

Towards World-Class Services to All

ANNUAL
REPORT **2019**



**HIS MAJESTY
SULTAN QABOOS BIN SAID**
- May God rest his soul in peace-



**HIS MAJESTY
SULTAN HAITHAM BIN
TARIQ AL SAID**



سلطة تنظيم الاتصالات
Telecommunications Regulatory Authority

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LEADERSHIP & CORPORATE



WHO WE ARE

The Telecommunications Regulatory Authority (TRA) of the Sultanate of Oman was established in 2002, to liberalize and promote the telecommunication sector under the Telecommunications Act which was issued under the Royal Decree No. 30/2002.

In 2012, the Telecommunication Regulatory Authority was mandated to regulate Oman's Postal Sector in accordance with the Postal Service Regulatory Law, which was issued by the Royal Decree 71/2012 to reform, liberalize and develop the market within the Sultanate.

BOARD OF DIRECTORS



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AL RAWAHI**
EXECUTIVE PRESIDENT

CHAIRMAN'S MESSAGE



H.E. DR. MOHAMMED HAMAD AL RUMHY
CHAIRMAN

For the Sultanate, the year 2020 dawned with the grief-stricken message of passing away of our dear and legendary leader beloved Sultan bin Qaboos bin Said whose vision and tireless passion ensured the steady and impressive development of the country on all fronts especially the social and economic sectors. The continuance of the renaissance started by the late HM is now in the safe and assuring hands of His Majesty Haitham bin Tariq Al Said, the driving light behind the vision 2040 for the Sultanate.

The TRA embarked on the 5G arena by announcing a roadmap for both the enterprise sector and the consumer-oriented services identifying the timelines and roll out targets. In this regard, during the year 2019, TRA successfully allocated the spectrum required for the 5G in the bands of 700 MHz and 3.4 GHz in line with the ITU recommendation for the region.

The allocation ensures fair and equitable distribution to the existing mobile network operators and the yet to commence new license of the third mobile network operator.

The TRA participated in the World Radiocommunication Conference in 2019 (WRC-19), which was held in Sharm El-Sheikh, Egypt a vital radio congress for 5G deliberations. TRA along with other Arab countries submitted more than 40 joint contributions to the conference that resulted in key decisions on radio spectrum allocation and usage.

National Early Warning Center approached the TRA to introduce the Cell Broadcast Service (CBS), to enable broadcasting of warning and disaster information to the public promptly and without delay. TRA has directed mobile telecom service operators to introduce the suitable solution for warning system for all the current technologies like 4G, 3G and 2G. In order to ensure availability of the CBS features in the mobile handsets in both the existing available in the Omani market as well as the future handsets to the Omani market, TRA agreed with the National Early Warning Center the specifications to enable the CBS on the handsets according to international standards.

In respect of the competition landscape, TRA has received an application to establish and provide mobile network operation in Oman from Oman Future Technologies Limited and the license is expected to be granted in accordance with the provisions of the regulatory framework. Licensing of the 3MNO is aimed to enhance the level of competition in the Sultanate in the mobile services market. The implementation of the access and interconnection regulations is progressing well and the licensees have established interconnection and access agreements which are approved by the TRA and published on their websites.

TRA launched an awareness campaign called "Know Your Rights" aimed towards postal beneficiaries explaining the most important rights and obligations in accordance to the postal law. TRA also published a list of licensed service providers in the postal sector periodically to ensure that the public consumers (personal and corporate) are aware of the official and licensed providers and avoid any unlicensed players and reduce unlicensed activity in the market.

TRA thanks its employees for their continuous efforts to upgrade their skills and provide services to the sector and thanks all its stakeholders who provide the much-needed cooperative ecosystem for the regulator to function.

EXECUTIVE PRESIDENT'S MESSAGE



H.E DR. HAMED SALIM AL RAWAHI
EXECUTIVE PRESIDENT

The nation lost its architect and visionary the late HM Sultan bin Qaboos bin Said in January 2020 and is witnessing the continuance of the renaissance by His Majesty Haitham bin Tariq Al Said reassuring the Sultanate and the world of its chosen process of peace and economic prosperity.

The TRA revisited and gotten approval of its new structure that focuses on enhancing the efficiency and effectiveness of delivering stakeholder-oriented outcomes. As part of its strategy to encourage continuous learning and upgrading skills and knowledge the Authority has ensured that its employees enroll and get certified in the latest technologies and soft skills primarily through online and distance learning.

Awareness among the customers to seek the intervention of the Authority in case of issues in obtaining services from the licensees is gaining momentum evidenced by the number of calls received at the Authority's call center and number of filed complaints. TRA is effectively deploying its Twitter platform to inform the customers of their rights when it comes to the

services they receive in the telecom and postal sectors. The steady expansion of telecom services such as fixed broadband and postal services such as e-commerce also play a role in spreading the awareness.

TRA has implemented the project of Enhancement of the Advanced Automated Spectrum Management System (AASMS) during the year 2019 with the objective to enhance the AASMS through development of new web interface to adopt to mobile devices such as mobile smart phones and tablets and aligning with the e-Government direction towards expediting the process and encouraging paperless transactions.

Regarding Omani Satellite Project, TRA has continued the coordination process with the affected administrations and networks in the four Orbital locations 51E, 54E, 67E and 73.5E in accordance with the international Radio Regulations governed by the ITU.

Application for license to establish and provide mobile network operator services has been received from the government owned company Oman Future Technologies. The company has revealed that it has identified Vodafone as its strategic partner and that it would start commercial operations in the year 2020. TRA in line is providing the enabling guidance for the introduction of the 3MNO in the Omani telecom market.

Within the mobile services market, the year saw the migration of a host operator by a mobile reseller, a first of its kind experience, in the whole telecom ecosystem successfully managed by the Authority resolving challenges along the way. The signing of access and interconnection agreements have since been completed among the licensed entities for major services identified in the A&I regulations.

The Authority provided the guidelines for the sharing of fiber infrastructure among the licensed entities recognizing the role of Oman Broadband Company established under the national broadband strategy. OBB received its formal license and progressing with its objective of providing fiber access to other service providers on a wholesale arrangement. OBB, during the year, established two more subsidiaries under its fold namely, Oman Tower Company(OTC) and Oman Satellite Company. OTC has successfully established contracts with the mobile network operators to make available the towers across the country. This arrangement is expected to encourage sharing of the critical infrastructure like a mobile tower by the sector participants resulting in cost savings and avoiding duplication of investments.

The remote and rural area coverage initiative of the Authority is nearing completion and the connectivity in those areas are appreciated by individual and enterprise users equally well.

TRA expects that enterprise users would be the first section of the customers who would be provided by the services by the licensees in 2020. TRA has streamlined its regulatory provisions to make feasible the deployment of fixed wireless access services using the 5G spectrum among the licensees. The roadmap for 5G deployment and rollout has been shared with all the stakeholders and agreement with the existing licensees has been obtained for the coverage obligations. Relaxation in spectrum usage fee for the first year and protracted payment of spectrum license fee are some of the incentive measures adopted by the Authority for the proliferation of 5G services in the Sultanate.



THE STRATEGY PLAN



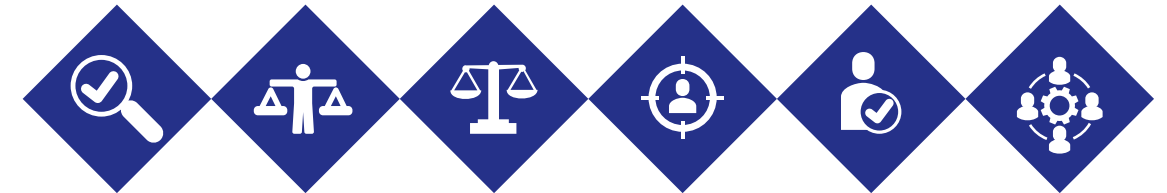
Mission

We are the national authority to regulate the telecommunications and postal services sectors by translating government policies into regulations, rules and guidelines and ensuring their enforcement and compliance to enable competitive and sustainable supply of services in order to facilitate access and safeguard the interest of users with respect to price and quality.

Vision

"To have the right regulatory environment to enable the provision of World-class Services to all by 2020"

Values



Transparency

Ethics

Fairness

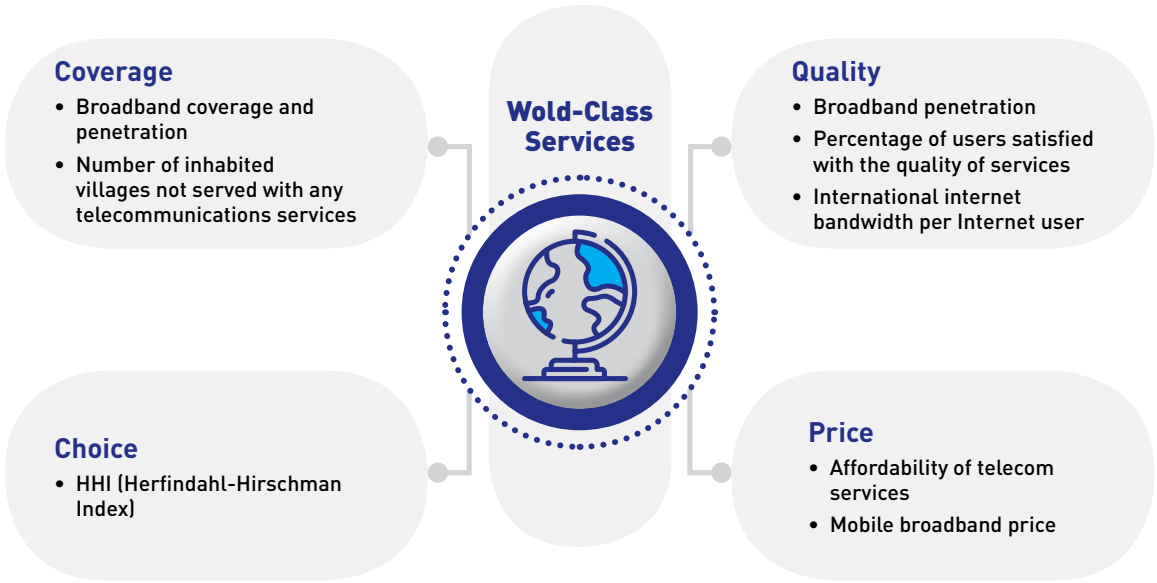
Customer Focus

Accountability

Teamwork

The focus was particularly in '**World-class Services**', which has been identified by the following pillars: **Quality, Price, Coverage and Choice (QPCC)**. Under these 4 pillars, TRA works on many initiatives in order to meet its Vision.

The Strategic Vision Pillars



Risk Management

The TRA recognizes that risk management is an integral part of good governance practices and is committed to its application in performing all its mandates. The TRA has issued Governance and Risk Management Manual, which provides the foundation for the development of TRAs’ Risk Management model based on the ISO 31000, 2009 Standard. TRA’s risk management guidelines was issued in 2019. The Guidelines provide the basis and organizational arrangements for designing, implementing, monitoring, reviewing and continually improving risk management throughout the organization.

It is worth noting that the authority formed a committee and a working group assigned to them the responsibility of developing the authority’s Business Continuity Plan (BCP), provided that this plan is developed taking into account the following steps:

- Conducting a gap analysis of the catastrophic risks that have resulted in interruptions to basic services.
- Determine the essential infrastructure elements for information systems and building facilities.
- Conducting a business impact analysis of the disruption of vital activities and services.
- Developing a comprehensive plan for services recovery.
- Testing the developed business continuity management plan and examining gaps founded.



TELECOM LICENSES

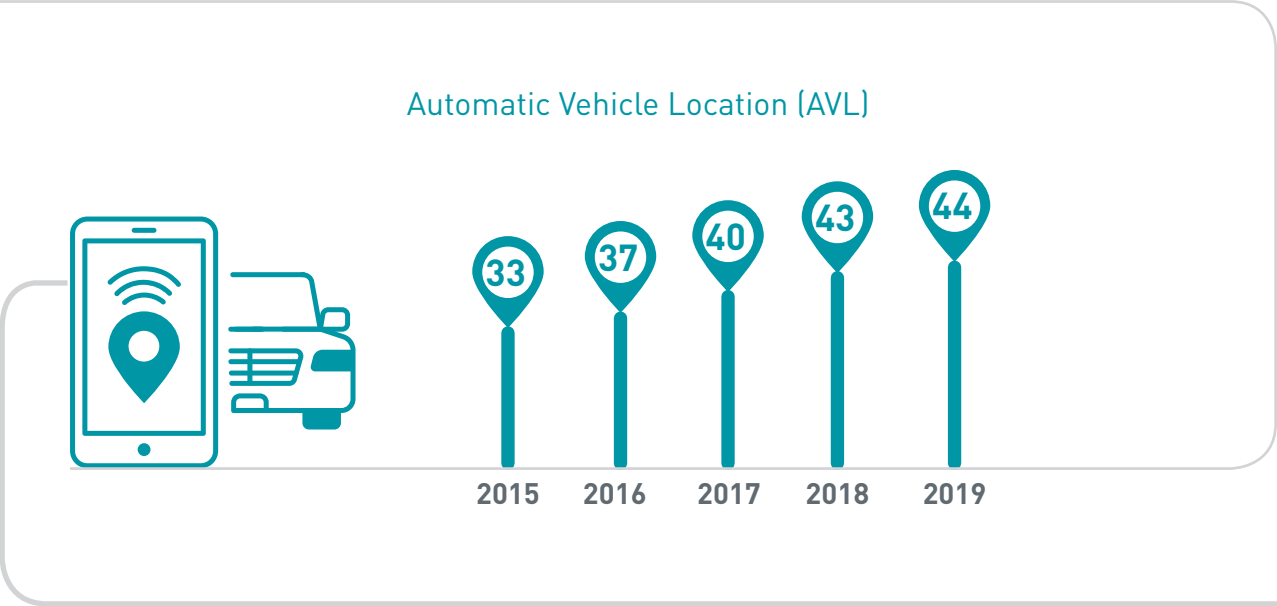
Current Telecom Licenses:

The following tables represent the current telecom licenses as of year 2019, separately for each license, as well as the effected date of acquiring the license.

	Name of Licensee	License Effective Year
Class I	 Omantel	2004 / 2019
	 Ooredoo	2005 / 2009
	 TeO	2011
	 Awazr	2012
	 Al Madakhel Investment	2013
	 Connecti Arabia International	2013
	 Oman Broadband Company	2019
Class II	 Friendi Mobile	2018
	 Renna Mobile	2018
	 Zajel Extended Telecom	2014
	 Awazr	2019
Class III	 Azyan Telecom	2010
	 Rignet ME	2011
	 Mahd Telecom	2019
	 Mahd Satellite Services	2017
	 Dunes Middle East	2019

Authorizations for Automated System for Vehicle Management Service

The authorizations for automated system for vehicle management services is increasing, reaching a total of 44 authorizations by 2019. This services is requested by many corporates interested to monitor, track and manage vehicles or mobile objects in general. The service is provided using the existing services of the licensed mobile networks. The chart below shows the accumulated total authorizations per year from 2015-2019.



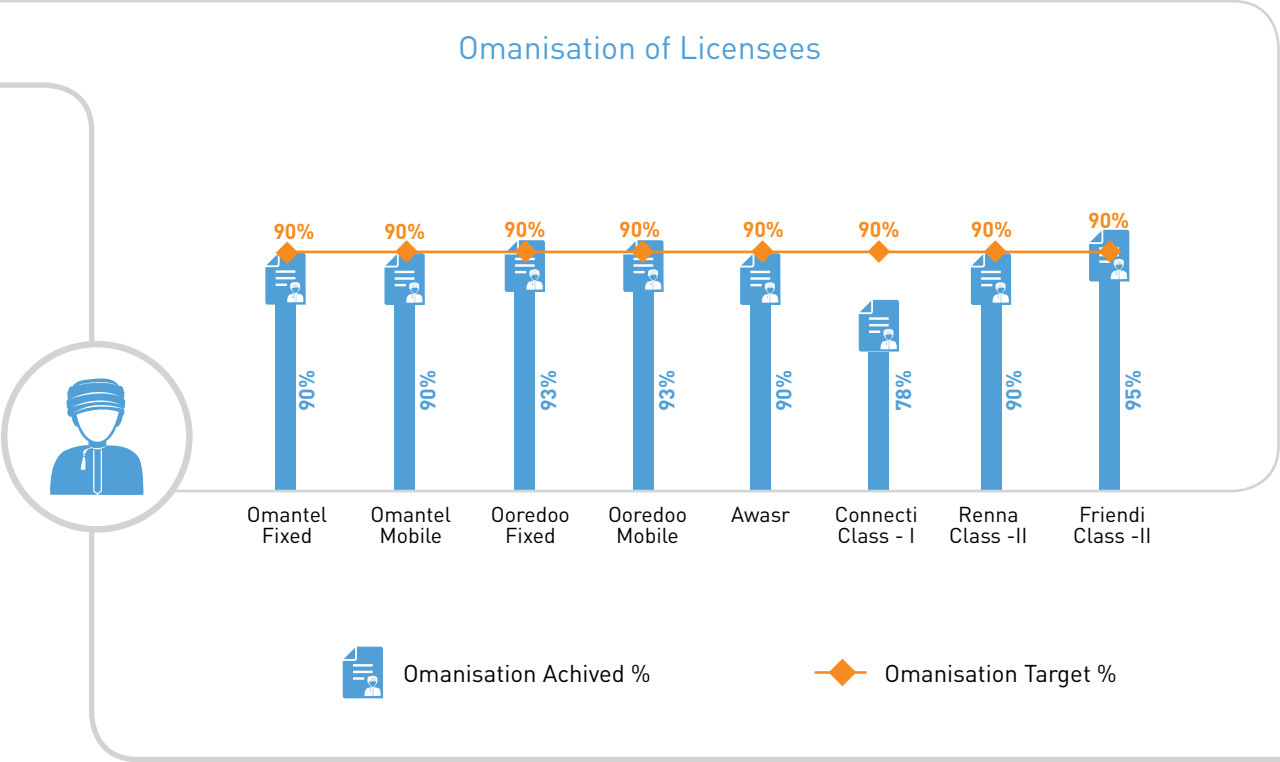
Authorizations for Utilization of Passive Infrastructure owned by non-telecom companies

TRA issued Decision 60/2014 regarding the utilization of Passive Infrastructure owned by non-telecom companies. Since 2014, there were no authorized companies, up until 2017. The details of the authorizations are summarized in the table below:

Authorized Companies	Year Since
Oman Electricity Transmission Company S.A.O.C	2017
Oman Tower Company L.L.C	2018
Oman Airports Management Company SAOC	2019

Licensees Omanisation Levels

The graph below displays that most of licensees have achieved the Omanisation target and higher.

