


















Telecommunications Market Indicators in the Kingdom of Bahrain

Full year 2020 up to Q2 2021

Issued in **September 2021**

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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.
- When publishing such information, TRA must have regard to the need to exclude any information which relates to the private affairs of a Person 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.
- This is the **Sixteenth** Telecommunications Markets Indicators report and it covers a large range of telecoms services indicators for 2020 up to Q2 2021 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.
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Services Offered by Active Operators

Operator Name	National Fixed	International Calls	Mobile	Internet	Leased line	Other data service	Others
Batelco	✓	✓	✓	✓	✓	✓	
Bahrain Internet Exchange						✓	IP Transit –Peering – Colocation - Lawful Intercept - Number Portability- IPLC
BNET*	✓			✓	✓		
BT Solutions LTD					✓	✓	
Equant Global Network - EGN BV					✓		IPVPN
Etisalcom Bahrain	✓	✓		✓	✓		MPLS
Gulf Electronic Tawasul					✓		
IMC							International calls through wholesale
Infonas	✓	✓		✓	✓	✓	
Kalaam telecom	✓	✓		✓	✓		
Mobitel							Bulk SMS
Northstar Technology		✓		✓	✓		
Nuetel Communications	✓	✓		✓	✓	✓	IPTV - ICT
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					✓		

*Services offered by BNET are on a wholesale level only.

Main Telecom Indicators

Indicator	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Q2 2021	CAGR 2011-Q2 2021
Number of fixed line telephony (excluding ISDN)	247,088	259,723	251,643	246,136	242,350	234,378	238,969	228,717	226,390	228,291	226,476	(0.9%)
Fixed line telephony penetration	21%	21%	23%	22%	21%	20%	19%	18%	18%	18%	18%	-
Total mobile subscribers	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	1,748,672	1,781,707	(0.5%)
Mobile penetration	142%	176%	176%	177%	185%	210%	158%	139%	126%	116%	119%	
Total broadband subscribers	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	2,010,168	1,998,894	(11%)
Broadband penetration	54%	93%	118%	128%	145%	169%	164%	141%	142%	130%	134%	-
Percentage of individuals using the Internet	67%	88%	90%	91%	93%	98%	96%	99%	99%	99.7%	N/A	-
Telecommunications revenues (BD in million)	406	409	423	430	453	435	424	431	446	460	N/A	-
Number of employees in the telecommunications sector	2,708	3,141	3,000	3,092	3,206	3,230	2,914	2,837	2,743	2,922	N/A	-

Notes:

1- The number of subscribers refers to the end of the period.

2- Number of broadband subscribers include fixed wired, wireless and mobile.

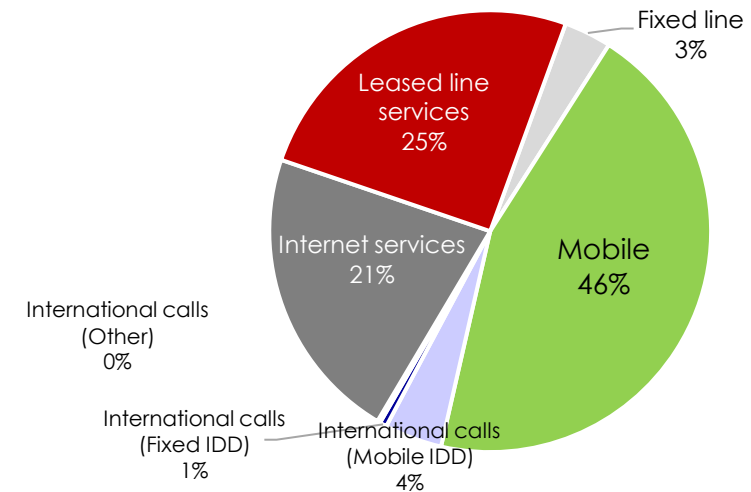
4- The source of Percentage of individuals using the Internet is the ITU and TRA residential survey.

5- Penetration is based on mid-year population estimated by CIO

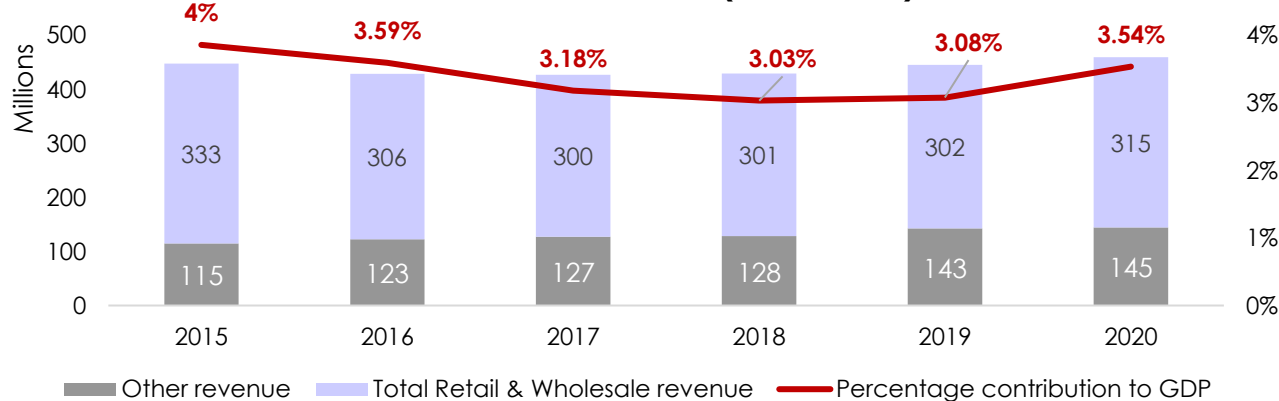
Revenues in the Telecom Sector

- Telecommunications services generated **BD 460 million** in revenue in 2020 compared to BD 445 million in 2019, an increase of around 3%.
- Telecommunications sector revenues represent **3.5%** of GDP as of 2020.
- The proportion of mobile revenue to total retail revenue slightly decreased to 46% in 2020, compared to 47% in 2019.
- Between 2019 and 2020 total retail revenue increased by 4% while reported wholesale revenue decreased by 0.1%. Other revenue increased by 1% for the same period.
- Revenue from leased line services increased by 28% while internet services revenue increase by 8% between 2015-2020.
- Telecommunications sector revenue increased by 3% between 2015-2020.

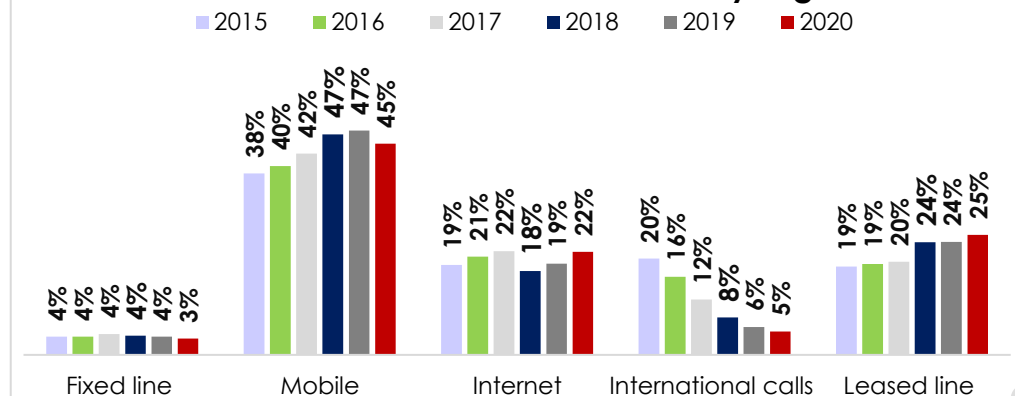
Breakdown of retail services revenue in 2020



Telecom Sector Revenue (in BD Million)



Evolution of retail services revenues by segment



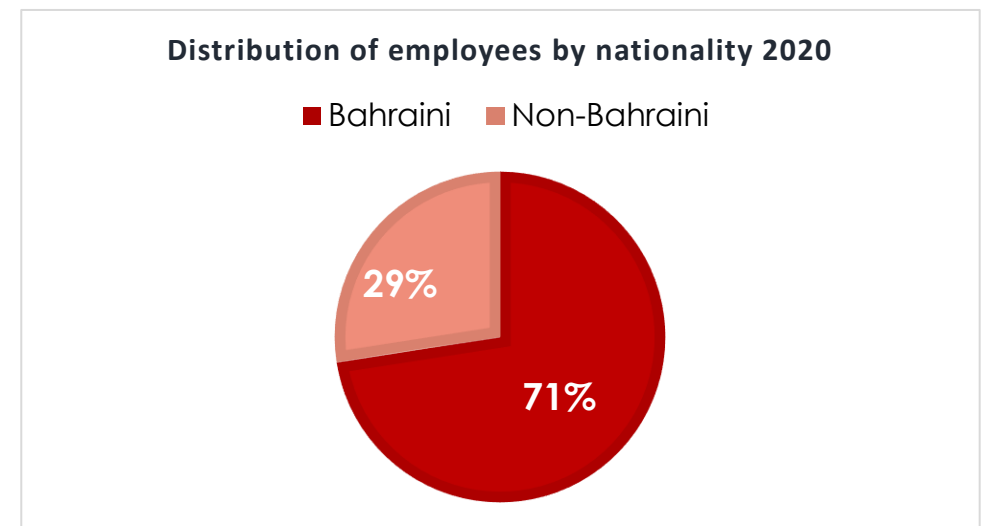
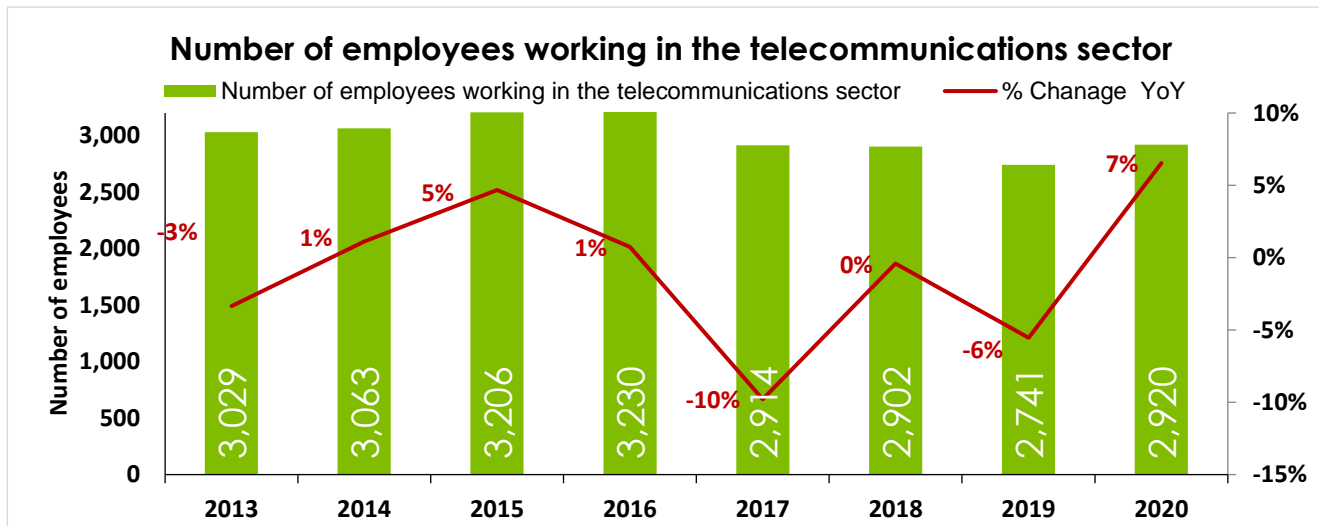
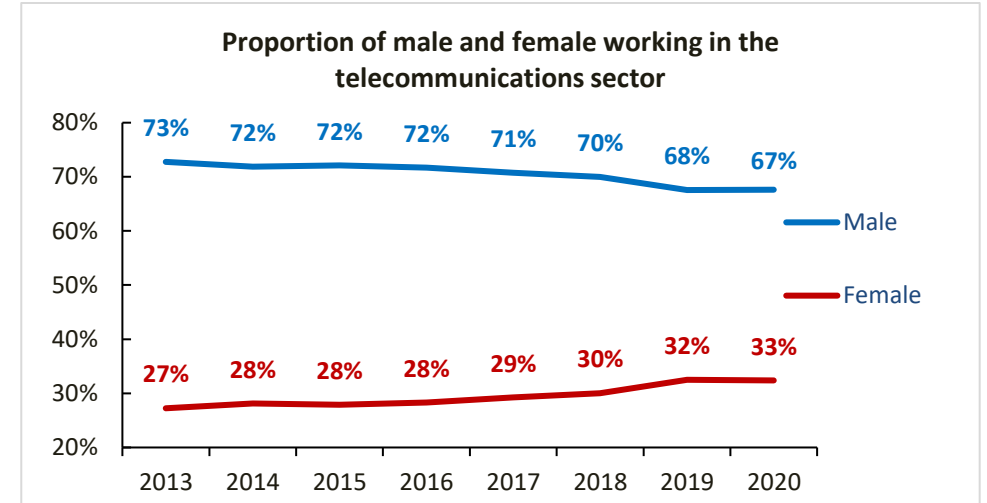
*Drop in wholesale revenue is due to an operator reporting wholesale leased lines revenue under Retail as of 2019

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

***the increase in the total revenue is mainly due to increase in other revenue.

Employment in the Telecom Sector

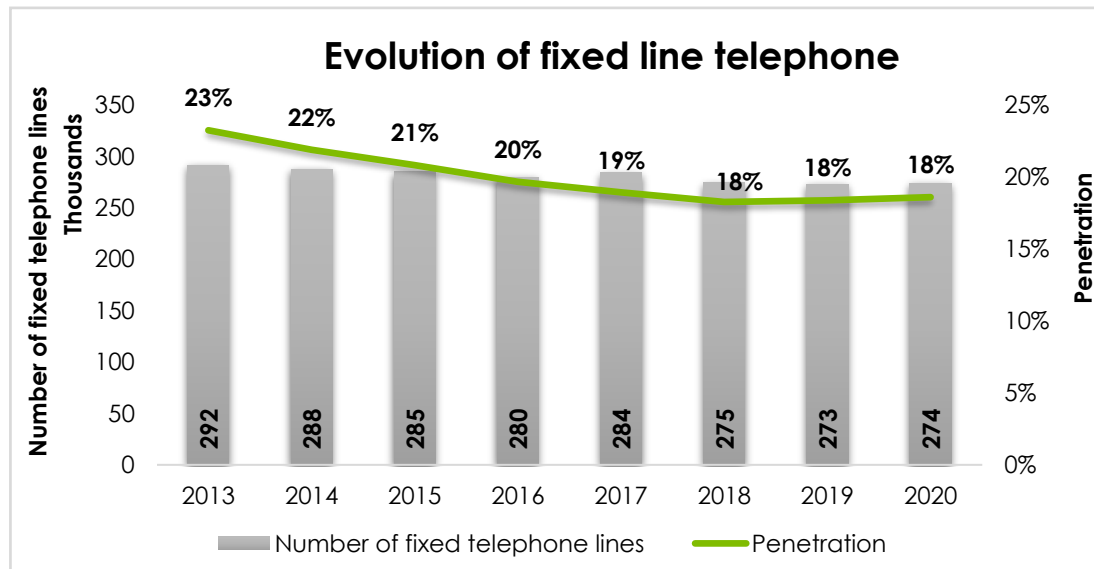
- 2,922 employees are working in the telecommunications sector as of 2020.
- The sector achieves high degree of Bahrainisation. As of 2020, 71% of the employees in the sector are Bahrainis.
- Females represent 33% of employees in the telecom sector.





FIXED LINE TELEPHONY SERVICES

Fixed Line Telephony Services



- There were 274,106 fixed-line telephony services (including ISDN) in operation at the end of 2020, compared to 273,122 fixed telephone lines in services at the end of 2019.
- With regard to ISDN service, Basic-rate ISDN has declined by 24% between 2019 & 2020 while Primary-rate ISDN service dropped by 19%.

Number of	2015	2016	2017	2018	2019	2020
**ISDN	2,560	2,591	2,525	2,428	2,858	2,267
Basic-rate	1,206	1,139	1,086	958	867	657
Primary-rate	1,354	1,452	1,439	1,470	1,991	1,610

2020	230,558	Number of total fixed lines
	15%	Penetration rate
2020	274,106	Number of fixed lines, including total ISDN lines
	18%	Penetration rate

* 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.

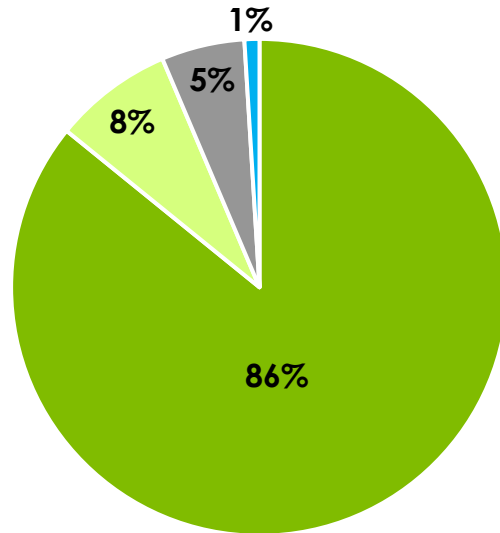
*Mid-year population estimated by CIO:

2019	1,484,756
2020	1,501,091

Fixed Line Telephony by Access Type

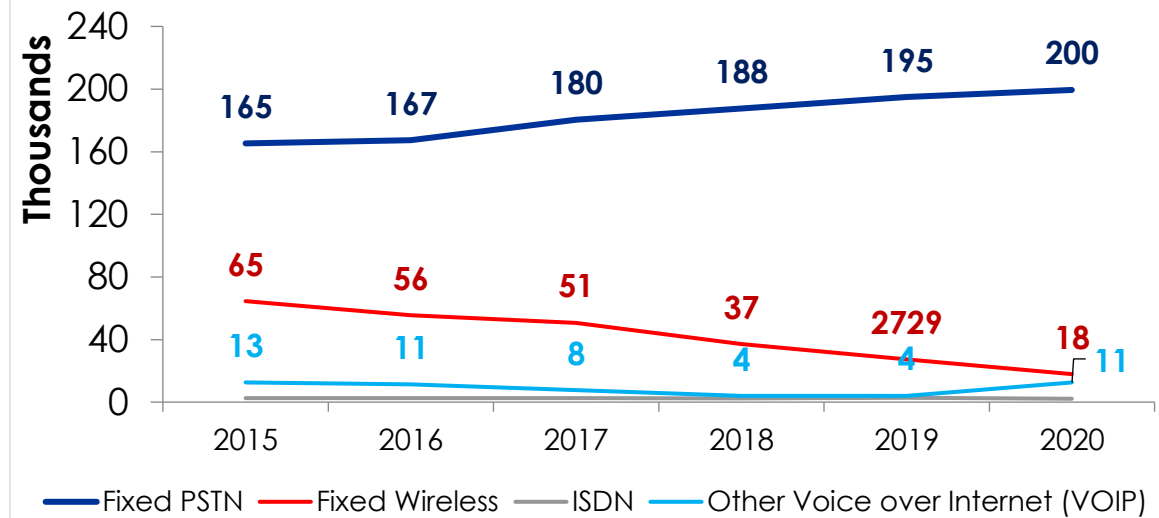
- Fixed PSTN subscriptions increased by 2% between 2019 & 2020.
- As for the significant decrease in Fixed Wireless and VOIP subscriptions, this is due to subscribers switching from Fixed Wireless and VOIP to Fixed PSTN

Proportion of fixed line by access type - 2020



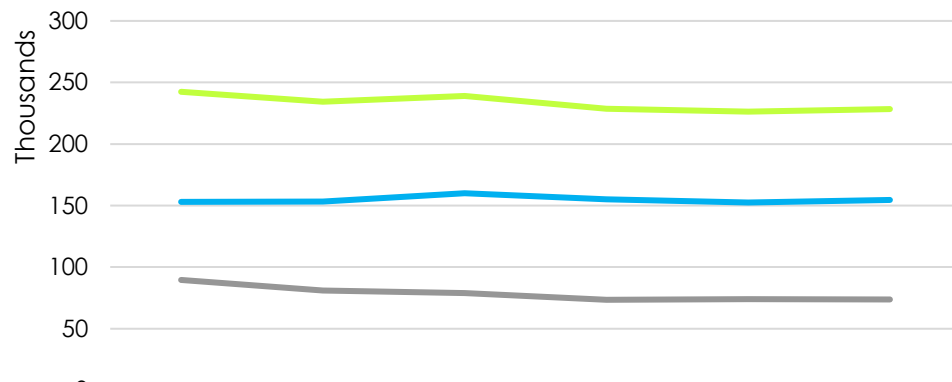
■ Fixed PSTN ■ Fixed Wireless ■ Other Voice over Internet (VOIP) ■ ISDN

