



Telecom Sector Indicators in Oman

5 Years at Glance

2013-2017



Telecom Sector Indicators in Oman 5 Years at Glance 2013-2017





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FOREWORD

Dr. Hamad Bin Salem Al-Rawahi Executive President



The third edition of the Telecom Sector Indicators Report of the Sultanate of Oman presents the status of telecom sector of the Sultanate of Oman for the preceding five years from 2013 to 2017. This edition is an update of the 2nd edition, which was published in 2015 covering 5 years period from 2010 to 2014.

It is, indeed, our pleasure to present this report at the time when the world is at the crossroad of another digital revolution that will accelerate changes to business, government and society. ICT development has been considered as enabler of other sectors of economy. A number of ICT related indicators are being used to determine and compare development of individual countries by UN agencies including ITU. The data on the status of telecom infrastructure forms an important input to the international reports on ICT development. Analysis shows an overall upward trend in the availability of communication services, driven by growth in broadband, with a growing predominance of mobile over fixed services.

TRA has been publishing major telecom indicators regularly on quarterly basis to provide important information to the operators and other interested users and entities. The Five-Years Report, which has been compiled through long process of data collection, validation and analysis, will further improve and complement the available information for better understanding the sector and to avail abundant investment opportunities in the Sultanate. This report provides comprehensive overview of fixed, mobile, broadband, and international telecom markets.

Special thanks go to the telecom service providers who have contributed and assisted in the completion of this report. We look forward for their continuous support and contribution towards further improvement of future outlook of the Telecom Sector of Oman.



Telecom Sector Contribution to the Economy

Introduction



The TRA regulates telecom licensees, which are Class I,II & III operating in the sector.



The contribution in terms of revenue, royalty, network and infrastructure investments cover only those of the licensees.



The other sector participants like telecom vendors, network and equipment providers, dealers, MoTC are not accounted for here in TRA reports.



The amount of applicable taxes is not accounted for in the contribution as it is not collected through TRA.

Revenue

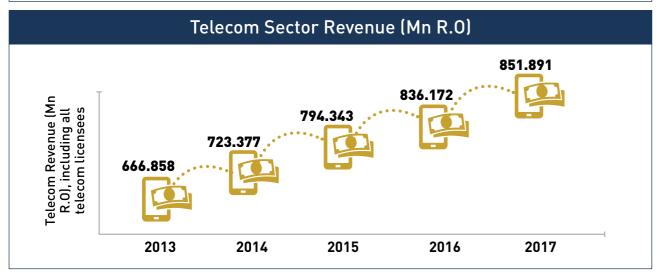


The telecom sector revenue has registered a steady growth during the last 5 years (2013-2017) reaching R.O 851.891 million with the cumulative average growth rate (CAGR) of 5%.

Out of the total telecom sector revenue in year 2017, 70.1% of the revenue was generated from mobile services, while 29.9% was from fixed services.



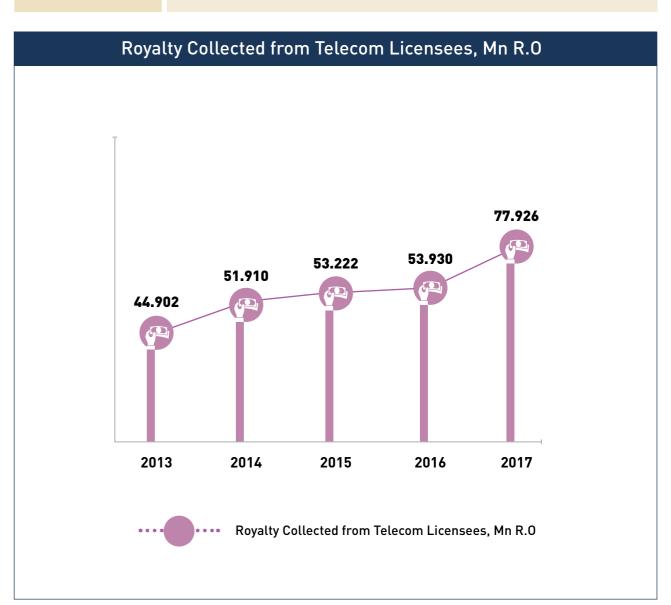
Telecom Sector Revenue by Segment 67.9% 67.4% 74.4% 71.8% 70.1% 32.1% 32.6% 25.6% 28.2% 29.9% 2013 2014 2015 2016 2017 % Contribution of Mobile % Contribution of Fixed



Royalty



In 2017, TRA collected total royalty of R.O 77.926 million, achieving 12% CAGR during the last 5 years from 2013-2017.



Investment

During the last year of the reported period, telecom service licensees invested R.O 236.467 million with CAGR of 8.6%:



41.4% in Mobile Services



33.0% in

Services

Fixed Telephone



25.4% in Fixed Broadband Services



0.2% in other Telecom Services (Telecom Private Networks & Marine Services)

Total Investment by Telecom Licensees, (Mn R.O) 267.641 236.467 219.706 156.532 Total Investment by Telecom Licensees, (Mn R.0) 2013 2014 2015 2016 2017

Telecom Service Investments ¹	2013	2014	2015	2016	2017
Fixed Broadband Investments	5.4%	8.4%	4.1%	16.5%	25.4%
Fixed Telephone Service Investments	25.4%	29.5%	26.7%	28.8%	33.0%
Mobile Communication Investments	69.2%	62.1%	69.2%	48.7%	41.4%
Others (Telecom Private Networks & Marine Services)	-	-	-	6.0%	0.2%

¹The above figures relate to only Telecom Licensees

Employment

By Year 2017, telecom sector contributed to the country's labor force by:



3,929 employees by telecom service providers; with 90% Omanisation.



153 employees by TRA; with 95% Omanisation.

Telecom Service Providers Employees Distribution¹



Male Staff **75.9%**

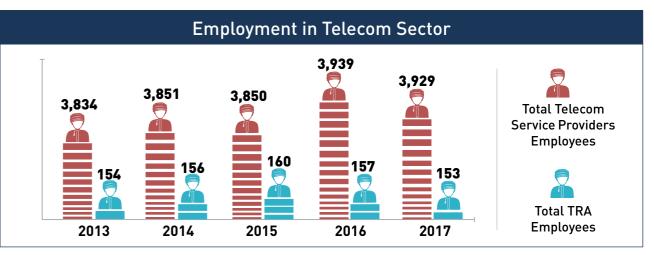


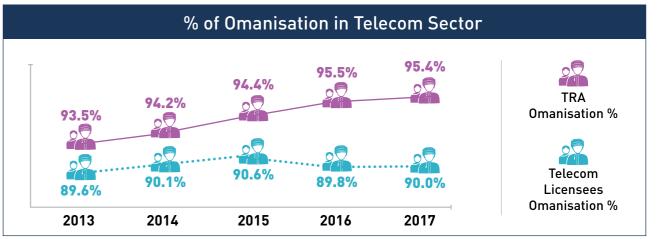
Female Staff



Expat Staff

¹The above figures relate to only Licensees & TRA







Evolution of Competition in the Mobile Market



Omantel was issued the 1st Mobile Service Provider (Class I) License in Oman in 2004.



The competition in the mobile telecom market was introduced in 2005 issuing the 2nd Cellular Mobile License to the Omani Qatari Telecommunications Company (Ooredoo) in 2005.



Competition was further enhanced in 2009 by issuing three Mobile Reseller Licenses (Renna, Friendi & Mazoon).



In year 2010 two more Mobile Reseller Licenses were issued to Injaz Telecom and Samatel (Teo) further increasing competition in the mobile segment.