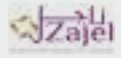


TELECOM LICENSES

Telecom Market Outlook

The telecom sector in the Sultanate of Oman has 15 telecom service providers classified in 3 categories based on the license type.

The major operators in the market are Omantel, Ooredoo and Awasr. There are also two mobile resellers, two IGW, and three Class III licensees providing different services:

 License Type	 Licensees	 License Scope/Services
Class I	 Omantel	Fixed voice & data Mobile voice & data International Gateway
	 Ooredoo Oman	Fixed voice & data Mobile voice & data International Gateway
	 Awasr	Fixed voice & data (Currently providing only FTTH)
	 TeO	International Gateway
	 Connect Arabia International	International Gateway (Currently only International Incoming)
	 Oman Broadband Company	Passive Broadband Infrastructure (Currently passive FTTX & backhaul services)
	 Oman Tower Company	Telecom Towers*
	 Madakhel	General Marine Telecommunication
Class II	 Friendi Mobile	Mobile voice & data reselling
	 Majan (Renna) Mobile	Mobile voice & data reselling
	 Zajel	GMPLS reselling (Generalized Multiprotocol Label Switching)**
Class III	 Rignet	Private network services
	 Azyan	Private network services
	 Mahd	Private network services Vehicle Management System
	 Dune Middle East	Private network services

* License is under process
** Not yet operational

Telecom Indicators

Indicators	Fixed Telephone	Fixed Broadband	Mobile Telephone	Mobile Broadband
Subscriptions	592,196	473,070	6,383,458	5,038,782
Penetration rate ¹	89.5% (per Household)	71.5% (per Household)	138.2% (per Household)	109.1% (per Household)
ARPU2 (R.O)	RO 2.030	RO 26.907	RO 2.225	RO 4.497
Investments (% from Total Investment)	64.7%		35.1%	

Note: ¹ The penetration rates are calculated based on the NCSI latest approved population to be used for the calculations, which is the mid - year 2019: {4,618,268} & households: {661,707}.

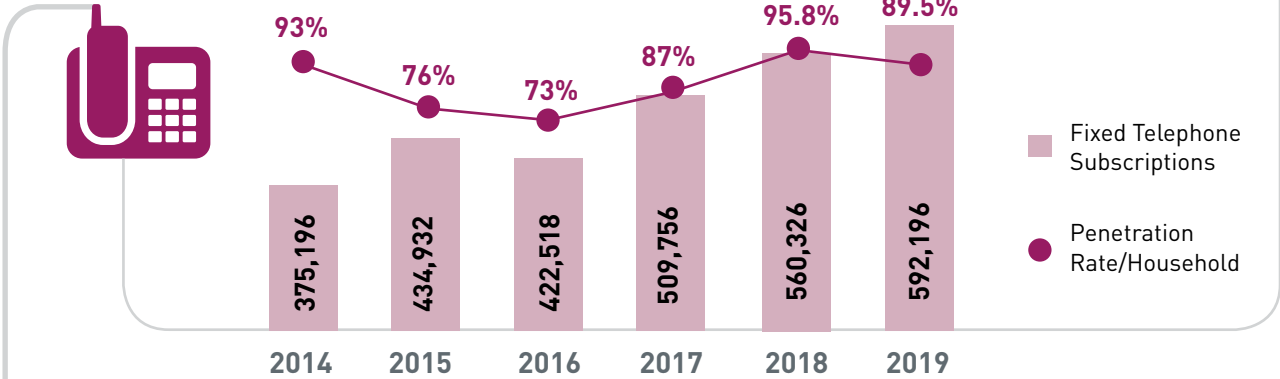
² ARPU stands for average revenue per user/subscription.

Fixed Services

The fixed telephone market continued to grow over the last 3 years in number of subscriptions mainly due to the growth of VoIP subscriptions as well as the bundled subscriptions with fixed broadband (data):

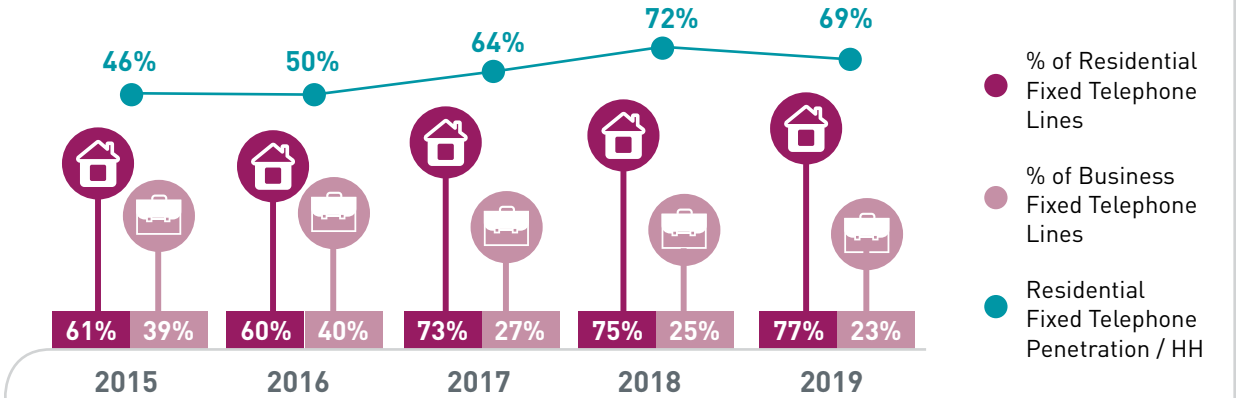
Fixed Telephone	2019
Analogue Fixed Telephone Subscriptions: (Postpaid + Prepaid)	321,501
VoIP Subscription	213,320
WLL Subscriptions	1,563
ISDN Channels (Equivalent DELs)	49,011
Public Telephone – Payphones	6,801
Total Fixed Telephone Subscriptions	592,196
Fixed Telephone Penetration per 100 Inhabitant	12.82%
Fixed Telephone Penetration Per 100 Household	89.50%

Fixed Telephone Subscriptions



The fixed telephone subscriptions increased in 2019 by 6% reaching 592,196 subscriptions. Although the subscriptions increased, fixed telephone penetration decreased to 89.5% per household as compared to the previous year due to a higher growth of number of households in Oman.

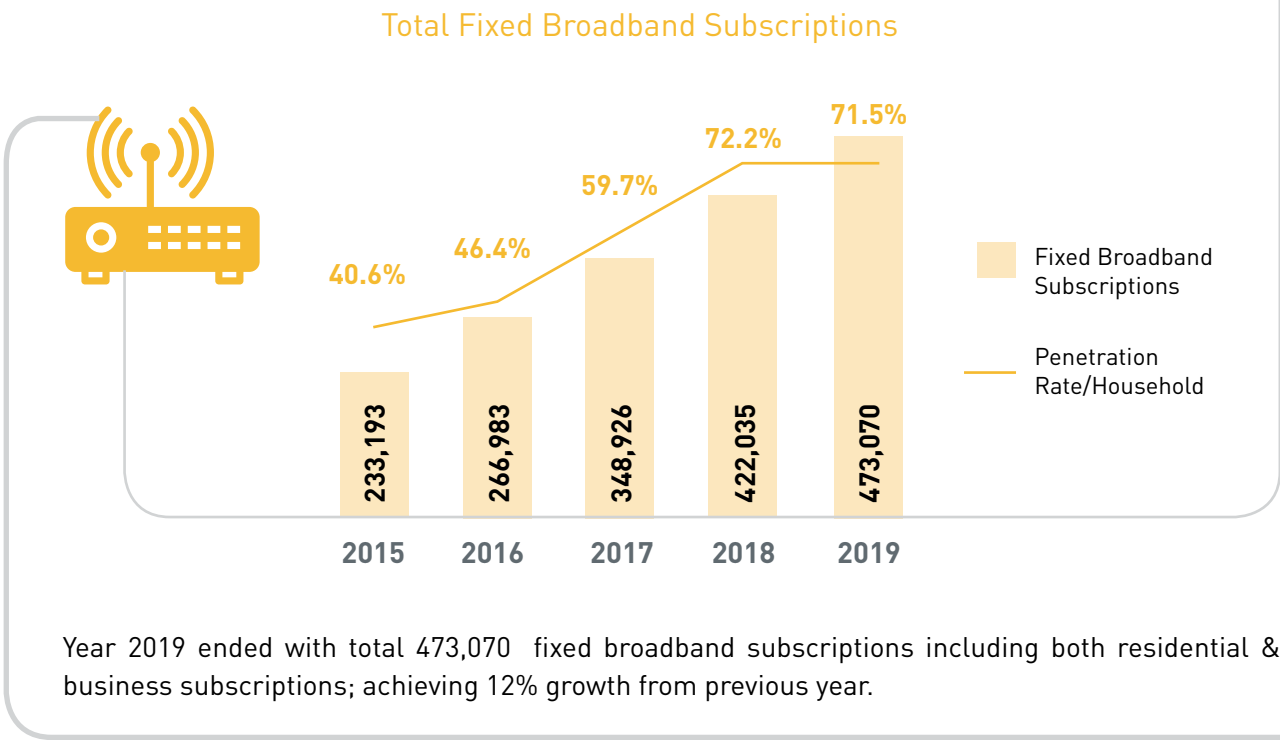
% of Residential & Business Fixed Telephone Lines



Out of the total 592,196 subscriptions, more than three quarters of the subscriptions were residential subscriptions with almost 77% out of total fixed telephone subscriptions by end of 2019. The remaining 23% represent business fixed telephone subscriptions.

Similar to the fixed telephone, fixed broadband subscriptions has been growing in the past few years:

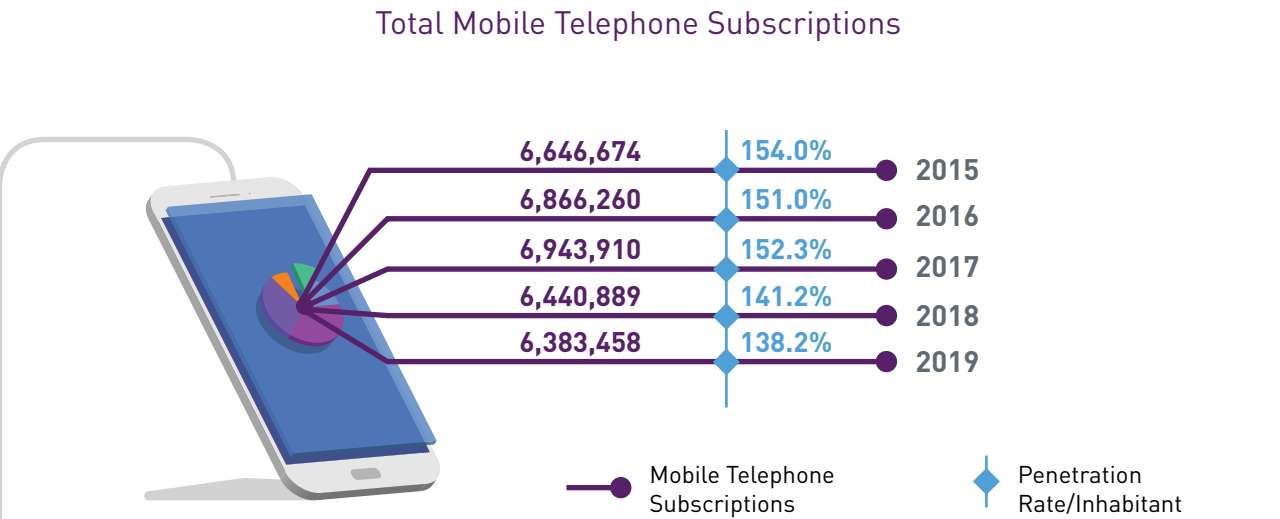
Fixed Broadband	2019
Fixed Wired Broadband Subscriptions	317,850
Fixed Wireless Broadband Subscriptions	155,220
Total Fixed Broadband Subscriptions	473,070
Fixed Broadband Penetration /100 Inhabitant	9.30%
Fixed Broadband Penetration /100 Household	71.49%



Mobile Services

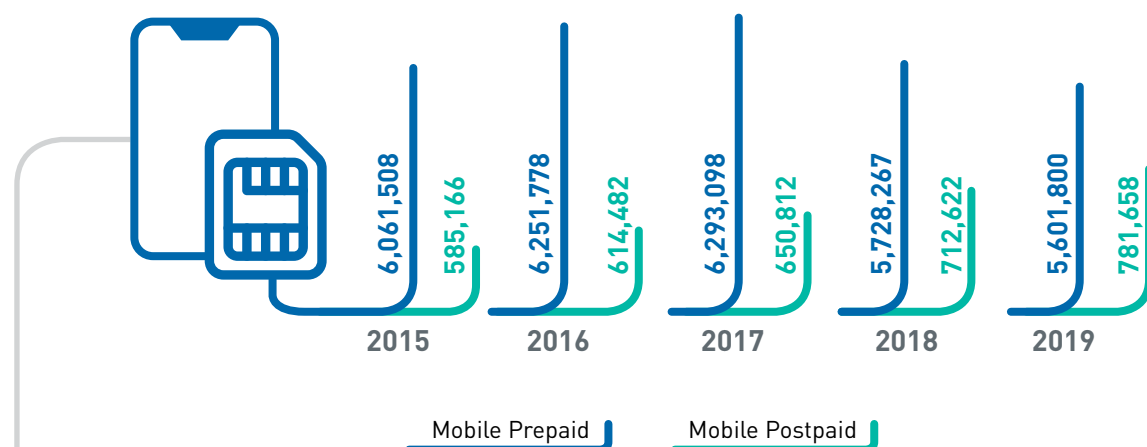
The mobile market witnessed a slight decline in mobile telephone subscriptions and a growth on the other hand in mobile broadband subscriptions:

Mobile Subscriptions	2019
Total Postpaid Subscriptions	781,658
Total Prepaid Subscriptions	5,601,800
Total Mobile-Cellular Telephone Subscriptions	6,383,458
Mobile Telephone Penetration/100 Inhabitant	138.22%
Mobile Broadband	
Total Active Mobile Broadband Subscriptions	5,038,782
Active Mobile Broadband Penetration Rate /100 Inhabitant	109.11%



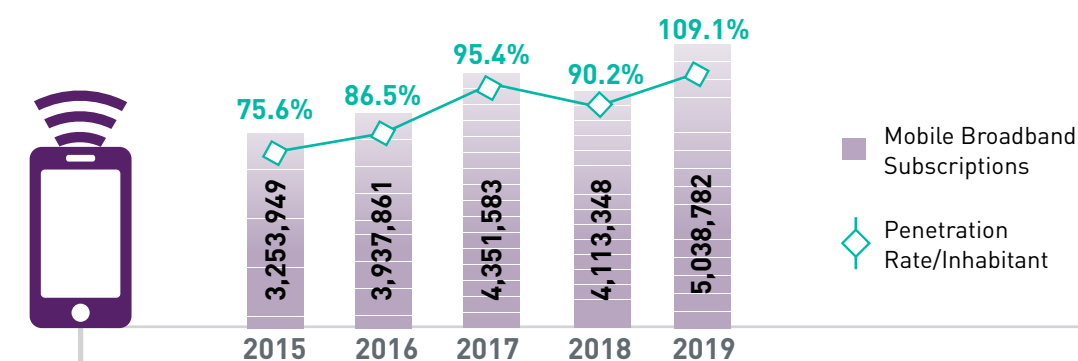
The year 2019 ended with 6,383,458 mobile telephone subscriptions compared to 6,440,889 subscriptions in 2018, with penetration rate of 138.22% per inhabitant. These subscriptions include prepaid and postpaid mobile subscriptions.

Mobile Telephone Postpaid & Prepaid Subscriptions



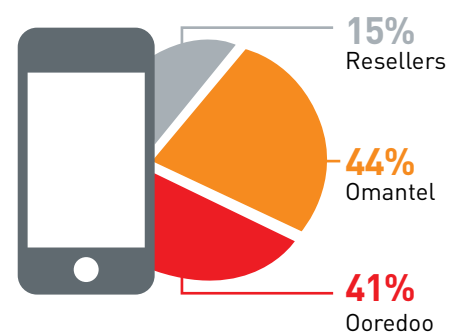
Out of total mobile-cellular telephone subscriptions, mobile prepaid subscriptions represent 87.75% of total subscriptions, while the remaining 12% are postpaid subscriptions.

Active Mobile Broadband Subscriptions



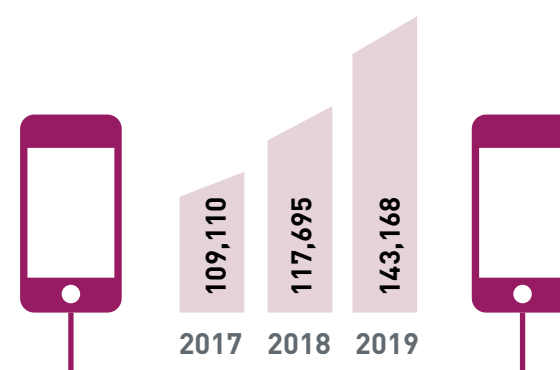
Active mobile broadband subscriptions increased in 2019 compared to last year by almost 22% reaching 5,038,782 subscriptions. Active mobile broadband subscriptions include data only subscriptions and data with voice subscriptions. The penetration rate per inhabitant by end of 2019 was 109.11%.

Mobile Service Providers Market Share



The MNOs market share this year was 85%, while the resellers share increased this year from 12% to 15% from total market subscriptions.

Machine-To-Machine (M2M) Subscriptions

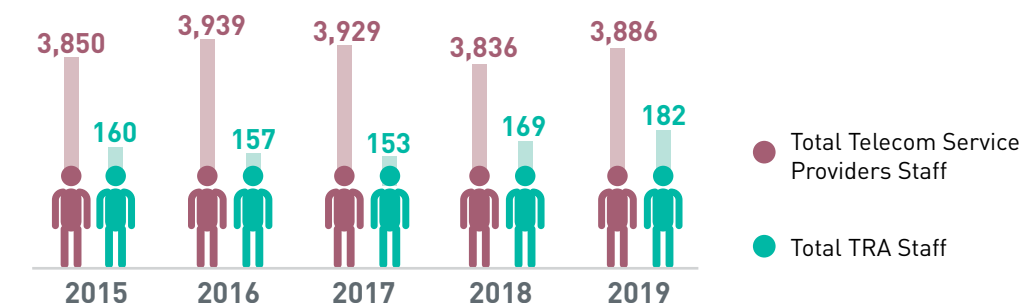


The number of M2M subscriptions increased in 2019 by 22% reaching 143,168 subscriptions.