Fixed telephone lines by access type



Fixed Line Telephony Services By Customer Type

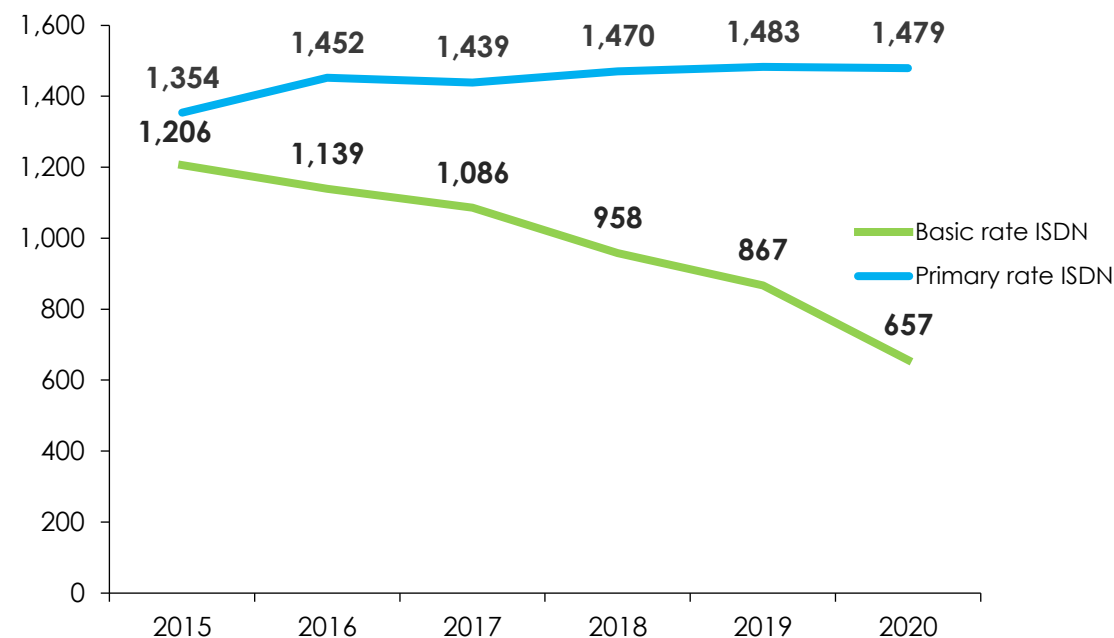
Number of fixed telephony lines by customer type (Excluding ISDN & CPS)



	2015	2016	2017	2018	2019	2020
Residential	152,948	153,327	159,998	155,209	152,474	154,463
Business	89,491	81,041	78,971	73,508	73,916	73,828
Total	242,439	234,368	238,969	228,717	226,390	228,291

Residential Business Total

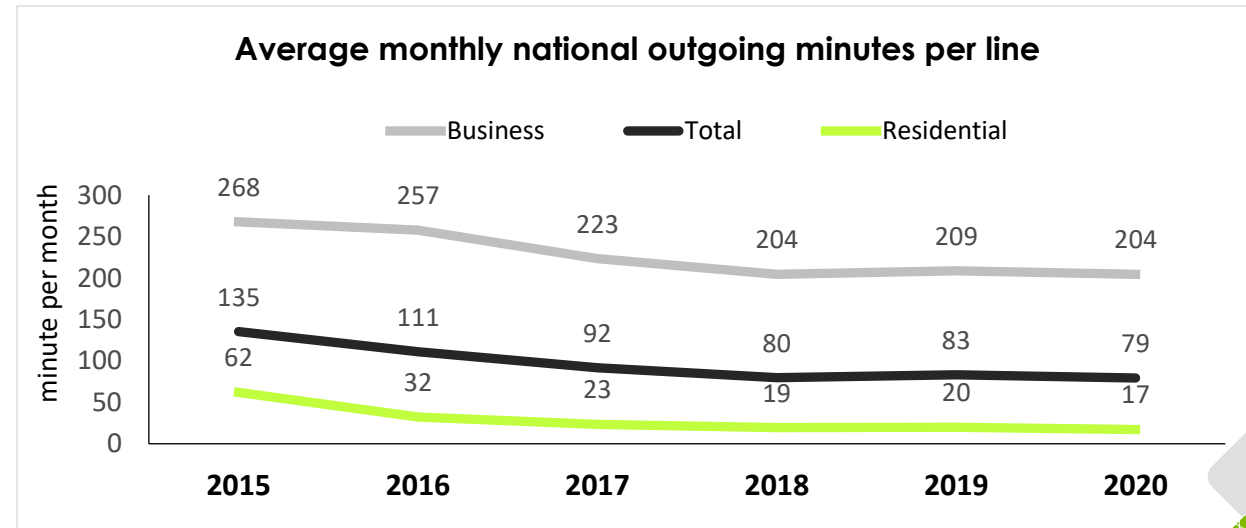
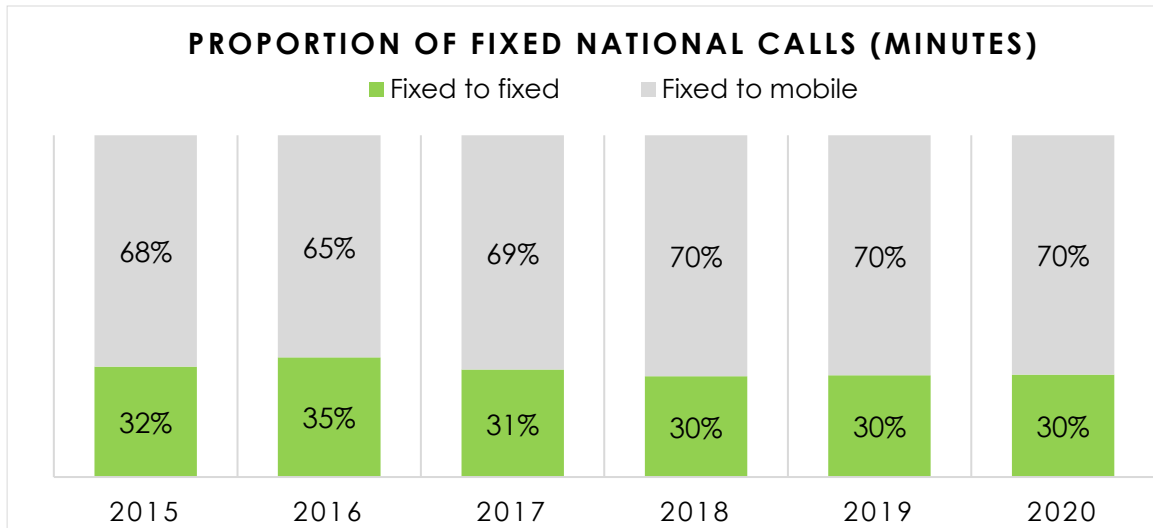
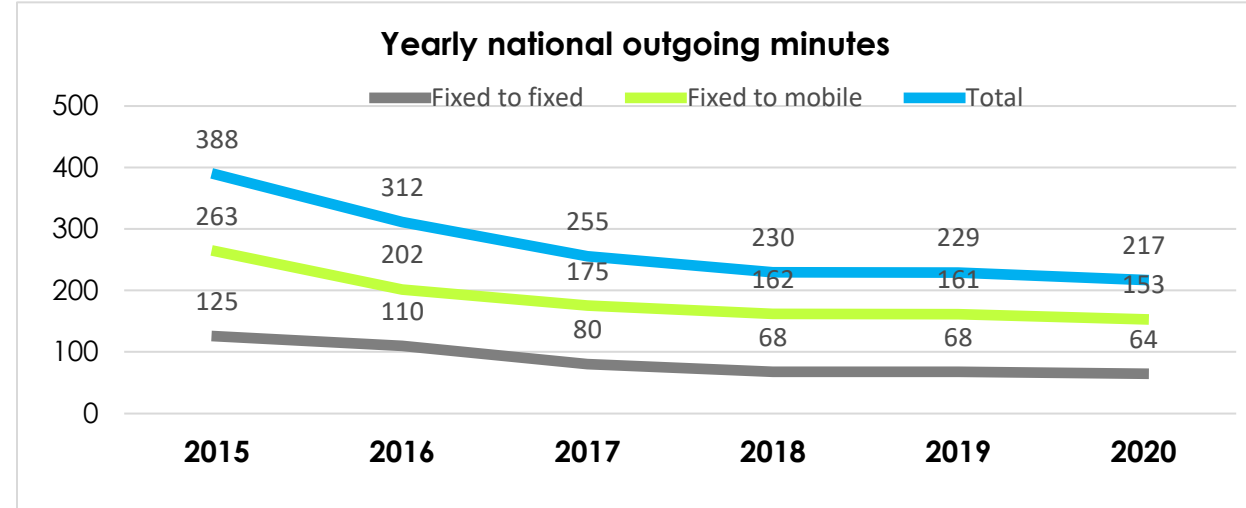
Number of ISDN subscriptions



- Total number of fixed telephony lines has slightly decreased by 1%, whereas the total number of residential lines increased by 1% and the total number of business lines remained stable relative to 2019.
- By end of 2020, Basic rate ISDN dropped by 19% while Primary rate ISDN declined by 24%. Since 2015, Primary rate ISDN increased by 9% while Basic rate ISDN decreased by 46%

Fixed Line Telephony Outgoing Minutes

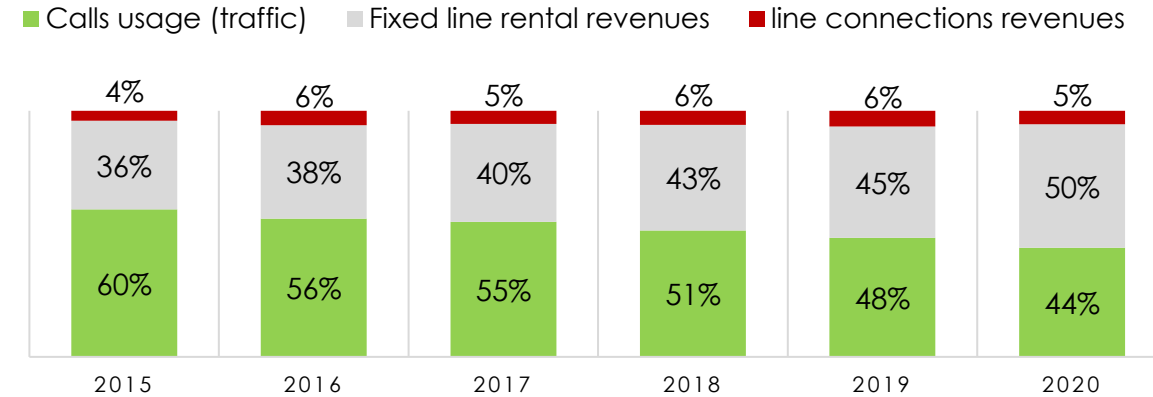
- The outgoing fixed call minutes fell by around 5% from 233 to 221 million minutes between 2019 and 2020 as consumers increasingly use mobile and internet-based voice and messaging services instead of fixed line telephony calls.
- Average monthly national outgoing minutes continued to decline as the average minutes for residential fixed lines declined by 5%. However, average minutes for business fixed lines increased by 2%.



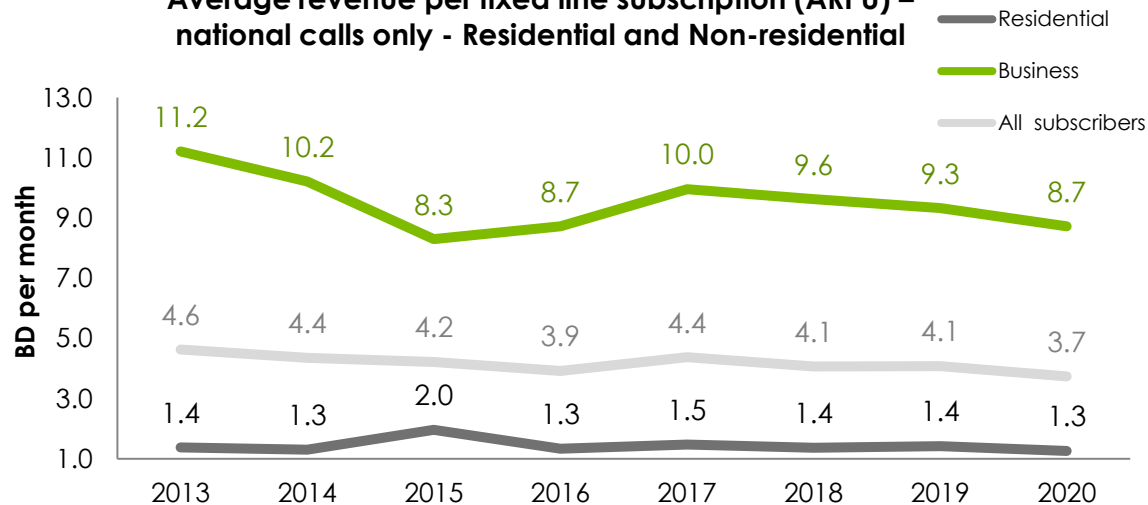
Fixed Line Telephony Service Revenue

- Fixed line revenues declined by 11% between 2019 and 2020. This was mainly due to the drop in number of subscriptions, which affected the fixed line rental revenue and traffic.
- The average monthly revenue per user for national calls only dropped to 3.7 in 2020. Similarly, the average revenue including international calls dropped to 4.3.

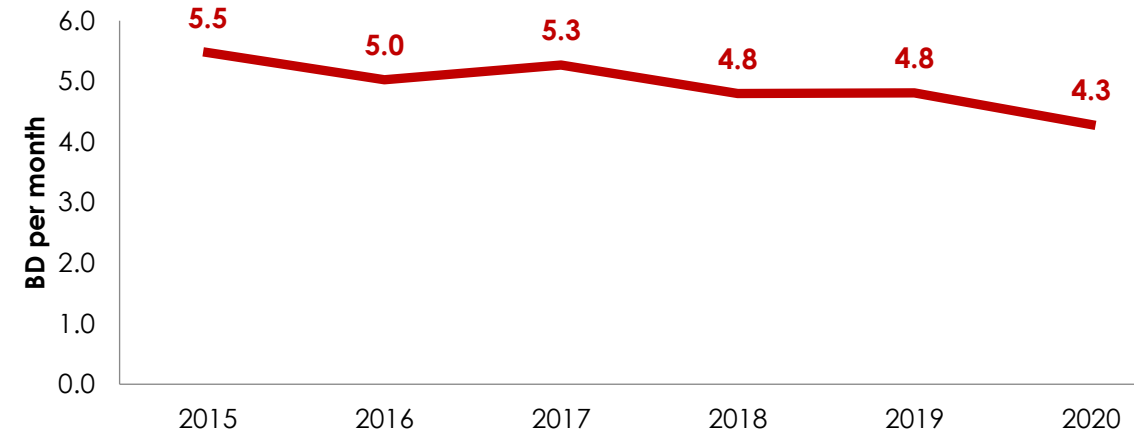
DISTRIBUTION OF FIXED TELEPHONY REVENUE



Average revenue per fixed line subscription (ARPU) – national calls only - Residential and Non-residential



Average revenue per fixed line user (ARPU) - including international calls - For all customers





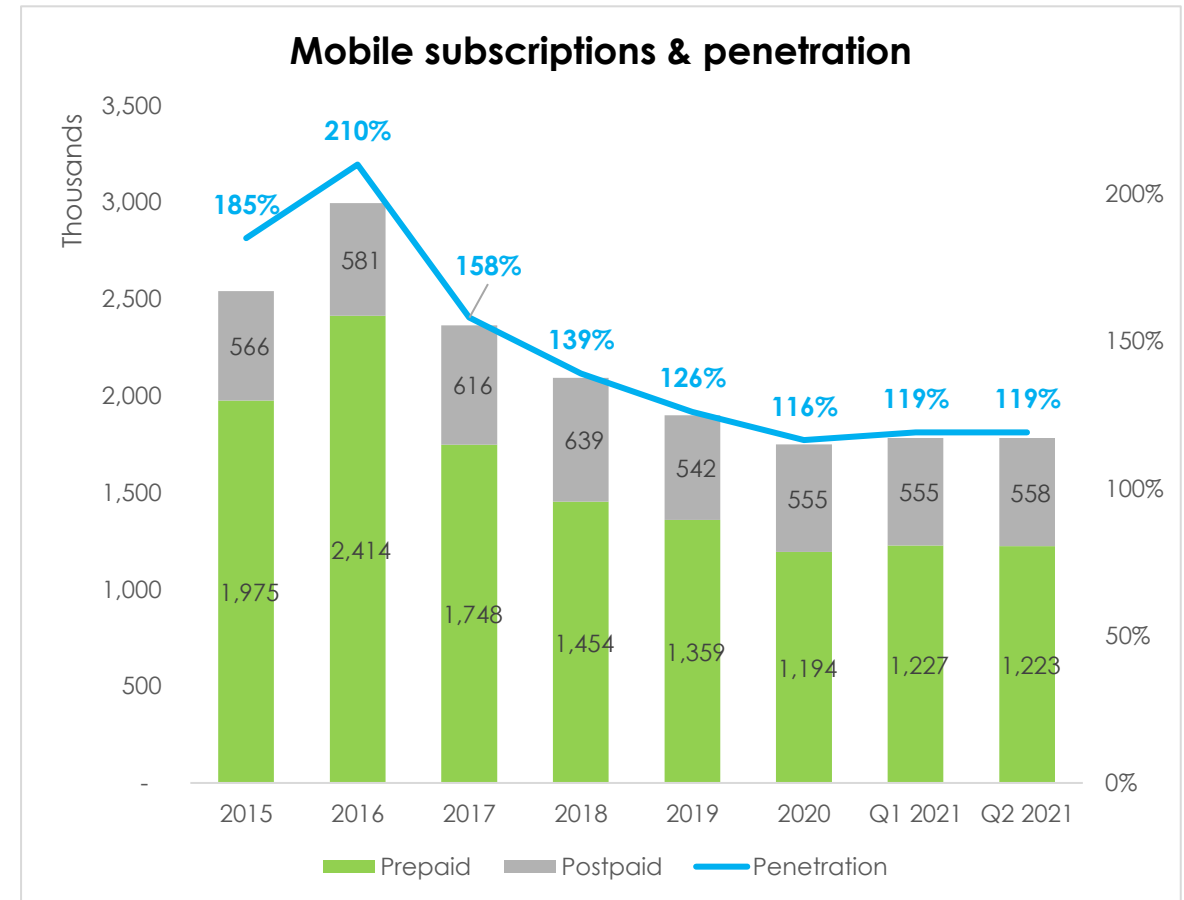
MOBILE SERVICES

Mobile Services

- By the end of 2020, the number of mobile subscriptions dropped by **8%** relative to 2019. By Q2 2021, the number of mobile subscriptions increased by **2%** relative to 2020.
- By the end of 2020, postpaid subscriptions increased by **2%** compared to the end of 2019 while prepaid subscriptions dropped by **12%** over the same period.

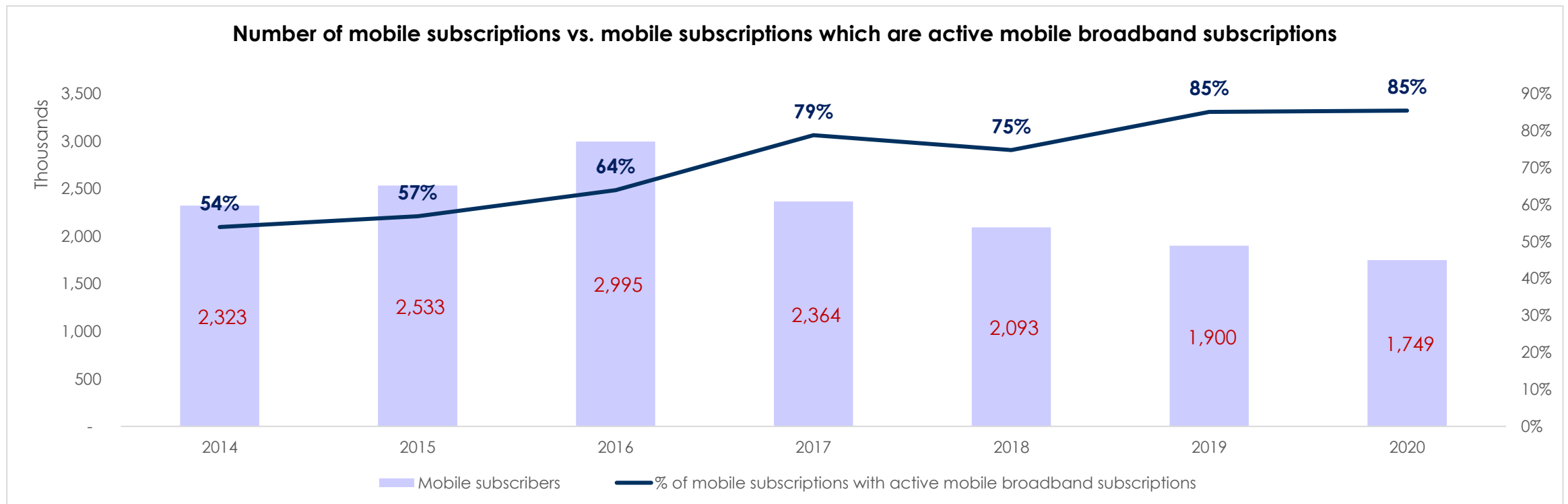
End of Q2 2021	1,781,707	Number of total mobile subscriptions
	116%	Penetration rate

	2016	2017	2018	2019	2020	Q2 2021
Total	2,994,865	2,364,477	2,092,714	1,900,361	1,748,672	1,781,707
% of Prepaid	81%	74%	69%	71%	68%	69%
% of Postpaid	19%	26%	31%	29%	32%	31%



