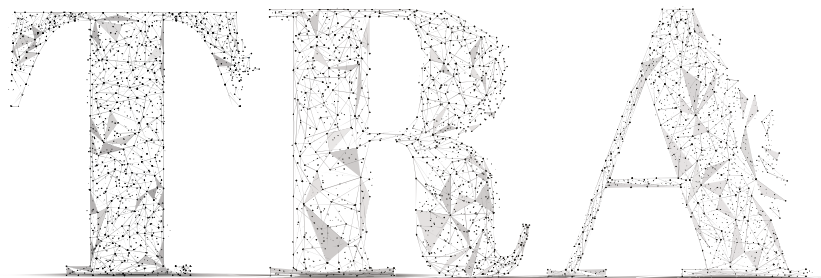




Quarterly Market Indicators

Q4 2017





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Mobile services: Subscriptions

- By the end of 2017, 2.36 million mobile subscriptions were reported; which is a 21% decrease from the end Q4 2016 and a 10% decrease compared to the end of Q3 2017.
- Mobile penetration rate was 163% by the end of 2017.
- By the end of 2017, 74% of total mobile subscriptions were prepaid mobile subscriptions a decrease of 5%.
- 2,018 mobile numbers were successfully ported during Q4 2017, an 83% decrease compared to Q4 2016.

Number of Mobile subscriptions

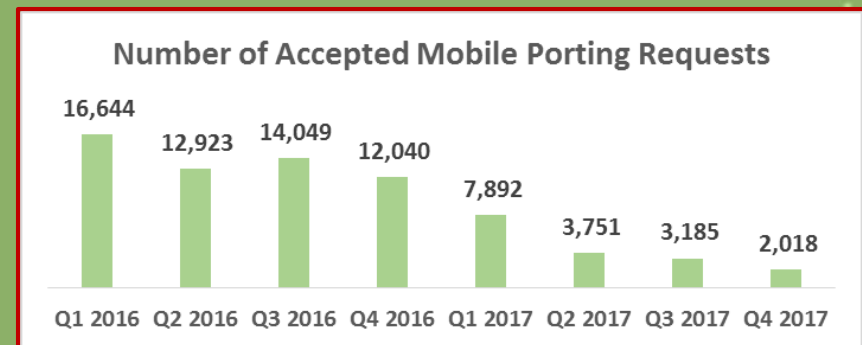
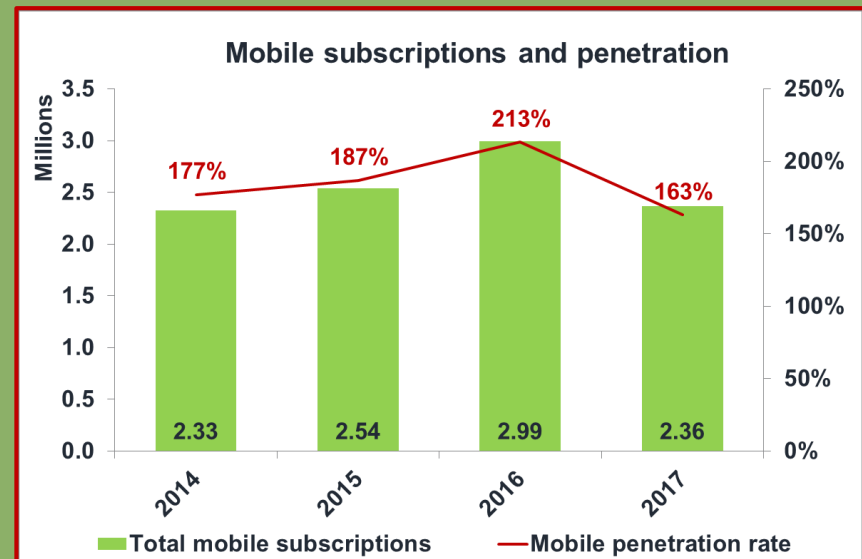


2017

2.36 million

163% Penetration rate

	2014	2015	2016	2017
Total	2.33 m	2,54 m	2.99 m	2.36 m
% of Prepaid	78%	78%	81%	74%
% of Postpaid	22%	22%	19%	26%