Telecom Employment

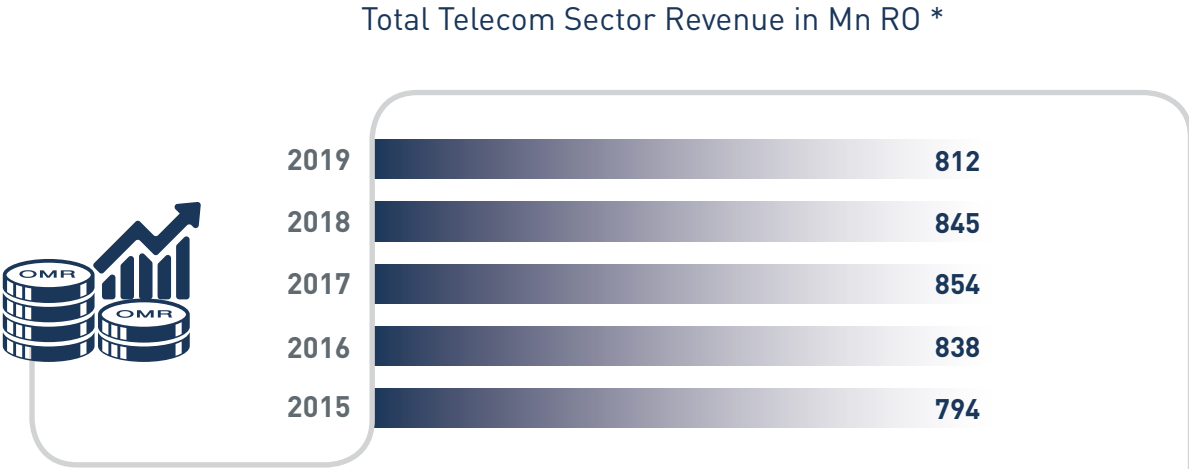


Full Time Employment in the Telecom Sector



By end of 2019, the number of full time employees in the telecom sector (including all Telecom Licensees) were 3,886, whereas TRA staff reached 182.

Telecom Services Revenues

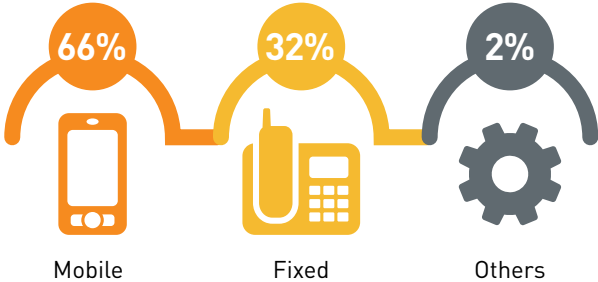


*Total Revenue covers the audited revenues of telecom operators, resellers, and other service providers in Class I,II,III Except for Madakhel, Azyan, and Rignet are not audited.

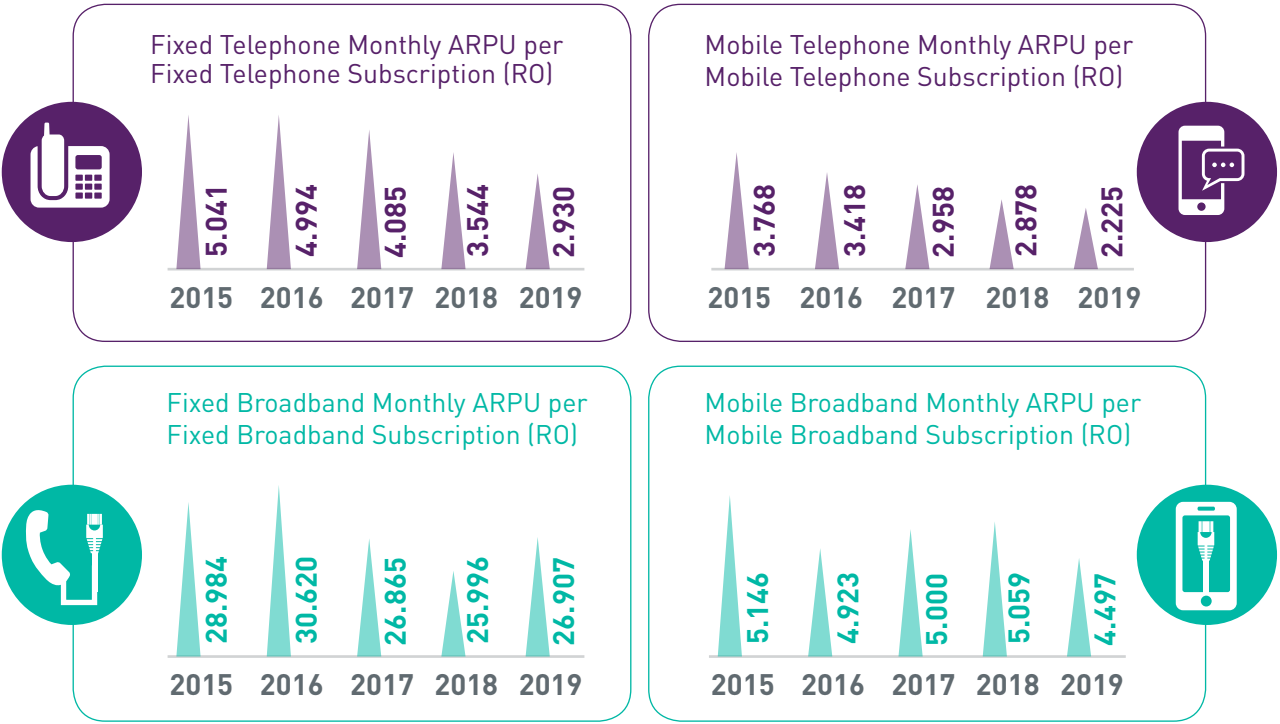
The total generated revenue by telecom service providers (Class I, Class II, Class III) were R.O 812 million during year 2019 with a drop of 4% comparing to year 2018.

The revenue shares of mobile and fixed in 2019 were 66% and 32% respectively, While the remaining 2% was in other telecommunications services.

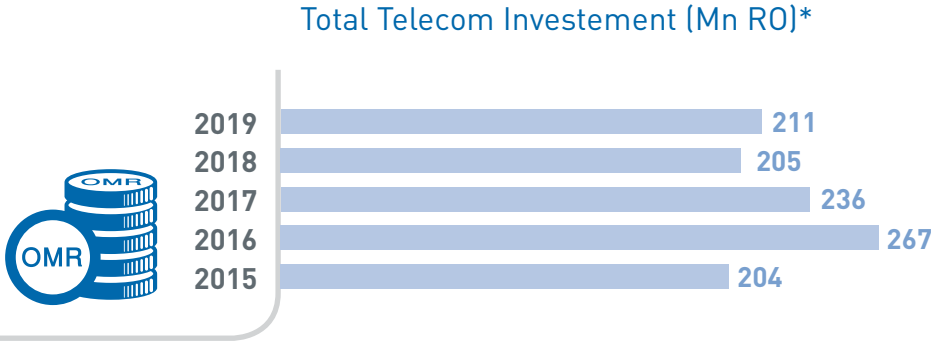
% of Telecom Service Revenue by Service providers



Average Revenue per User/ Subscription (ARPU): The average revenue per telecom user/subscription (ARPU) reached R.O 2.225 per mobile subscription, R.O 4.497 per mobile broadband subscriptions, R.O 2.93 per fixed subscription and R.O 26.907 per fixed broadband subscription.



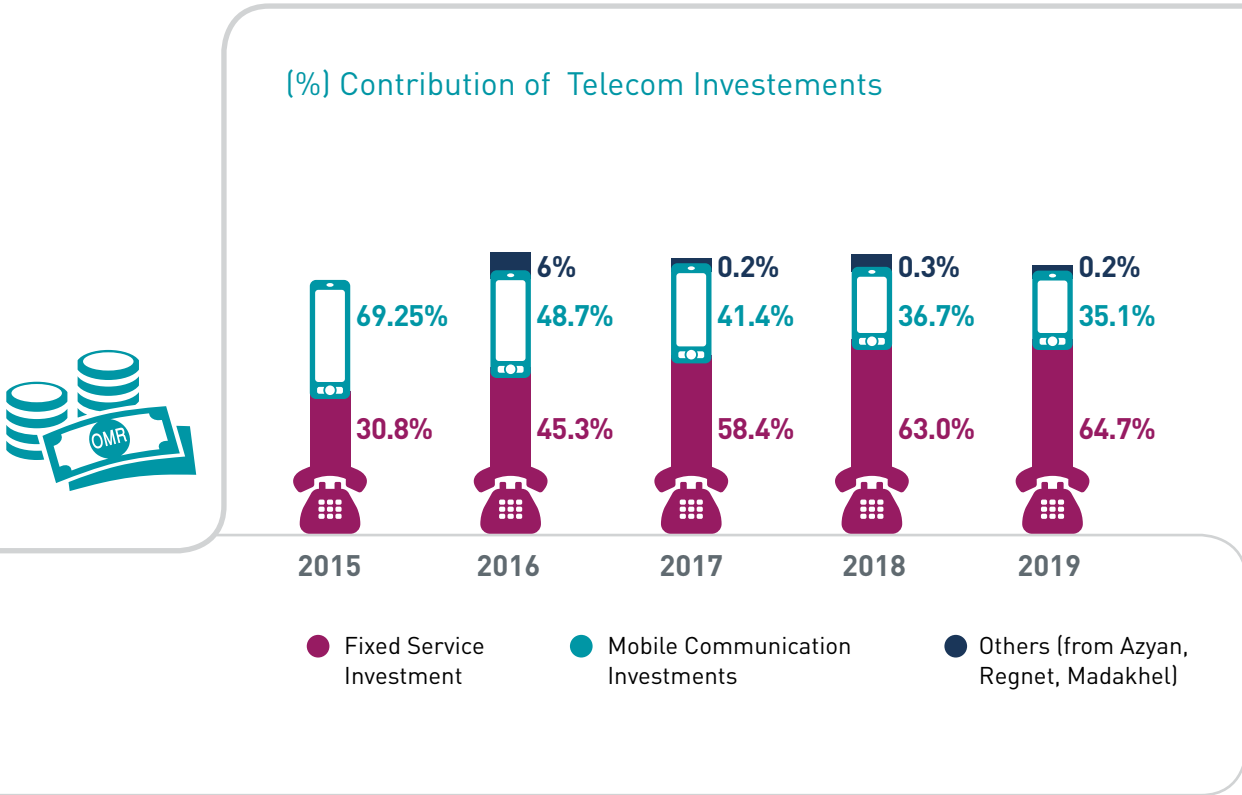
Telecom Investment



*Investments in the unaudited telecom sector cover telecom operators, service resellers, and other service providers from the first, second, and third class Licensees.

The year 2019 ended with total telecom investment of R.O 211 million (include all the telecom service providers with Class I, Class II and Class III license).

Out of the total telecom investments in 2019, 64.7% investments were in fixed services including fixed broadband, 35.1% in mobile telephone services, and the remaining 0.2% in the other telecom services.



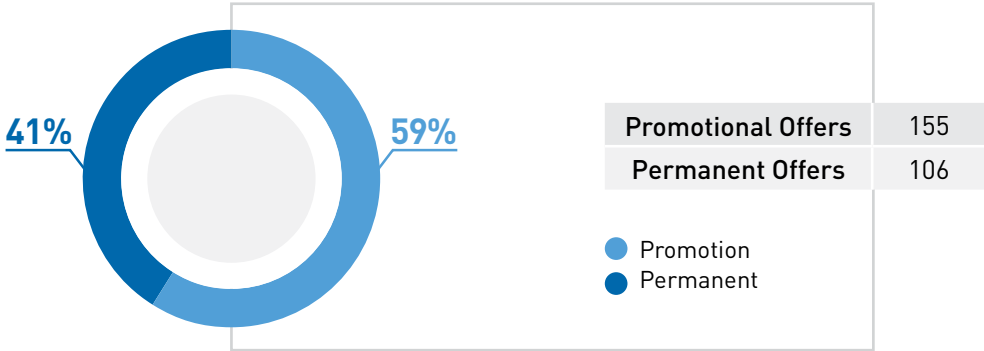
TARIFFS OF TELECOM SERVICES

According to the Retail Tariff Regulation, it is part of TRA's mandate to record and review tariff applications from the licensees. After review, tariffs are either approved, rejected or filed. The following charts summarize the main tariff activity in 2019.

No of Promotional and Permanent Offers in the Market in 2019

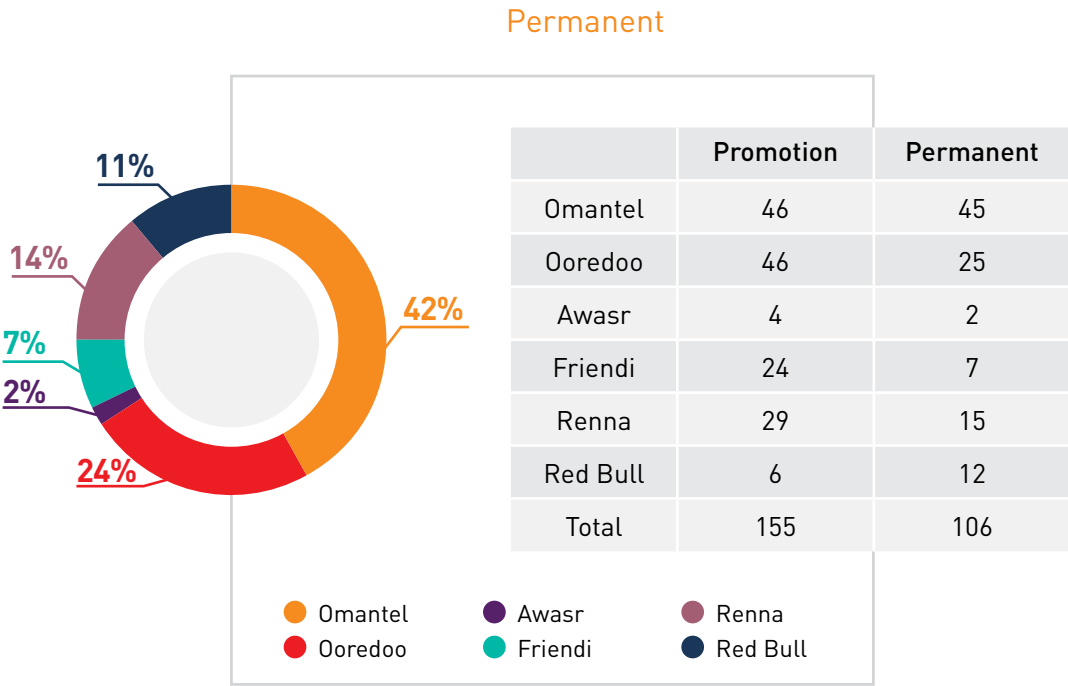
More than half of the applications approved and filed by TRA are for Promotional Offers.

Promotion & Permanent 2019



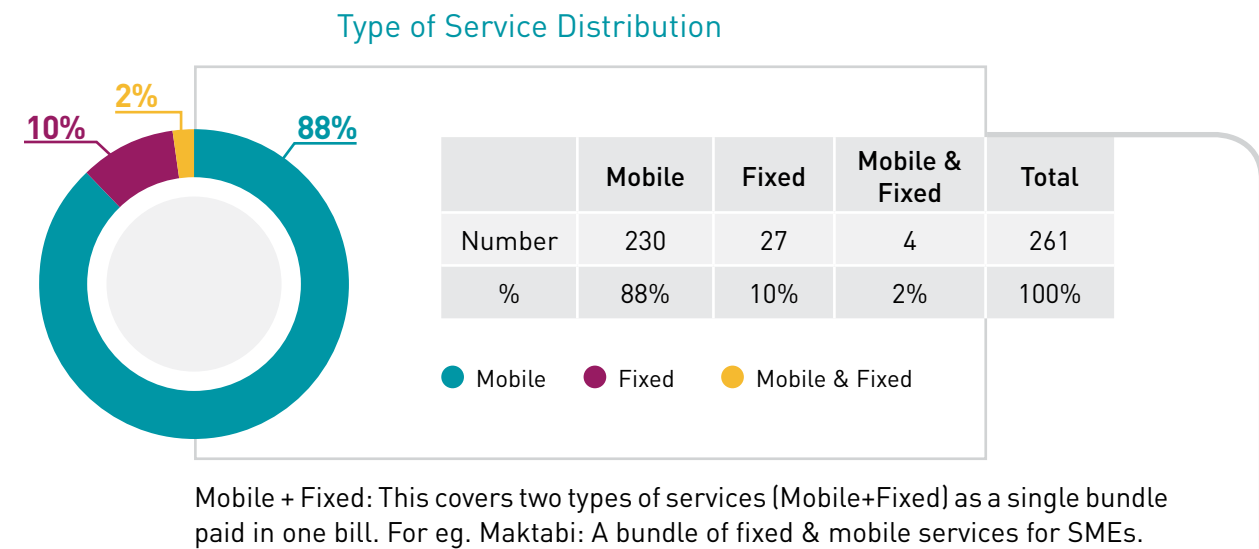
Number of Licensees Applications 2019

The chart below displays the no. of tariff applications submitted by each licensee in 2019, where Omantel submitted the most applications.



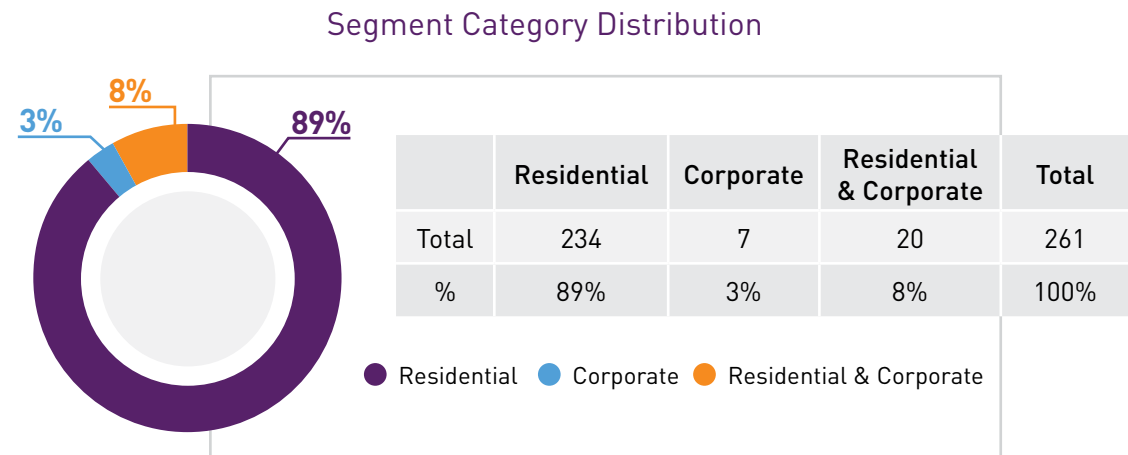
Type of Service Distribution

The chart below highlights the service distribution for each service type. The majority of tariffs are mainly for mobile services accounting for 88%.