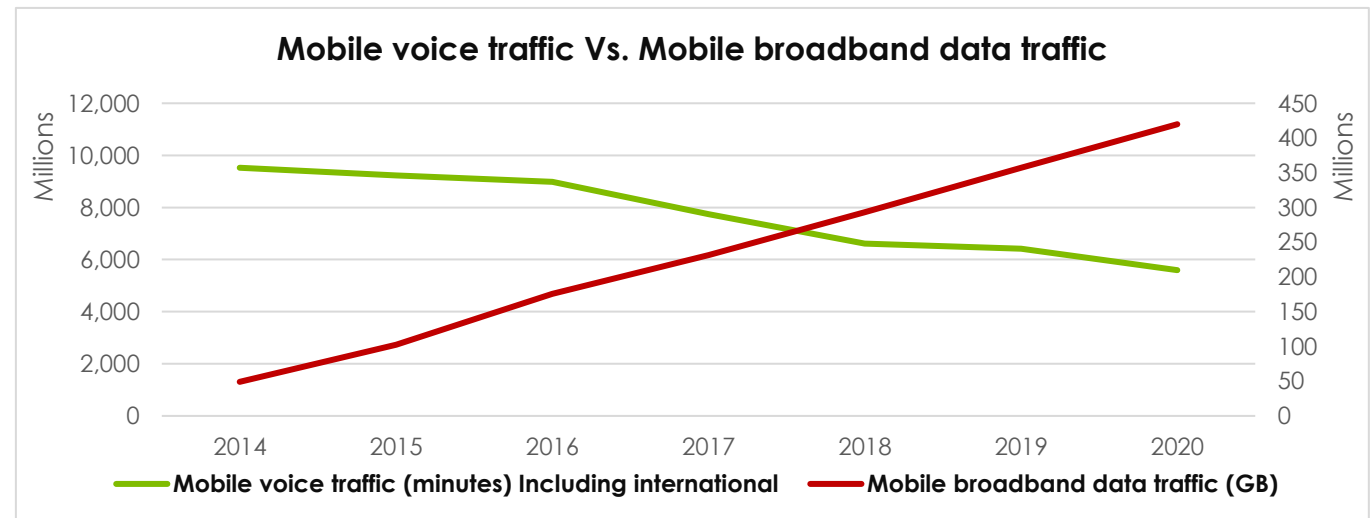
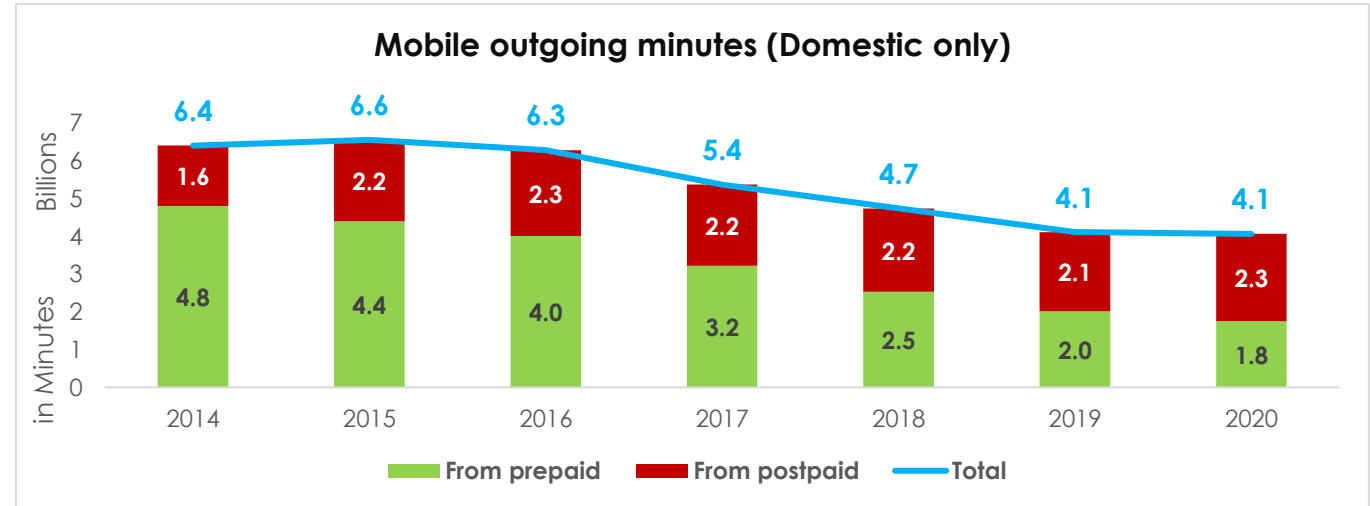
Mobile Subscriptions with Active Data Subscriptions

- By the end of 2020, there were 1.5 million mobile subscribers with active mobile data subscriptions (pay per use, add-on and bundles) compared to 1.9 million subscribers in 2016 (dropped by 22%).
- Active mobile broadband subscriptions (pay per use, add-on and bundles) represent 85% of total mobile subscriptions at the end of 2020 compared to 64% of total mobile subscriptions at the end of 2016.



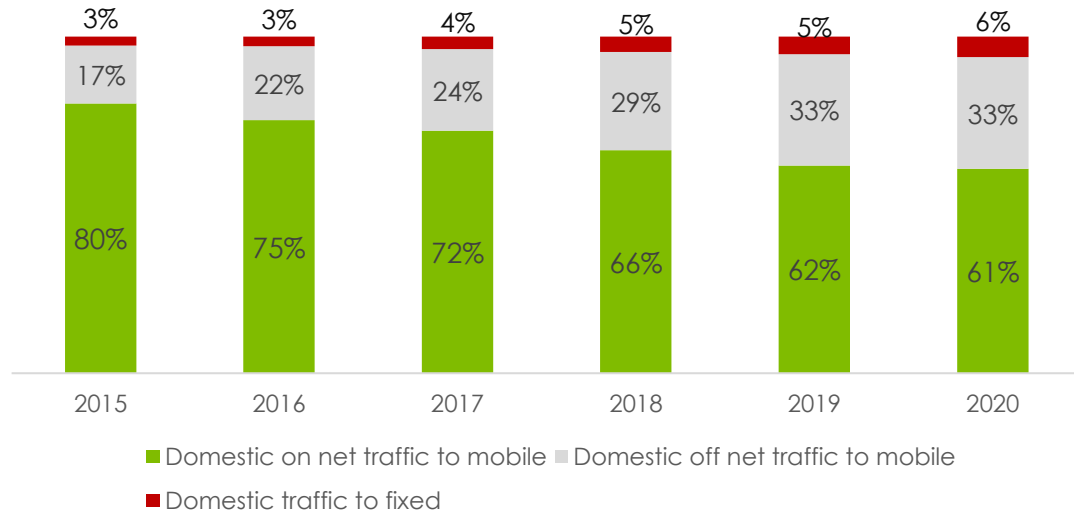
Mobile Traffic

- At the end of Q4 2020, mobile generated 4.1 billion domestic minutes, representing a (1%) drop compared to the previous year.
- The compound annual growth rate is (-9%) in domestic mobile originated traffic between 2015 and 2020.
- Comparing 2019 to 2020, the domestic postpaid mobile outgoing minutes increased by 11%, while the traffic originated from prepaid decreased by (13%), which was mainly due to the increase in percentage of postpaid subscribers and decrease in the usage of calls overall.
- While total mobile voice traffic (including international calls) decreased by (13%), data traffic increased by 18% between 2019 and 2020.

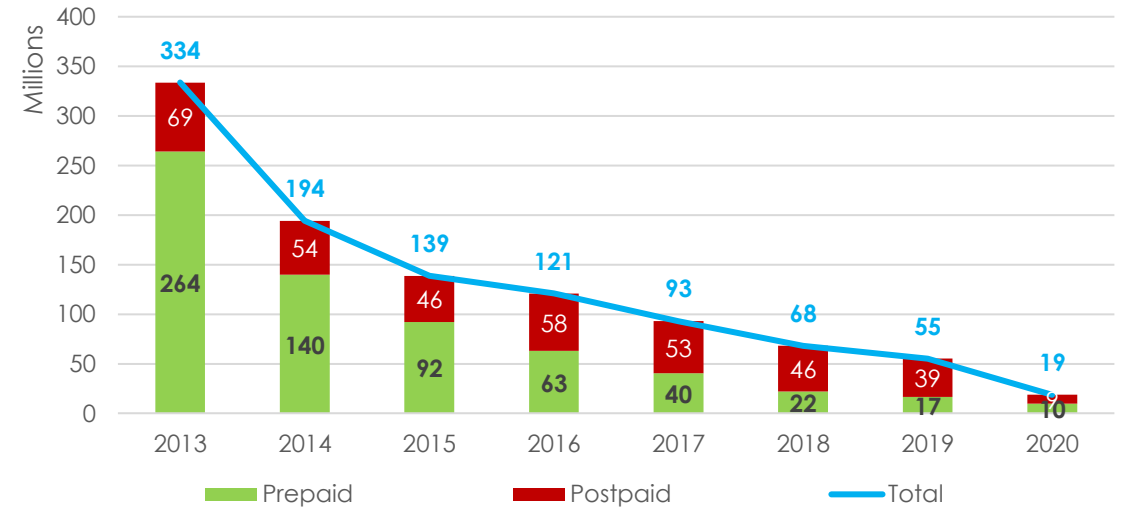


*Data traffic is used for all Internet activities

Distribution of domestic mobile outgoing minutes



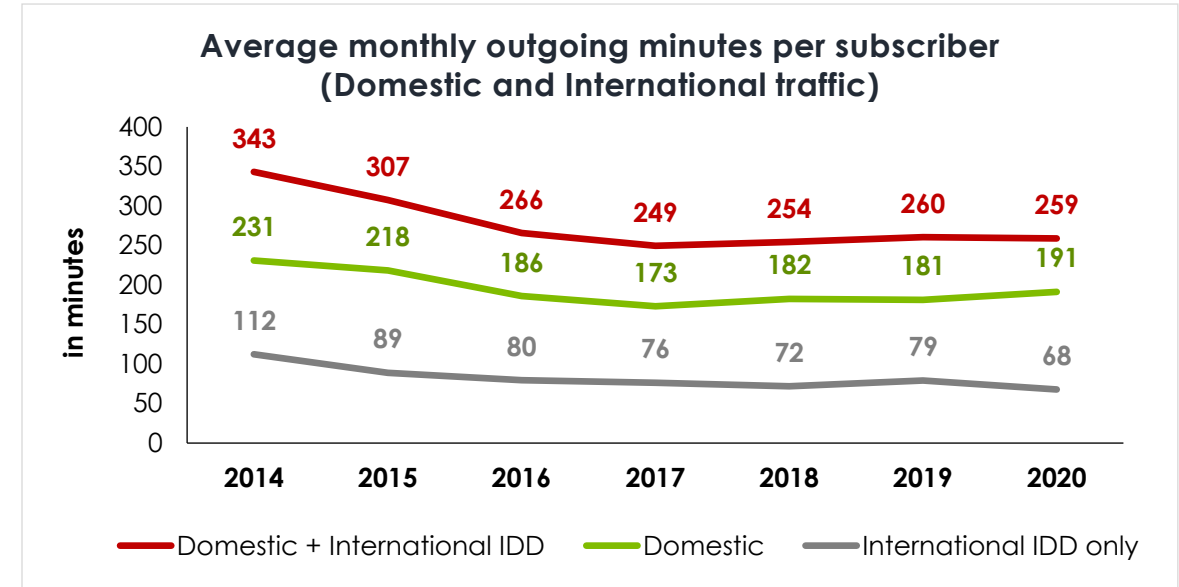
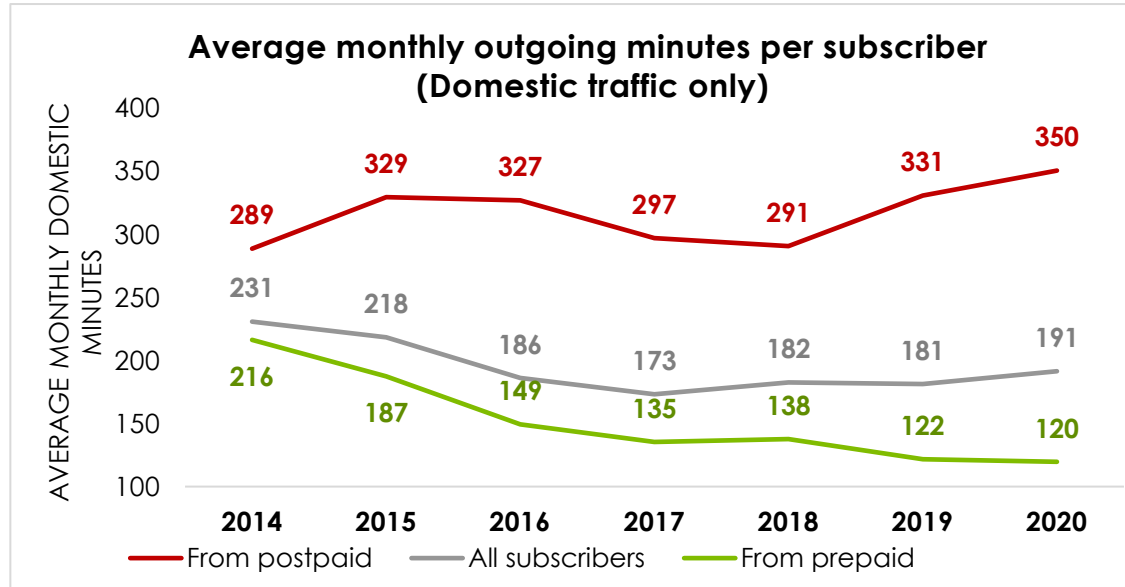
Domestic outgoing SMS



- In 2020, domestic mobile originated on-net traffic dropped by (3%) relative to the previous year.
- In 2020 the off-net voice traffic remained stable at 33% relative to 2019.

- Increased use of over-the-top (OTT) services/applications (e.g. WhatsApp) has led to further decline in total SMS as it dropped by (66%) between 2019 and 2020 mainly due to the increase in mobile data services/applications (e.g. Snapchat, WhatsApp).

Mobile Average Monthly Outgoing Minutes

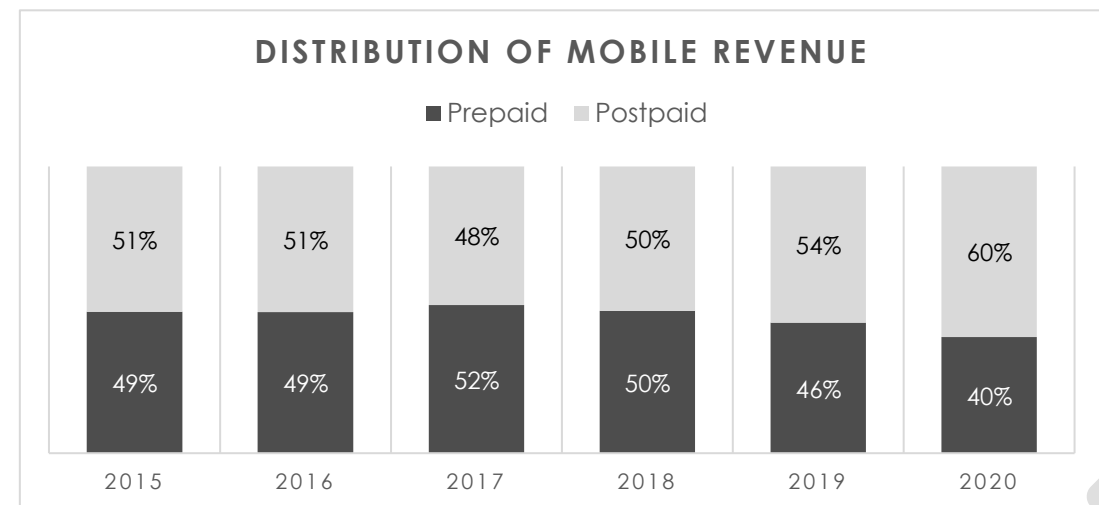
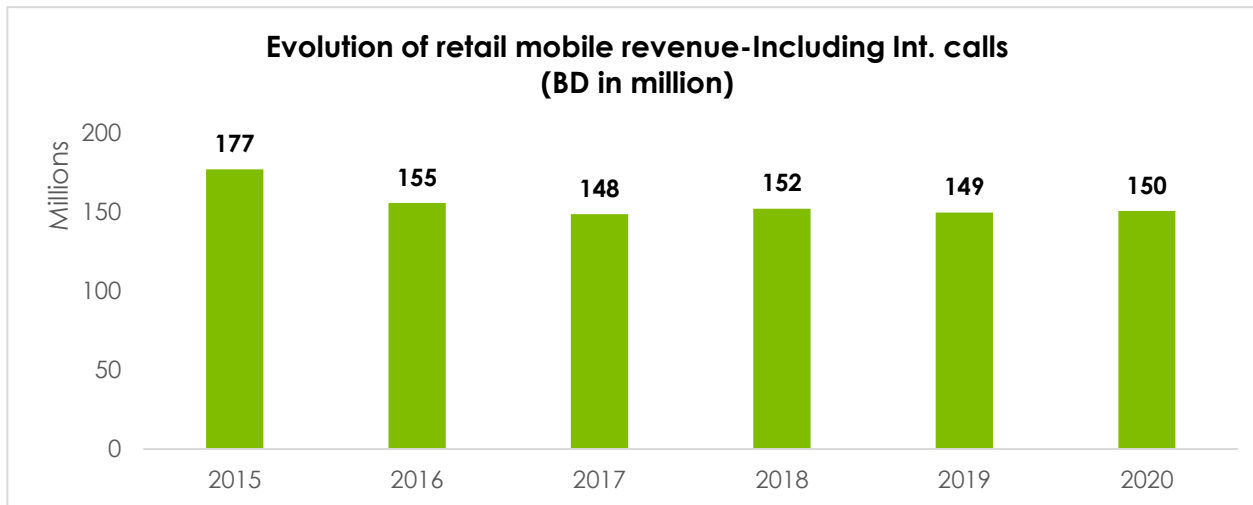
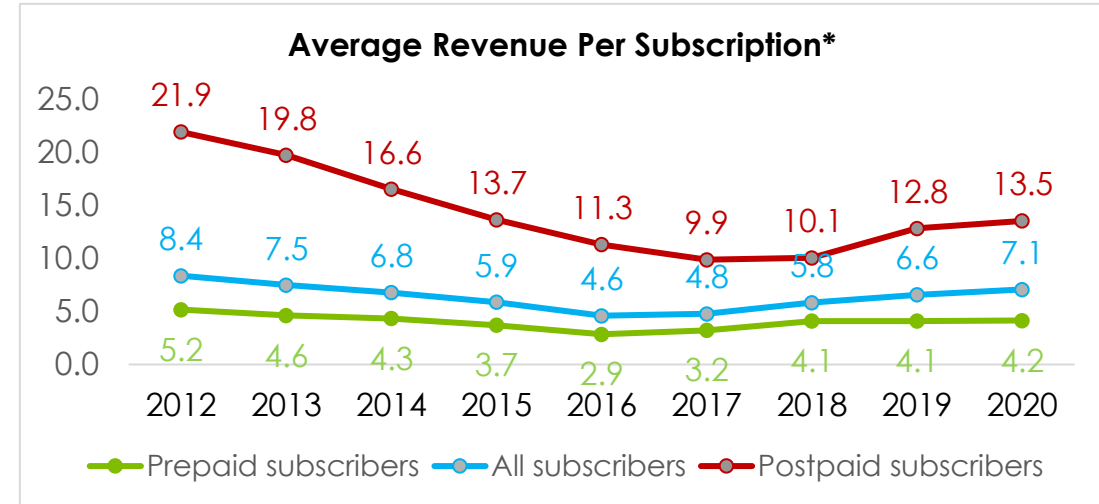


- As shown in the figures above, the average monthly domestic traffic (in minutes) for postpaid subscribers increased from 331 minutes in 2019 to 350 minutes in 2020, a 6% increase relative to the previous year.
- The average monthly domestic traffic (in minutes) for prepaid customers dropped from 122 minutes to 120 in 2020, a drop of (2%) relative to the previous year.
- The average monthly volume of international direct dial (IDD) calls dropped to 68 minutes in 2020.

*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 as well as an increase in postpaid traffic.

Mobile Revenue

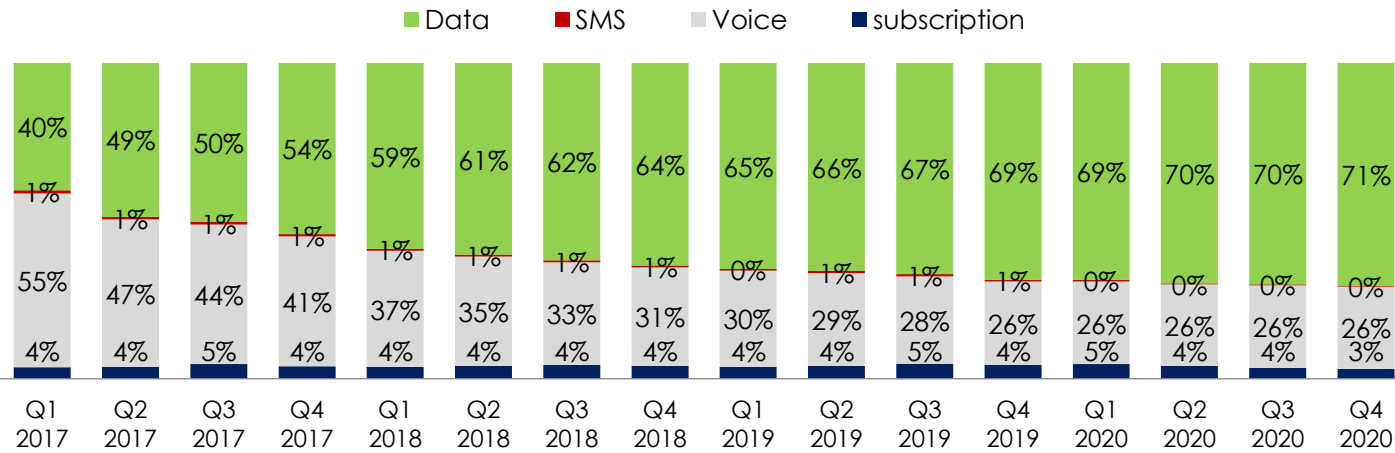
- Between 2019 and 2020, Mobile revenue slightly increased by less than 1% to reach BHD150 Million.
- Revenue generated from postpaid mobile subscriptions represented 60% of the total retail mobile revenue in 2020.
- ARPU for postpaid subscribers has increased by 5.5% relative to 2019. Similarly, prepaid ARPU increased by 1.4% over the same period. Overall, Mobile ARPU increased by 7%.



*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.