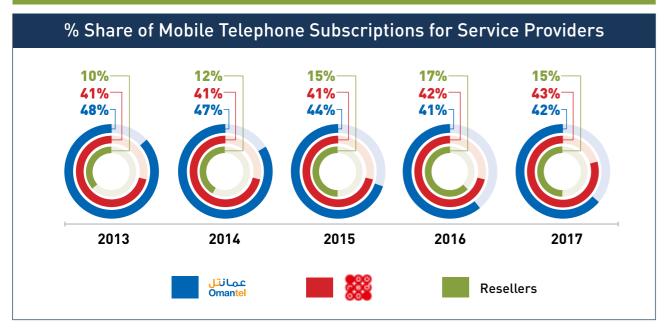


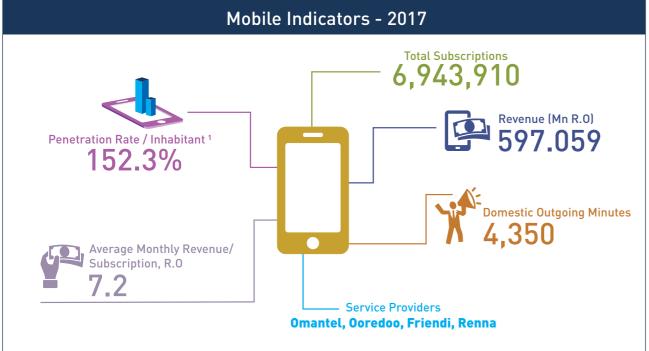
The competition in mobile segment boosted penetration rates reaching 150% per 100 inhabitant.



Some consolidation took place in the mobile segment and by end 2017, there remained two mobile operators (Omantel and Ooredoo), and two mobile resellers (Friendi and Renna) in the market with their respective market share of 85% & 15%.

Summary of Mobile Market





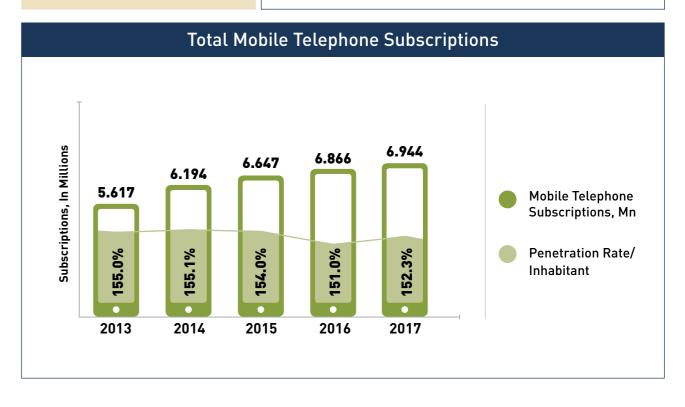
¹ The penetration rates are calculated based on the published population by the NCSI for each year. For 2017 Penetration, population taken is for the mid - year 2017: (4,559,963).

Mobile Telephone Subscriptions

During the last 5 years, the mobile telephone subscriptions cumulative average growth rate (CAGR) was 4%, reaching total of 6,943,910 subscriptions by end of year 2017.

Mobile penetration rate per 100 inhabitant declined during the last 5 years from 155% in 2013 to 152.3% by end of 2017 due to the growth of population.





Pre & Post Paid Mobile Telephone Subscriptions

During year 2017:

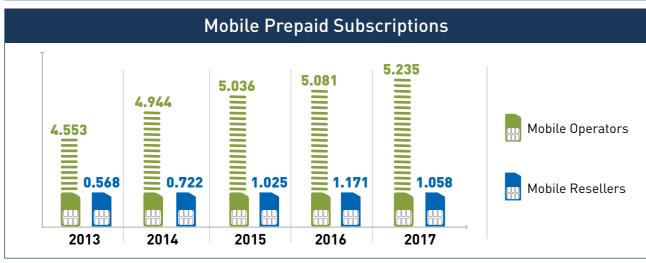


Mobile postpaid subscriptions increased by 6%, while prepaid subscriptions increased by 0.7%.

Mobile operators owned almost 83.2% of total mobile prepaid subscriptions; leaving 16.8% share to the mobile resellers.



Post & Pre Paid Mobile Subscriptions 6.293 6.251 6.061 5,665 5.122 91.46% 91.18% 91.04% 90.63% Mobile Pre paid, Mn Mobile Post paid, Mn • % of Prepaid **0.529** 0.496 **0.585 0.614** 0.651 2013 2014 2015 2016 2017



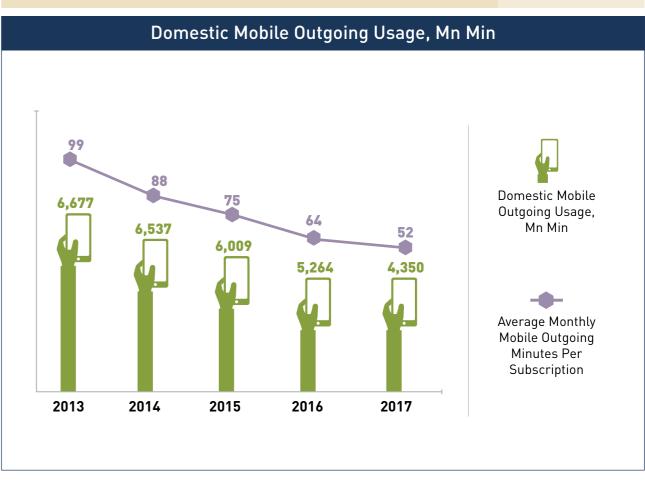
Mobile Telephone Usage



Mobile domestic usage was continuously declining during the last 5 years. This is an international trend due to the rapid growth of Over-The-Top OTT applications (E.g. WhatsApp, and other popular calling and messaging apps).

In the year 2017 alone, there was a 17% drop in total minutes of mobile domestic usage comparing with the previous year which resulted in 19% drop in average monthly usage per mobile subscription.



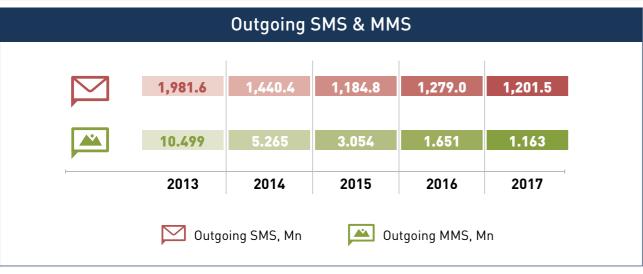


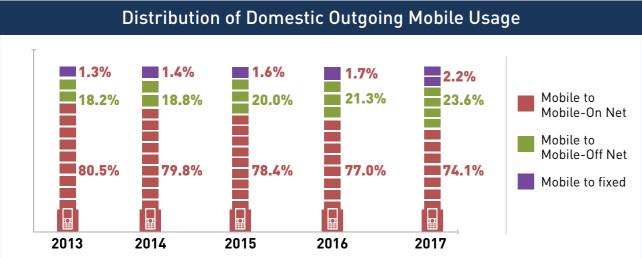
Distribution of Mobile Telephone Domestic Usage

The On-net calls share declined from 80.5% in 2013 to 74.1% in 2017.

On the other hand, (Off- net) Usage increased during the same period. This appears to be the result of flat rate plans offered by Service Providers.

In parallel to the overall trend in the Mobile Usage, the amount of text messages SMS & MMS used were shrinking over the last 5 years by 39% & 89% respectively mainly due to Over-The-Top (OTT) apps.





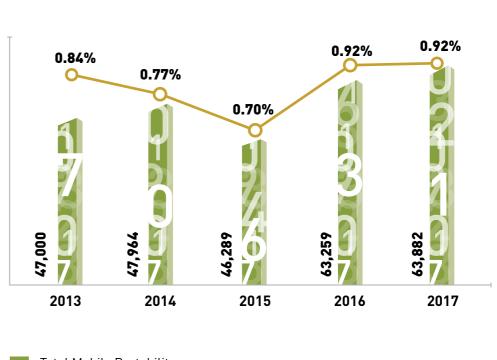
Mobile Number Portability



Mobile users are able to maintain their original numbers while switching among service providers. During the 5 years period, the proportion of mobile numbers ported were between 0.7% to 0.9%.

By the end of year 2017 total numbers ported stood at 63,882 mobile number.