Distribution of Target Customers of Licensees Offers

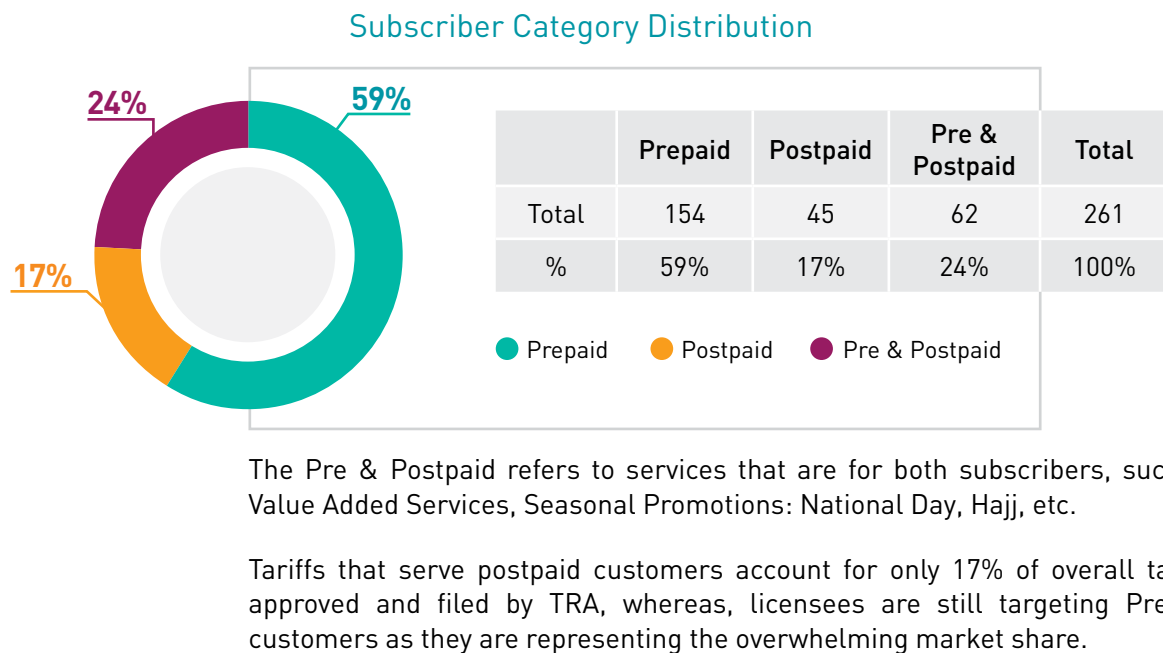
Each tariff application targets specific customers. The chart below displays the distribution of targeted customers for each offer.



89% of Approved and Filed services and offers are targeting the residential segment of customer. Residential + Corporate: tariffs targets both customer segments. Eg, Passport promotion for roaming.

Distribution of Payment Modality

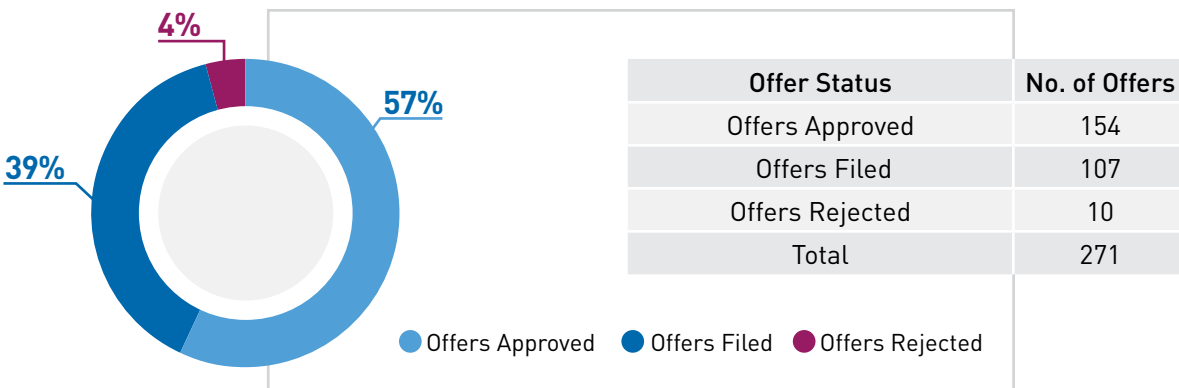
Subscriptions of tariffs are usually either for Prepaid or Postpaid customers.



Tariffs Applications Approved, Filed and Rejected

As mentioned earlier, tariff applications are either approved, rejected or filed. Tariffs filed are only with regards to resellers whom are non-dominant in the market. Hence, they submit their tariff offers for TRA's records.

Offers Approved, Filed and Rejected for Period from 1 January to 31 December 2019



In 2019, TRA rejected only 10 tariff applications out of 271 Applications submitted.

NUMBERS ALLOCATION

Number statistical data for the last three years

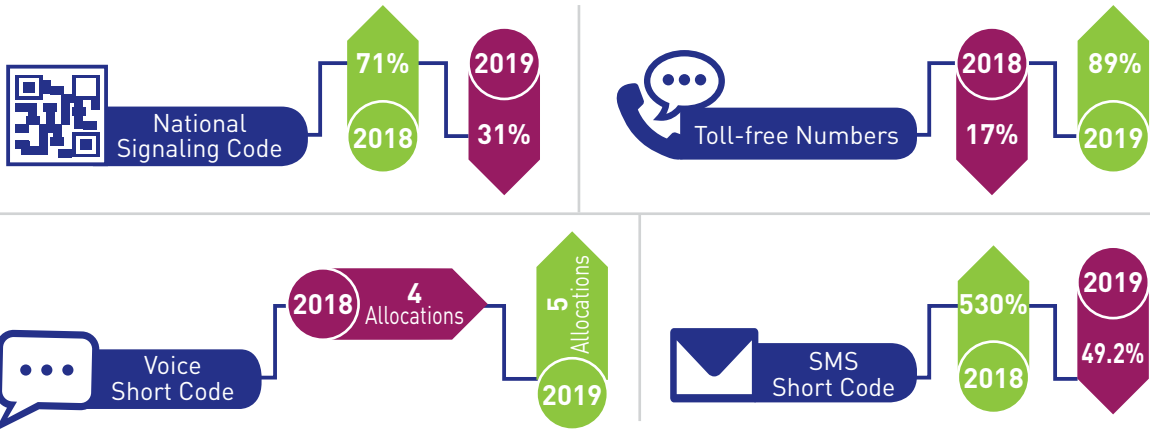
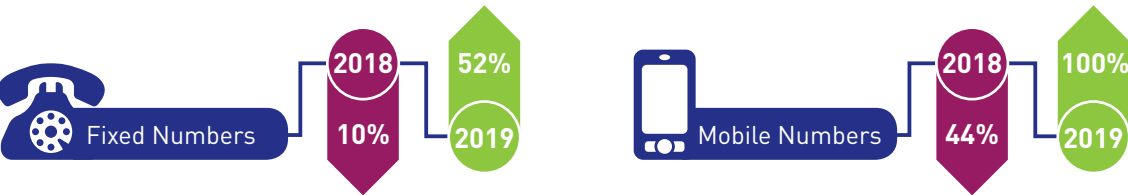
One of TRA’s responsibilities is managing the public numbering scheme and the National Numbering Plan. In addition, TRA is responsible for developing the overall national numbering strategy in the national interest of the Sultanate.

TRA is required to ensure that the number allocation process is fair and transparent to provide a level playing field regarding the availability of numbers for all operators. Since numbers and codes are a national resource, TRA manages the National Numbering Plan in the interest of the whole Sultanate.

These directives have incentivized the operators to become more efficient in using the scarce resources of numbers. The table below shows the annual numbering resources allocated to the operators in year 2019 compared to 2017 and 2018.

Type of Numbering Resource	2017 Allocation	2018 Allocation	2019 Allocation
Carrier Selection codes	0	0	0
International Signaling point codes	0	3	0
National Signaling Point Codes	17	29	20
Fixed Numbers	107,000	96,000	146,000
Mobile Numbers	900,000	500,000	1,000,000
Voice Short Codes	1	4	5
SMS Short Codes	20	126	64
Premium Numbers	0	0	2
Toll Free Numbers	109	90	170

The illustrations below summarize the demand change for the numbering resources over the period from 2017 to 2019:



DOMAIN NAME

As per the Telecom Act, it is part of the TRA mandate to manage and administer the registry of (.om), the ccTLD (country-code Top Level Domain) of the Sultanate of Oman, and (عمان.), the IDN (Internationalized Domain Name) of the Sultanate of Oman. The main roles of TRA in managing the top-level Internet domain names (.om) and (عمان.) are as follows:

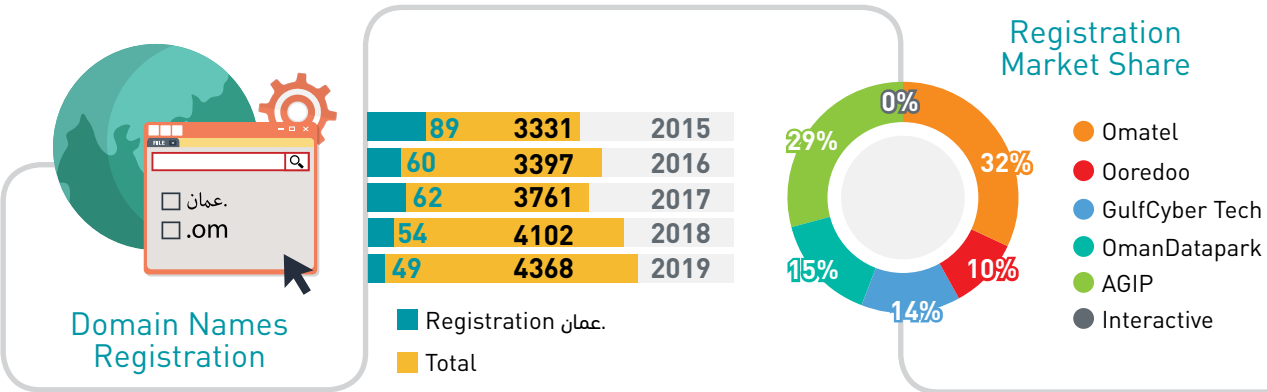
1. Operate and manage the registry and domain name systems of (.om) and (عمان.)
2. Set regulations and rules for the domain names registration
3. Accredit registrars and perform audit to check their compliance with the domain names regulation and rules.

Currently there are six accredited registrars:

1. Oman Telecommunications Company -Omantel
2. Omani Qatari Telecommunications company – Ooredoo
3. Gulf Cyber Tech
4. Oman Data Park
5. Abu Ghazaleh intellectual property- AGIP
6. Interactive Solutions & Services

Growth of .om & عمان.

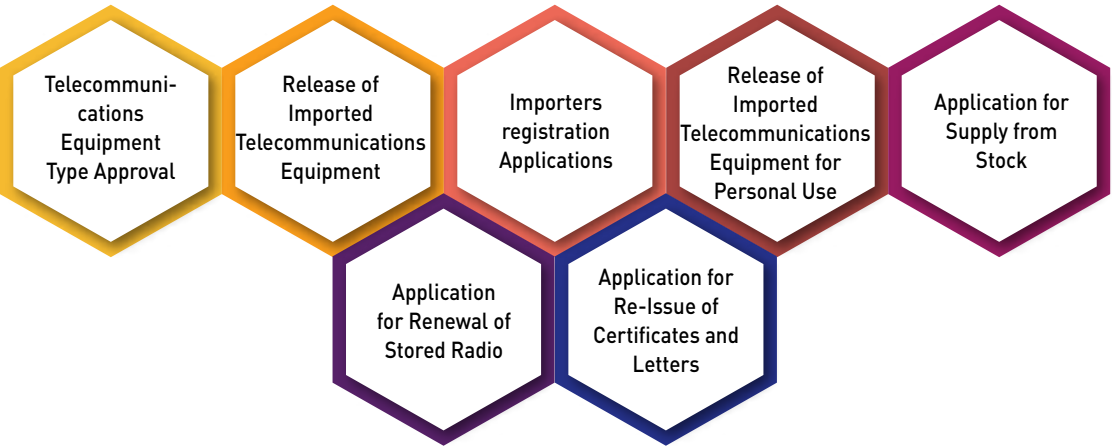
During 2019, the total no. of (.om) and (عمان) registrations reached 4368, with 4319 registrations under (.om) and 49 registrations under (عمان). The graph below shows the growth of (.om) and (عمان) registrations over the past 5 years and the chart shows the market share of the registrations between the registrars.



TYPE APPROVAL

TRA offers services to dealers with regards to telecom equipment and type approval. This includes checking and verifying the telecom equipment for authenticity and performance, which is supported by test results carried out by internationally approved laboratories

These services include:



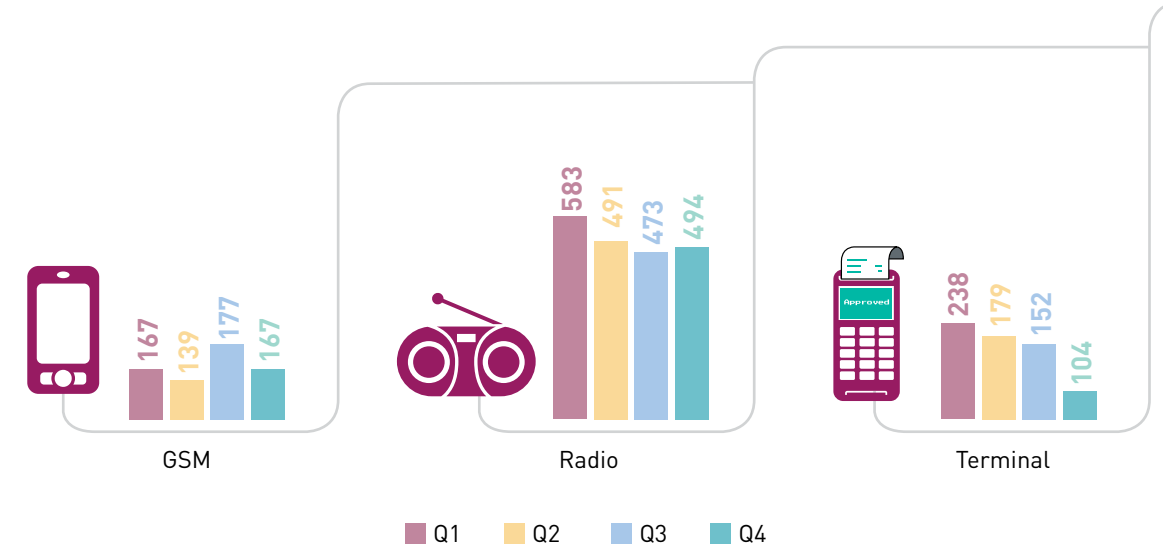
Type Approval Statistics

The graphs below highlight the major statistics of type approval in 2019.

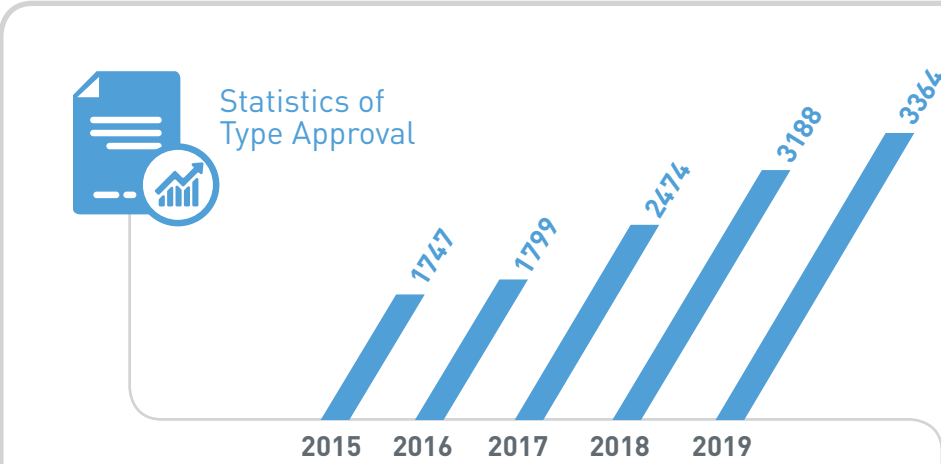
Equipment Type Approval:

The Requests received for Type Approval are either for GSM, Radio or Terminal Equipment.