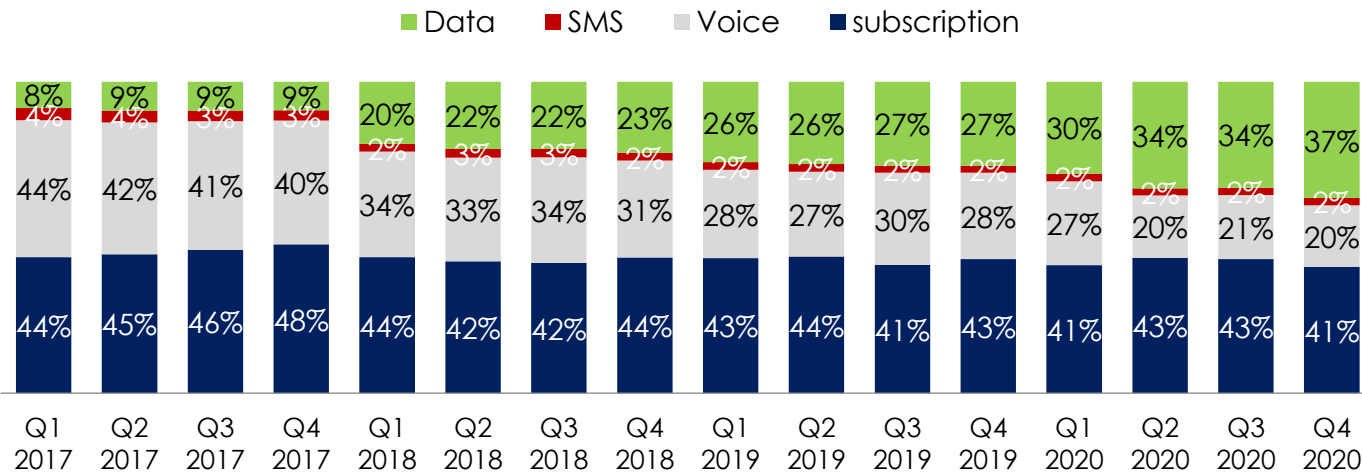
Distribution of Mobile Revenue

Distribution of mobile revenue - Prepaid

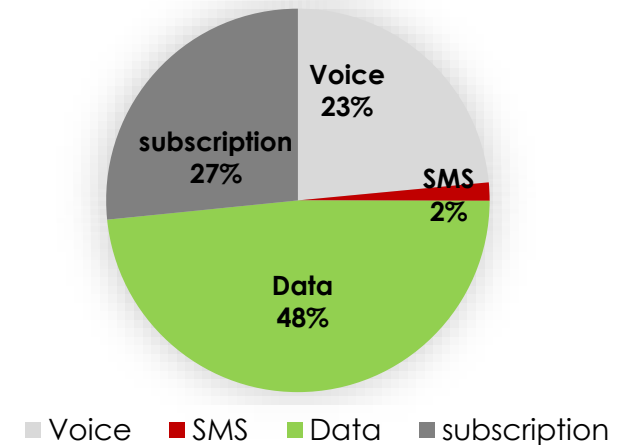


- Evidently, Data services are the main source of revenue for mobile operators. Followed by Voice revenues which slightly dropped relative to the previous year. Subscription on the other hand has slightly dropped, followed by SMS, which remains unchanged.
- In 2020, prepaid data revenue has become the main source of revenue generating 71% in Q4 2020, relative to 69% in Q4 2019.
- As for postpaid, subscription is the main source of revenue contributing 41% in Q4 2020 to mobile revenue. Data revenue increased to 37% compared to 27% in Q4 2019. However, voice has dropped to 20% compared to 28% in Q4 2019.

Distribution of mobile revenue - Postpaid

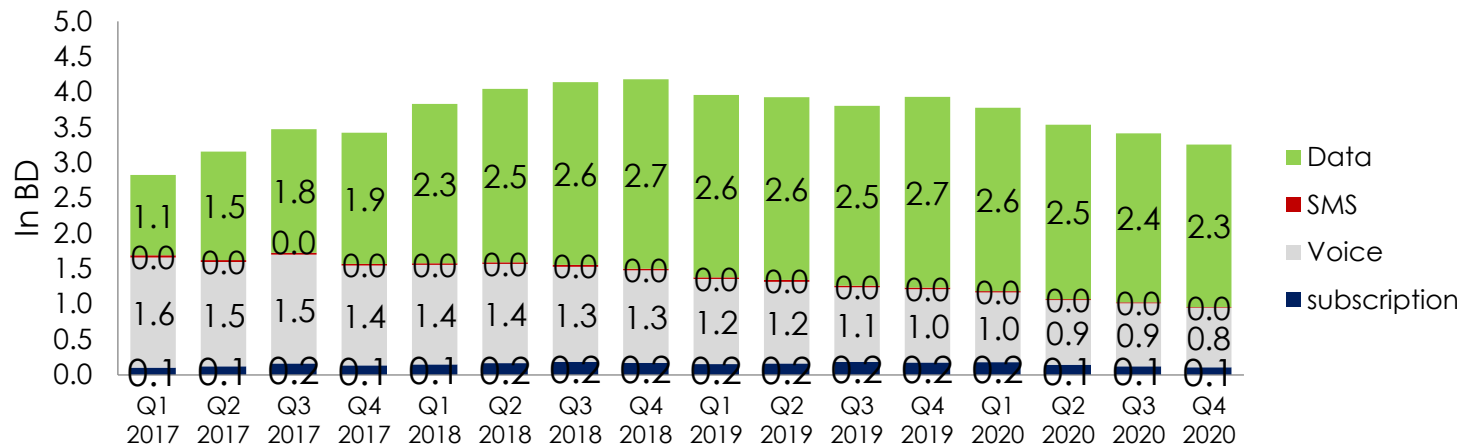


Distribution of mobile revenue (prepaid+postpaid) - 2020



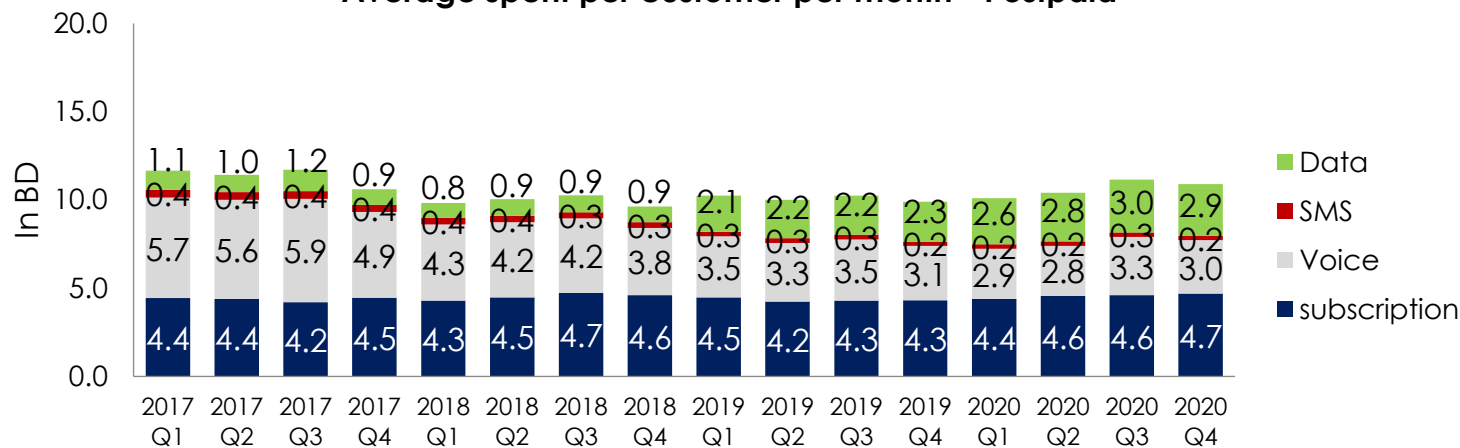
Mobile Average Spend per Subscriber per Month

Average spent per customer per month - Prepaid



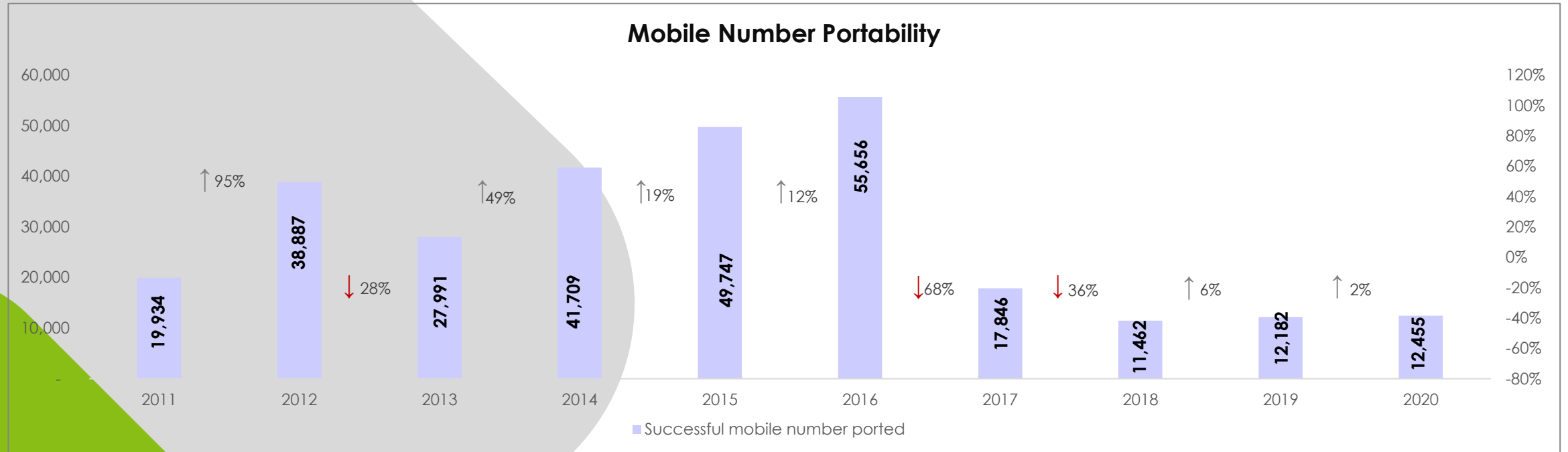
- In Q4 2020, prepaid subscribers spent BD 3.3 monthly for their subscription, phone calls, SMS and data, comparing to BD 3.9 spent on the same services during Q4 2019.
- In Q4 2020, postpaid subscribers spent BD 10.8 monthly for the same services compared to BD 9.9 during Q4 2019.

Average spent per customer per month - Postpaid



- For prepaid subscribers, the average monthly spend per subscriber for voice decreased from BD1 during Q4 2019 to BD 0.8 during Q4 2020. Similarly, data revenue dropped to BD2.3.
- During Q4 2020, the average monthly spend per postpaid subscriber for data increased to BD 4.7 while voice revenue slightly decreased from BD 3.1. to BD 3.

Mobile Number Portability



- The volume of mobile numbers successfully ported slightly increased when compared to 2019. By the end of 2020, Total successful mobile numbers ported were **12,455**, a slight increase compared to 12,182 in 2019, which is the third lowest figure since the introduction of mobile number portability in Bahrain.
- A total of approximately **287,869** mobile numbers had been ported successfully since the introduction of number portability in **July 2011**.

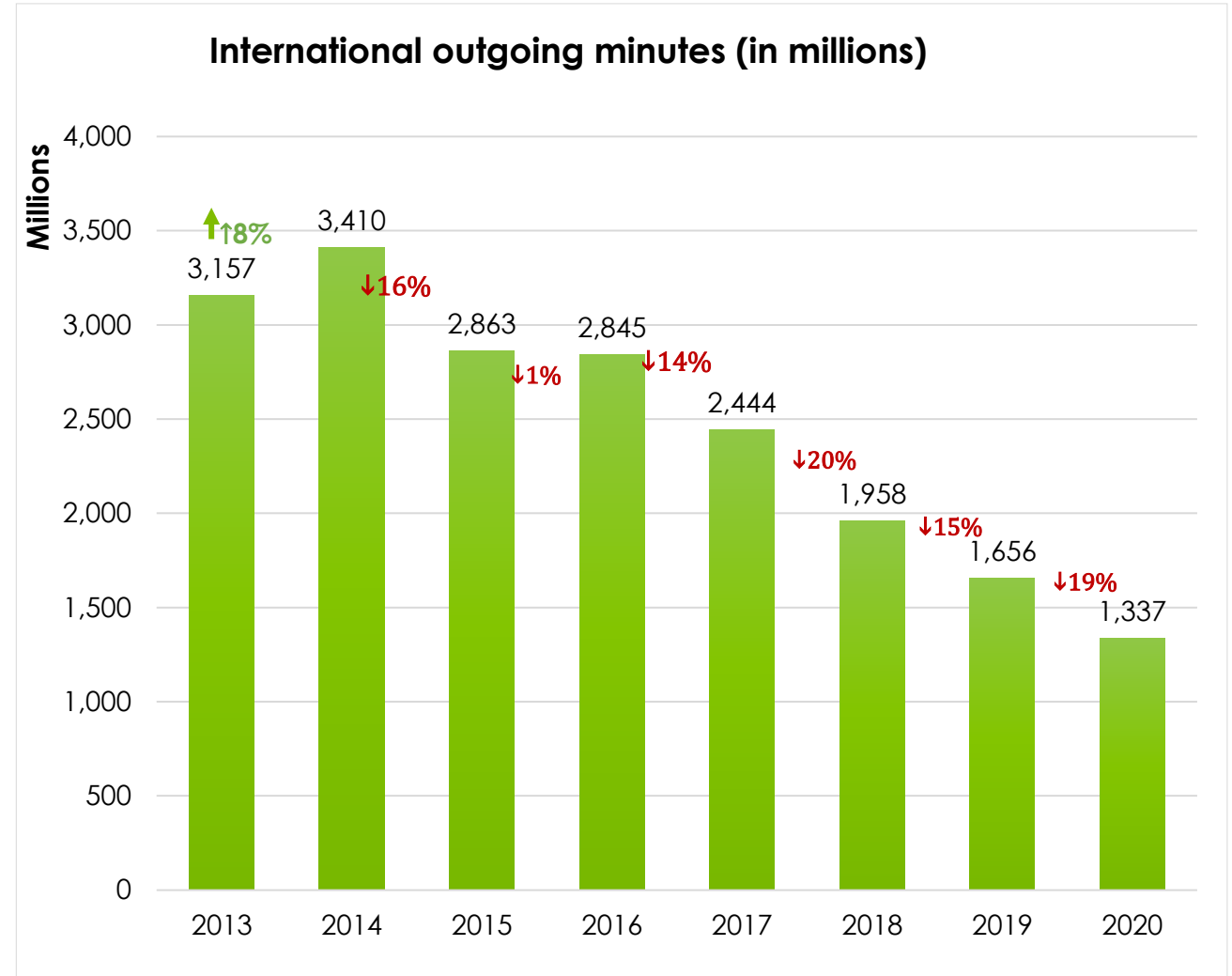


INTERNATIONAL OUTGOING MINUTES

International Outgoing Minutes

- During 2020 international outgoing minutes continued to drop reaching 1,337 million minutes compared to 1,656 million minutes during 2019.
- OTT continues to place competitive pressure on traditional voice service providers as evident by the consecutive drops.

2020	1,337,239,300	International outgoing minutes
	99%	of calls originated from mobile
	92%	of outgoing traffic went to South Asian countries



International Outgoing Minutes

- International outgoing minutes dropped by (19%) between 2019-2020 and International calls revenue also decreased by (18%) 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	2020	% Change 2019-2020
GCC	79.9	70.8	65.3	58.7	53.1	40.2	-24%
Zone 2	2,562	2,606	2,259	1,805	1,529	1,236	-19%
Zone 3	63.9	48.7	35.6	32.9	28.7	26.3	-9%
Zone 4	157.7	120.3	84	58.6	43.8	34	-22%
Total	2,833	2,845.5	2,443.9	1,995	1,655	1,337	-19%

International calls revenue

Revenues (BD in millions)	2015	2016	2017	2018	2019	2020	% Change 2019-2020
GCC	8.6	6.7	5.2	4.48	3.86	3.51	(-16%)
Zone 2	41.7	30.2	20.26	12.2	8.6	6.85	(-20%)
Zone 3	4.3	3.5	2.38	1.93	1.67	1.45	(-13%)
Zone 4	8.8	6.6	4.9	3.97	2.9	2.36	(-19%)
Total	63.2	47	32.7	22.6	17.06	13.9	(-18%)

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).

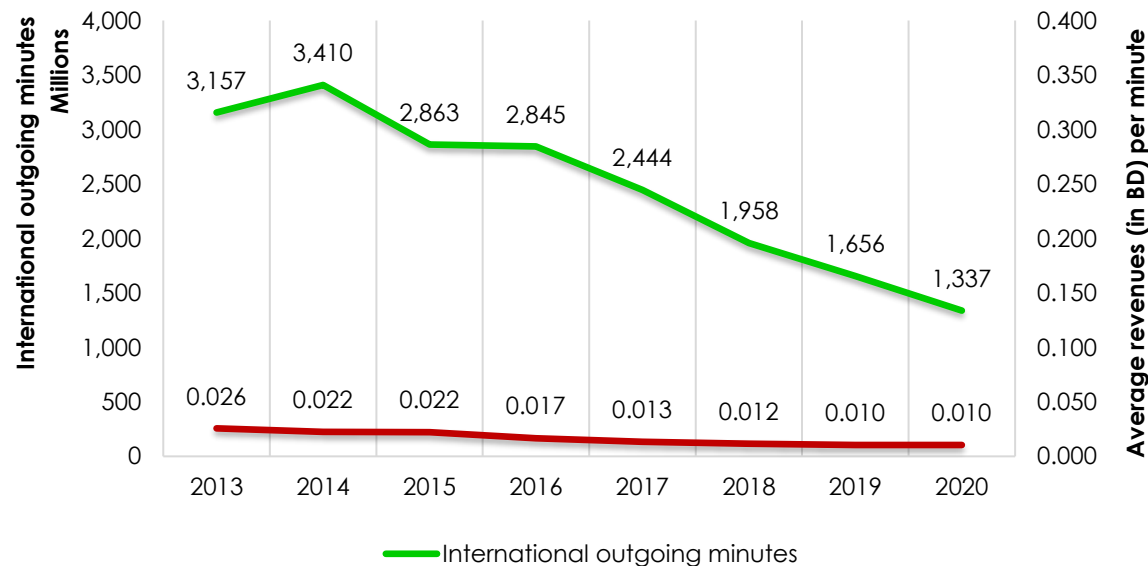
Zone 3: Calls to other major destinations (Australia, Canada, France, Germany, Greece, Italy, Iran, New Zealand, Thailand, UK, USA and Yemen).

Zone 4: Calls to all other international destinations.

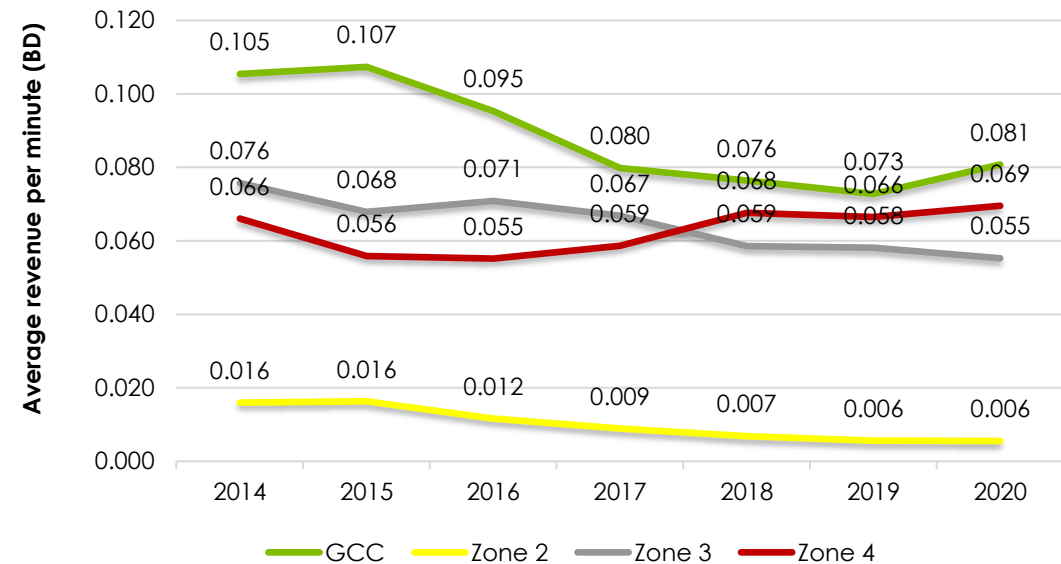
Average Revenue per Minute for International Calls

- The average revenue per minute for international calls has fallen by almost 61% from 2014 to 2020.
- Despite the substantial decrease in traffic, the overall average revenue per minute remains unchanged at 0.010 between 2019 and 2020.
- In comparison to 2019, the biggest increase in average revenue per minute in 2020 was mainly from GCC (11% increase).
- By end of 2020, the total international voice traffic in minutes was 1,337,239,300 with revenue of BD 13,931,374.