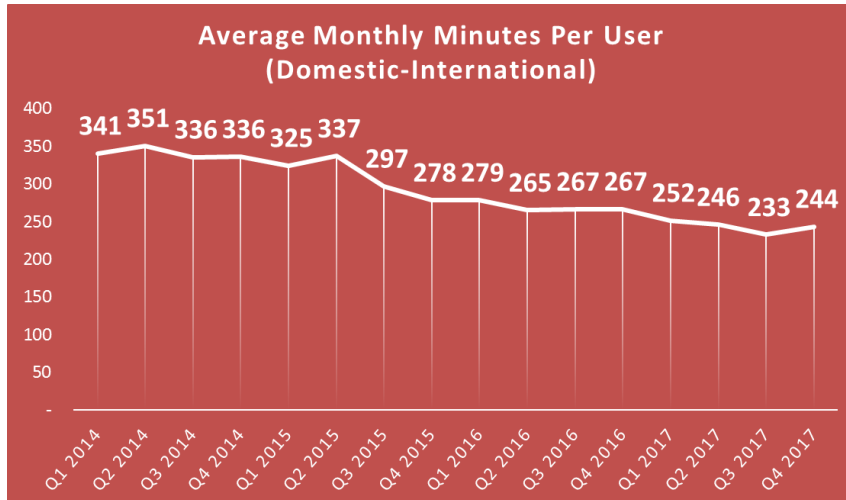


* Population is based on CIO mid-year estimation

	2014	2015	2016	2017
Population	1,314,562	1,359,800	1,404,900	1,451,200

Mobile services: Traffic (Minutes)

- In Q4 2017, the total outgoing mobile minutes decreased by 23% compared to Q4 2016.
- The Total domestic outgoing mobile traffic decreased by 18% (273.5 million minutes) in Q4 2017 compared to Q4 2016, whereas the total international mobile outgoing voice traffic decreased by 35% (271.6 million minutes).
- Prepaid voice traffic continued to account for the majority of outgoing domestic mobile calls and represents 57% of total domestic mobile voice traffic in Q4 2017.
- In Q4 2017, the monthly average minute per user reached 244 minutes compared to 267 in Q4 2016.



Total Outgoing Traffic in Minutes (Domestic + International)

△ (23%)

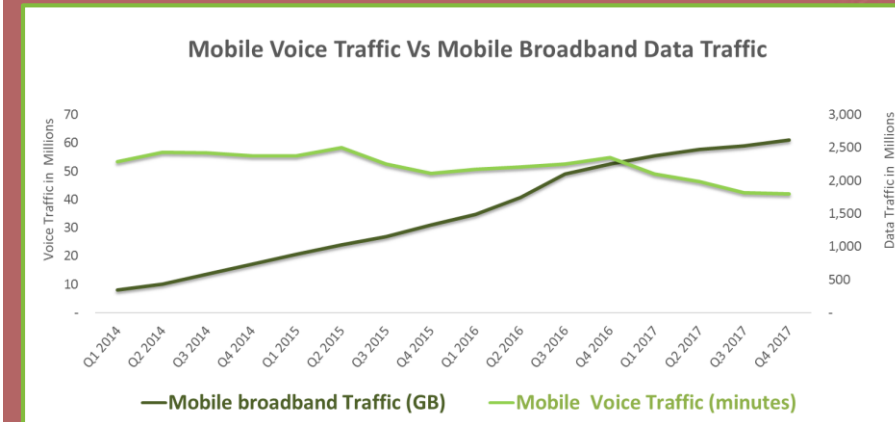
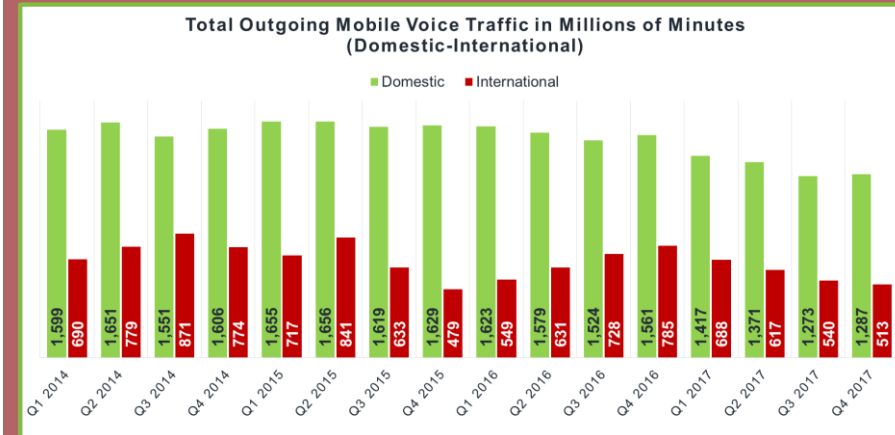


