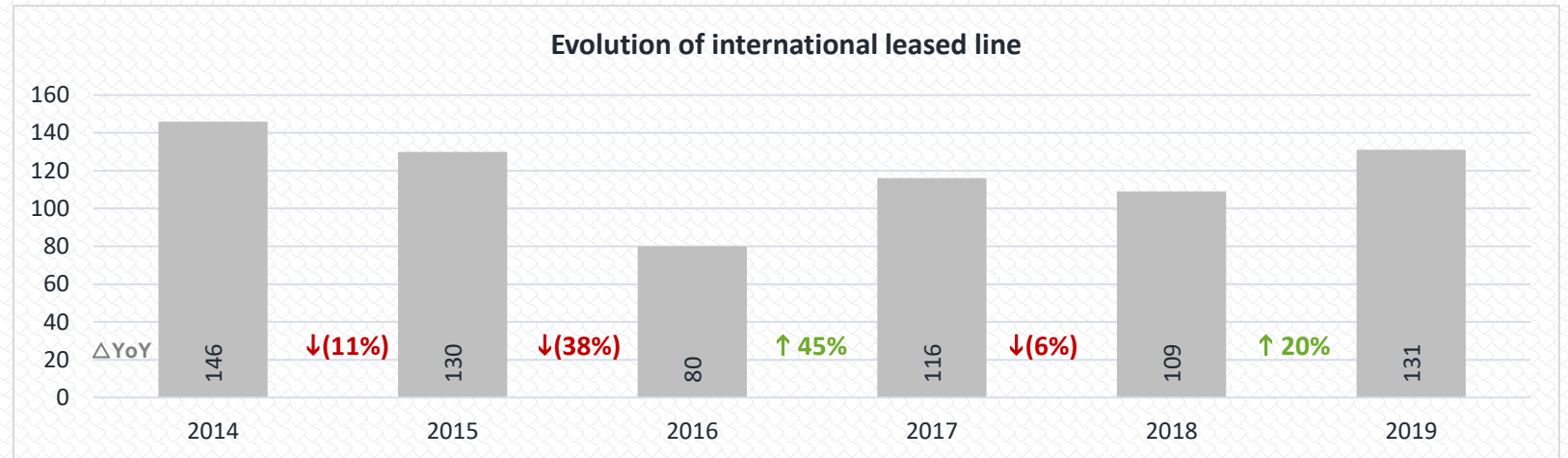
* Other Data services includes national and international frame relay, MPLS/IPVPN, managed leased line and ATM services

LEASED LINES REVENUE

- The total number of domestic leased increased by 4% at the end of 2019 compared to 2018. Similarly, the number of international leased lines increased by 20% over the same period as well.

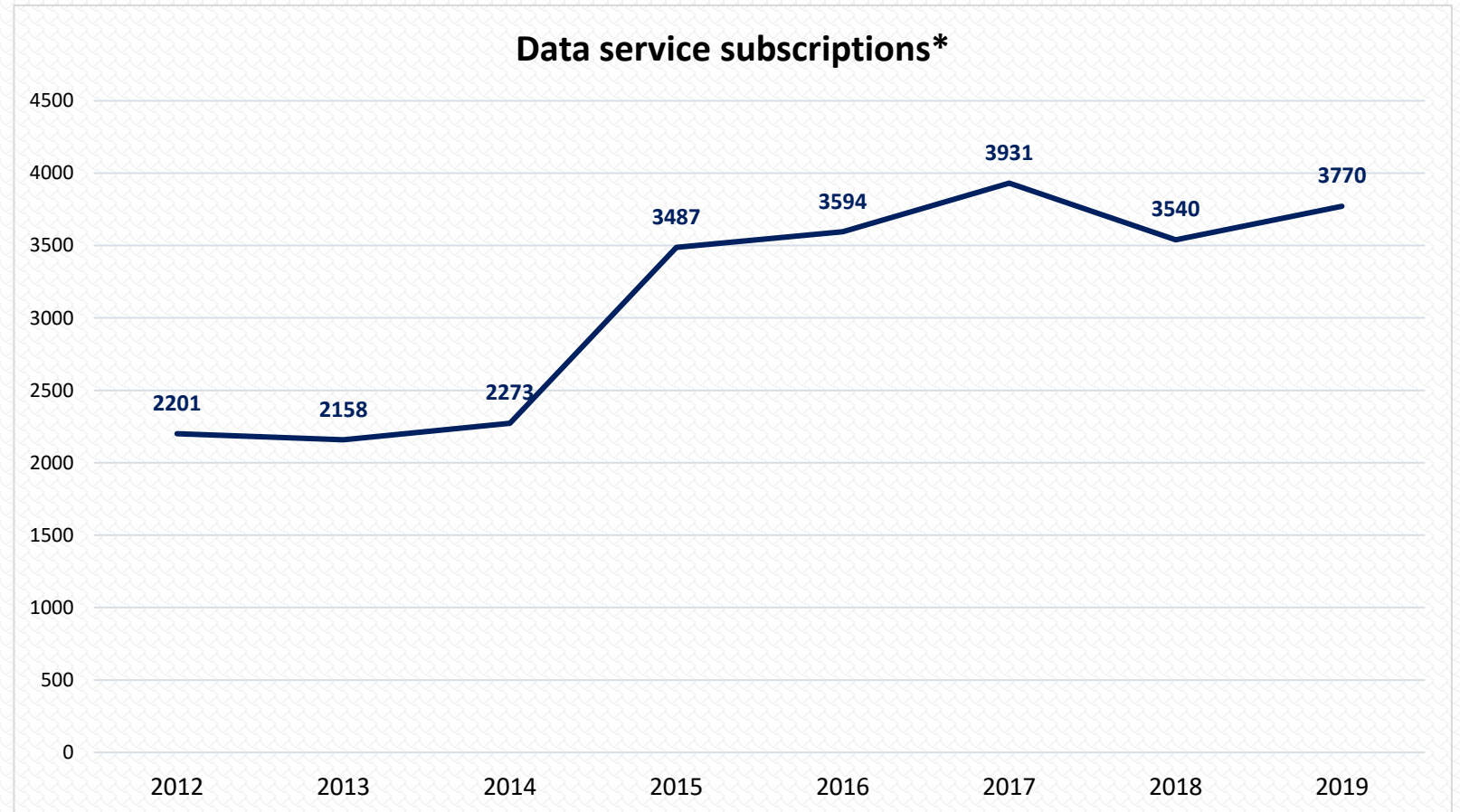
- Leased lines revenue increased by 2% to BHD 69 Million in 2019 compared to BHD 67.8 Million in 2018.