Mobile Number Portability



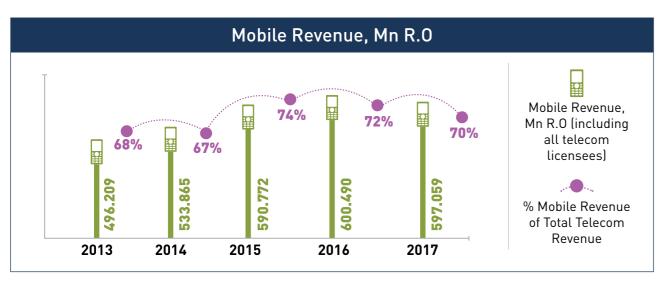
Total Mobile Portability

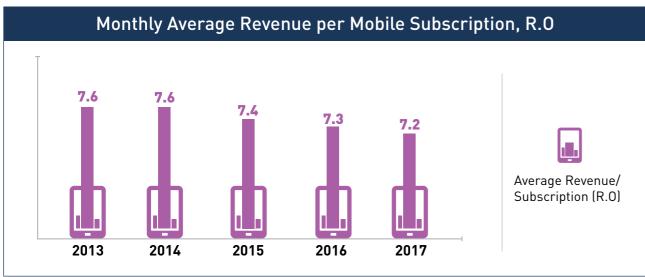
Percentage of Mobile Portability from Mobile Subscriptions

Mobile Telephone Revenue

The revenue from the mobile segment has steadily grown, however, the monthly average revenue per subscription has slightly declined over the 5 years period.

	2013	2014	2015	2016	2017
Mobile Revenue, Mn R.O (Including all Telecom Licensees)	496.209	533.865	590.772	600.490	597.059
Mobile Average Monthly Revenue per Subscription, R.O	7.6	7.6	7.4	7.3	7.2

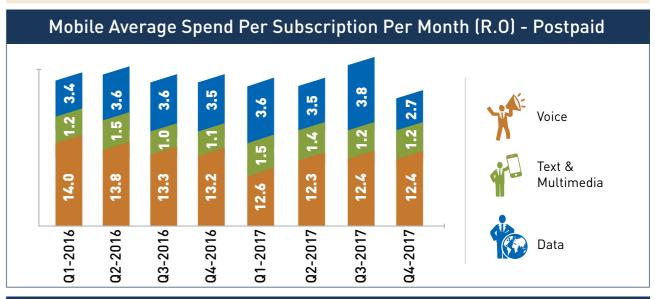


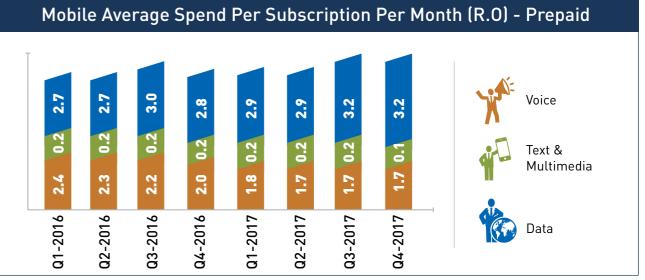


Average Spend Per Mobile Telephone Subscription

Comparing Q4,2017 to the same quarter in 2016:

- Average spend of postpaid subscription (voice, text, data) dropped by 9%.
- Average spend of prepaid subscription (voice, text, data) increased by 1.2%.
- Prepaid subscription spend choice of voice, text and data changed from spending more on voice towards more on data.
- On the other hand, postpaid spend continued to be higher on voice than on data and text.

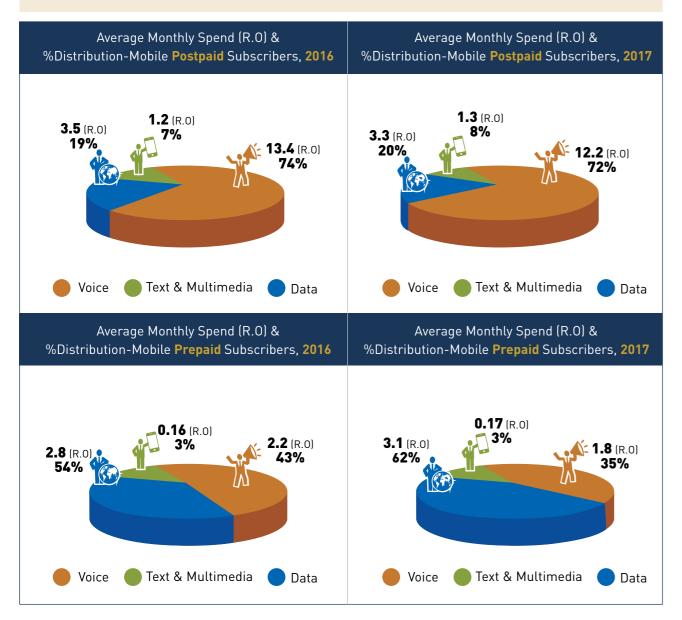




Average Spend by Type of Mobile Subscription

During year 2017:

- The highest spend from total mobile postpaid was on voice at 72% of the total spend.
- The highest spend on mobile prepaid was on data at 62% of the total spend.
- The portion of data spend became higher during year 2017 as compared to 2016 mainly for mobile prepaid services – an increase of 8%.



Mobile Broadband Subscriptions

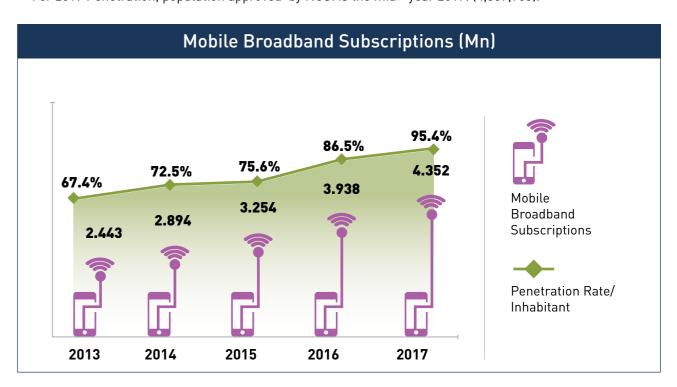


Mobile broadband subscriptions CAGR was 12% during the last 5 years (2013-2017) reaching 4,351,583 subscriptions.

The penetration rate reached 95.4% per 100 inhabitant by year 2017.

Mobile Broadband as on 2017				
Subscriptions	4,351,583			
Penetration Rate ¹	95.4%			
Monthly Average Mobile Broadband Usage (GB) per Subscription	2.2			
Average Monthly Revenue per Subscription (R.0)	5.0			
Mobile Broadband Service Providers	Omantel, Ooredoo, Friendi, Renna			

¹ For 2017 Penetration, population approved by NCSI is the mid - year 2017: (4,559,963).



Mobile Broadband Access by Type of Subscription



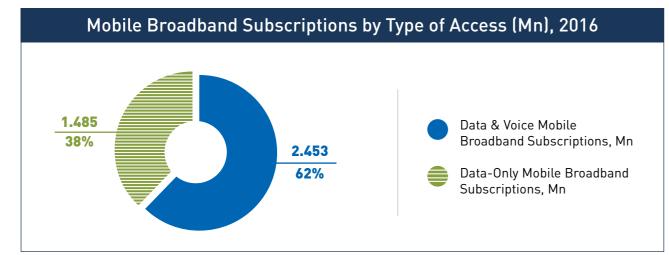
Mobile Subscriptions for Data & Voice Bundles include:

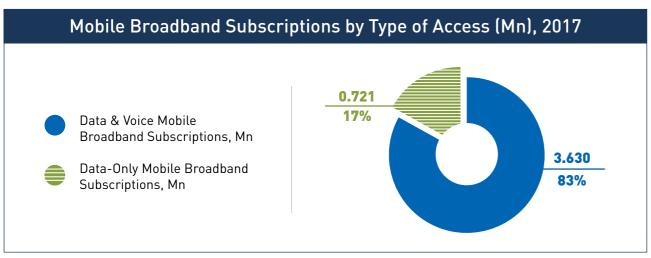
- Standard voice subscription with pay as you go data.
- · Bundled voice and data subscriptions.

Mobile Subscriptions for Data-Only include:

- 3G dongle/modem subscriptions
- Add-on data plan
- · Pre paid data only plan using wireless modem.