The graph below highlights the flow of each equipment type approval for each quarter in 2019:

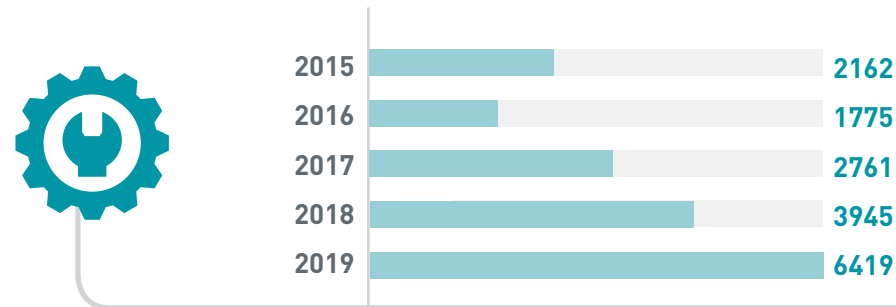


The graph below compares the gradual rise of requests for type approval over the last 5 years:

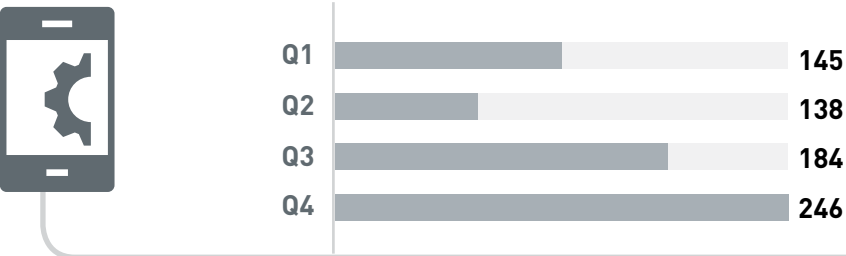


Release of Imported Telecommunications Equipment

A drastic increase is witnessed in the releases of imported telecom equipment during 2019 as compared to the year before, as shown in the graph below:

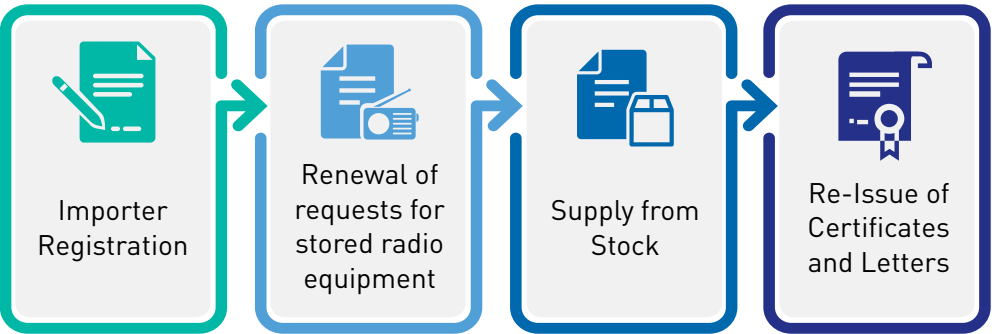


With regards to releases of imported telecom equipment for personal use, it is seen that there is also a gradual increase over the quarters of the year 2019:



Applications

The application requests TRA receives are for the following:



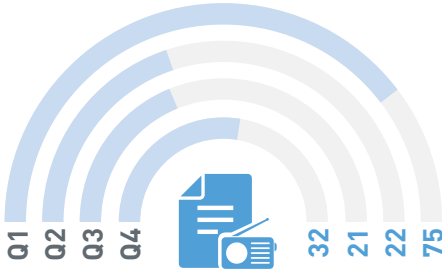
The following graphs provide statistics for these applications

Importer Registration



Renewal of requests for stored radio equipment

A great decrease of applications for renewal requests for stored radio equipment was shown in Q4 as compared to Q1.



Supply from Stock

90 applications for supply from stock were processed in 2019, as shown quarterly in the graph.

Re-Issue of Certificates and Letters

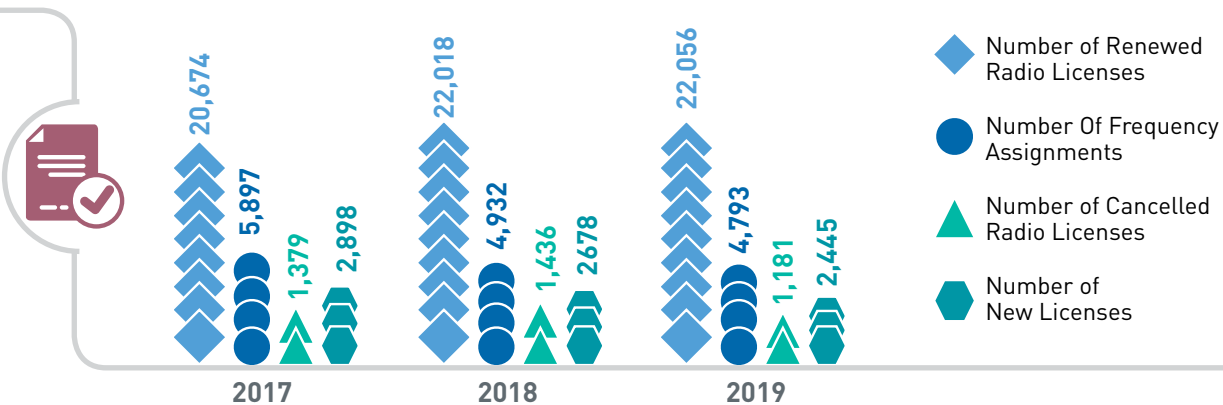
41 applications for re-issue of certificates and letters was processed in 2019, as shown quarterly in the graph.



RADIO LICENSING

Statistics of Radio Licensing

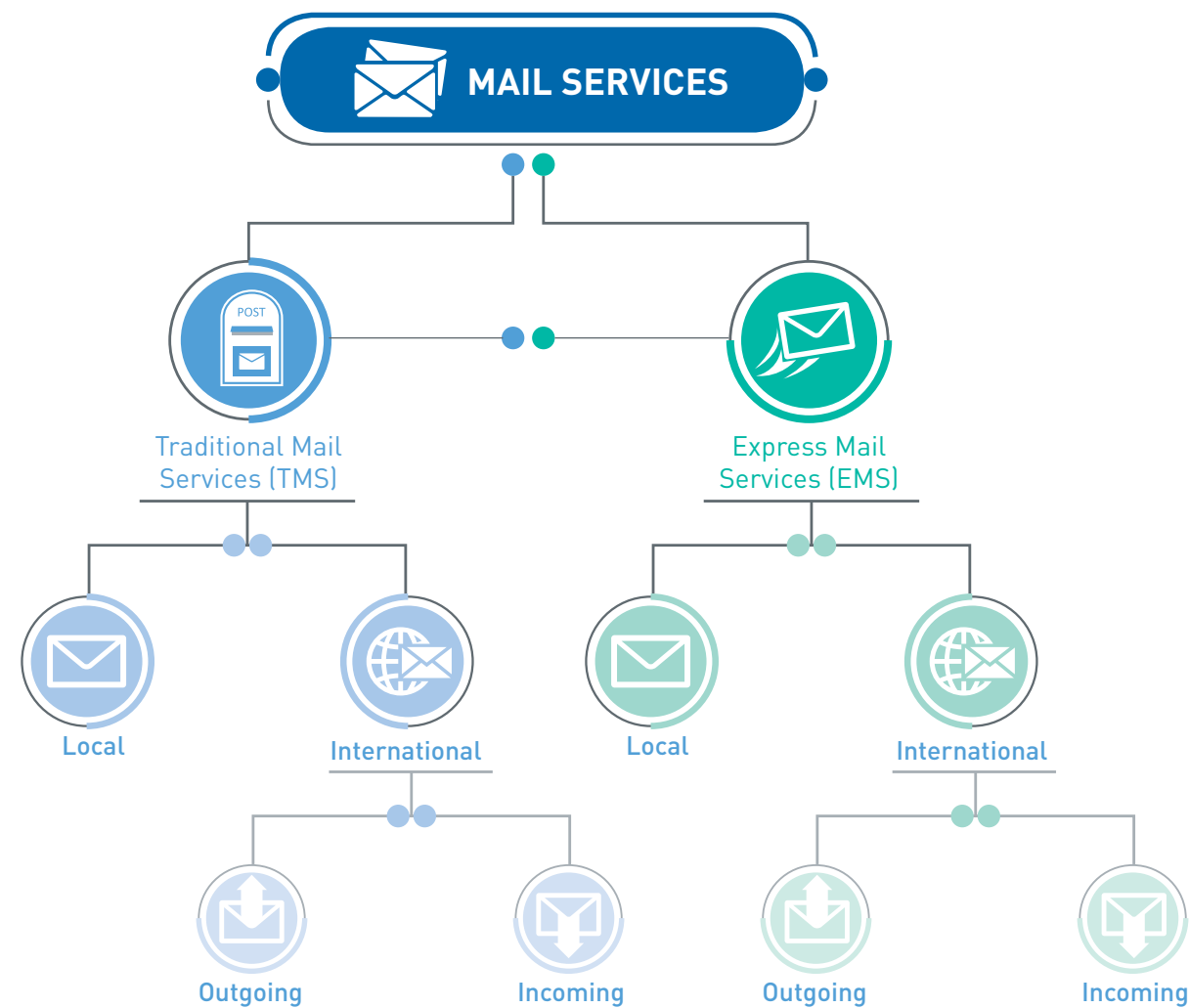
In 2019, the total number of renewed radio licenses has increased compared to 2017 and 2018 records to reach 22,056 licenses. The number of new licenses, on the other hand has witnessed a decrease compared to the previous two years' figures to reach 2,445 radio licenses. The same applies to statistics related to the number of frequency assignments, as the number reached 4,793. The number of cancelled licenses was less in 2019 compared to 2017 and 2018, as licensees cancelled 1,181 radio licenses.



POSTAL SERVICES SECTOR

OVERVIEW

The following are the types of services TRA regulates:



The next sections highlight the main statistics and indicators in the Postal Sector:

Overview on Postal Sector Indicators

Service	Indicator	Traffic	2018	2019	Growth (%)
Traditional Mail Service	Letter Services	Local	69,632	52,300	-25%
		International Outgoing	88,556	21,259	-76%
		International Incoming	884,751	883,138	0%
	Parcel	Local	9,116	20,118	121%
		International Outgoing	15,880	27,151	71%
		International Incoming	21,904	22,764	4%
	TMS Total		1,089,839	1,026,730	-6%
Express Mail Service	Local		222,665	276,319	24%
	International Outgoing		375,493	360,393	-4%
	International Incoming		758,630	941,623	24%
	EMS Total		1,356,788	1,578,335	16%
	Grand Total		2,446,627	2,605,065	6%

- The year 2019 faced a decline in the traditional mail and letter services which is considered to be a natural and international trend in the postal sector as many of the postal beneficiaries are switching to an electronic form of communication, billing services as well are being provided electronically through applications. In addition, in 2018, returned mail (RTS) was included in the count for registered mail (local and International Outgoing), the data was amended and collected without RTS in 2019 which is the main reason for the decline.
- As it is evident through the figures above, the traditional parcels faced a large increase and this could be due to increased traffic in the local E-commerce services that was sent through the postal network and increased trust in the postal services and uptake of its promotional offers.
- EMS services grew slightly in 2019, especially with the local EMS services and incoming services, with the incoming this could again be due to the increase in E-commerce traffic.

The graphs below highlight the volume for each type of service:

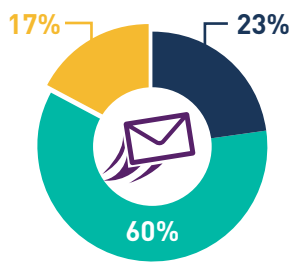
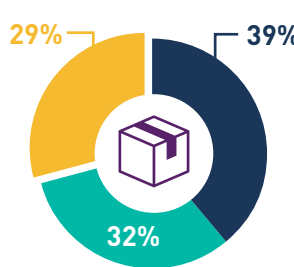
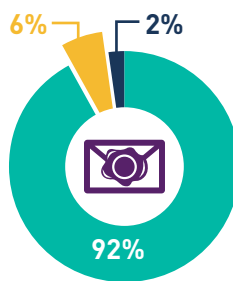
Traditional Mail Services (Only Oman Post)

Express Mail Service (All Licensees)

Registered Mail

Parcel

EMS



International Incoming International Outgoing Local

Number of Branches and Employment in the Postal Sector in 2019

The table below summarizes the number of branches and the employment in the postal sector in 2019.

No.	Company name	No. of Branches	Number of Postal Employees		
			Omani	Expatriate	Omanisation
1	Oman Post	83	335	23	94%
2	DHL Worldwide Express & company LLC	6	72	29	71%
3	Aramex Muscat L.L.C.	5	43	47	48%
4	Elite Enterprises LLC	7	17	33	34%
5	Oman Postal Express	5	32	23	58%
6	Gulf Agency Company (Oman) L.L.C	3	0	1	0%
7	Falcon Air Services & Transport Co. L.L.C (UPS)	1	18	6	75%
8	Moon Express Cargo L.L.C	1	6	24	20%
9	United Travel LLC (OCS)	1	3	4	43%
10	Muscat Post LLC	1	0	1	0%
11	Blue Moon Inland Cargo Express LLC	2	1	9	10%
12	ATS Express Investment LLC (ATS)	1	3	9	25%
13	First Flight Logistics L.L.C	1	1	2	33%
14	The Best Solution LLC	1	1	6	14%
15	Ersal AL Naqal AL Saree LLC	3	14	3	82%
16	First Gulf Technology LLC	1	2	5	29%
17	Advanced Arrow International	1	1	1	50%
18	FedEx	2	5	10	33%
Grand Total		125	554	236	70%

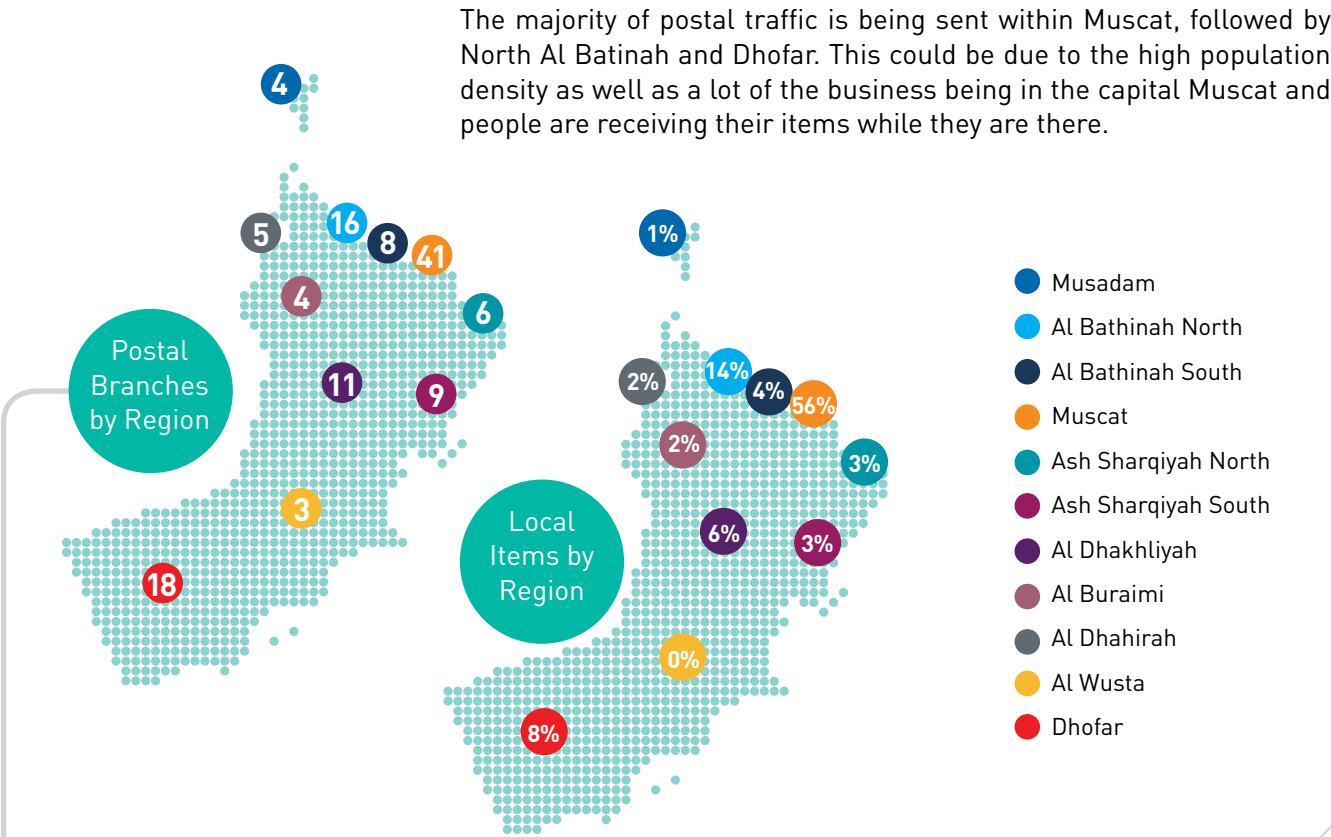
Licensing

As part of its regulatory role, the TRA strives to improve the regulatory environment and continuously study the market’s needs. With the changing market developments, TRA received a growing interest in applying for postal licenses by young Omani entrepreneurs. Below is a summary of the licenses newly issued, renewed and terminated in 2019:

Licensing Activity	Number	Licensee
New	1	FedEx Express L.L.C
Renewed	1	Oman Post Company S.A.O.C
Canceled	2	First Gulf Technology L.L.C (GTX)
		The Best Solution L.L.C

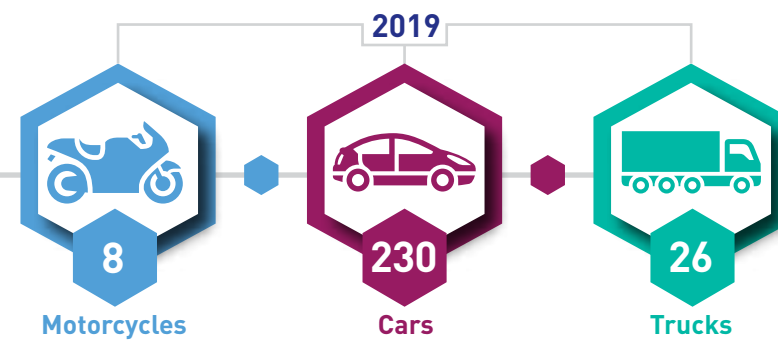
Number of Postal Branches by Region

There are a total of 125 postal branches in the Sultanate. The map below shows the number of postal branches by region.



Number of Postal Vehicles

Below is an illustrative indicator of the number and types of vehicles being utilized for the licensed postal and courier delivery services in Oman. A number of the postal licensees work with each other under interconnection agreements and they utilize each others vehicles and services to reach to their customers. This provides the licensees with an additional and more cost effective way to deliver and increase their outreach.