Average revenue per minute vs. growth in traffic

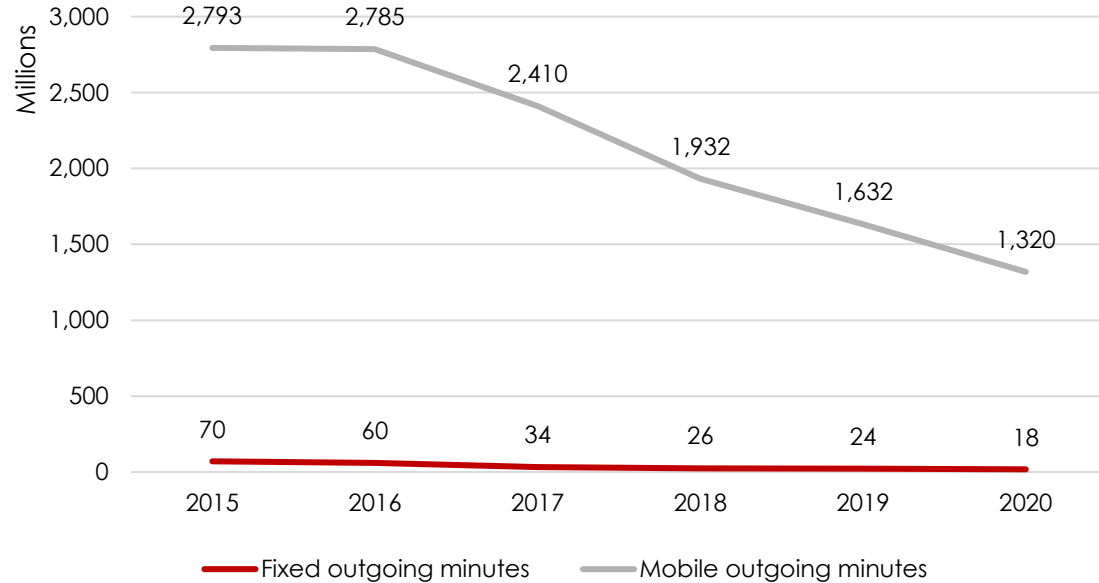


Average revenue per minute by zone

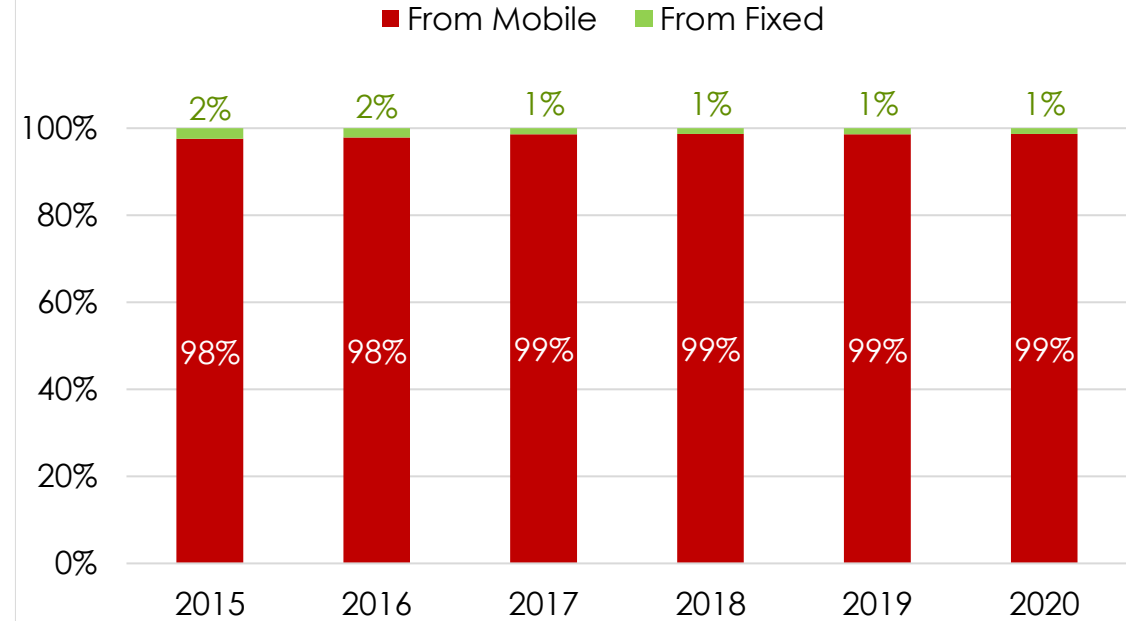


International Outgoing Minutes

International outgoing traffic (minutes)



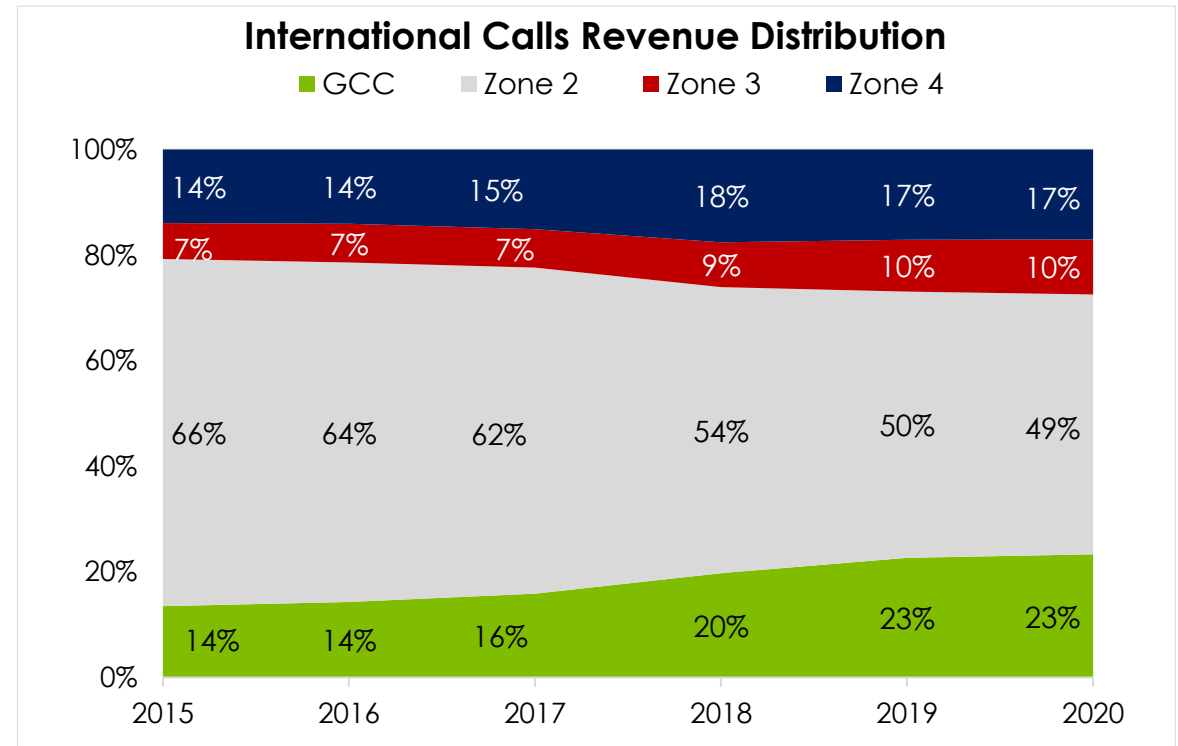
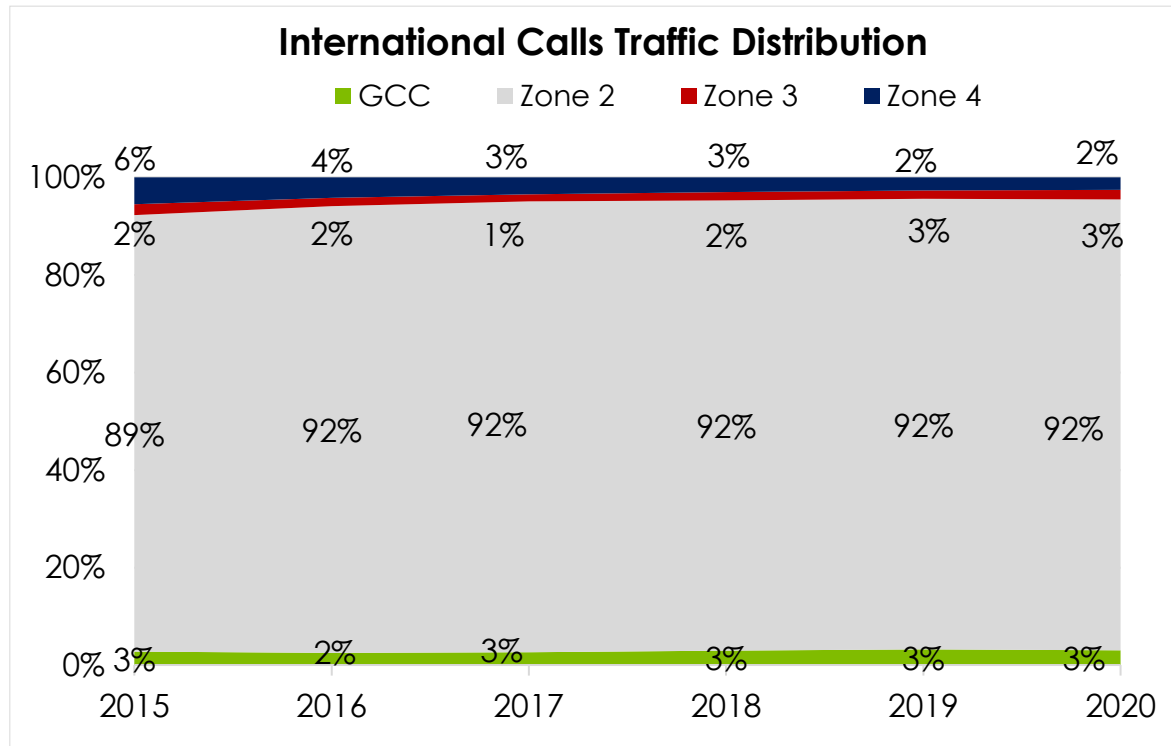
Proportion of international outgoing minutes



- In 2020, International outgoing minutes originated from mobile decreased by (19%) compared to 2019, while minutes originated from fixed fell by (25%) over the same period.
- International outgoing minutes originated on mobile represented 99% of the total international outgoing minutes in 2020.

*Minutes including prepaid calling card traffic..

International Traffic vs. Revenues by Destination Called

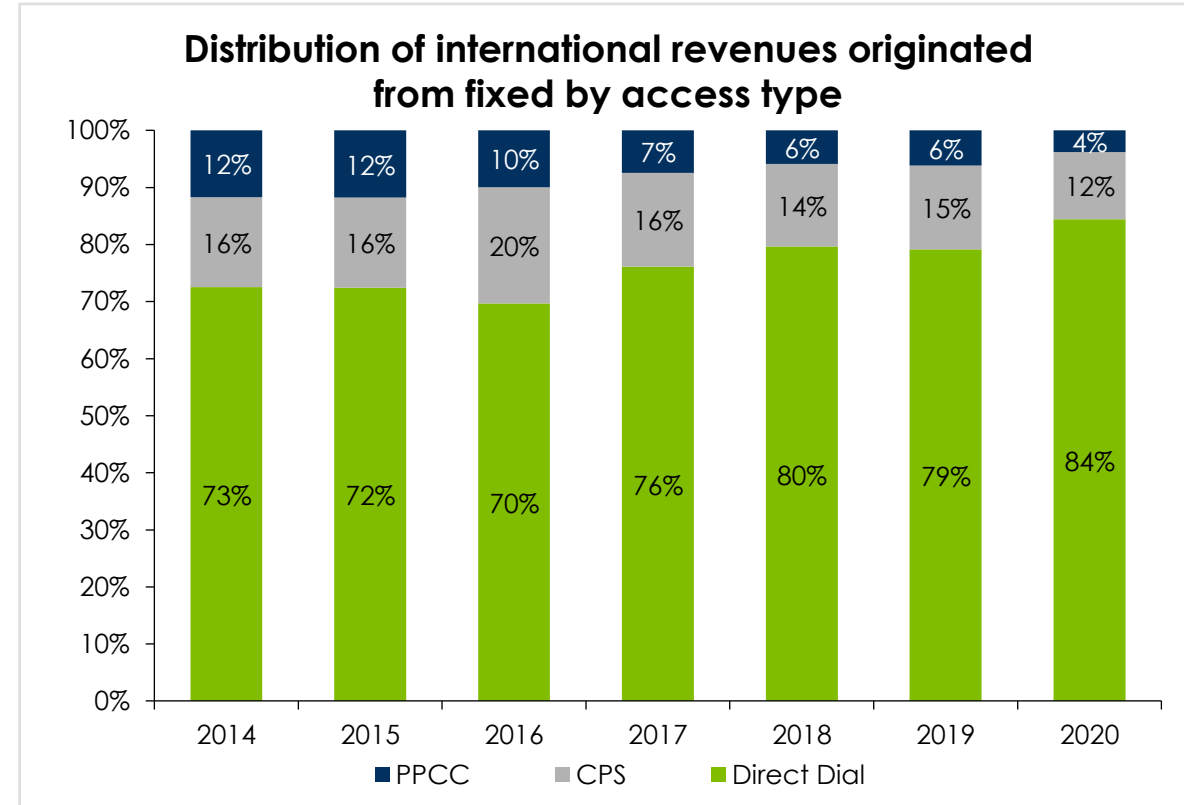
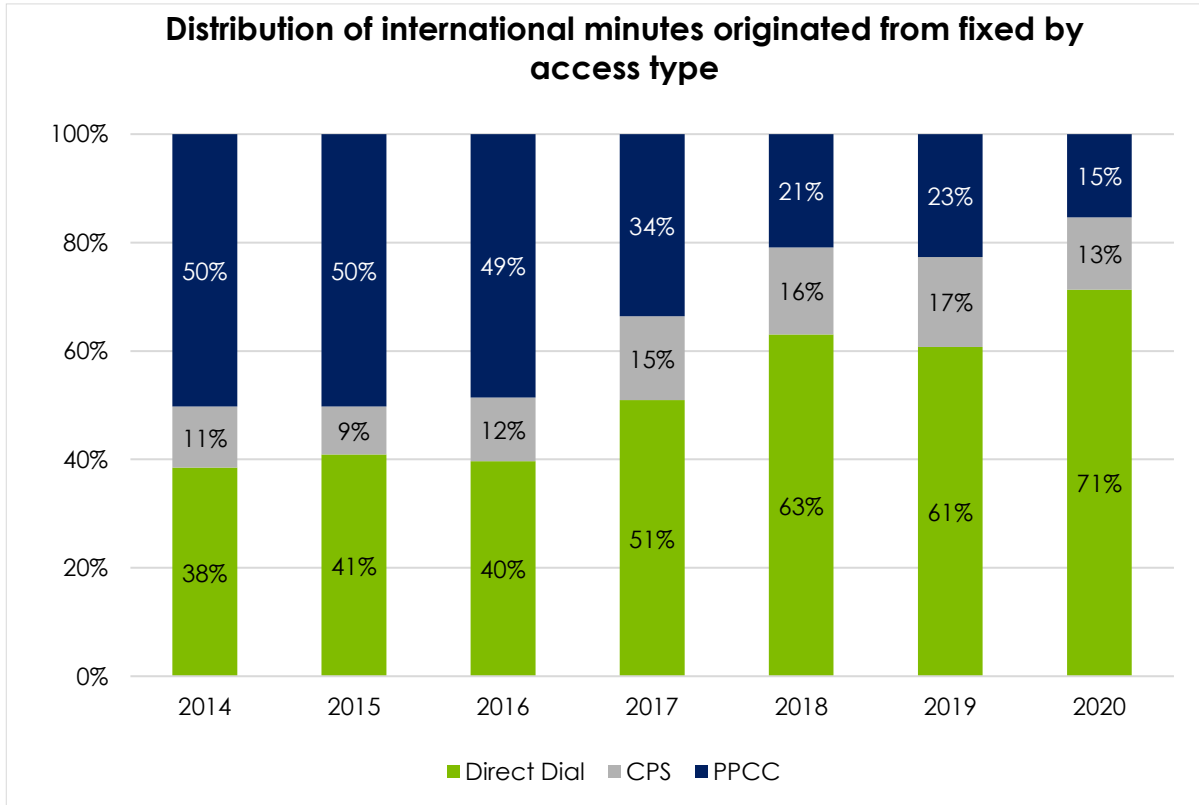


- **92% of total international calls minutes were made to Zone 2 (South Asian countries) in 2020.**

- **49% of international revenues were generated from calls to Zone 2 (South Asian countries) in 2020.**

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

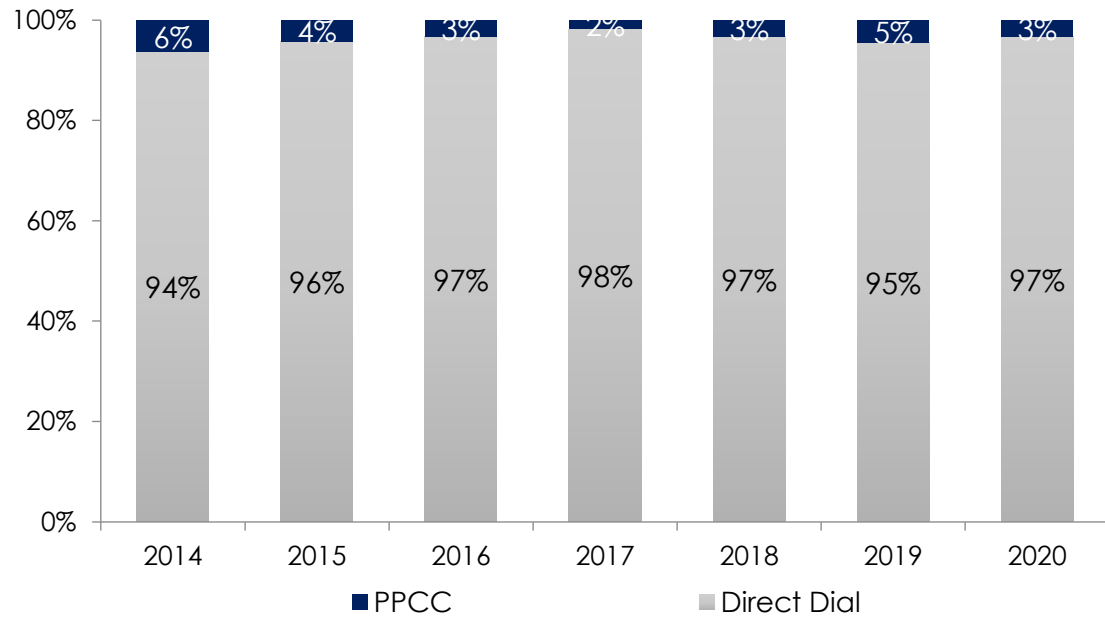
Distribution of International Outgoing Minutes/Revenues by Access Type - Fixed Telephony



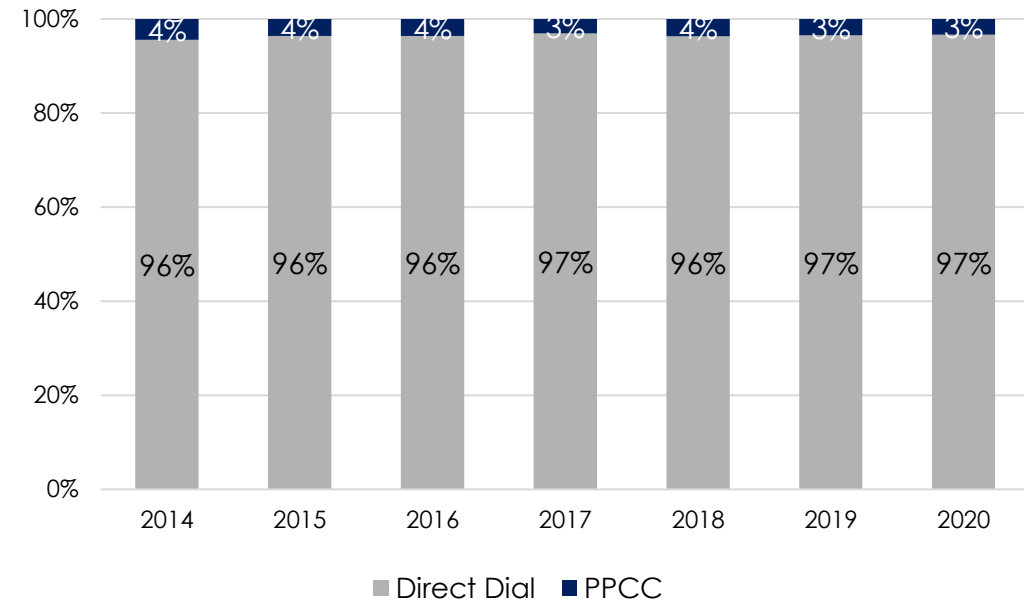
- Although PPCC represents 15% of total fixed originated minutes, its revenue represents 4% of total fixed telephony traffic revenue.
- At the same time, direct dial's fixed originated minutes represent 71% of total minutes with a percentage of 84% of total revenue.
- Percentage of revenue from direct dial in 2020 increased from 79% to 84%.