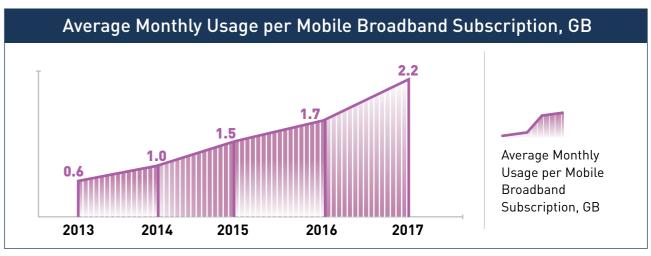
Mobile Broadband Usage & Revenue

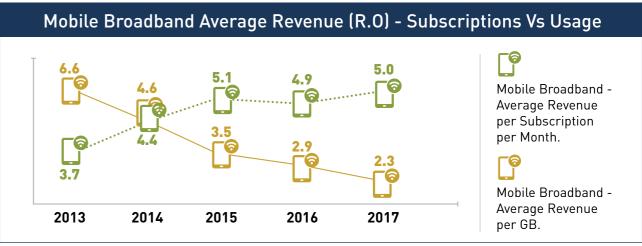
For the period 2013-2017:

Mobile broadband usage continued to grow gradually during the 5 years period reaching average of 2.2 GB per subscription per month, which is higher by 30% in 2017 compared to 2016.

The average revenue per month from mobile broadband subscriptions increased by 34% during the last five years from R.O 3.700 to R.O 5.000.

The average revenue per GB for mobile broadband continued to decline during the same period reaching R.O 2.300 by end of 2017.

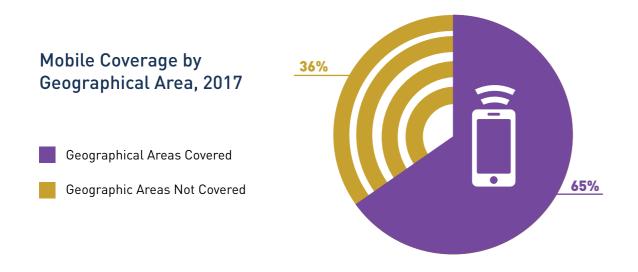


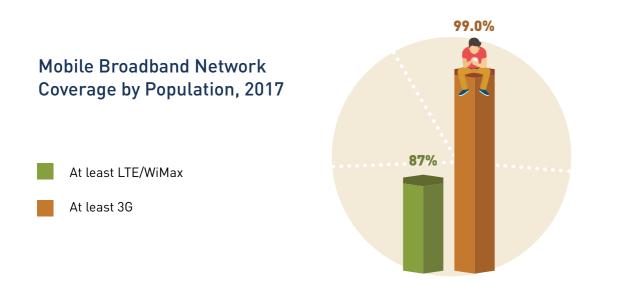


Mobile Coverage

By end of 2017:

- 99% of the population was covered with at least 3G mobile network.
- 65% of total land area is covered with mobile services.





Mobile Network Sites

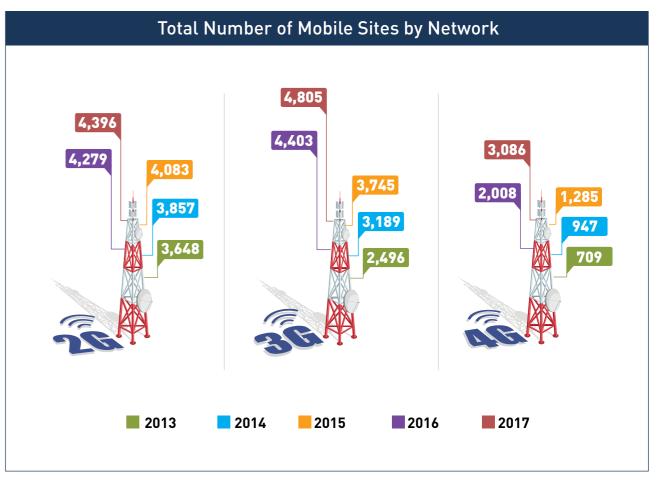
During the 5 years period, the number of mobile sites increased by:





2,309 new 3G mobile sites from 2013 till 2017, reaching total of 4,805 sites.



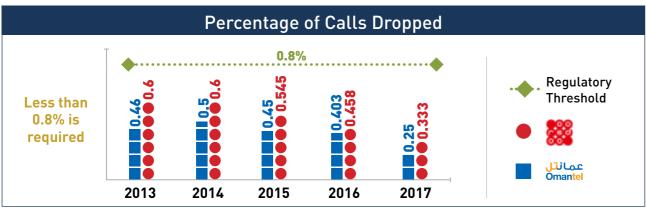


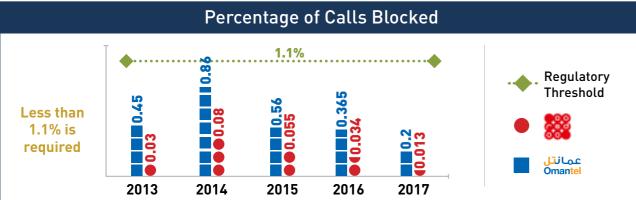
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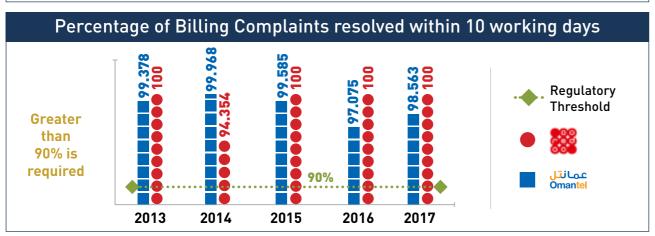
Quality of Mobile Services



As reported by mobile operators, both Omantel and Ooredoo achieved the required KPIs in terms of percentage of calls dropped, call blocked and billing complains resolved within 10 working days over the 5 years period.









Evolution of Competition in the Fixed Market



Omantel continued to be the only service provider in the Fixed Telecom Market until 2010.



Competition in the Fixed Telecom Market was introduced in 2010 when Ooredoo started operating as the 2nd Licensee for the Fixed Services.



In order to enhance the fixed broadband services, the government established Oman Broadband Company (OBC) in 2014 to provide passive infrastructure for fixed broadband services.



The competition in fixed broadband services was further enhanced when Class I license was awarded to Awasr in 2016 which is currently providing only FTTH based Fixed Broadband Services.



Competition in the Fixed Telecom Market during the last 5 years resulted in 8% growth of fixed telephone subscriptions, and 17% growth of fixed internet subscriptions.



By 2017, the segment achieved 87% penetration rate per 100 household for fixed telephone subscriptions, and 60% per 100 household for fixed internet subscriptions.

Summary of Fixed Market

By year 2017, Fixed Market:



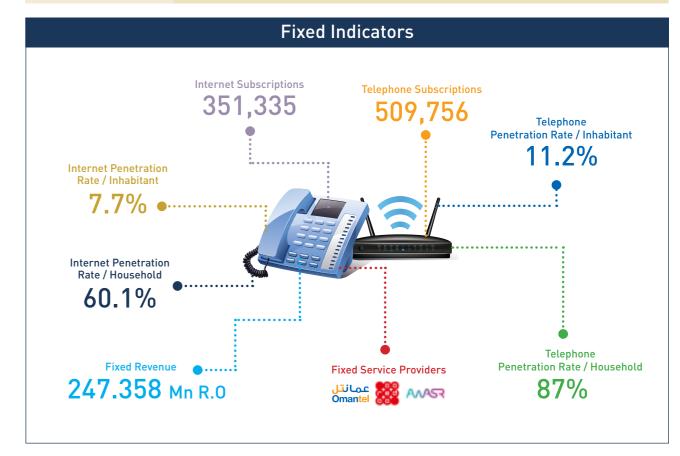
Achieved penetration rate per 100 inhabitant of 11.2% for fixed telephony and 7.7% for fixed internet subscriptions.

Achieved penetration rates per 100 household of 87% for fixed telephony and 60.1% for internet subscriptions.





Generated total revenue of R.O 247.358 million.