End of 2019	4,035	Domestic leased lines
	131	International leased lines
	BD 69,362,087	Leased lines revenues



DATA SERVICES

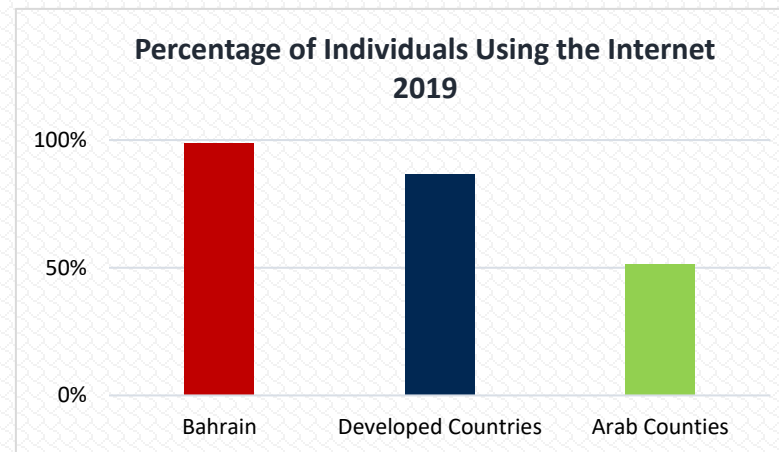
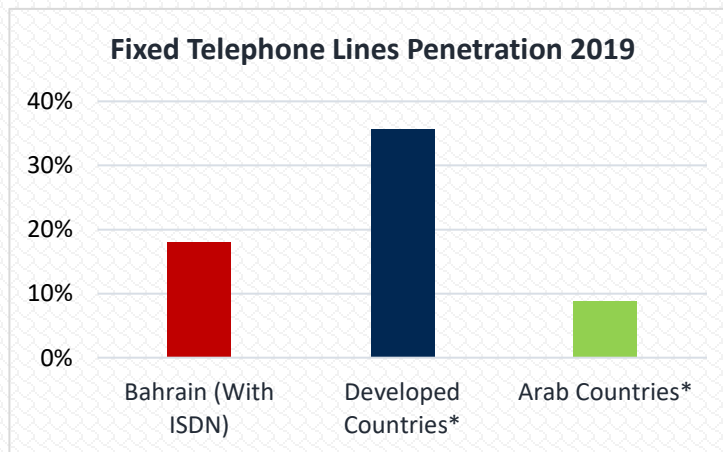
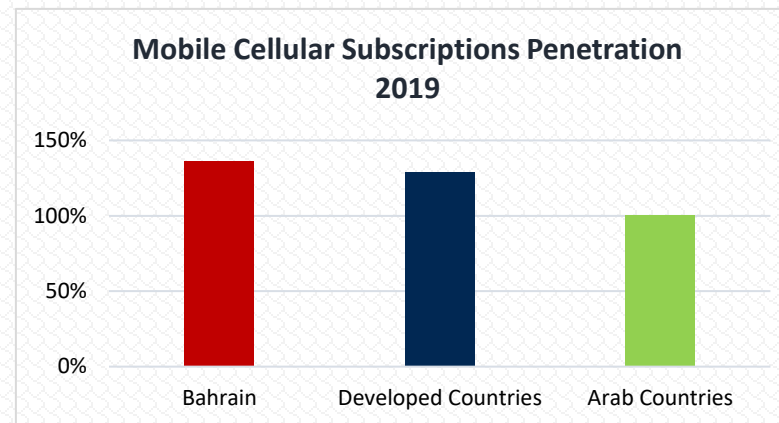
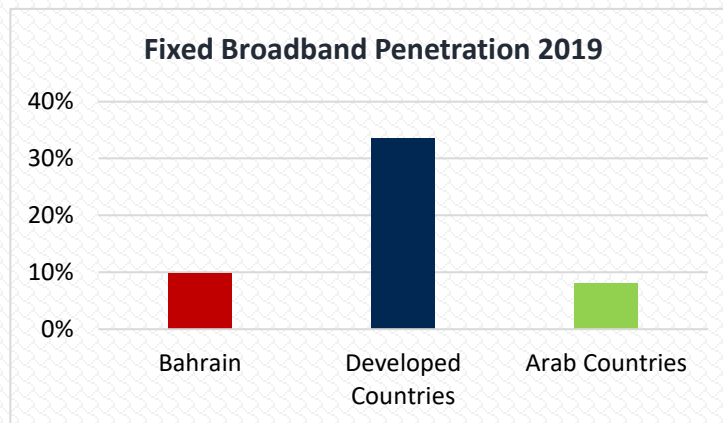
- Data services increased by 7% in 2019 compared to 2018.
- Most of the data services are National MPLS services, which account for almost 85% of data services in 2019.
- Other major data services reported include: Inet dedicated, International MPLS while local analogue circuits are ceased.