Distribution of International Outgoing Minutes/Revenues by Access Type - Mobile

Distribution of International minutes originated from mobile by access type



Distribution of international Revenue originated from mobile by access type



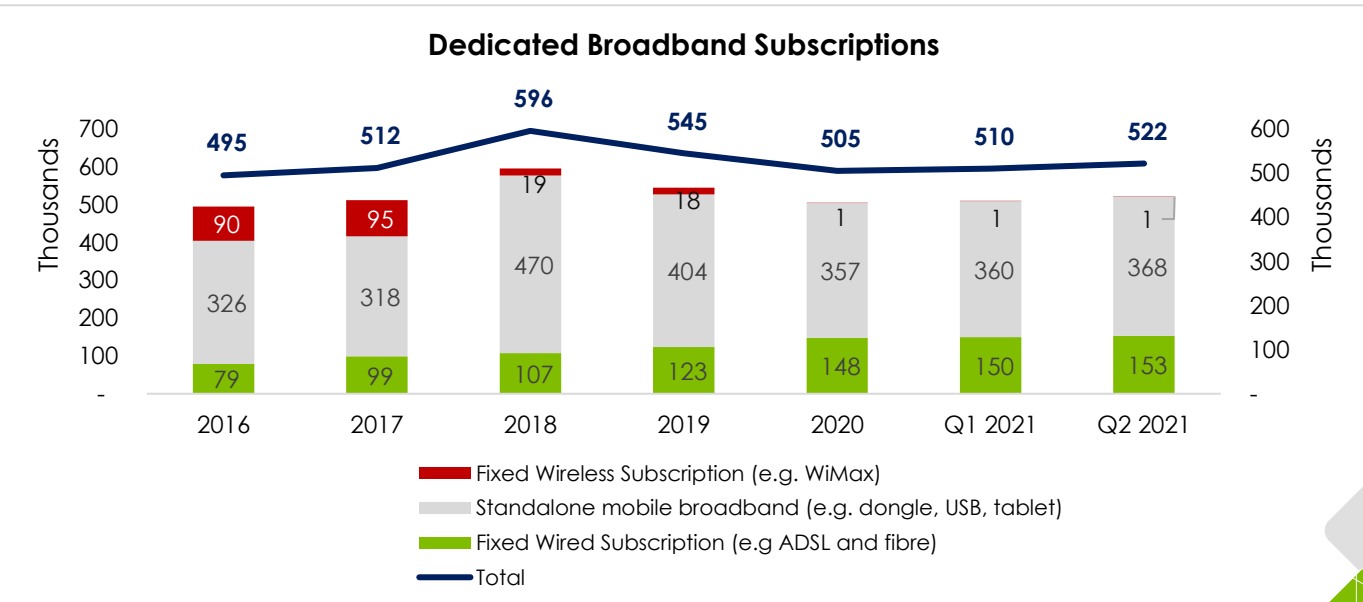
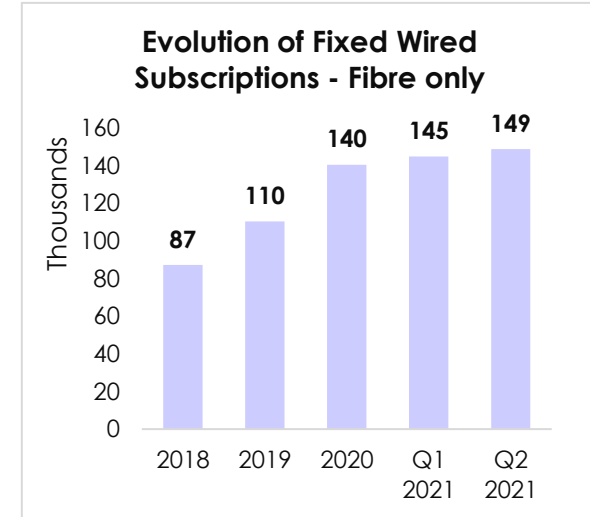
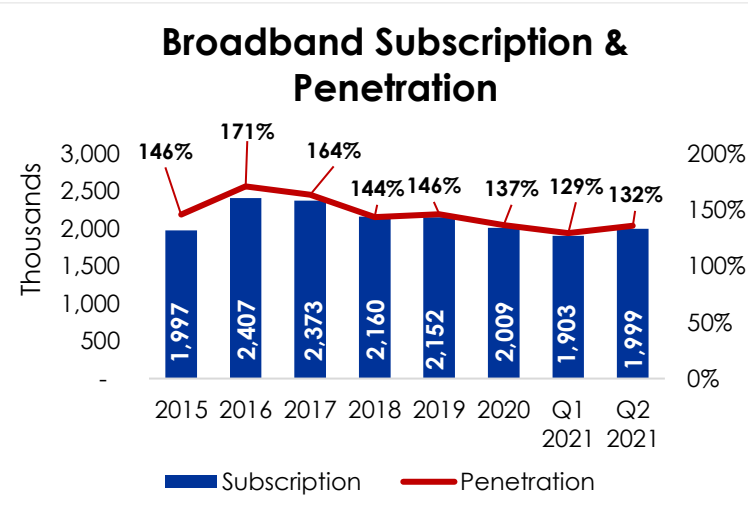
- In 2020, international direct dial traffic originated from mobile represented 97% of the total traffic. The pricing of mobile-originated international direct dial services has become even more competitive in recent years.
- The direct dial represented 97% of total revenues originated from mobile.

BROADBAND SERVICES



Broadband Services

- At the end of Q2 2021, there were approximately 1.99 million broadband subscriptions compared to 2 million at the end 2020 (1% drop), representing a broadband penetration of 132%.
- In comparison to 2020, the penetration rate has dropped even further due to a drop in subscriptions.
- Broadband subscription growth is mainly driven by growth in the number of mobile broadband subscriptions as it represented around 92% of total broadband subscriptions at the end of Q2 2021. However, Fixed Broadband has also increased by 4% by the end of Q2 2021 relative to the end of 2020.
- By Q2 2021, there were 522 thousand subscriptions for dedicated broadband services.

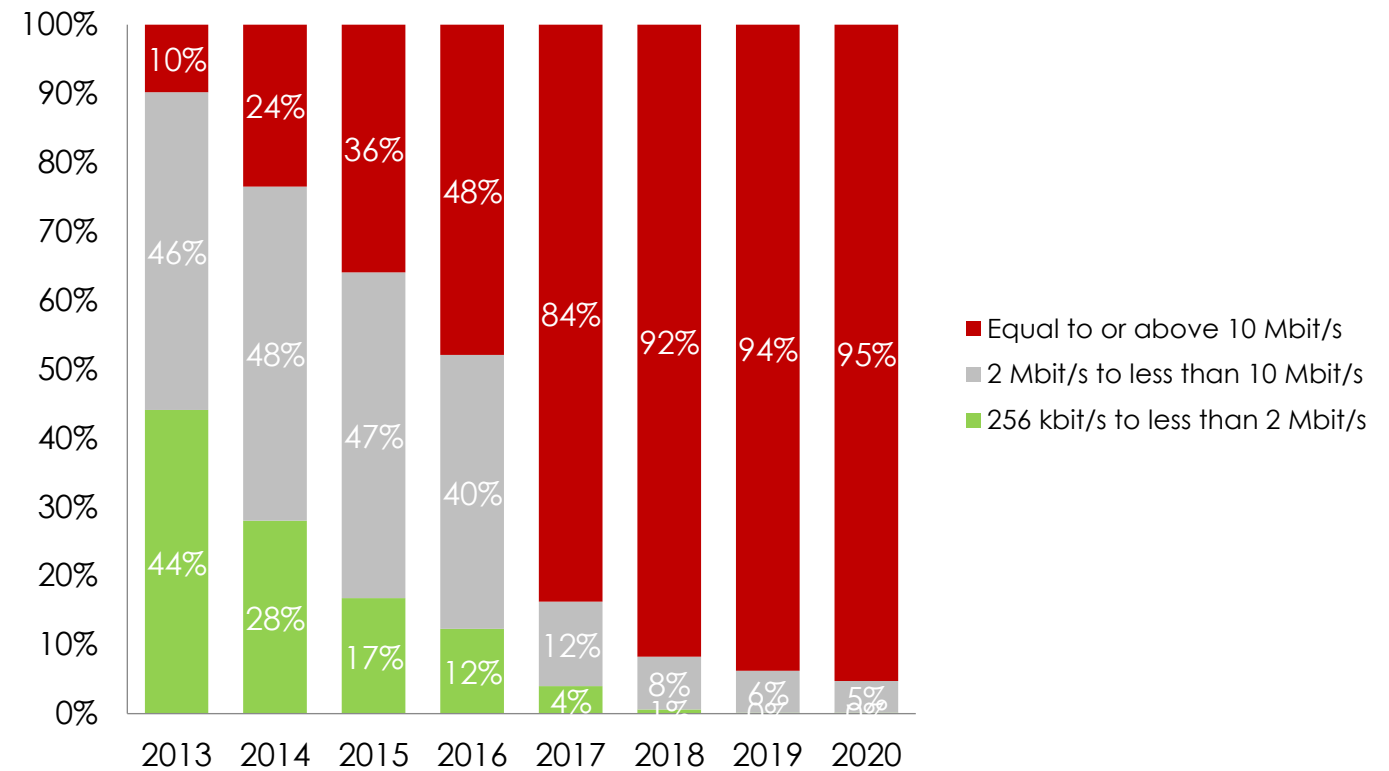


End of Q2 2021	1,998,894	Broadband subscription
	132%	Penetration rate
	92%	Mobile broadband subscriptions

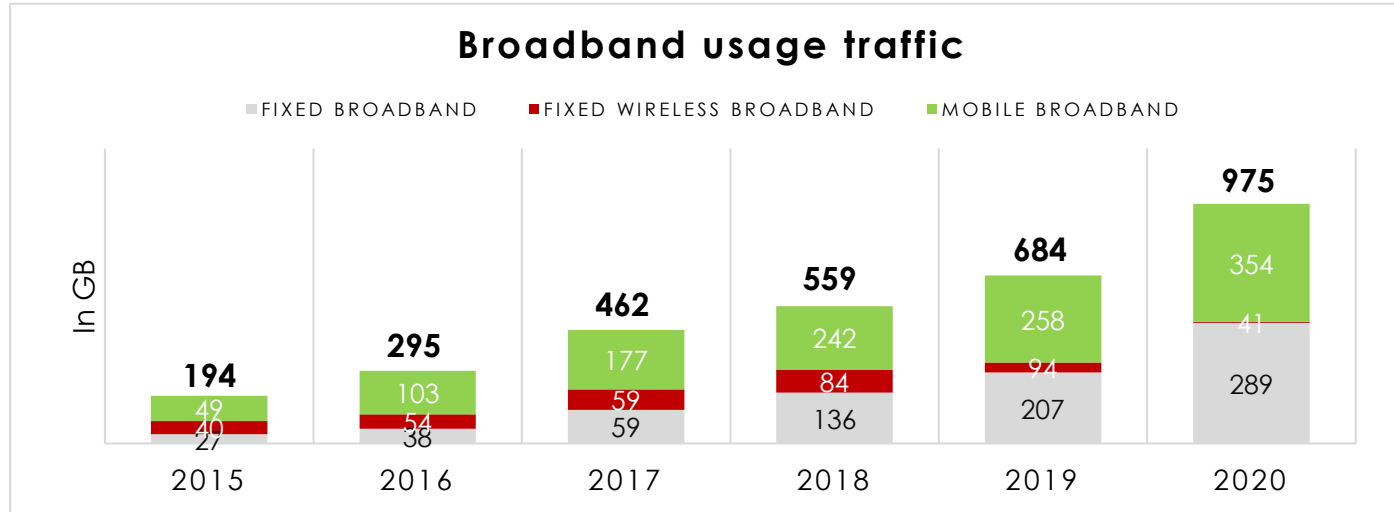
Proportion of Broadband Subscribers by Access Speed

- By the end of 2020 95% of fixed wired broadband subscribers were on plans with advertised speeds of 10 Mbps and above compared to only 10% in 2013.
- This indicates subscribers' increased use of services that require a higher speed plus the affordability of the prices of higher speed packages.

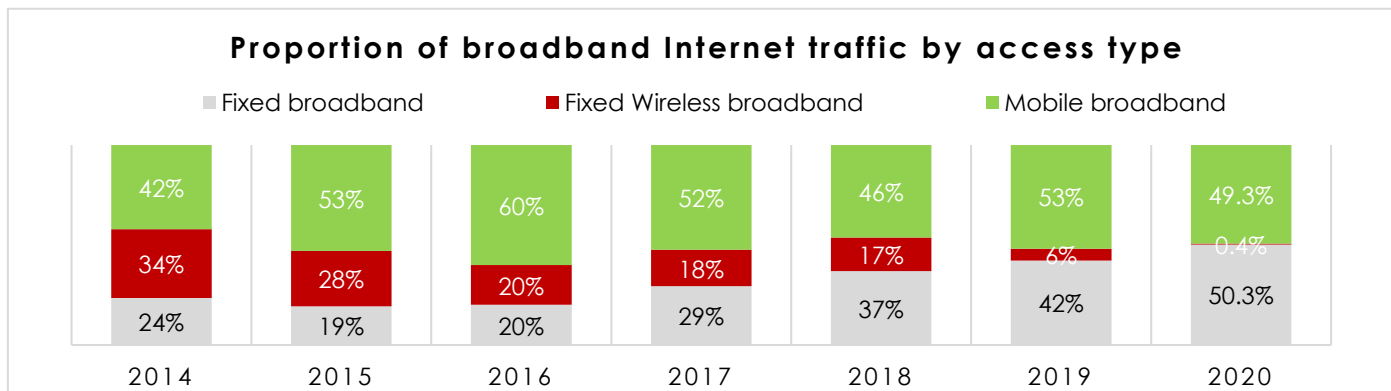
Proportion of fixed wired broadband subscribers by access speed



Broadband Usage



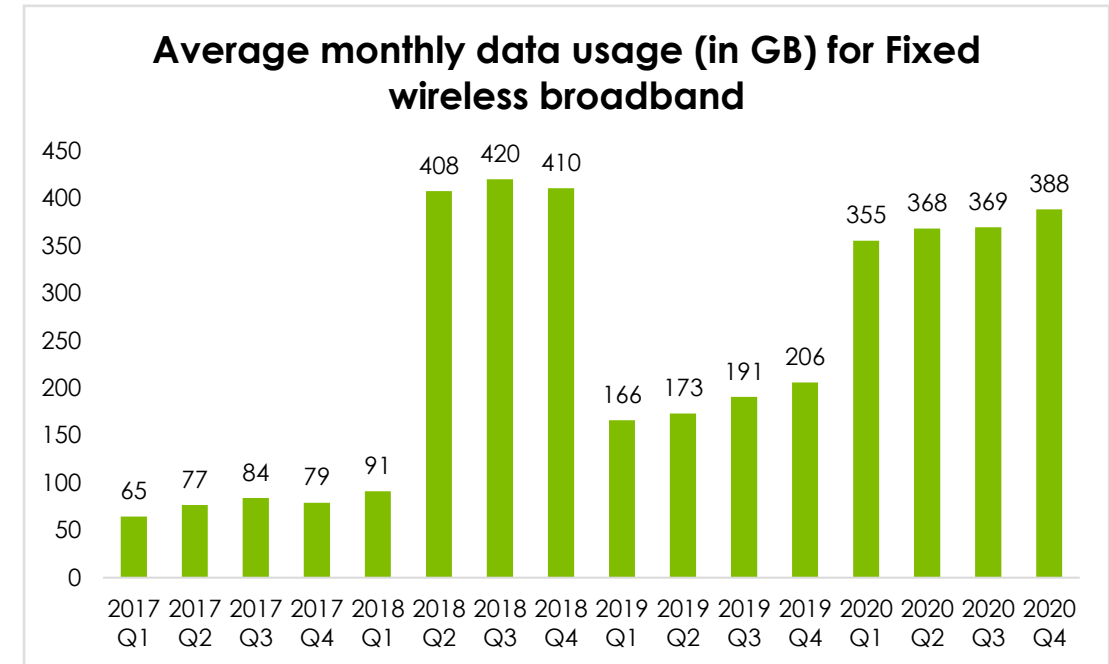
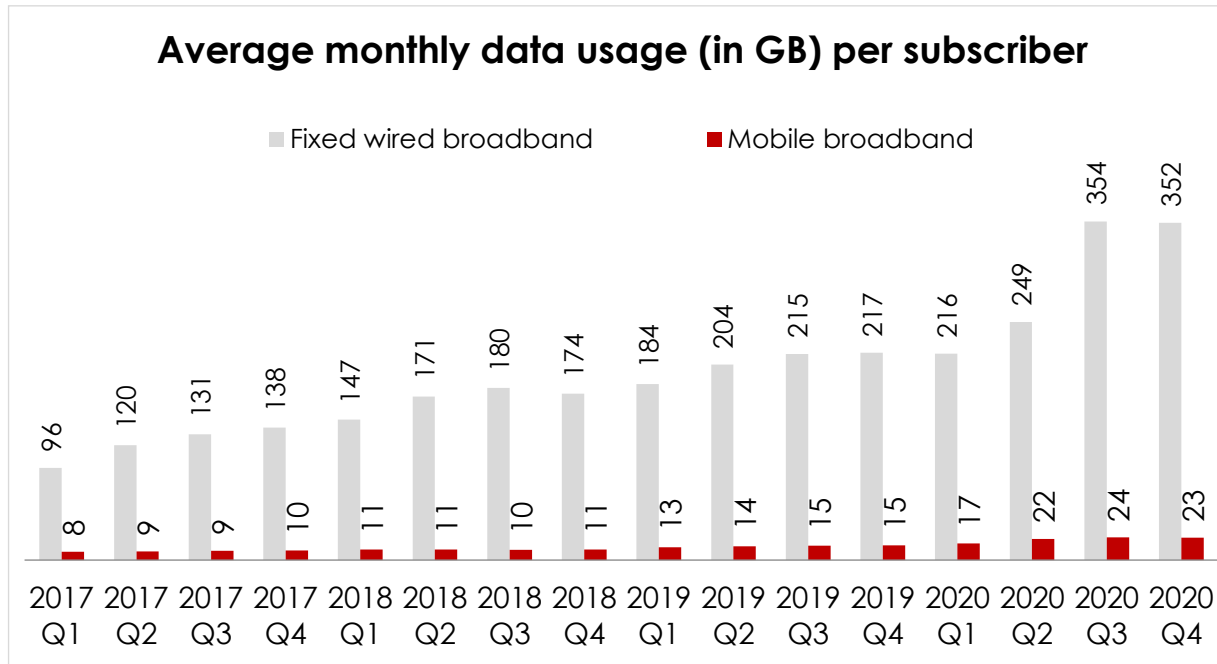
*including data roaming



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

- In 2020 total broadband usage reached 975 million GB compared to 194 million GB in 2015 (Fivefold increase between 2015 and 2020)
- Between 2015 and 2020, Mobile broadband usage increased Sevenfold.
- The traffic (in GB) generated from mobile broadband represented 49% of the total broadband usage in 2020, compared to 42% in 2015. This increase in Mobile Broadband traffic may be due to extra data allowance offered by Mobile Network Operators, increase in % of mobile subscriptions with data, and increase of internet applications usage.
- Between 2019 and 2020, fixed wired broadband usage increased by 95% due to the increase in fibre uptake and monthly data allowance. Fixed wireless usage dropped by 91%, and mobile broadband usage increased by 41%. Also, due to the impact of COVID19, learning and working from home has contributed to the increase in monthly data allowance, as well as the increase in online gaming and other internet applications usage.

Average Usage (In GB) per Broadband Subscription

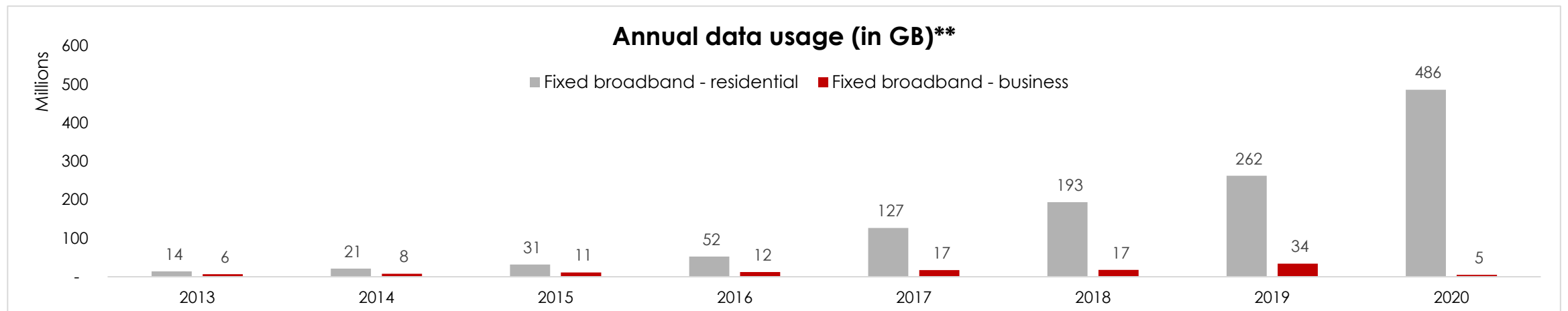
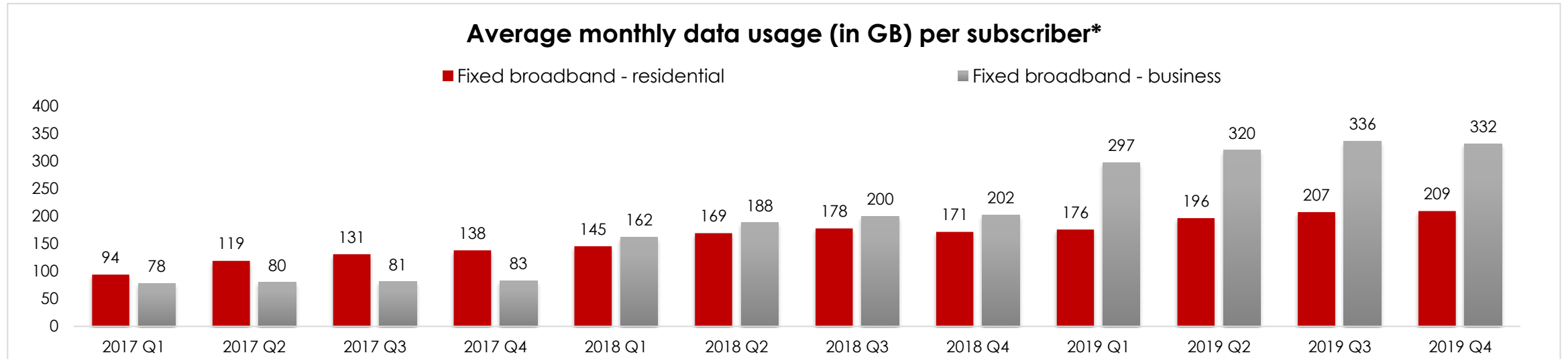


*Mobile broadband includes dedicated mobile broadband and broadband added to voice

** 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 wireless broadband subscribers generated the highest average monthly usage followed by fixed wired subscribers, relative to the number of subscribers. Lowest usage was generated by mobile broadband subscribers (although the overall average mobile broadband usage per subscriber is heavily influenced by low use pay-per-use subscribers).