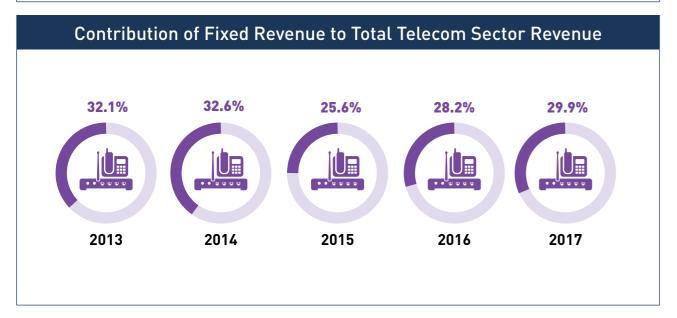
Fixed Telecom (Telephone Lines & Internet) Revenue



Total revenue from all fixed services continued to grow gradually, reaching R.O 247.358 million in 2017 which was 7.6% higher than total of 2016.

By 2017, fixed market contributed around 30% to the total telecom revenue.

Total Fixed Revenue, Mn R.O 170.649 185.329 198.486 229.890 247.358 2013 2014 2015 2016 2017



Average monthly revenue per subscription

By end of 2017, average revenue per subscription per month:

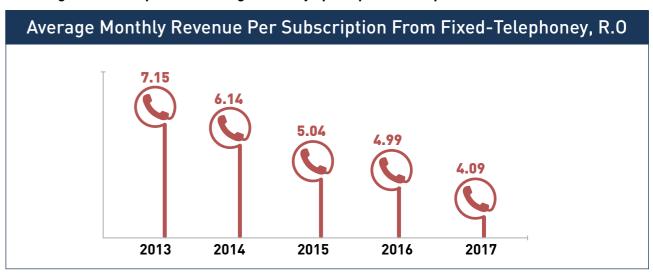


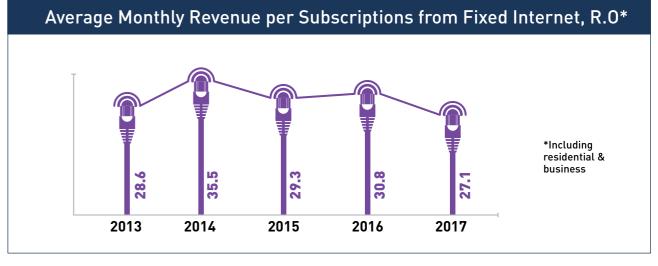
Reached R.O 4.090 for fixed telephony, showing continuous drop during the 5 years period.

Reached R.O 27.100 for fixed internet, showing 12% drop compared to 2016.



These figures also represent average monthly spend per subscription.





Fixed Telephone Subscriptions

The year 2017 ended with:



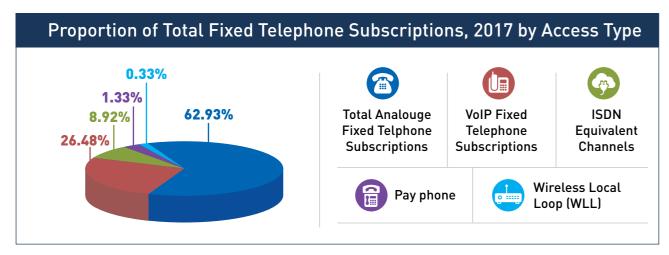
509,756 subscriptions of fixed telephone registering 8% CAGR during the last 5 years.

Penetration per 100 inhabitant of 11.2% compared to 9.3% in 2016.

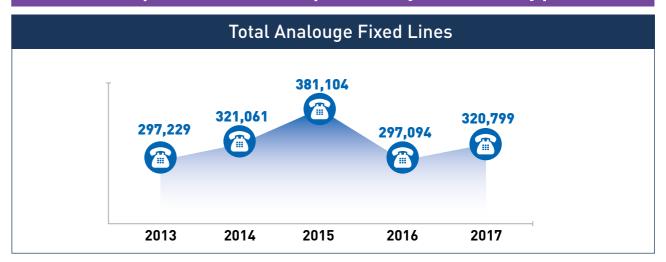


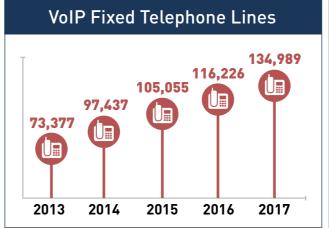
62.93% analogue and 26.48% VoIP lines of total fixed telephone subscriptions.

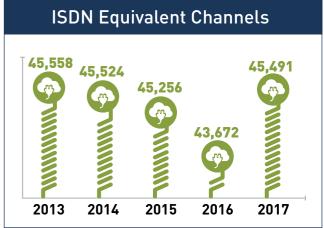
Fixed Telephone Subscriptions 11.2% 9.7% 9.4% 10.1% 9.3% 509,756 Telephone Subscriptions Penetration Rate/ Inhabitant 2013 2014 2015 2016 2017



Fixed Telephone Subscriptions by Access Type









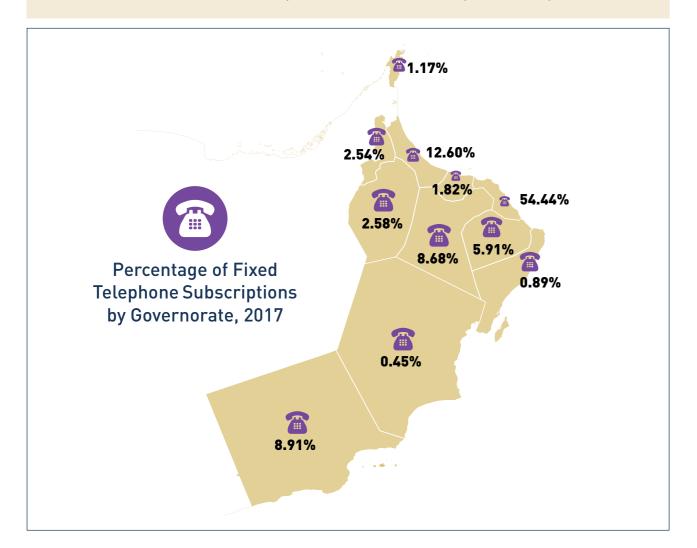
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Fixed Telephone Subscriptions by Access Type By Governorate

Out of the total fixed telephone subscriptions, Muscat Governorate had the highest percentage of subscriptions (including residential and business) with 54.44%, followed by Al Batinah North with 12.6%.

Musandam, Al Batinah South, Al Wusta and Ash Sharqiyah South had a small percentage of fixed telephone subscriptions in the country.

Al-Wusta had the lowest share of subscriptions with 0.45% of fixed telephone subscriptions.



Residential Vs. Business Fixed Telephone Subscriptions

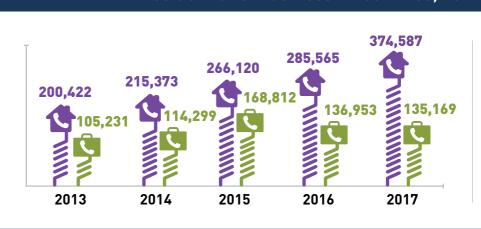


The number of residential fixed telephone subscriptions increased during year 2017 by 31% from 2016, reaching 374,587 subscriptions.

On the other hand, the number of business fixed telephone subscriptions declined by 1% during 2017, reaching 135,169 subscriptions at the end of 2017.



Residential & Business Fixed Lines, 2017

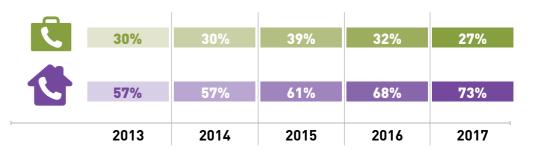




Business

Fixed Lines

% of Residential Vs. Business Telephone Lines, 2017



C

Business Fixed Telephone Lines

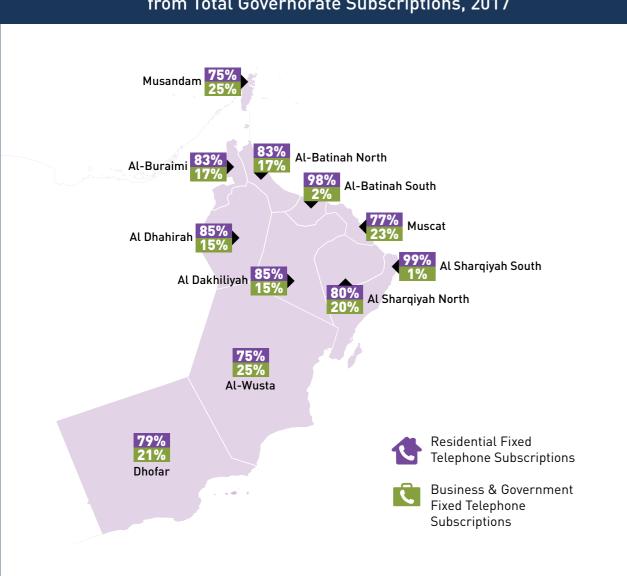


Residential Fixed Telephone Lines

Residential Vs Business Fixed Telephone Subscriptions by Governorate

More than 75% lines are residential in each governorate and remaining are for business & government.