Q4 2016

2,345,825,146

Q4 2017

1,800,632,348



Fixed telephony services: Subscriptions (PSTN & Wireless)

- In Q4 2017, the number of fixed telephony subscriptions increased by almost 3% (239,976 up from 233,917 on Q4 2016).
- The fixed-wired telephony services continue to increase as it has recorded an increase of 14,435 subscription from end of 2016 to end of 2017, compared to decrease of 8,376 of fixed wireless subscriptions over the same period.
- The majority of fixed line porting requests are received from businesses, as they tend to port all of their fixed lines from an operator to another, which explains the high discrepancy between each quarter.

Number of fixed telephony subscriptions

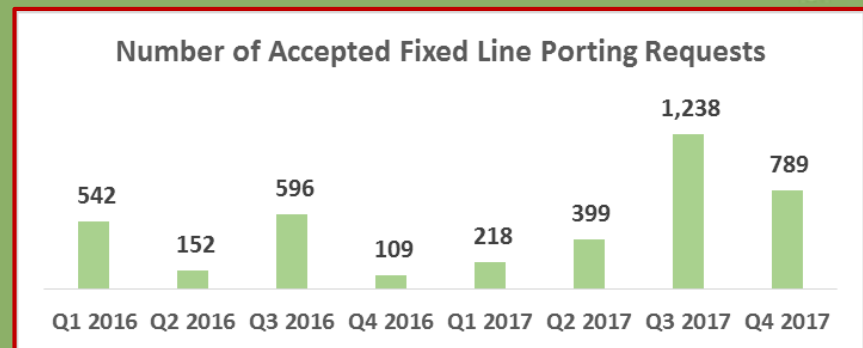
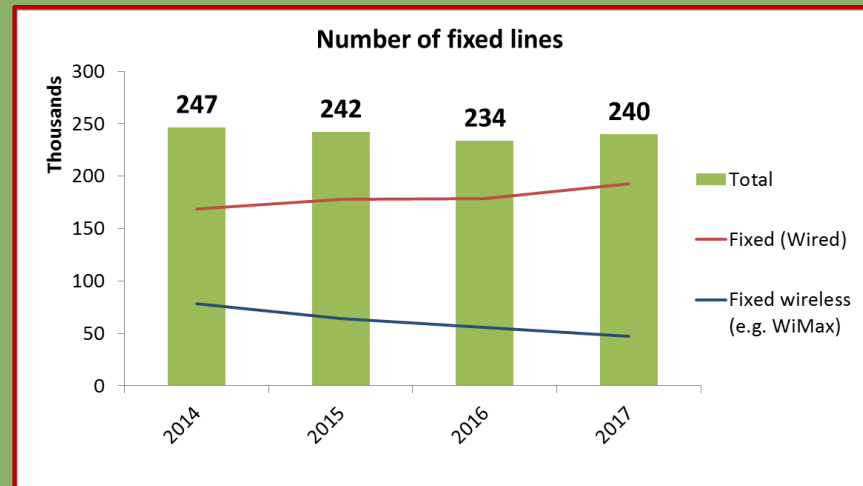


2017

239,976

17% Penetration rate

	2014	2015	2016	2017
Total	246,696	242,439	233,917	239,976
% of Fixed Wired	68%	73%	76%	80%
% of Fixed Wireless	32%	27%	24%	20%



Fixed telephony services: Traffic (PSTN & Wireless - Minutes)

- The Total fixed telephony domestic outgoing voice traffic continued to decline in Q4 2017, as it has declined by 4% between Q3 2017 and Q4 2017, and by 16% compared to Q4 2016.
- The monthly average outgoing minutes per subscription decreased to 132 minutes in Q4 2017 compared to 166 minutes in Q4 2016.