Average Usage (In GB) per Broadband Subscription



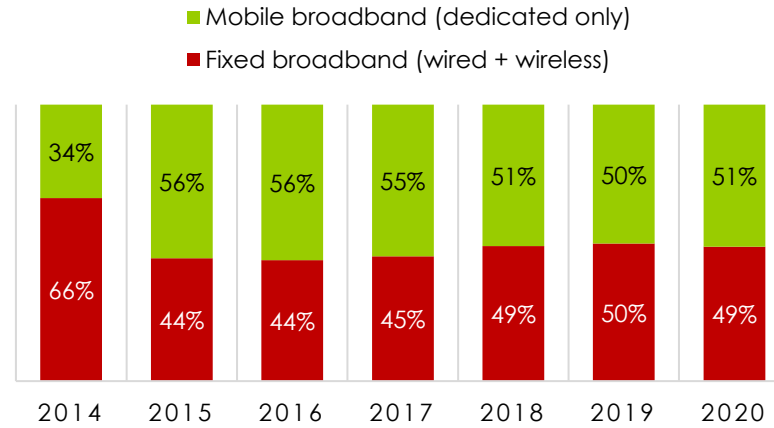
* Drop in Fixed BB data usage per subscriber is due to an operator focusing mainly on its Residential subscribers as of 2020.

** Significant increase in Residential Fixed Broadband and drop in Business Fixed Broadband is due to an operator's inability to segregate between both segments for the year 2020, hence, data is presented on an Annual basis instead.

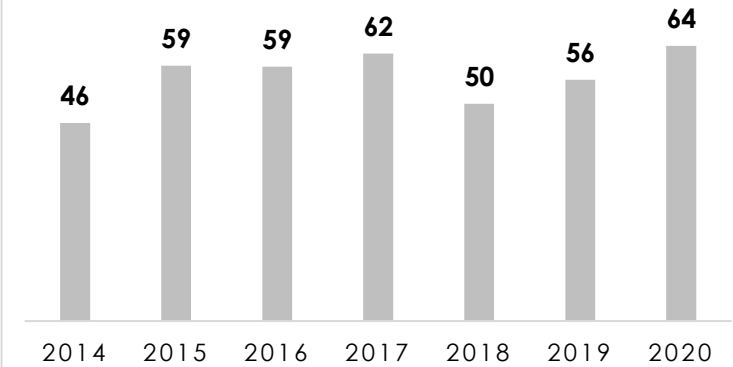
Broadband Revenue

- Broadband revenues increased to reach 64 million BD at the end of 2020.
- Revenue generated from mobile broadband represents 51% of total broadband revenue in 2020 relative to 50% in 2019.
- Revenue generated from business fixed broadband represents 18% of total fixed broadband revenue in 2020 compared to 22% in 2014.
- The average revenue per subscription for residential fixed broadband increased by 11% over the last year reaching BD16. Similarly, the average revenue per subscription of business broadband has increased by 11% over the same period to reach BD 78.

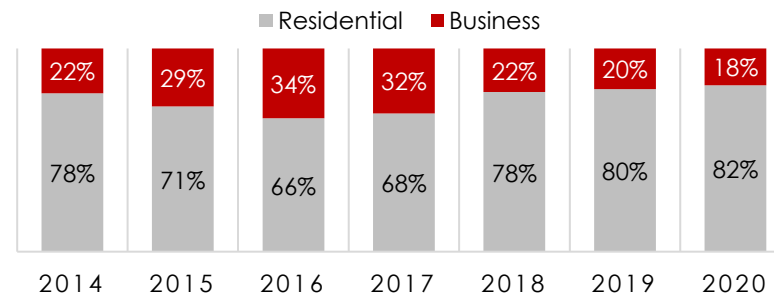
DISTRIBUTION OF BROADBAND REVENUE



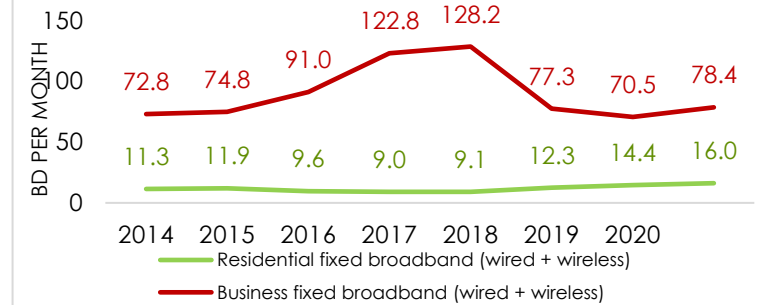
TOTAL BROADBAND REVENUE (BD IN MILLION)



DISTRIBUTION OF REVENUE GENERATED FROM FIXED BROADBAND (WIRED + WIRELESS)



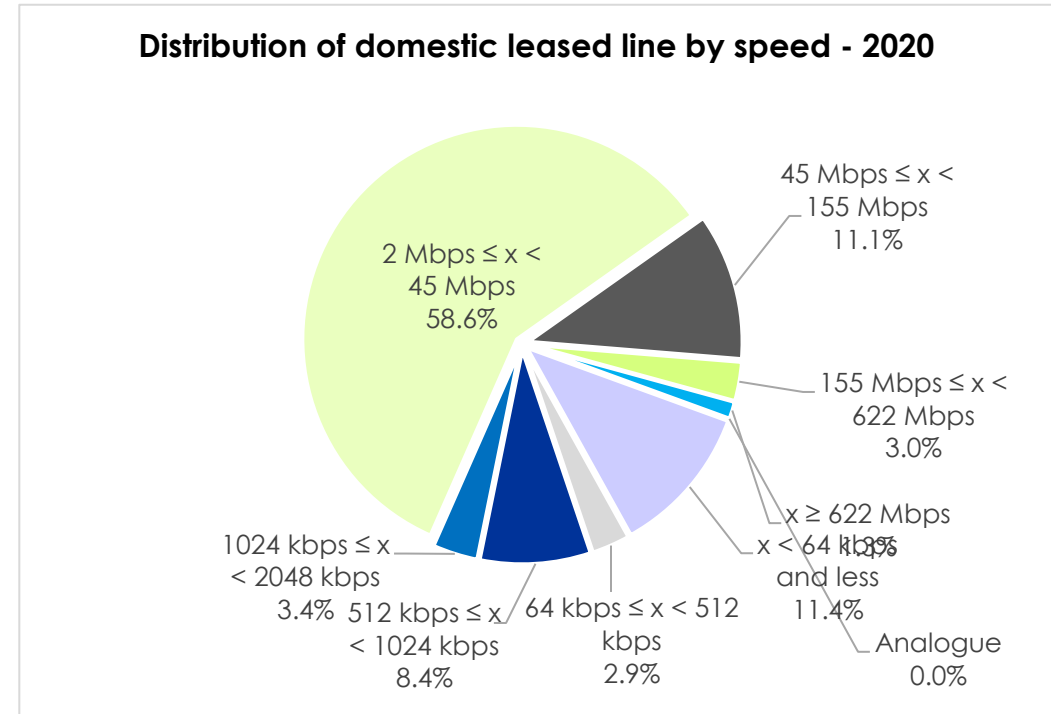
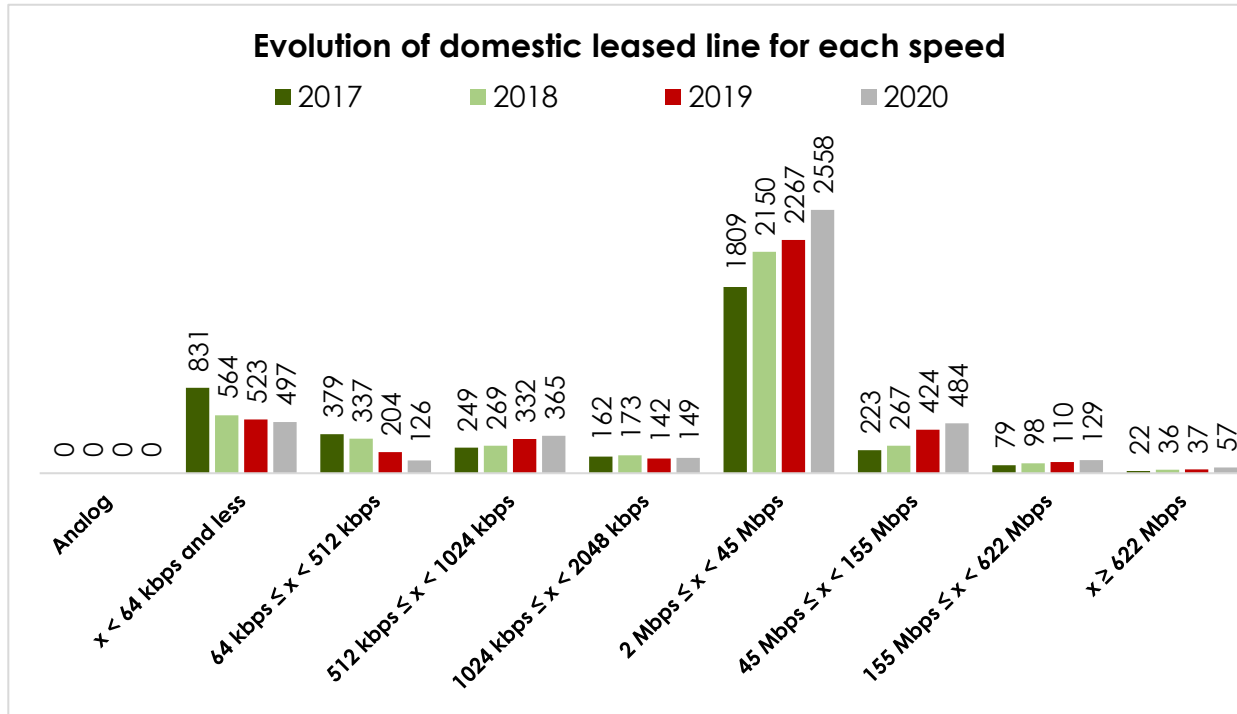
AVERAGE MONTHLY REVENUES PER FIXED BROADBAND SUBSCRIPTION





LEASED LINE

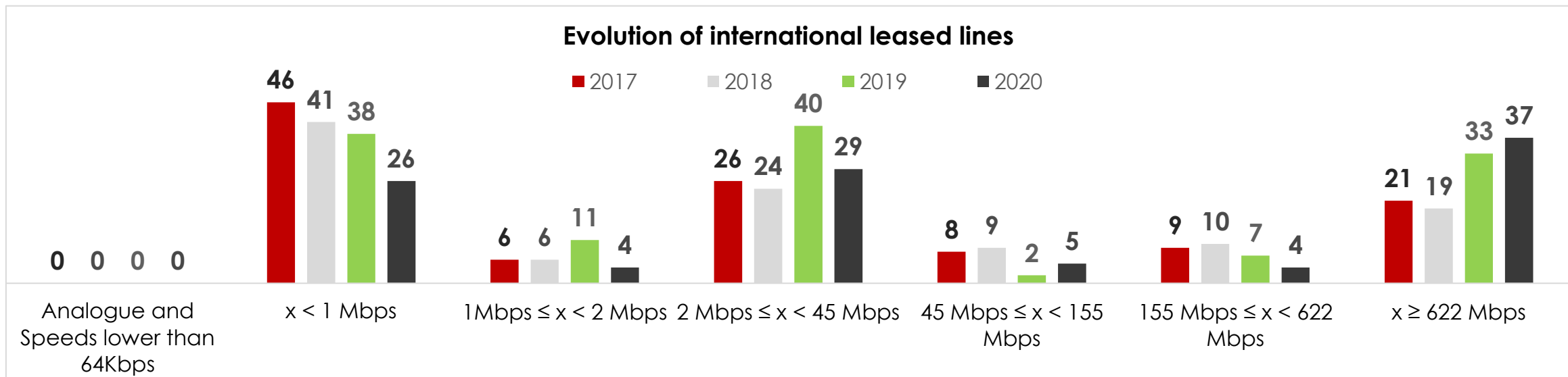
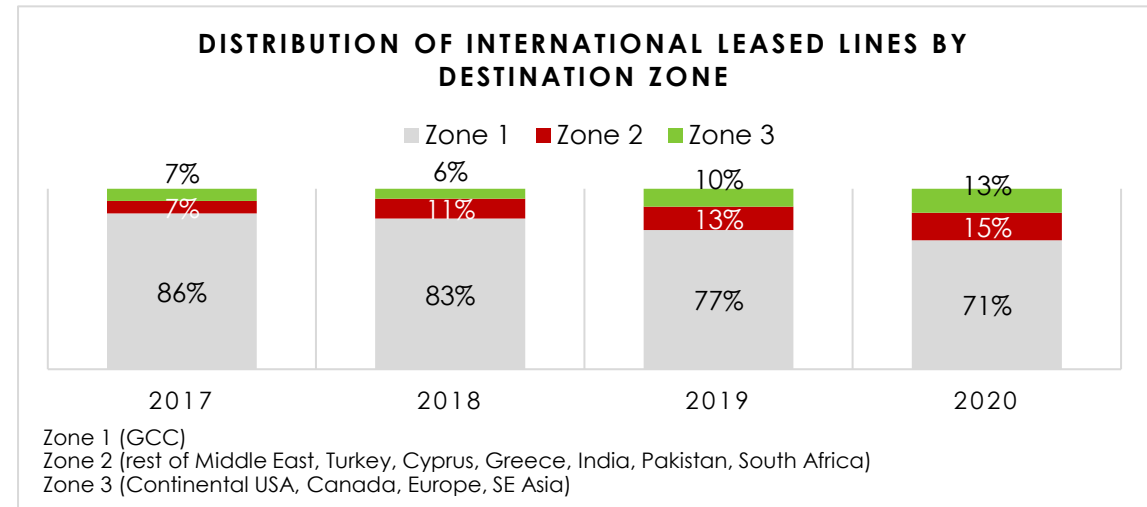
Domestic Leased Lines



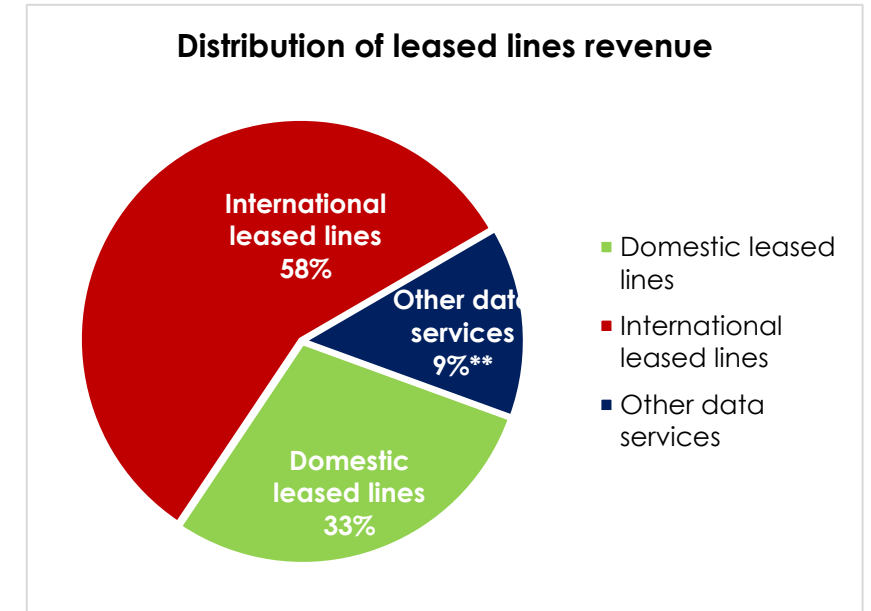
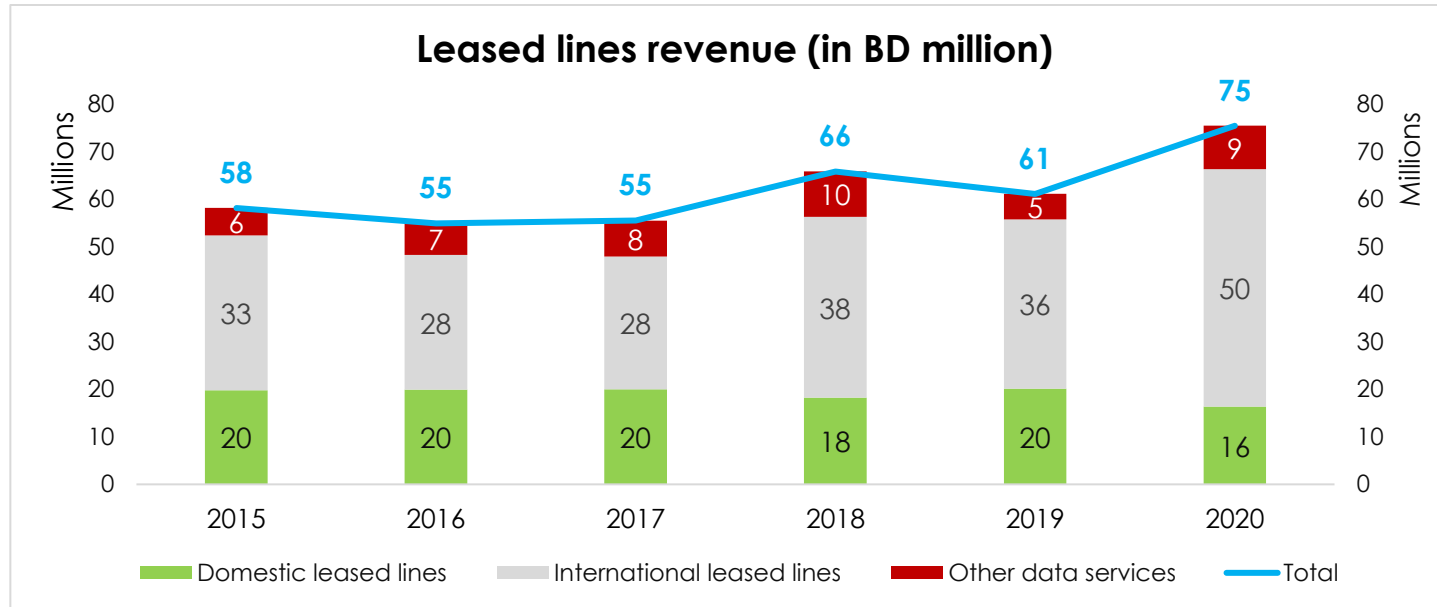
- The total number of domestic leased increased by 8% from 4039 lines in 2019 to 4365 lines in 2020.
- While there has been a further drop in slower speed services, as a result of migration to higher speed packages.

International Leased Lines

- Total Number of International leased lines dropped from 130 lines at the end of 2019 to 105 lines in 2020.
- 29% of international leased lines are for speeds less than 2Mbps, while 71% are for speeds more than 2Mbps.
- 71% of international leased lines are in the GCC area.



Leased Line Revenues

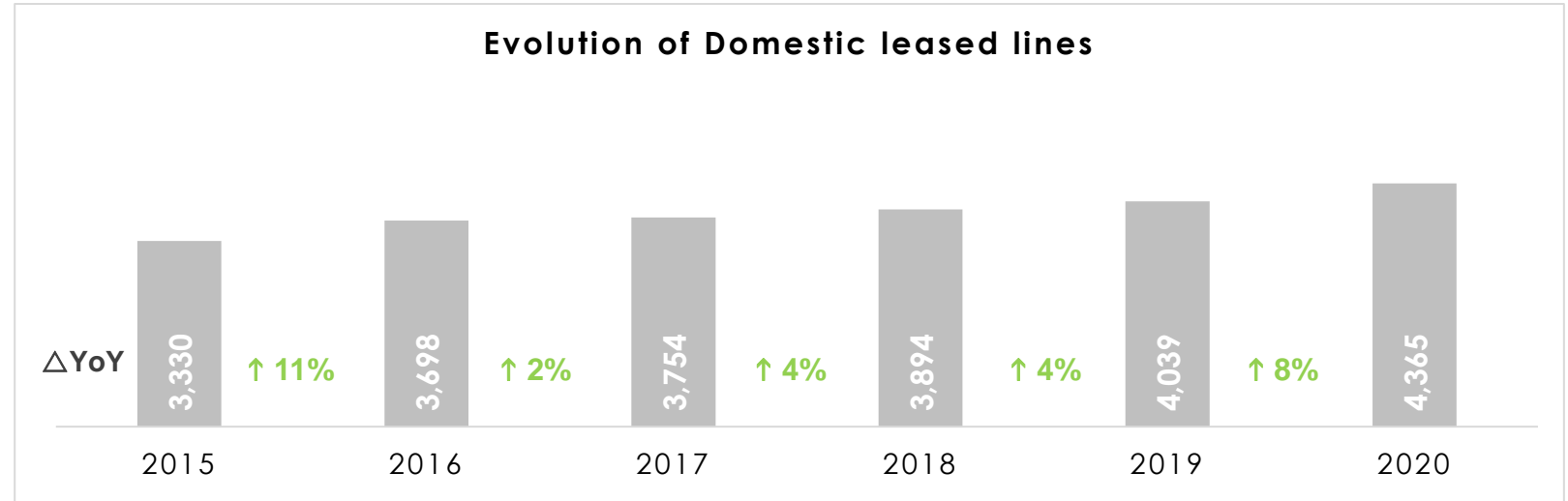


- The revenue generated from leased lines services increased by 23% in 2020 relative to 2019. While domestic leased lines revenue decreased by 19% in 2020, international leased lines revenue increased by 40% and other data services revenue decreased by 69% in the same year.