% of Regional Residential & Business Fixed Telephone Subscriptions from Total Governorate Subscriptions, 2017



Fixed Telephone Usage

During the last 5 years:

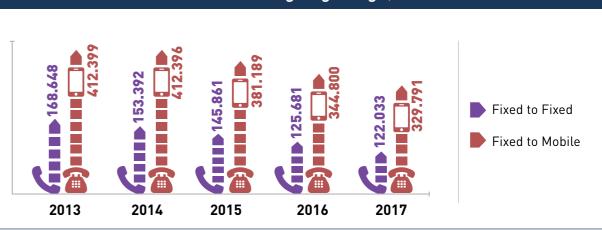


There has been gradual drop in the fixed domestic minutes during the last five years reaching to 329.791 million minutes by end of 2017.

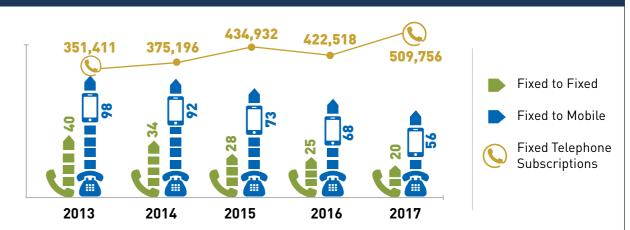
On average, fixed subscriptions utilization was 56 minutes per month for calls from fixed-to-mobile, and 20 minutes from fixed-to-fixed during 2017.



Fixed Domestic Outgoing Usage, (Mn Min)



Average Monthly Outgoing Domestic Usage per Fixed Subscription (Min)



Fixed Internet Subscriptions (Narrowband & Broadband)



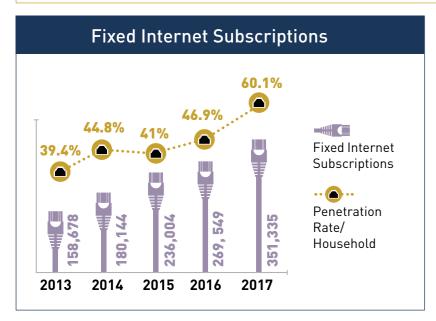
By year 2017 the fixed internet subscriptions reached to 351,335 showing a CAGR of 17%. Fixed internet penetration per household also increased by 13.2% during the year 2017.

By end of 2017, Omantel's share was 65% while Ooredoo and Awasr had 32% and 3% respectively.

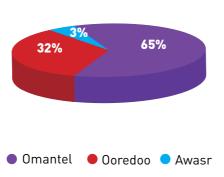
¹ For 2017 Penetration, Household approved by NCSI is the mid - year 2017: (584,762).



Fixed Internet Subscriptions as on 2017			
Fixed Narrowband Subscriptions	2,409		
Fixed Broadband Subscriptions	348,926		
Total Fixed Internet Subscriptions	351,335		
Penetration Rate Per Household ¹	60.1%		
Monthly Average Revenue per Subscription, R.O	27.1		



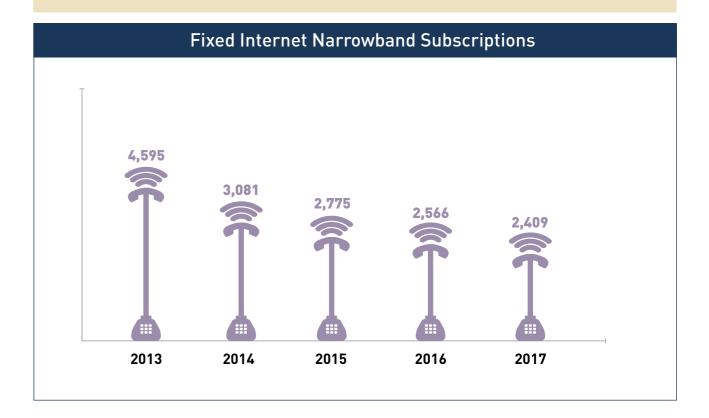




Fixed Narrowband Subscriptions

As per ITU definition, fixed narrowband subscriptions represent subscriptions with limited speed of less than 256 kbit/s.

Narrowband is declining, in line with the general trend, reaching to only 2,409 subscriptions at the end of 2017.

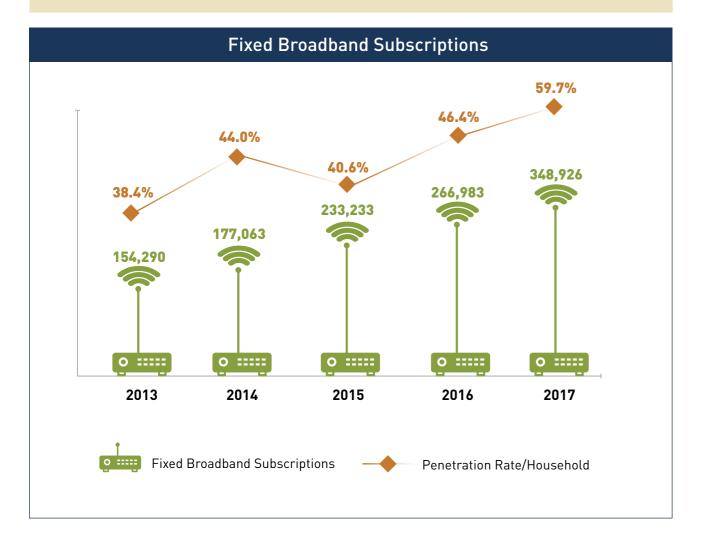


Fixed Broadband Subscriptions (FBB)

There were 348,926 fixed broadband subscriptions by the end of 2017 with penetration rate of 59.7% per household.

Total fixed broadband subscription showed CAGR of 18% during the reported 5 years due to the increased availability of infrastructure being provided by OBC and increased competition.

The subscription and penetration growth was recorded 31% and 13% respectively.



Residential Vs Business FBB



92% of the total fixed broadband subscriptions were residential in 2017.

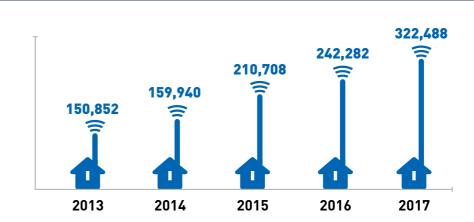


Residential FBB subscriptions grew 33% over the previous year.



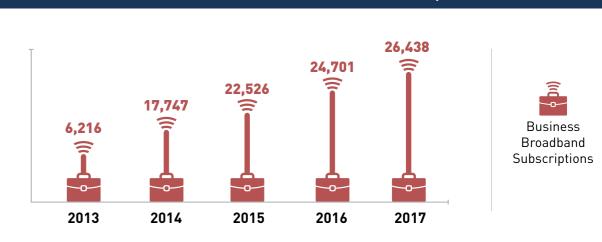
Business FBB subscriptions increased by 7% in 2017.

Residential Fixed Broadband Subscription 322,488





Business Fixed Broadband Subscriptions



FBB Subscriptions by Speed & Technology

In year 2017:

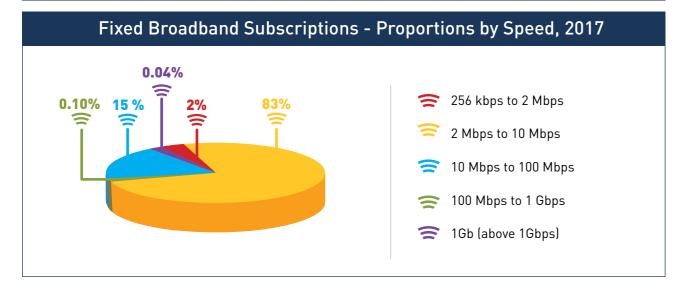


FBB subscriptions with 2 Mbps to 10 Mbps represented 83% of total fixed broadband subscriptions.