Traditional Mail Service (Oman Post)



Traditional Mail Service

Indicator	Traffic	2019
Registered Mail	Local	52,300
	International Outgoing	21,259
	International Incoming	883,138
Parcel	Local	20,118
	International Outgoing	27,151
	International Incoming	22,764

Number of Postal Access and Delivery Points (Oman Post)

The table below summarizes the number of postal access and delivery points in Oman Post:

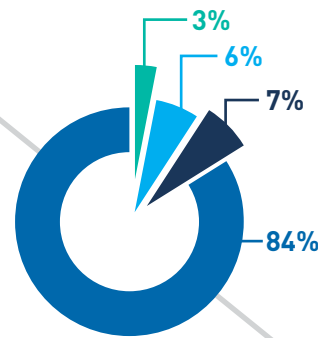
Governorate	Mobile Post Boxes		Private Post Boxes		E-post		Collection Box	Mail Distributing Agencies	Post Offices
	Corporate	Personal	Corporate	Personal	Corporate	Personal			
Muscat	471	1,136	6,360	2,144	17	1,302	30	0	17
Dhofar	11	-	782	3,298	0	99	19	0	12
Musandam	-	-	100	497	0	0	8	0	4
Al Buraymi	-	-	156	852	0	1	4	0	3
Adh Dhakhliyah	-	-	212	6,389	0	76	22	0	9
North Al-Batinah	-	-	731	6,579	0	110	10	0	10
South Al-Batinah	-	-	216	4,231	0	22	11	0	7
South Ash Sharqiyah	6	1	146	1,703	0	2	8	1	7
North Ash Sharqiyah	-	-	130	2,343	0	25	9	0	6
Adh Dhahirah	-	-	76	2,648	0	0	5	0	5
Al-Wusta	-	-	44	37	0	0	2	0	3
Online (E-post)	-	-	-	-	6	384	-	-	-
Total	488	1,137	8,953	29,018	23	2,021	128	1	83
Grand Total	1,585		37,971		2,044		128	1	83

QUALITY OF SERVICE

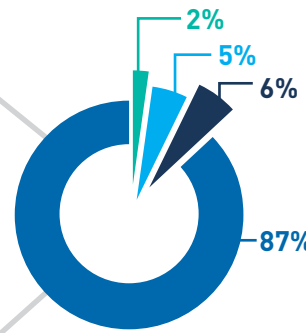
The TRA conducts regular random quality tests to monitor the quality of the service from the different collection and delivery points all around the Sultanate. The TRA also monitors the transparency of the publication of the approved tariffs in the branches as well as those of the courier companies. The quality test at this stage is carried out to ensure that Oman Post continues to develop its services to a standard that is up to a world class level. In the coming regulatory phase once the Sector Policy is approved, QoS targets will be imposed on Oman Post for them to meet. The TRA has noticed an improvement in the quality of the local letter service provided by Oman Post, however, the TRA expect to see further improvements in the results.

The charts below summarize the volume of each item by weight:

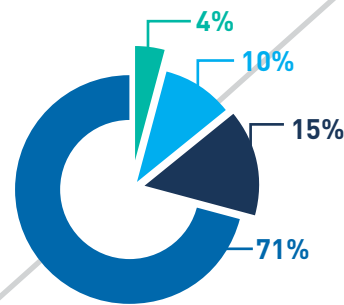
Items by weight



Local by weight for 2019



Outgoing by weight for 2019



Incoming by weight for 2019

- Up to 2 KG
- 2 KG to 5 KG
- 5 KG to 25 KG
- Above 25 KG



DECISIONS & REGULATIONS

TRA DECISIONS

In 2019, TRA issued four decisions, as highlighted in the table below:

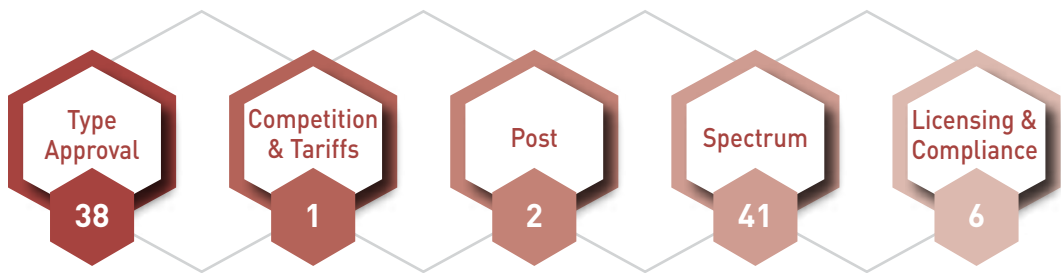
Decision no.	Decision	No. of Official News Paper	Date of Publishing the Decision
9/2019	Amendment of some provisions of the regulation regarding the registration and use of radio frequencies and devices and setting their prices	1281	30/01/2019
32/2019	Amendment of some provisions of Resolution No. 7/2007 issuing the rules and conditions for Class II license	1292	9/5/2019
83/2019	Publishing the TRA Tender Committee Regulation	1324	24/12/2019
84/2019	Determining the fees for licenses to provide telecommunication services	1324	24/12/2019

COURT CASES

There were 2 cases in 2019 have been dealt with in front of Judicial courts:

- ▶ A company filed against Omantel. The case was requested to be postponed for 6 months hence it is expected to close the case in the year 2020.
- ▶ A citizen filed a case against Ooredoo and TRA got involved and it is expected to close the case in the year 2020.

There were a total of 88 different violations over different domains. These violations were discovered as part of TRA's monitoring and inspection role. The TRA managed to push these companies to adjust their conditions as per the telecom and post regulations and in order to avoid having the same violations in the future. The types of violations are summarized in the chart below:



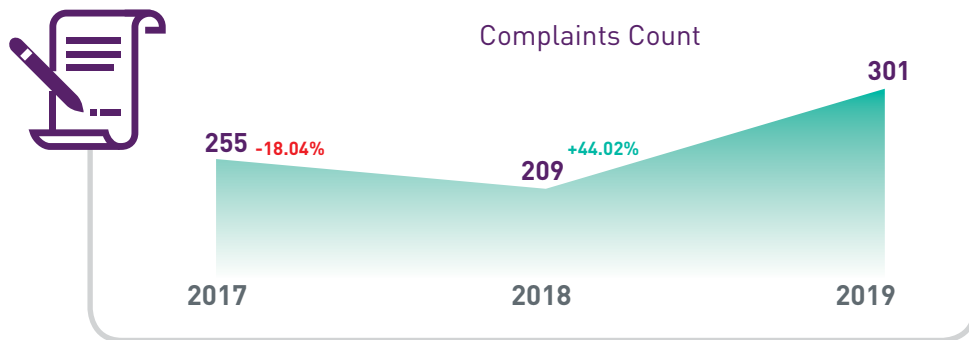
CONSUMER AFFAIRS

The TRA receives consumer complaints through its call centre ,email and walk-in and these are sent to the concerned departments for processing. A database is kept for analysis and to improve the complaints management processes.

The main statistics from the database is highlighted in the following section:

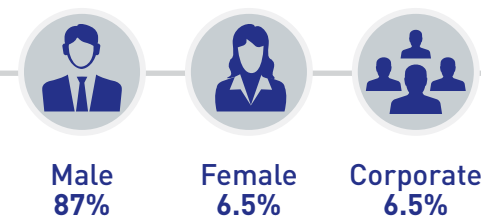
Consumer Complaints Statistics

The total of complaints received in 2019 was 301 complaints, as shown in the chart below:



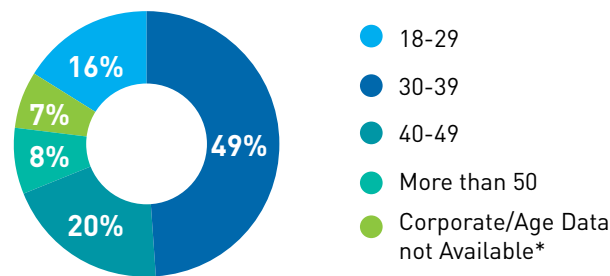
The statistics show that the number of complaints raised to the TRA by the beneficiaries have climbed drastically by 44.02% during 2019 compared to the previous year, and that can be attributed to the good reputation the TRA built over time as a neutral & fair mediator. The steady expansion of telecom services such as fixed broadband and postal services such as e-commerce also play a role.

Demographics of Beneficiaries



261 complaints were filed by males, 20 by females and 20 by corporate. the Above data shows a total of 87% of complaints raised to TRA were by males.

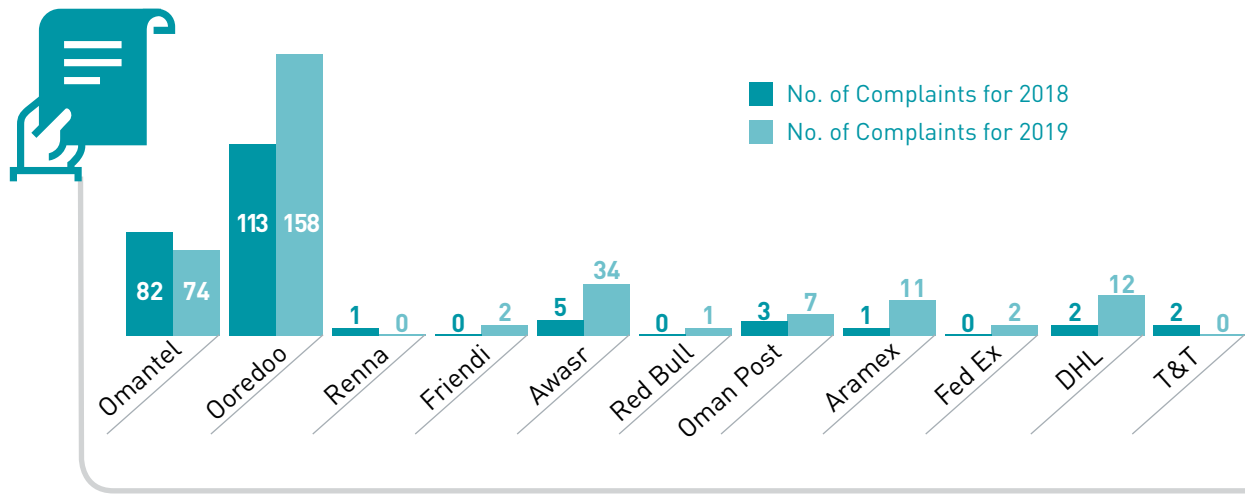
Age Group



As shown above, almost half of the complaints raised to TRA were by beneficiaries falling within the '30 – 39' Age Group.

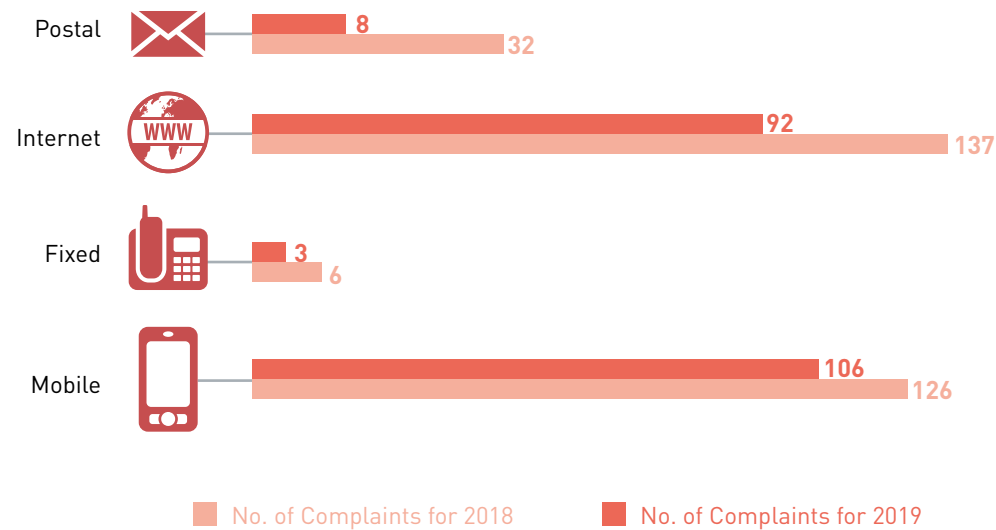
Classification of the Complaints based on the Service Provider

The figure classifies the complaints based on the service provider. Ooredoo Oman has the most complaints by volume when compared to the other service providers.



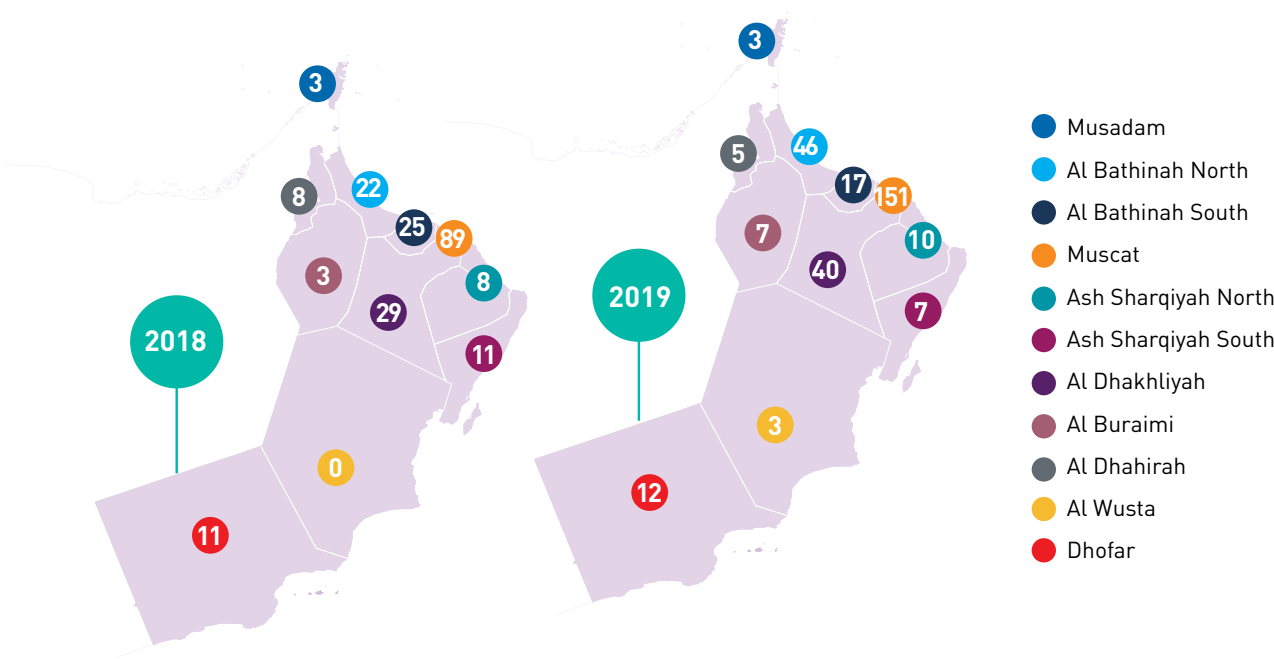
Classification of the Complaints based on the Service Type

The below figure shows that the most complaints were based on Internet and Mobile broadband.



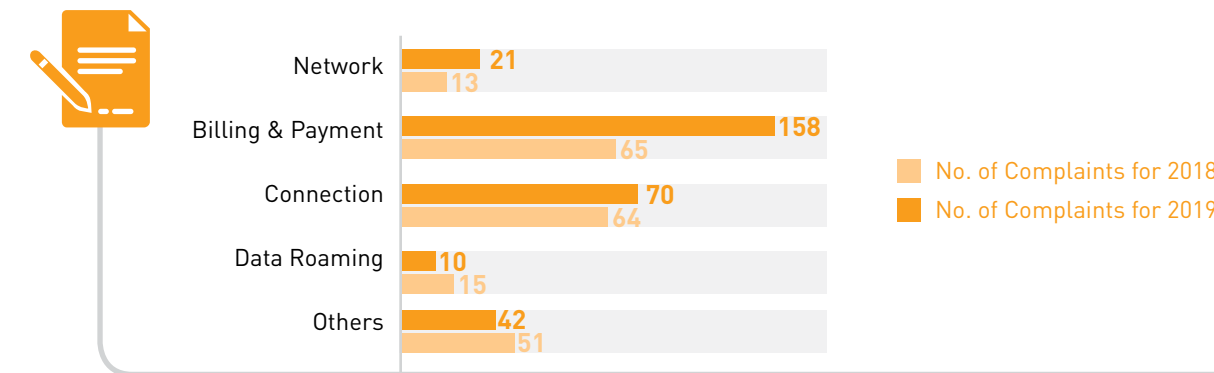
Classification of the Complaints based on Governorates

The maps below classify the complaints received based on the governorates of the Sultanate. The governorate with the highest filed complaints during 2019 was Muscat, and it has witnessed a noticeable rise when compared to 2018.



Classification of Complaints based on the Type of Issue

The chart classifies the cases based on the type of issue. It shows that the majority of issues are concentrated on billing and payment, which has shown a noticeable rise in the number of complaint cases from 2019 when compared to 2018.



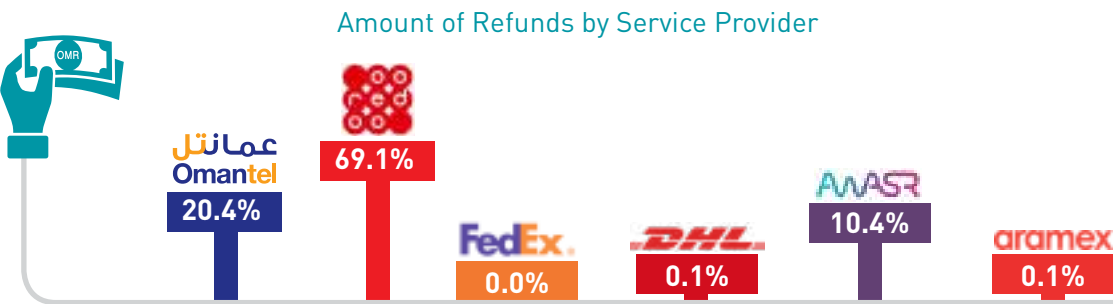
Refunds for the Benefit of Beneficiaries

As highlighted before, a lot of complaints received are from Billing & Payment. In many occasions, the service providers refund to the beneficiaries. The total amount of refunds for the benefit of beneficiaries in 2019 was **11875.16 Omani Riyals**.