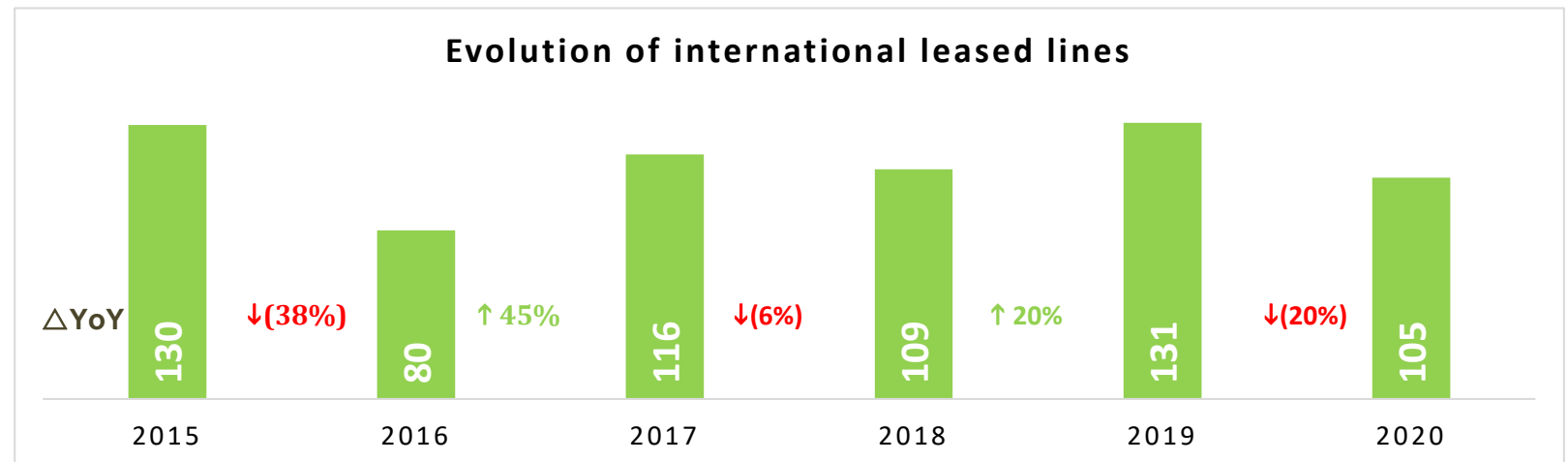
Leased Lines Revenue

- The total number of domestic leased increased by 8% at the end of 2020 compared to 2019. Meanwhile, the number of international leased lines dropped by 20% over the same period.
- Leased lines revenue increased by 23% to BHD 75 Million in 2020 compared to BHD 61 Million in 2019.

Evolution of Domestic leased lines



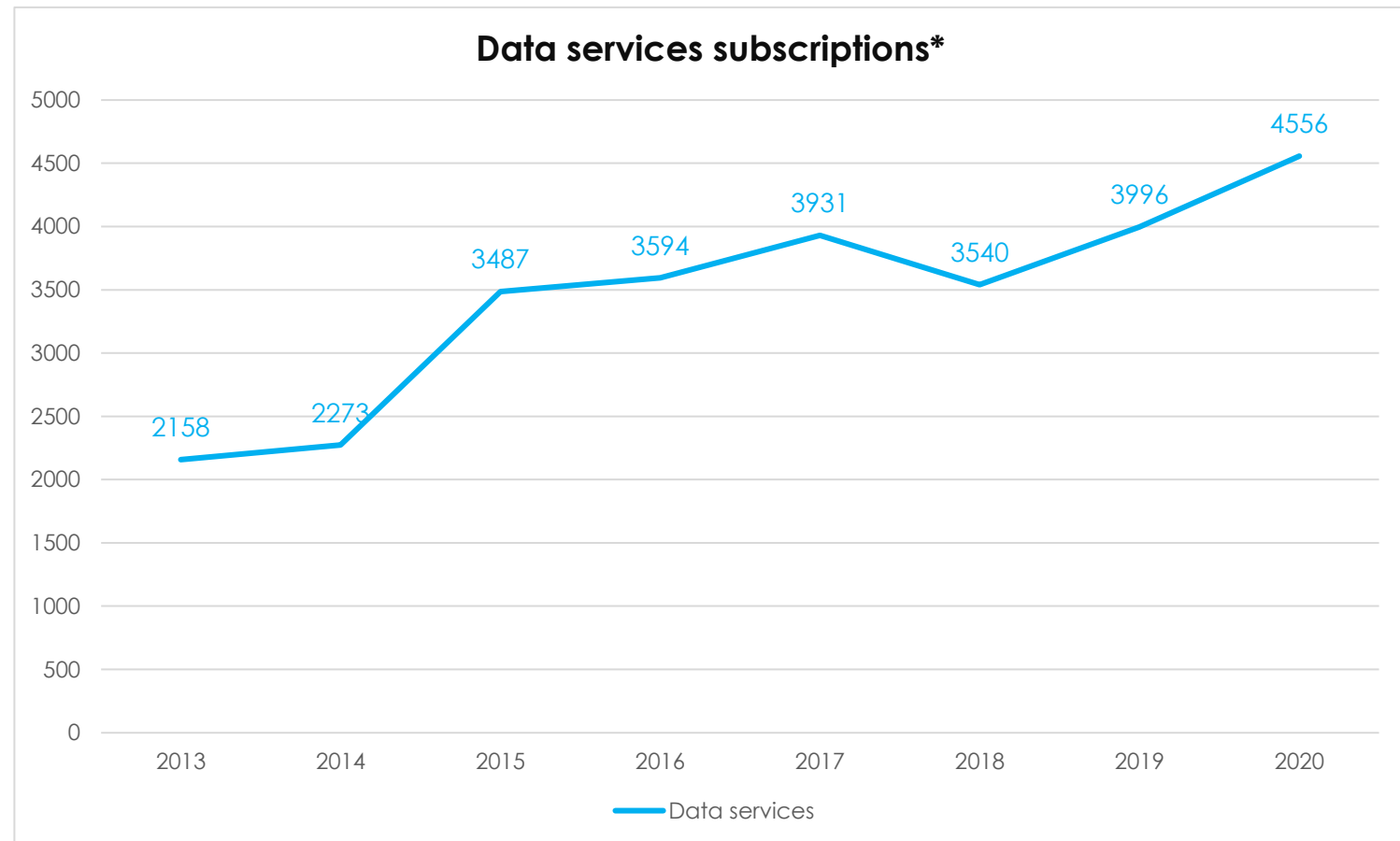
Evolution of international leased lines



End of 2020	4,365	Domestic leased lines
	105	International leased lines
	BD 75,421,477	Leased lines revenues

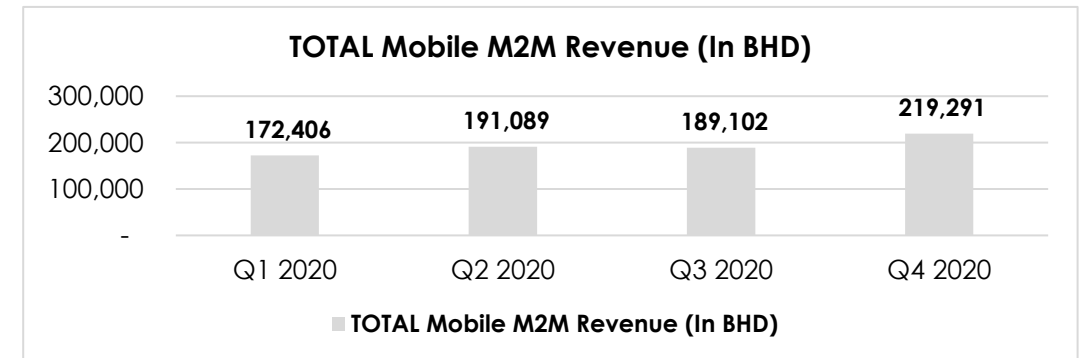
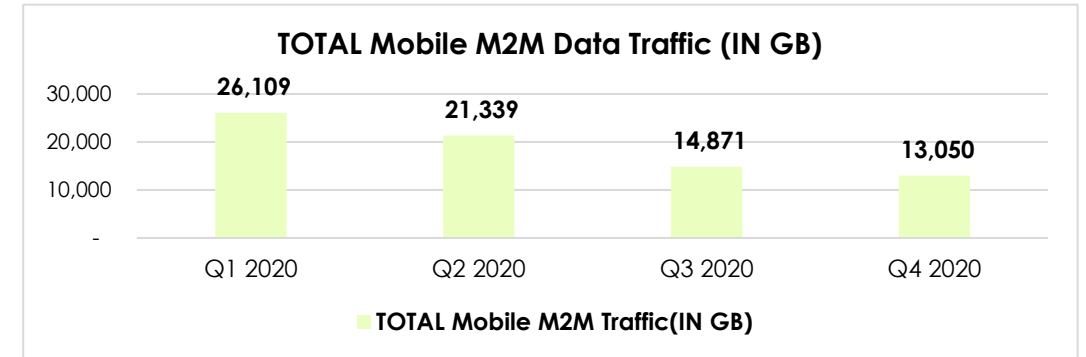
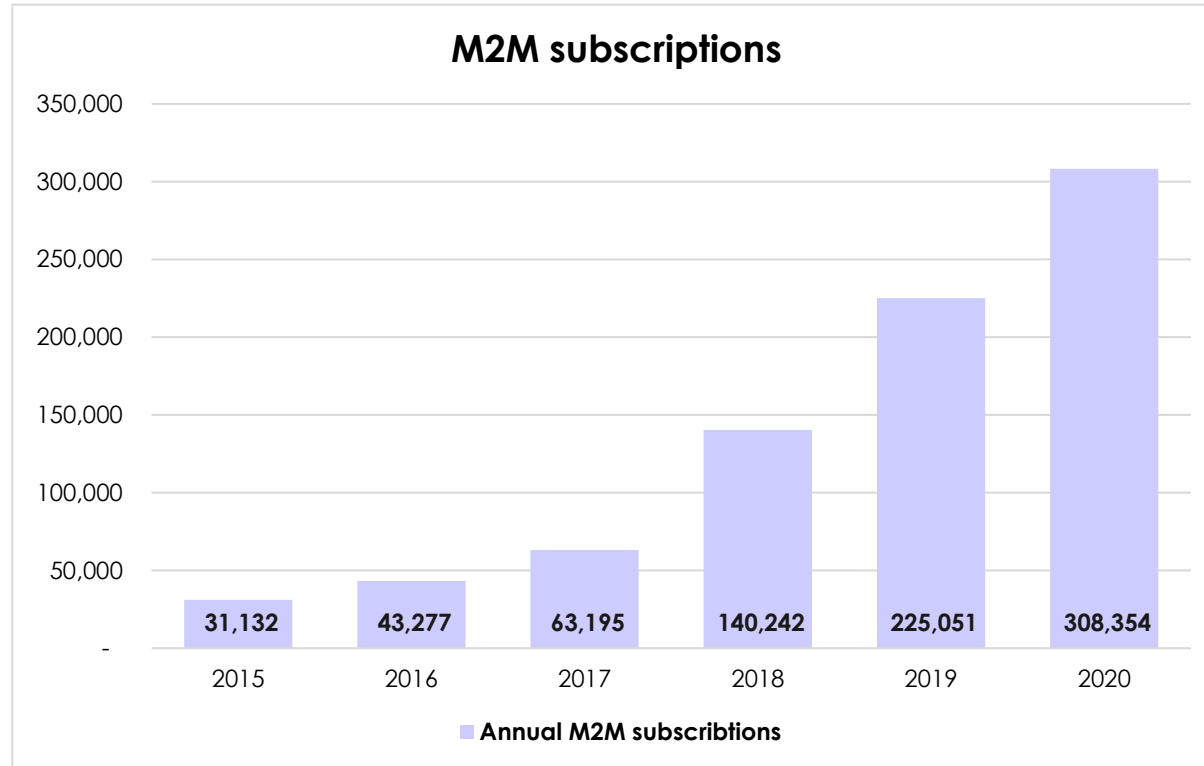
Data Services

- Data services increased by 14% in 2020 relative to 2019.
- Most of the data services are National MPLS services, which account for almost 83% 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*

Mobile M2M Subscriptions

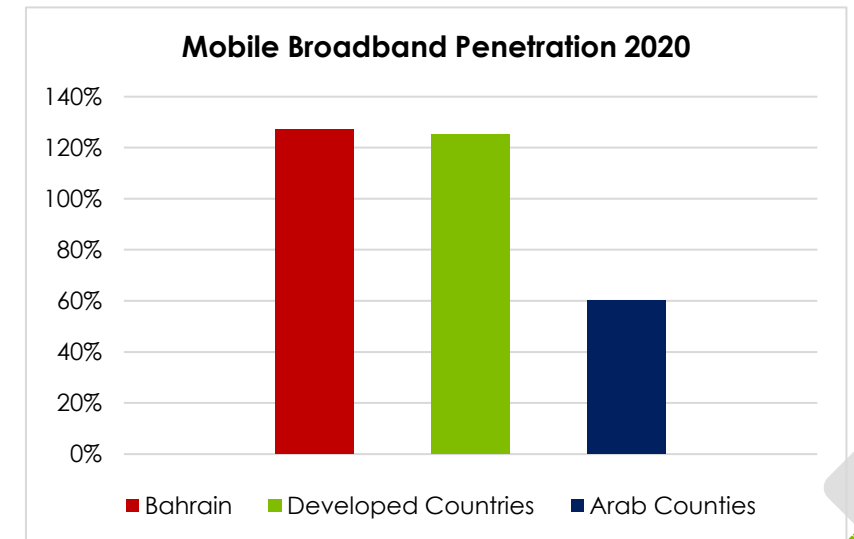
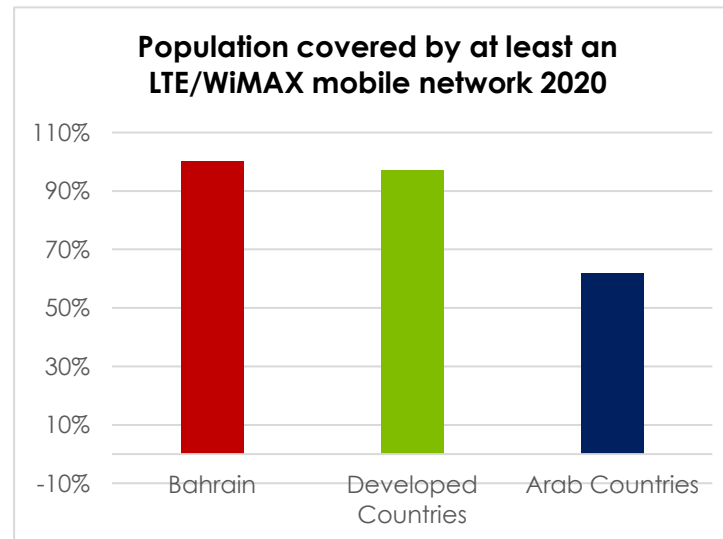
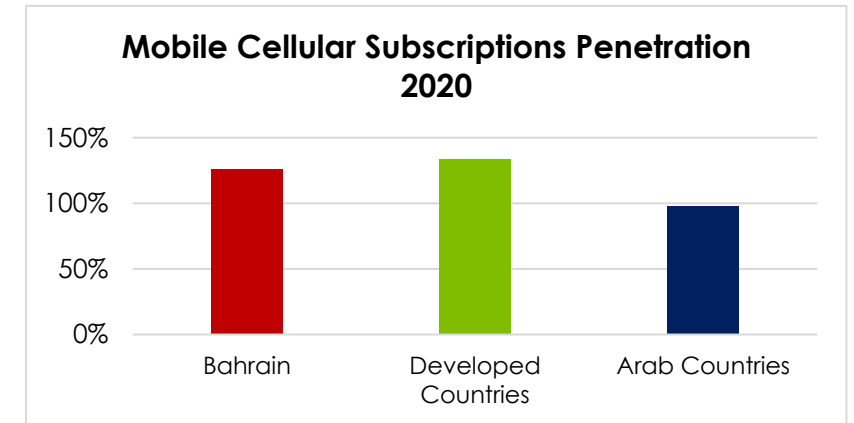
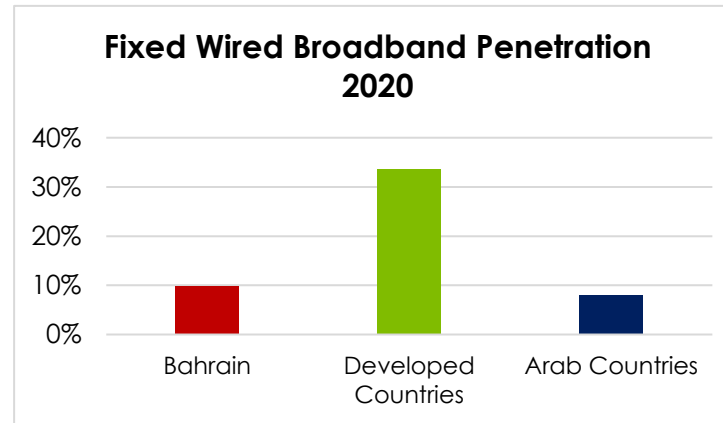
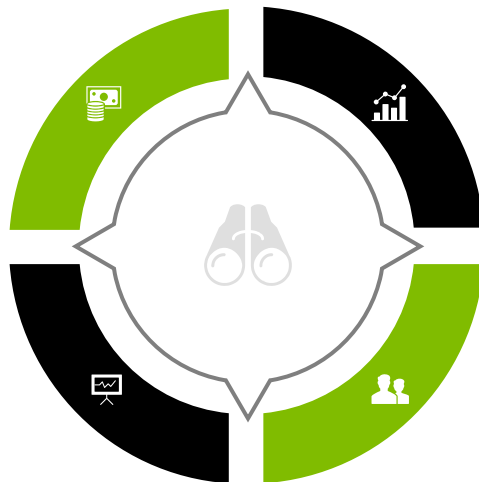


- M2M subscriptions have grown by around 70 – 80 thousand subscriptions in the last 3 years. All in all, By 2020, M2M subscriptions increased by almost tenfold relative to 2015.
- M2M subscriptions include banking services, vehicle tracking, Point of Sales, Smart meters among other services.

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.

* Estimates 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 operator
PPCC	Pre-Paid Calling Card
PSTN	Public Switched Telephone Network
PPP	Purchasing power parity
SMS	Short Message Service
TRA	Telecommunications Regulatory Authority



Indicator	Definition
Fixed-telephone subscriptions	<p>Fixed-telephone subscriptions refers to the sum of all active</p> <ul style="list-style-type: none"> i) analogue fixed-telephone lines, ii) voice-over-IP (VoIP) subscriptions, iii) fixed wireless local loop (WLL) subscriptions, iv) ISDN voice-channel equivalents, v) fixed public payphones and vi) satellite-based subscriptions <p>provided to fixed locations that allow for a voice communication. This indicator was previously called Main telephone lines in operation.</p> <p>*Active lines are those that have registered an activity in the past three months.</p>
Prepaid mobile subscribers (i271p)	<p>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).</p>
Postpaid mobile subscribers (i271pd)	<p>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.</p>
Active mobile-broadband subscriptions (i271mw)	<p>Active mobile-broadband subscriptions refers to the sum of active handset-based and computer-based (USB/dongles) mobile-broadband subscriptions that allow access to the Internet. It covers actual subscribers, not potential subscribers, even though the latter may have broadband-enabled handsets. Subscriptions must include a recurring subscription fee or if in the prepayment modality, pass a usage requirement – users must have accessed the Internet in the last three months.</p> <p>Clarification: For mobile data subscription to be considered broadband, the operator must advertise a connection that will be capable of using at least a 3G/UMTS network, so that a nominal downloading speed of 256 kbit/s is at a minimum expected. Hence, subscriptions that are only to use GPRS and EDGE technologies are to be excluded. A contract (post pay) subscription pays a recurrent bill with a predetermined frequency. It should be counted as an active mobile broadband subscription no matter the effective data consumption realized by the user. A prepayment or a pay-as-you-go subscription needs to pass the activity criterion to be considered as 'active': a billable Internet connection must have occurred in the last three months. Note that for a mobile subscription to be considered broadband it must allow access to the public open Internet, hence, any subscription that limits access only to walled garden or services provided in exclusivity by the mobile operator, are not counted as access to the open Internet, and hence, are not 'broadband'. Several cases are defined below. (See Table 4 in ITU document)</p>

Source: ITU



Thank you

Annex A

Retail services	2017	2018	2019	2020
Fixed line services	12,409,383	12,181,521	12,080,199	10,231,244
Mobile services (Excluding International Mobile IDD)	119,333,299	132,199,313	134,827,944	137,982,859
<i>International calls - Mobile IDD</i>	<i>29,161,667</i>	<i>19,661,754</i>	<i>14,546,035</i>	<i>12,418,631</i>
<i>International calls - Fixed IDD</i>	<i>2,034,475</i>	<i>1,783,416</i>	<i>1,583,145</i>	<i>1,512,744</i>
<i>International calls – Other</i>	<i>1,550,252</i>	<i>1,179,025</i>	<i>934,147</i>	<i>647,196</i>
International calls services	32,746,394	22,624,195	17,063,327	14,578,571
Internet services	61,422,731	50,492,400	56,046,834	63,904,149
Leased line services	55,240,920	67,878,070	69,362,087	74,521,904
Total	281,152,727	284,905,661	288,523,623	301,218,728

Wholesale services	2017	2018	2019	2020
Termination	3,528,293	2,887,124	2,818,203	2,931,529
Origination	247,329	200,258	141,645	124,505
WSIDD	986,427	275,819	293,032	934,526
Incoming calls				
Wholesale domestic leased lines	2,485,372	2,464,531	1,692,323	1,462,133
Wholesale international leased lines	3,316,430	2,998,679	1,349,594	1,792,328
Bitstream and WDSL	334,970	364,566	85,079	22,804
Termination on your network of SMS	231,835	233,729	1,594,955	2,787,762
Termination on your network of MMS	13,992	11,136	9,485	6,006
Transit for calls				
International incoming calls	5,574,718	4,783,607	4,308,818	3,617,255
Directory Assistance (DQ) (Only Batelco)	214,235	155,214	105,718	75,399
Duct	1,815,819	1,814,244	907,122	N/A
Total	18,749,419	16,188,907	13,305,974	13,754,247

	2017	2018	2019	2020
Retail Services Revenue	281,152,727	284,905,661	288,523,623	301,218,728
Wholesale Services Revenue	18,749,419	16,188,907	13,305,974	13,754,247
Other Revenue	127,298,244	128,474,213	142,950,076	144,583,340
TOTAL	427,200,390	429,568,781	445,253,164	459,556,314