Out of total FBB subscriptions, 57% were connected on ADSL, whereas 27.4% and 15% were on LTE and FTTH respectively.



Fixed Broadband Subscriptions - Proportions by Technology, 2017 O.2% 27.4% 0.8% 15% 57% LTE FITH Internet Leased Line Others; (Ethernet LANs & Brodband-over-powerline (BPL)



Fixed Broadband-FTTH Subscriptions

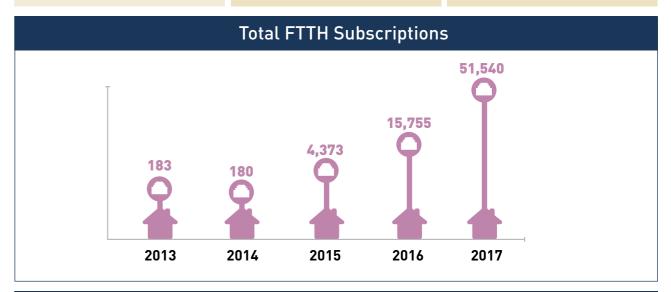


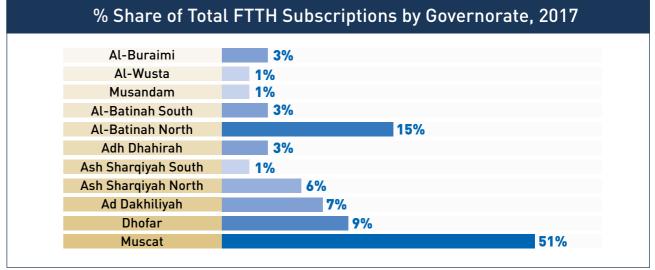
During the year 2017, a total of 35,785 new FTTH subscriptions were added.



FTTH subscriptions touched a total mark of 51,540.

51% of FTTH were connected in Muscat Governorate, followed by Al Batinah North with 15%.



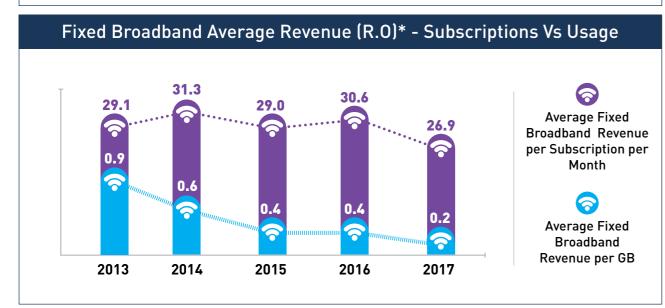


Fixed Broadband Usage (GB)

Average monthly volume of FBB utilization reached to 114.8 GB per subscription during year 2017 which is 3.6 times higher than 2013.

During 2017, FBB average revenue per subscription dropped from $R.0\ 30.6$ to $R.0\ 26.9$. Similarly average revenue per GB also dropped from $R.0\ 0.4$ to $R.0\ 0.2$ per GB.

Average Monthly Usage per Fixed Broadband Subscription, GB 31.2 51.0 68.4 79.6 2013 2014 2015 2016 2017



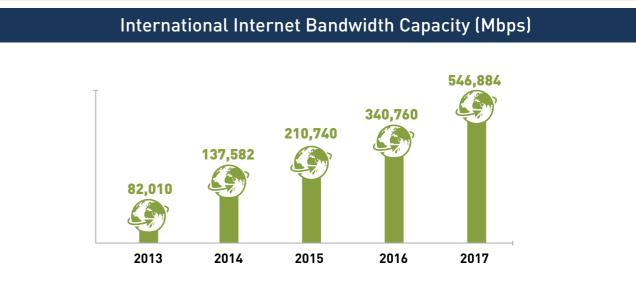
^{*} Including residential and business

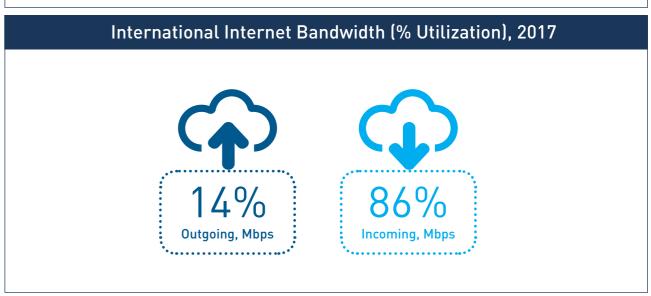
International Internet Bandwidth (Mbps)



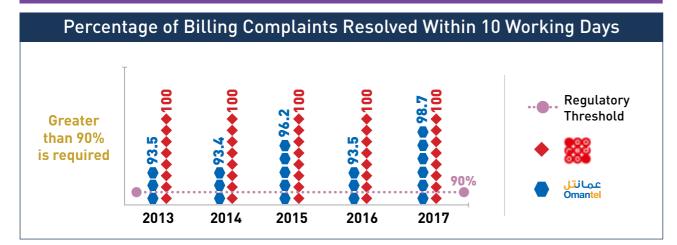
Total international internet bandwidth capacity in 2017 increased to 564,884 Mbps showing 60% increase from 2016.

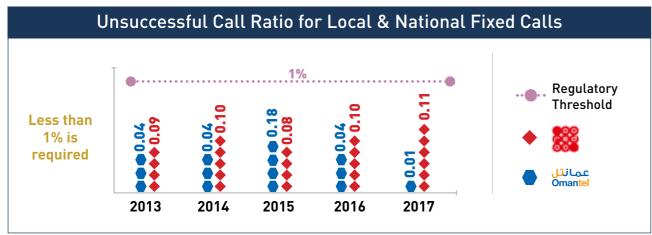
By end of 2017, the percentage utilization of international internet bandwidth was 14% for outgoing and 86% for incoming.

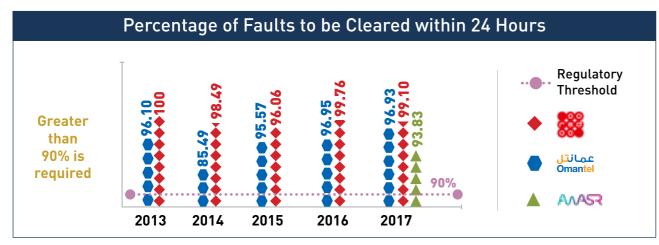




Quality of Fixed Services







QoS indicators as per Service Providers reports.



Evolution of Competition in International Market



Till year 2011, only Omantel & Ooredoo were the providers of International Telephone Service.



In 2012, the 3rd IGW licensee (TeO) launched their international services enhancing competition in the international telephone services. In 2013, competition was further enhanced when TeO introduced International Calling Cards service.



Connect Arabia International (CAI) joined the international market and launched its international gateway during year 2013. They are currently engaged in only International Incoming traffic.



Despite having 4 International Gateways in operation, incoming and outgoing international traffic experienced decline in 2017.

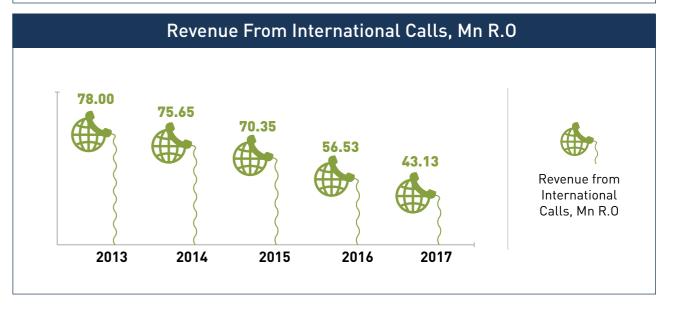
Total Outgoing Minutes and Revenue



The year 2017 registered 796.02 million outgoing minutes, which generated total revenue of R.O 43.13 million.

Both minutes and revenue from outgoing international calls dropped by 24% during year 2017 as compared to year 2016.