Classification of the Amount of Refunds by Service Providers

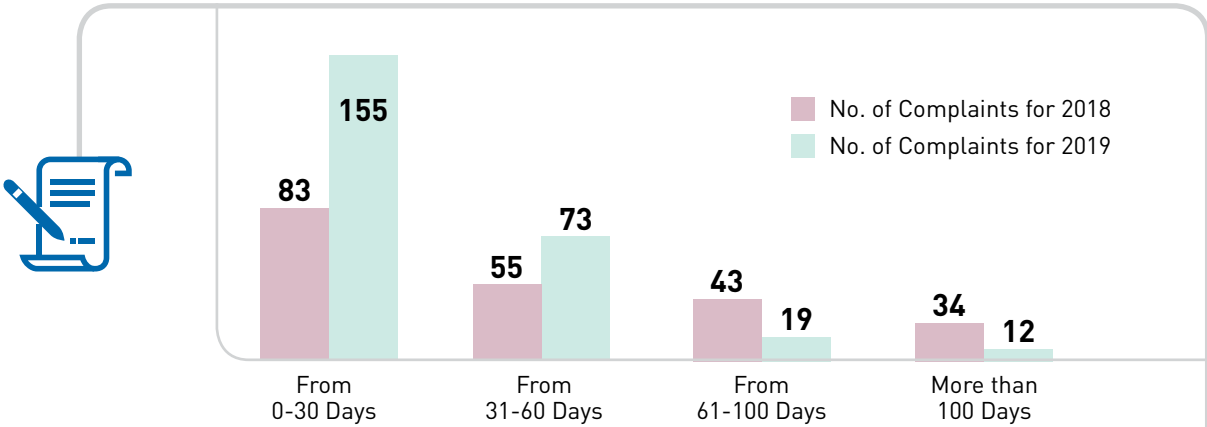
The statistics show that the majority of refunded money for the benefit of the beneficiaries was in the Telecom Sector. 69.1% of the refunded money was from Ooredoo Oman followed by 20.4% from Omantel.



The details of the amounts refunded by each service provider is displayed in the table below:

Service Providers	Amount of Money Refunded (OMR)
Omantel	2,423
Ooredoo	8,201
FedEx	5
DHL	7
Awasr	1,230
Aramex	7
Total	11,875

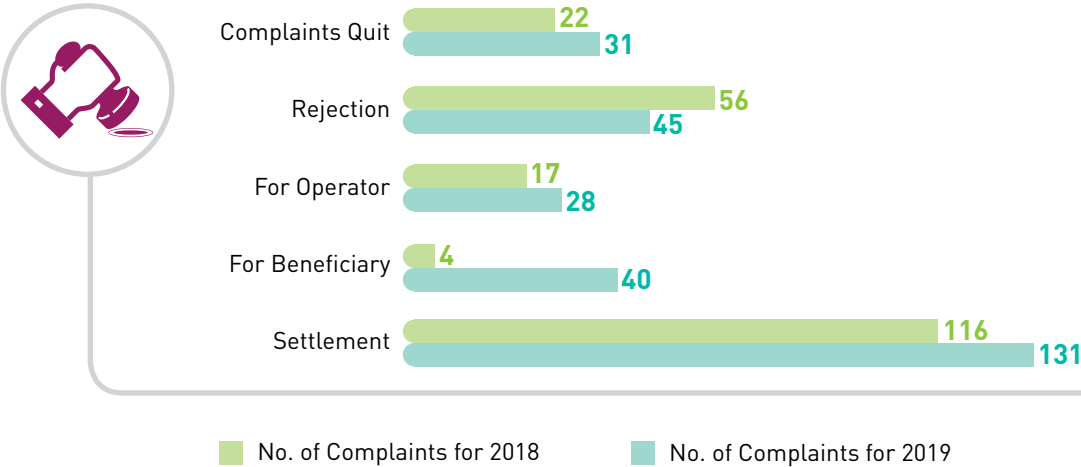
Classification of Complaints based on the Closing Time Period



The chart classifies the complaints based on the time period taken to close them individually. The trends show a noticeable improvement in closing the cases far earlier when compared to 2018.

TRA Decision on Complaints

Based on the nature of the complaints and the analysis done internally, different types of decision were taken. The different type of decisions taken on complaints for the years 2018 and 2019 re summarized in the chart below:



Settlement:

The complaint is not in favor of neither the beneficiary nor the operator, hence the complaint was closed by both parties and agreeing on terms they both see as satisfactory.

In favor of Beneficiary:

TRA investigated and concluded that the beneficiary has the right to complain and the operator has to compensate them.

In favor of Operator:

TRA investigated and concluded that the beneficiary did not have the right to complain and the operator does not have to compensate them.

Rejection:

Complaint was not accepted either because the beneficiary did not complete the full process of submitting the complaint, or the complaint subject was not under TRA's authorities.

Complaint Quit:

The complaint could not be completed either because the beneficiary withdrew their complaint, or TRA has not been able to reach them to complete the complaint process.

COMPETITION COMPLAINTS

Competition Complaints

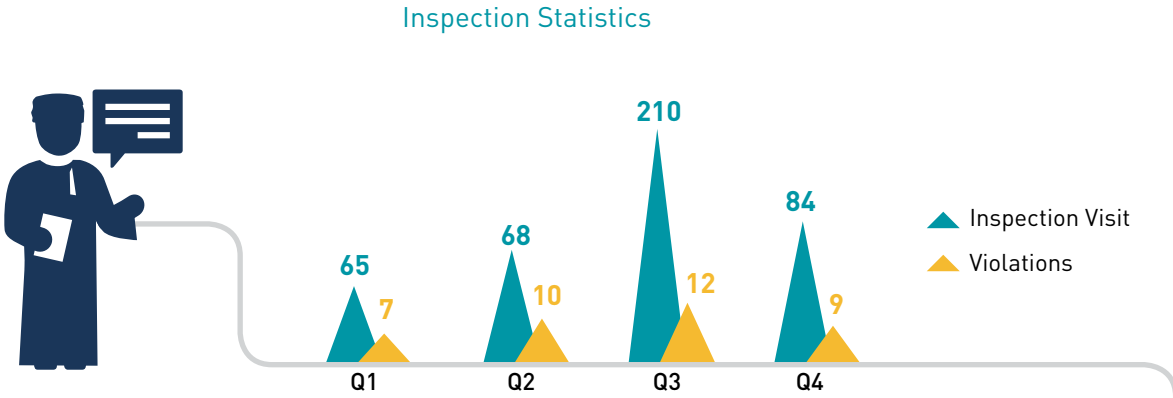
In 2019 TRA has reviewed and concluded 12 competition complaints. The nature of these complaints cover violations of ex- ante regulations by a licensee, which other market players find harmful and complain to the TRA about, requesting its intervention. Examples of such violations are misleading advertisements aiming at achieving an undue competitive advantage, or offering tariffs that do not comply with the regulatory framework. Complaints also cover those where a licensee alleges another market player of behaving anti-competitively, or abusing a dominance position. The TRA carefully investigates complaints from a neutral stand, and ensures that all licensees are complying with the applicable regulatory framework, towards the objective of maintaining a fair and healthy competitive environment.

Type Approval

The TRA carries out inspection visits to institutions and companies dealing with telecommunications equipment with the following objectives:

- Ensuring compliance to obtaining Type Approval for telecom equipment.
- Ensuring the quality of equipment entering the market
- Reduce the risks of interferences resulted in using non-type approved equipment.

The graph below summarized the inspection visits that occurred in each quarter of 2019 and the violations



SPECTRUM MONITORING

TRA conducted inspection visits for spectrum users in different areas of the sultanate in order to check the compliance of technical specifications of the radio equipment in operation with the issued radio licenses. As part of process of issuing new radio licenses, surveys were carried out as well. The following tables present the statistics findings:

	 Terrestrial Services	 Space Services
No. of Licensees	80	5
No. of Areas	2	18
No. of Inspected Licenses	733	215
No. of Violations	8	1



Inspection of Ships / Boats

No. of Licensees	21
No. of Marina	24
No. of Inspected Ship / Boat	33
No. of Violations	5



Survey of Ships / Boats

No. of Users	3
No. of Ships / Boat	3

INTERFERENCE COMPLAINT

In order to keep the spectrum free of any interference, TRA team takes immediate action to eliminate any type of interference. The below table presents statistic on the resolved Interference Complaint:



Terrestrial Services



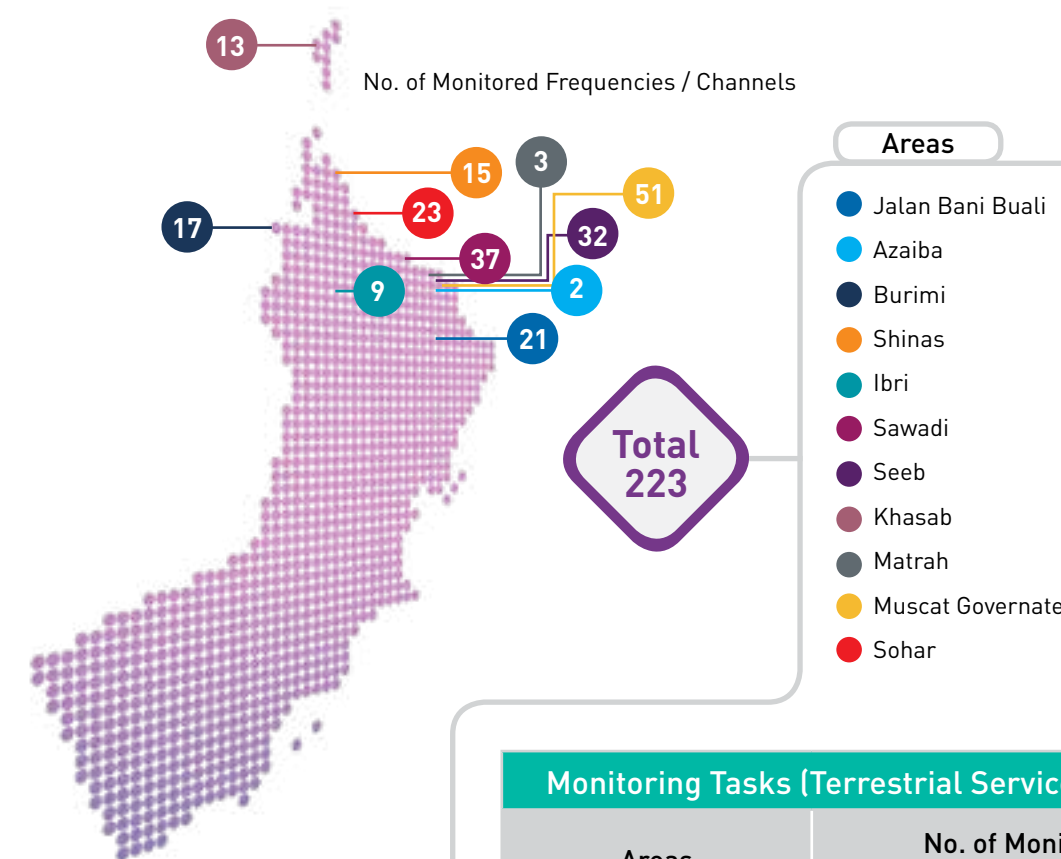
Space Services

No. of reported Harmful Interference	35	0
No. of Users Affected	16	0

MONITORING STATISTICS

For the efficient use of spectrum, the TRA carries out different monitoring tasks to verify the compliance with the issued licenses, technical mechanism with neighboring countries and also to assist in the assignment process. The following tables present statistics on the spectrum monitoring tasks.

Monitoring Tasks (Terrestrial Services) - FM



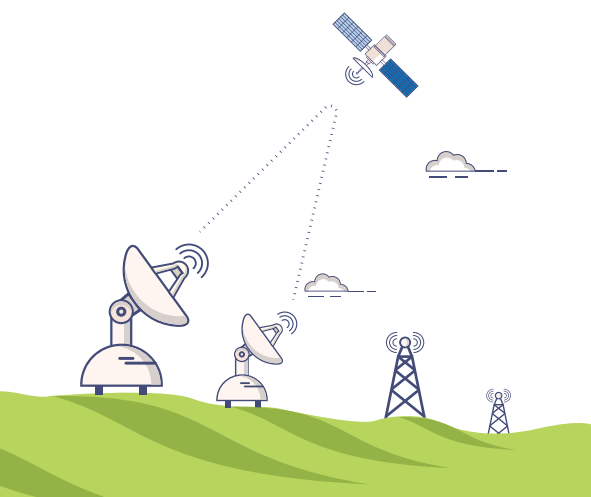
Monitoring Tasks (Terrestrial Services) - PMR

Areas	No. of Monitored Frequencies / Channels
Muscat Governate	51
Sohar	78
Total	129



Furthermore, monitoring of three (3) frequency channels for 3G mobile network (2100 MHz) was performed in Governorates of (Muscat, South and North Al Batinah and Musandam).

Additionally, monitoring tasks were carried out for Space Services to verify the compliance with the issued licenses and check the usage of some satellites that covers SRMS.



Monitoring Tasks (Terrestrial Services)-Mobile Networks		
Areas	No. of Monitored Frequencies / Channels	
Muscat Governorate	2G	61
	3G	11
	4G	15
Sohar	2G	60
	3G	10
	4G	7
Salalah	2G	61
	3G	10
	4G	11

Monitoring Tasks (Space Services)		
Frequency Band	No. of Satellite	No. of Frequencies
KA	4	8
X	1	1
L	4	22
Ku	7	48
C	3	10
Total	19	89

Two orbital arc were monitored in 2019 to check the status of orbital slots as per the details below:

ITU Filling (Space Services)					
Frequency Band	No. of Orbital Slot	No. of Occupied Orbital Slots		No. of Occupied Orbital Slots	
		11° E-23.5° E	64° E-76.5° E	11° E-23.5° E	64° E-76.5° E
Ku	52	16	23	10	3
Ka	52	21	21	5	5

Geolocation was carried out to identify the source of emissions either from inside or outside the Sultanate:

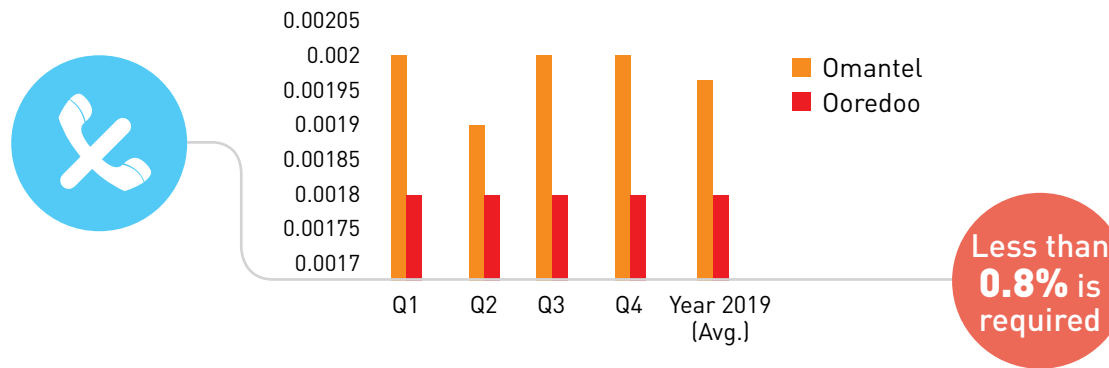
Geolocation Tasks (Space Services)			
Frequency Band	No. of Satellites	Type of Received Signals	No. of Geolocated Signals
Ku	8	SCPC	62
		TDMA	27
C	5	SCPC	161
		TDMA	6

SCPC: Single Channel Per Carrier
 TDMA: Time Division Multiple Access

QUALITY OF SERVICE INDICATORS

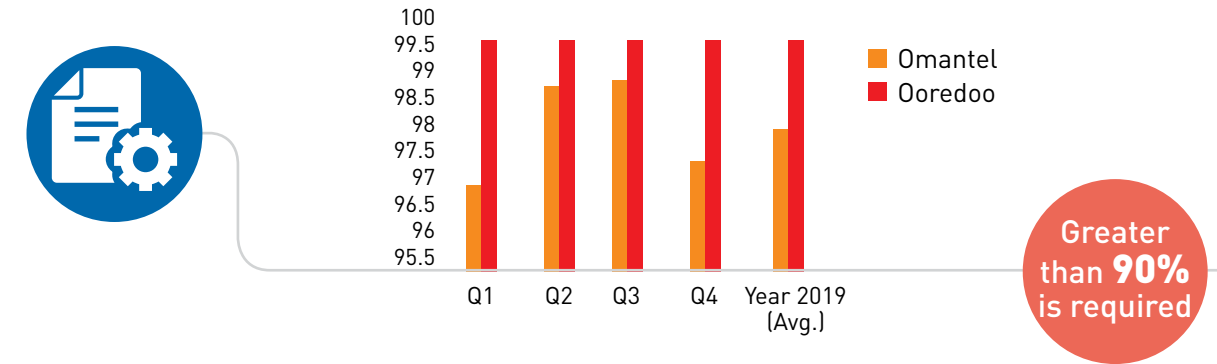
The TRA is responsible for setting standards that define the level of performance that the telecom service providers have to achieve while dispensing their services to the users. TRA plays an active role in monitoring the telecom service provider’s compliance to the QoS regulations issued under TRA decision 28/2016. A glimpse of the telecom service providers performance, defined by Key Performance Indicators (KPIs), achieved for certain service categories in year 2019 are illustrated in the following pages:

Percentage of Calls Dropped



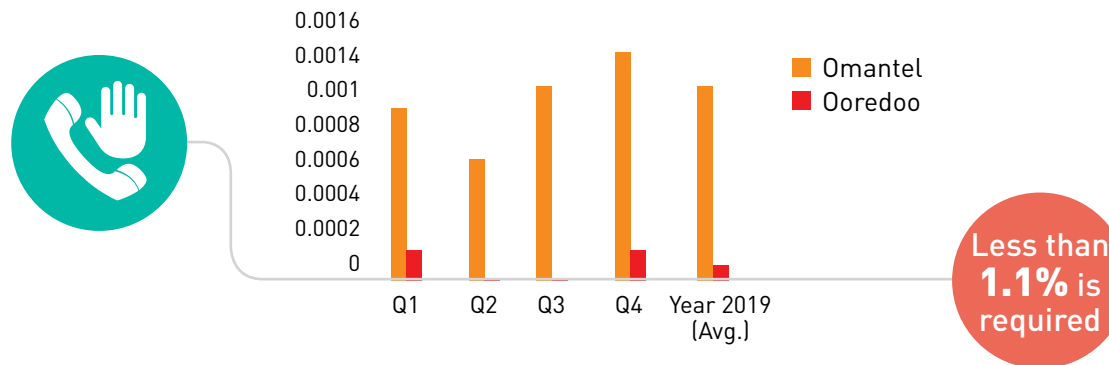
Drop Call Rate: This indicator is used to measure the percentage of calls dropped due to technical problems or coverage gaps in the service provider's network as a ratio of the total number of calls successfully established.

Percentage of billing complaints resolved within 10 working days



Percentage of billing complaints resolved within 10 working days: This quality indicator reports the percentage of valid billing complaints resolved within 10 working days. The time here is taken from the time a billing complaint is received to the time when the complaint has been resolved. The KPI target is set at 90%.