Total fixed domestic outgoing
traffic in minutes

△ (16%)



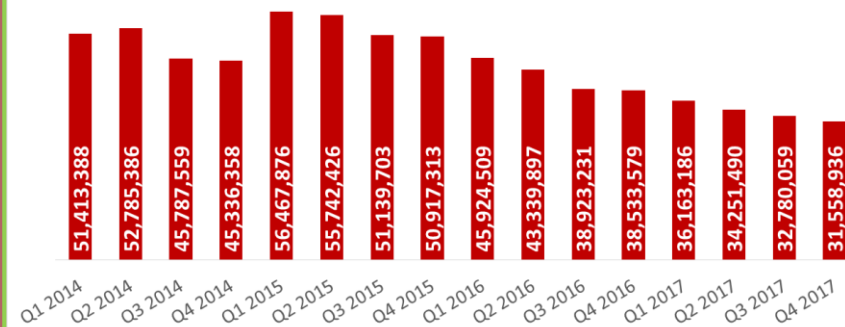
Q4 2016

38,533,579

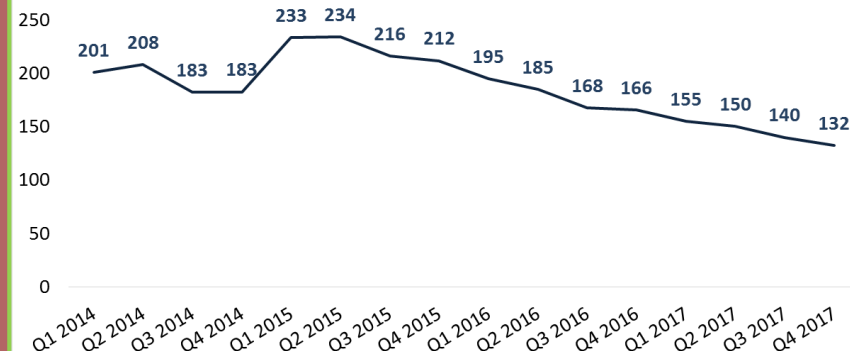
Q4 2017

31,558,936

Fixed Line Total Domestic Outgoing Traffic (Minutes)



Average Outgoing Domestic Minutes Per Subscription



* The OLO's traffic (minutes usage) is estimated for 2017

** The OLO's traffic was revised from Q4 2014 to Q4 2016

Broadband services: Subscriptions

- At the end of 2017, there were about 2.37 million broadband subscriptions, a decrease of 1.4% compared to Q4 2016.
- Broadband penetration reached 164% at the end of 2017.
- The main drive for the growth of broadband subscriptions is the mobile broadband subscriptions as it represents 93% of total broadband subscriptions at the end of 2017.
- Add-on broadband to voice and pay-per-use mobile broadband represent 85% of mobile broadband subscriptions at the end of 2017.

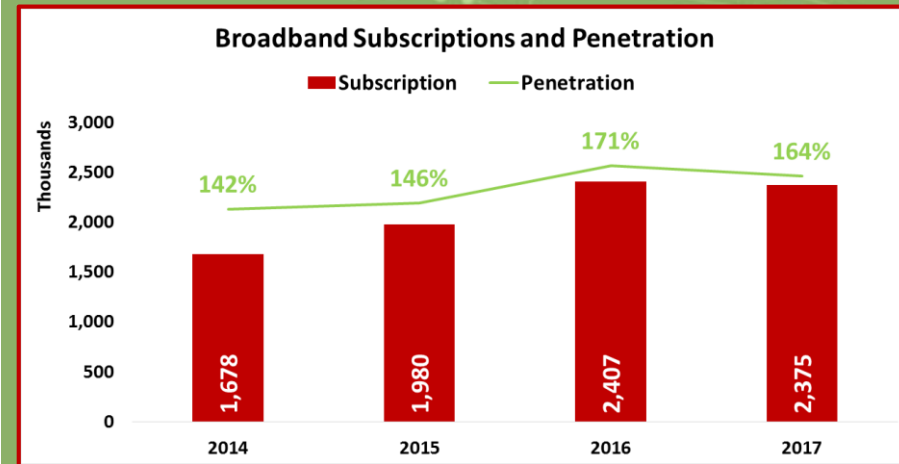
Number of broadband subscriptions



2017

2,374,717

164% Penetration rate



Mobile Broadband - 2017



Pay-per-use
24%

Standalone
16%

Add-on to
voice 61%

Proportion of broadband subscriptions by access type – Q4 2017

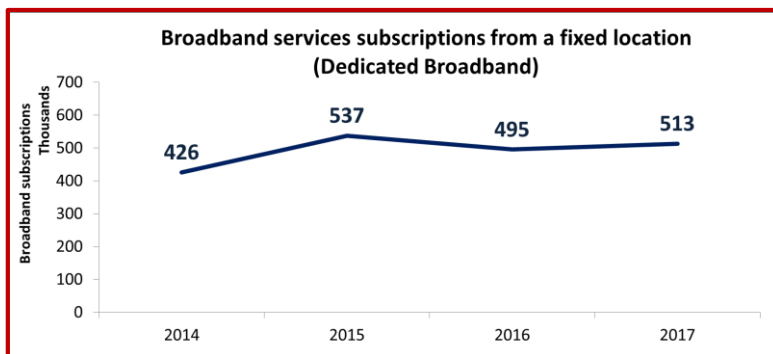


7%

93%

■ Fixed broadband (wired+wireless)