International Outgoing Minutes (Mn Min) 1005.93 1005.89 796.02 Total International Outgoing Minutes 2013 2014 2015 2016 2017

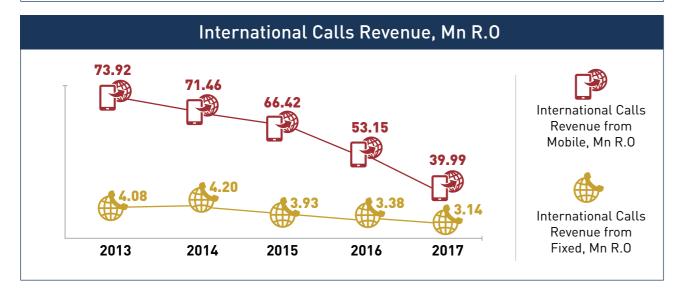


Outgoing Minutes and Revenue (Fixed & Mobile)

During year 2017, total outgoing minutes originated on mobile represented 97% of total outgoing minutes fetching total revenue of R.O 39.990 million.

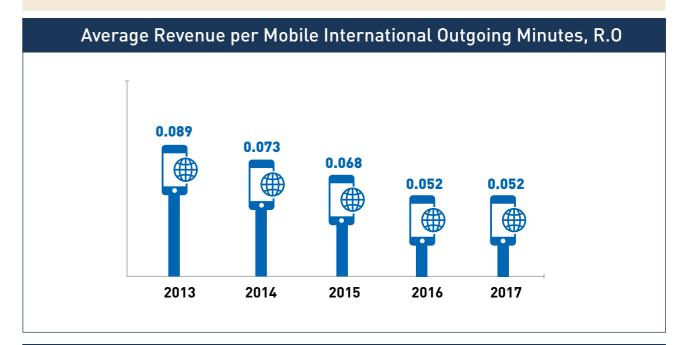
The remaining 3% of total outgoing minutes were originated on fixed which generated R.O 3.140 million.

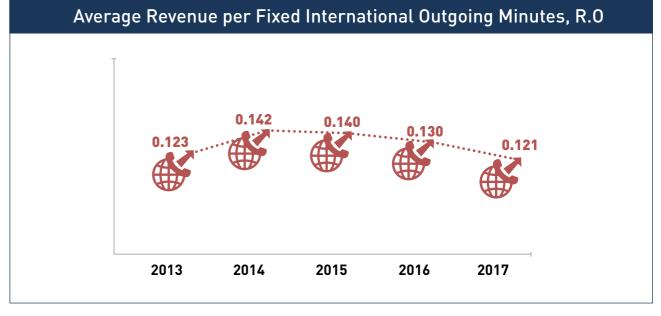
Distribution of International Outgoing Minutes 98% 97% 97% 98% From Mobile From Fixed



Average Revenue from International Outgoing Calls

During year 2017, the average revenue per minute from international mobile calls was R.O 0.052, while R.O 0.121 per minute for international fixed calls.

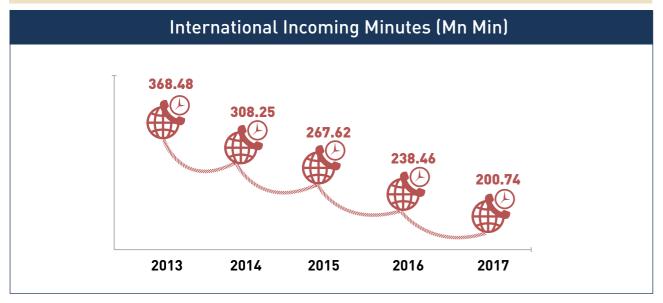


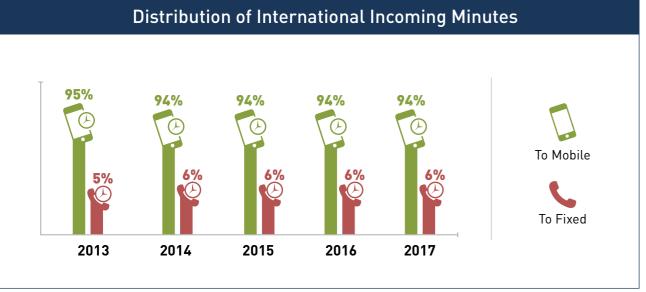


International Incoming Call Minutes

The total incoming minutes from international calls was reduced by 16% during year 2017.

Out of total 200.74 million minutes, 94% was terminated on mobile network, while 6% was terminated on fixed network.







Type Approval

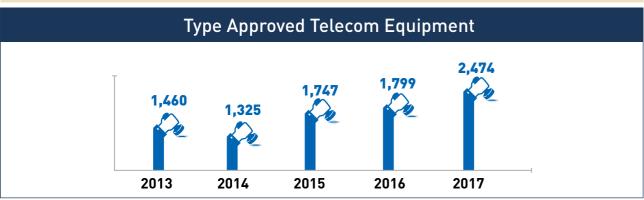
Type Approval

During the year 2017:

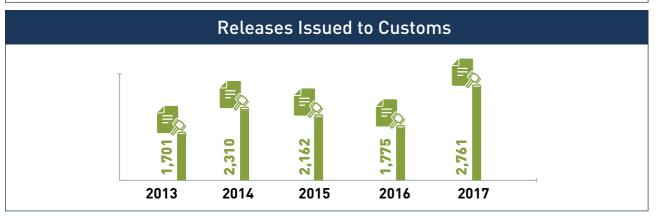


TRA had approved 2,474 telecom equipment which is 37.5% higher than that of year 2016.

Telecom equipment includes Mobile Handsets, Radio Equipment, and other Terminal Equipment.









Telecom Service Providers in Oman			
Class I	SERVICE PROVIDER	SERVICES	LICENSE ISSUE YEAR
عمانتل Omantel	Omantel	Fixed/Mobile/ International Gateway	2004
	Ooredoo	Fixed/Mobile/ International Gateway	2005/2009
téويت	Sama Tel/ Te0	International Gateway	2011
ANASR	Awasr	Fixed Broadband	2012
CONNECTI	Connect Arabia International	International Gateway	2013
Partings of Areas areas	Madakhel	General Marine Telecommunication	2013
BROADBAND	Oman Broadband Company (OBC)	Fixed Broadband Infrastructure	To be Awarded

Telecom Service Providers in Oman				
Class II	SERVICE PROVIDER	SERVICES	LICENSE ISSUE YEAR	
FRIEND	Connect Arabia (Friendi)	Resale of public mobile telecommunications services	2008	
⊚ renna	Majan (Renna)	Resale of public mobile telecommunications services	2008	
Zajel	Zajel	Generalized Multiprotocol Label Switching (GMPLS)	2014	
Class III	SERVICE PROVIDER	SERVICES	LICENSE ISSUE YEAR	
Äzyan	Azyan	Very Small Aperture Terminal (VSAT) Private Network	2010	
RigNet	Rignet	Very Small Aperture Terminal (VSAT) Private Network	2011	
<u>—</u> маниолопе	Mahd Telecom	Vehicles Management System (Machine to Machine M2M)	2014	
	Mahd Satellite	Very Small Aperture Terminal (VSAT) Private Network	2017	

62 Telecom Sector Indicators in Oman 2013-2017

Acronyms				
ADSL		Asymmetric Digital Subscriber Line		
CAI		Connect Arabia International		
CAGR		Cumulative Annual Growth Rate		
FBB		Fixed Broadband		
FTTH		Fiber-To-The-Home		
GCC		Gulf Cooperation Council		
ICT		Information & Communication Technology		
ISDN		Integrated Services Digital Network		
ITU		International Telecommunication Union & Communication Technology		
LTE		Long Term Evolution		
M2M		Machine to Machine		
Mbps		Megabits Per Second		
Min		Minutes		

Acronyms	
MMS	Multimedia Message Service
Mn	Millions
MoTC	Ministry of Transport and Communication
NCSI	National Center for Statistics and Information
ОТТ	Over-The-Top Services
R.0	Rial Omani
SMS	Short Message Service
Te0	Telecom Oman
TRA	Telecommunication Regulatory Authority
VoIP	Voice-Over Internet Protocol
VSAT	Very Small Aperture Terminal
WLL	Wireless Local Loop

64 Telecom Sector Indicators in Oman 2013-2017