*Includes MPLS/IPVPN service, Inet dedicated and International managed leased line service

Benchmarking of telecom service penetration rates with Arab countries

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



* Estimate by ITU

LIST OF ACRONYMS

ADSL	Asymmetric Digital Subscriber Line
BHD	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

Annex A

Retail services	2016	2017	2018	2019
Fixed line services	11,033,429	12,409,383	12,181,521	12,080,199
Mobile services (Excluding International Mobile IDD)	113,391,639	119,333,299	132,782,473	137,898,192
<i>International calls - Mobile IDD</i>	<i>41,995,989</i>	<i>29,161,667</i>	<i>19,661,754</i>	<i>14,546,035</i>
<i>International calls - Fixed IDD</i>	<i>2,403,455</i>	<i>2,034,475</i>	<i>1,783,416</i>	<i>1,583,145</i>
<i>International calls – Other</i>	<i>2,606,238</i>	<i>1,550,252</i>	<i>1,179,025</i>	<i>934,147</i>
International calls services	47,005,682	32,746,394	22,624,195	17,063,327
Internet services	59,128,005	61,422,731	50,492,400	56,046,834
Leased line services	54,565,145	55,240,920	67,878,070	69,362,087
Total	285,123,899	281,152,727	285,958,659	292,450,639

Wholesale services	2016	2017	2018	2019
Termination	4,417,085	3,528,293	2,887,124	2,818,203
Origination	346,336	247,329	200,258	141,645
WSIDD	831,474	986,427	275,819	293,032
Incoming calls				
Wholesale domestic leased lines	3,480,410	2,485,372	2,464,531	1,692,323
Wholesale international leased lines	2,164,680	3,316,430	2,998,679	1,349,594
Bitstream and WDSL	408,335	334,970	364,566	85,079
Termination on your network of SMS	185,862	231,835	233,729	1,594,955
Termination on your network of MMS	148,413	13,992	11,136	9,485
Transit for calls				
International incoming calls	6,739,295	5,574,718	4,783,607	4,308,818
Directory Assistance (DQ) (Only Batelco)	217,129	214,235	155,214	105,718
Duct	1,777,305	1,815,819	1,814,244	907,122
Total	20,716,325	18,749,419	16,188,907	13,305,974

	2016	2017	2018	2019
Retail Services Revenue	285,123,899	281,152,727	285,958,659	292,450,639
Wholesale Services Revenue	20,716,325	18,749,419	16,188,907	13,305,974
Other Revenue	129,763,661	124,270,466	128,405,527	140,162,154
TOTAL	435,603,885	424,172,612	430,553,092	445,918,767