■ Mobile broadband



* The number of OLO's subscriptions' are estimated for 2017

Broadband services: Data Traffic

- Data traffic increased from 82 million GB in Q4 2016 to 122 million GB in Q4 2017, a 49% increase.
- Mobile broadband traffic has increased by 8.6 PB, an increase of 16% from Q4 2016 to Q4 2017, while the fixed broadband traffic has increased by almost 31 PB, a 106% increase over the same period.
- In Q4 2017 fixed broadband data traffic matched mobile data traffic as the rate of growth in fixed broadband data traffic is higher than mobile broadband data traffic.
- The monthly average mobile broadband traffic per mobile subscription is 9 GB compared to the monthly average fixed broadband traffic per fixed subscription, which is 116 GB.
- Overall, the monthly average traffic per user is 17 GB in Q4 2017 compared to 12 GB in Q4 2016.

* The OLO's traffic (data usage) is estimated for 2017

Total data traffic in Gigabyte

Q4 2016

82,095,371

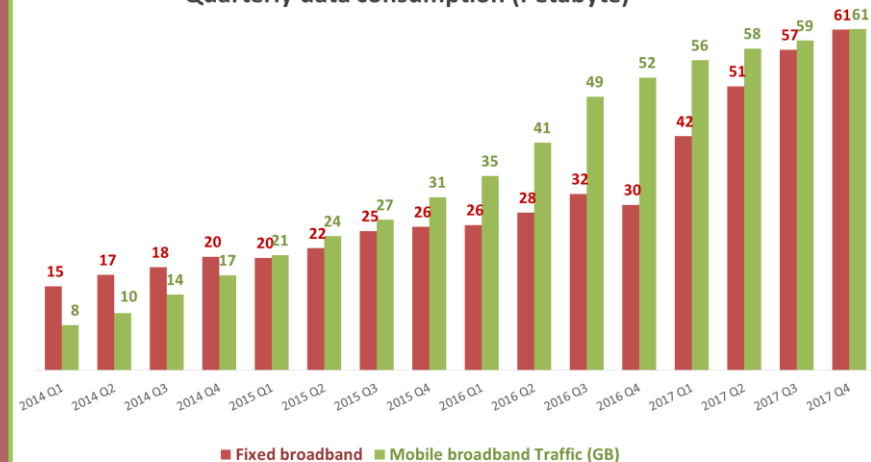
Q4 2017

122,106,119

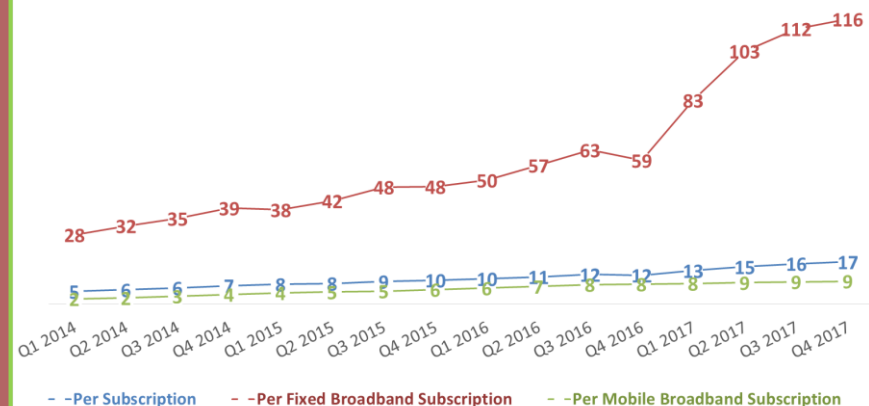
△ 49%



Quarterly data consumption (Petabyte)



Monthly Average data consumption per subscription (Gigabyte)



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>