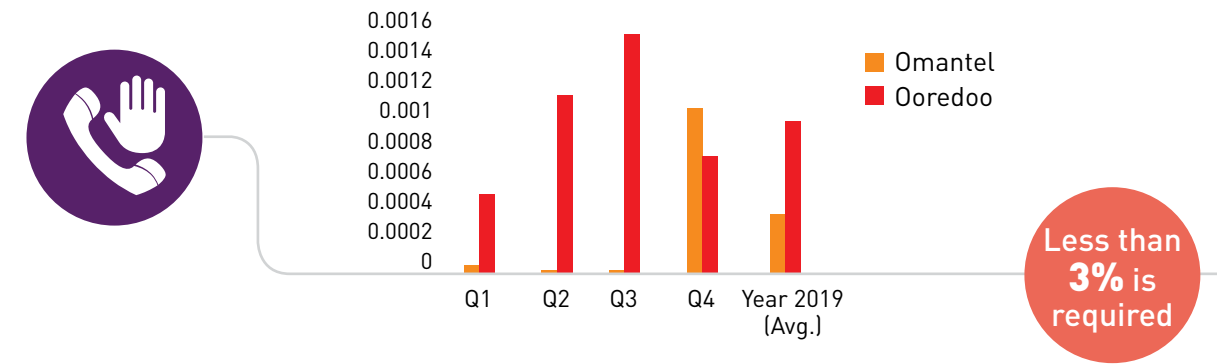
Percentage of Calls Blocked



Block Call Rate: This indicator is used to measure the percentage of calls blocked due to congestion in the service provider's network as a ratio of the total number of call attempts made to access and establish a voice call.

International Voice Service

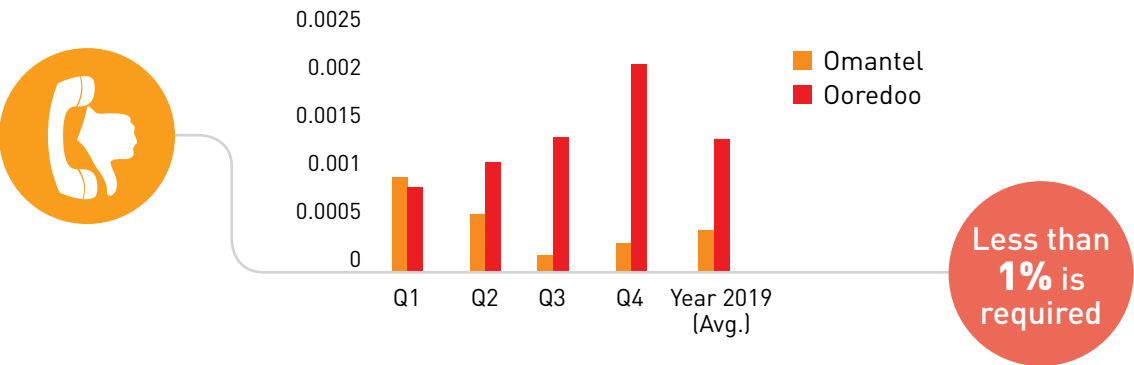
Unsuccessful call ratio during busy hour



Unsuccessful call ratio during busy hour: This indicator is used to measure the unsuccessful international calls during the busy hour i.e. a call attempt that is made to a valid number with all the digits dialed following a dial tone, where the called party busy, ring or answer state is not recognized by the calling user. The maximum rate of Unsuccessful Call Ratio during busy hour as per the set KPI is 3%.

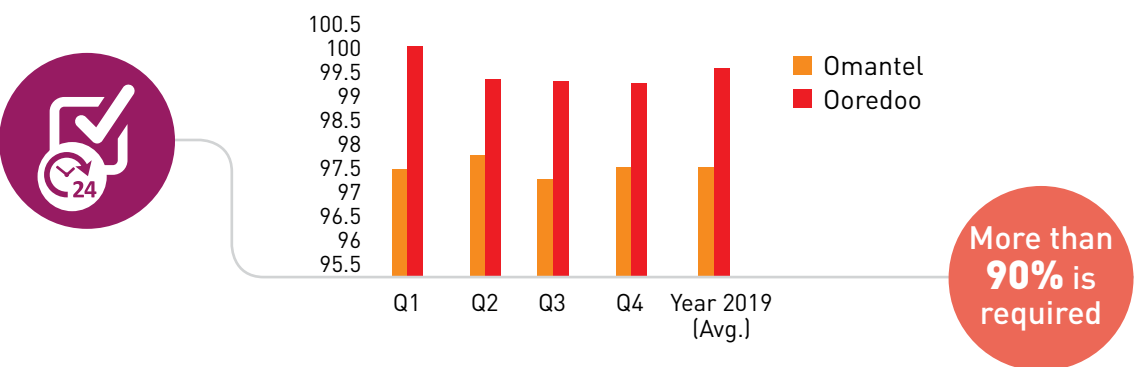
Fixed Service

Unsuccessful call ratio for local and national fixed calls



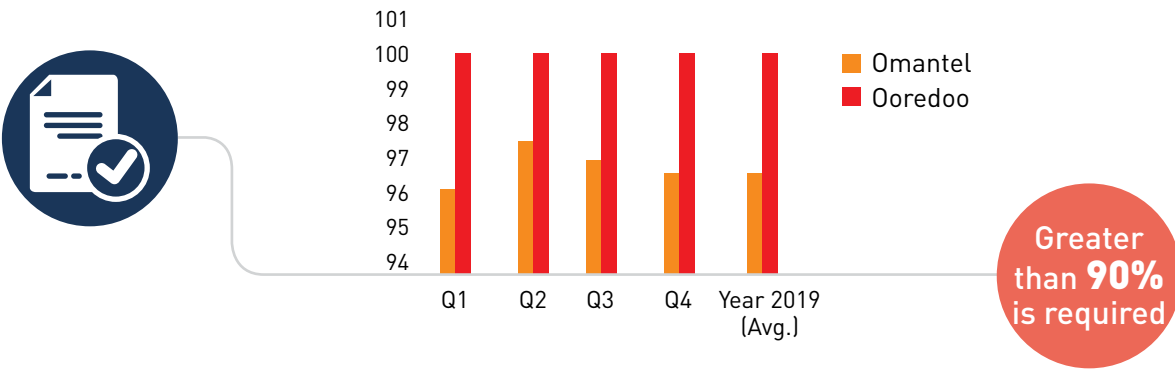
Unsuccessful call ratio for local and national fixed calls: This indicator is used to measure the unsuccessful local calls from a fixed line i.e. a call attempt that is made to a valid number with all digits dialled correctly following a dial tone, and the calling user not receiving any busy, ring or answer tone within 30 seconds.

Percentage of faults to be cleared within 24 hours



Percentage of faults cleared within 24 hours: This indicator is used to measure the time taken to clear/resolve a fault from the time a fault is reported to the service provider to the time when the service has been restored to normal working order.

Percentage of billing complaints resolved within 10 working days



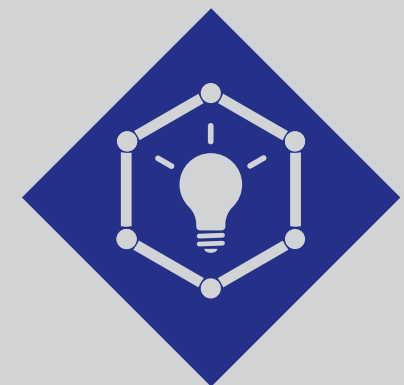
Percentage of billing complaints resolved within 10 working days: This quality indicator reports the percentage of valid billing complaints resolved within 10 working days. The time here is taken from the time a billing complaint is received to the time when the complaint has been resolved. The KPI target is set at 90%.



COLLECTED ROYALTIES

The total royalty collected from active licensees for the year 2018 (in 2019) is RO 75,464,729 The table below displays the details with comparison to the years 2017 and 2018.

		2017	2018	2019
Class I	Omantel Fixed	13,161,562	11,746,852	11,663,985
	Oman Mobile	20,740,150	35,264,898	32,615,079
	Ooredoo Fixed	18,656,943	3,314,900	4,001,077
	Ooredoo Mobile		26,819,346	25,988,049
	Awazr	36,450	174,457	483,122
	Connect Arabia International	4,674	33,219	51,443
	TeO	285,469	118,207	79,968
Class II	Majan (Renna)	452,331	358,819	286,939
	Friendi Mobile	466,826	366,417	210,317
Class III	RigNet	91,661	75,140	58,333
	AzyanTelecom	20,821	25,061	22,375
	Mahd Satellite	-	-	4,038
	Total	53,916,890	78,297,321	75,464,729



REGULATORY REMEDIES & INITIATIVES

TECHNICAL STANDARDS

T-Link System



In order to increase efficiency and enhance internal processes, TRA has developed a web-based system to automate processes related to reviewing technical plans, network diagrams and issues, as well as information related to subscribers' complaints between TRA and the licensees. Furthermore, the system has the capability to broadcast the request to all related licensees and get the required action from each separately. The system has also the capability to access certain licensees systems and obtain the requested information. The outcome expected from this automated system is to reduce the time and effort by both the TRA and the licensees.

Cell Broadcast Service (CBS)



TRA was approached by the National Early Warning Center for the purpose of introducing Cell Broadcast Service (CBS). The main goal of this service is to enable broadcasting of warning and disaster related information to the public promptly and without delay.

The provision of effective communication is one of the most important duties of relevant government entities towards its citizens and residents. An important component required to meet this duty is the ability for authorities to communicate with the public before, during and after the emergency. Therefore, it is required to have effective, high quality communication methods and systems to meet this need.

TRA directed mobile telecom service operators to introduce the suitable solution for a warning system. Cell Broadcast Service (CBS) was the selected solution due to high reachability, high speed and less dependencies. The CBS platform was developed according to national requirements for all the three current technologies: 4G, 3G and 2G and also integrated the same with the government warning system and thus the platform was developed accordingly.

TRA and the licensees successfully conducted the initial test with all expected scenarios within a certain geographical area. This is while taking into consideration that the sound of this service is unique even if the mobile phone is in silent mode. The licensees are expected to integrate with the

early warning center through ITU standard Common Alerting Protocol (CAP). CAP is an XML-based data format for exchanging public warnings and emergencies between alerting technologies. CAP allows a warning message to be consistently disseminated simultaneously over many warning systems to many applications

In order to ensure availability of the CBS features in the mobile handsets in both the existing available in the Omani market as well as the future coming handsets to the Omani market, TRA agreed with the National Early Warning Center on the specifications required to enable the CBS on the handsets according to international standards. These were shared with most of handsets vendors requesting them to enable all the handsets with these specifications by June 2020.

DOMAIN NAME

ENTRADA System



The Domain Name System (DNS) handles 2.5 TB/month of queries containing information on these DNS queries received by the authoritative name servers of the .om zone, and the answers they provide. Analysis of this information assists the registry in the detection of botnets, possible pop-up/ burner domains which may sell stolen, fake or illegal goods and drugs, and other possible malicious activities.

To strengthen the cooperation between SQU and TRA through the signed Memorandum of Understanding, the joint committee initiated the idea of implementing the ENTRADA System (ENhanced Top-level domain Resilience through Advanced Data Analysis) which is an experimental Big Data platform specifically developed for DNS Traffic Analytics for Trends and Threat Intelligence. It can detects botnets and other malicious systems. The aim of the project is to increase the security and stability of the .om domain zones, and thus helping towards making Oman's internet a safer place.

The project is split into multiple phases, where the scope of the first phase is to test the open source ENTRADA and customize it to fit local requirements, which was done during 2019. Future phases will be geared towards maintaining the system, developing it further in cooperation with worldwide teams and labs working on similar systems, and building local capacity to maintain proper operation of DNS in Oman.

SPECTRUM

Awarding Spectrum Rights for 5G in the Frequency Band 3.5 GHz



TRA granted the rights to use radio spectrum for the fifth generation (5G) in the Frequency Band 3400 - 3700 MHz to the licensed mobile operators in Oman where each operator was assigned 100 MHz. In order to ensure fairness and a transparent standard, lots were drawn to allocate the three parts of the frequency band 3400 - 3700 MHz to the operators. The results of the lots were that Omantel will use the first part 3400 - 3500 MHz and Ooredoo will use the second part 3500 - 3600 MHz, while the third remaining part 3600 - 3700 MHz will be reserved for the third operator. The spectrum right fees are seven millions and two hundred thousand Omani Rials, and the spectrum rights are for 15 years.

Announcement of Oman's 5G Roadmap



The TRA has announced in October 2019 the details of Oman's 5G roadmap. The authority began early preparations to enable mobile operators to provide 5G services. The 5G roadmap highlights that both operators will construct and install 4,400 stations to operate 5G technology in the period 2019 - 2024, including 1,000 stations in the year 2019-2020. The operators will be exempted from the annual utilization fees for one year in order to encourage investment in the telecom sector and to enable the effective rollout of 5G services in the Sultanate. In addition, TRA announced that it will conduct workshops during the year 2020 with the co-operation of the telecom operators and vendors to introduce 5G use-cases and technical solutions provided by 5G technology, and to discuss opportunities and challenges related and the role of modern technologies in developing many vital sectors. The targeted sectors are logistics, Oil & Gas, education, health, agriculture and other sectors

Spectrum Requirements for Electricity and Water Sector



TRA conducted a study on the spectrum requirements for electricity and water sector to support the needs for their network facilities management system. Based on the results of the study, TRA will reserve 4 MHz in the frequency band 447-450 MHz and frequency band 409-410 MHz for electricity and water sector to implement management system networks for all over Oman.

Enhancement of the Advanced Automated Spectrum Management System (AASMS)



The TRA has implemented the project of Enhancement of the Advanced Automated Spectrum Management System (AASMS) during the year 2019. The objective of this project has been to enhance the AASMS through development of new web interface to adopt to mobile devices such as mobile smart phones and tablets beside other customizations affecting some forms/ functionalities of the system to be in line with the e-Government direction towards expediting the process and encouraging paperless transactions.

Oman Satellite Project _OMANSAT



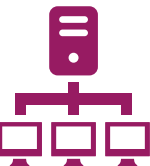
The TRA has continued the coordination process with the affected administrations and networks in the four Orbital locations 51E, 54E, 67E and 73.5E in accordance with the international Radio Regulations governed by the ITU.

The formed Satellite coordination team held coordination meetings with 22 administrations out of more than 60 administrations that have been identified according to the Radio Regulations to coordinate with during the period from January 2019 until the end of December 2019. These efforts resulted in the completion of coordination for a large number of networks and clarification of the procedures required for coordination with the rest of the affected networks.

Besides that, TRA filed a new orbital location 46.25 East on 19th of December 2019, covering all frequency bands for the satellite services.

COMPETITION

Completion of Reference Access & Interconnection Offer based Agreements Implementation:



In implementation of the Access and Interconnection Regulation (Decision No. 25/2016), and TRA's approval of Omantel and Ooredoo Final Draft RAIOS in October 2018, the migration of existing agreements into the new RAIOS based agreement started in January 2019. These agreement included price and non-price terms based on which dominant licensees provide Access and Interconnection services to other licensees who need such wholesale services to enable them to provide their services to their retail customers.

In 2019, the TRA approved thirteen RAIO based agreements submitted by licensees providing Access and Interconnection services, some of which were migrating from their existing agreements, while others were newly signed in 2019. Omantel has signed agreements with eight different licensees; Ooredoo, Friendi Mobile, Renna, Awasr, Al Madakhel, MAHD Satellite Services, Teo, and Connecti. On the other hand, Ooredoo has signed agreements with five different licensees; Omantel, Awasr, Friendi Mobie, Teo, and Connecti.

The TRA has also ensured the publication of these agreements on the dominant licensees' respective websites in compliance with the publication regulatory obligation aiming at ensuring that equivalent terms and conditions are offered to all downstream providers in a transparent and non-discriminatory manner.

Migration of Friendi Mobile to Ooredoo Network



Friendi Mobile is a mobile reseller who has been hosted on Omantel's network since its start of operations in the Sultanate in 2009. In 2018, Friendi Mobile decided to terminate its agreement with Omantel, and to enter into a new resale agreement with Ooredoo Oman that took effect on the 7th of May, 2019, Friendi mobile started activating its new customers on Ooredoo's network. As for existing customers, Friendi Mobile had a one-year period to migrate them to Ooredoo's network, which is considered as a run-off period

In the period leading to the migration date, Omantel and Friendi Mobile were not able to agree on the details of the migration process and the terms of the agreement during the run-off period, the parties requested regulatory intervention. After considering the arguments of both parties, the TRA issued the necessary directives on 28th April 2019 to both parties to enable a smooth migration and continuity of services to Friendi Mobile's existing customers during the run-off period.

The TRA intervention to facilitate the migration process was in view of the high importance it accords to consumer interest, and its support of all market activities, which strengthens competition and enhances consumer welfare. The TRA expects that this change will augur well in the sector where both Mobile Network operators will have one Mobile Reseller each, i.e. Friendi with Ooredoo and Renna with Omantel.

POSTAL SECTOR

Awareness Initiatives

Awareness to the Beneficiaries:

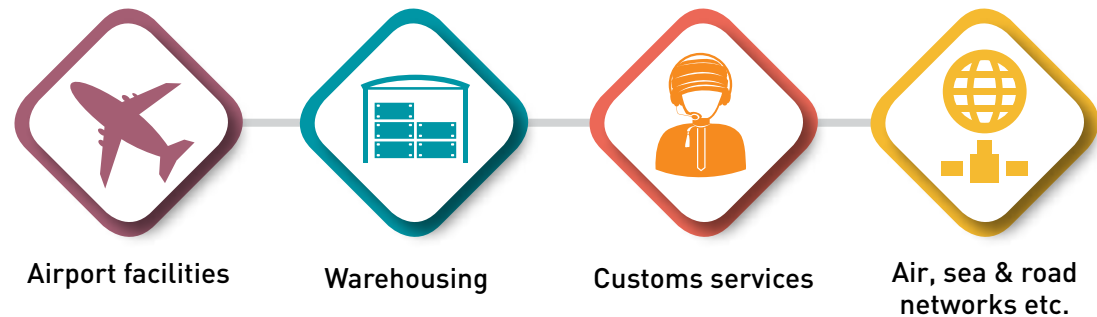


- TRA launched an awareness campaign called "Know Your Rights" aimed towards postal beneficiaries explaining the most important rights and obligations in accordance to the postal law. The campaign included a poster in both Arabic and English that was distributed by TRA to all licensees' offices and in TRA building. It was also posted in TRA's website and social media channels through a series of awareness tweets. The poster was also published and explained to the public during COMEX and the World Post Day exhibition.
- TRA annually publishes an announcement in the daily local newspapers in English and Arabic of the list of the licensed postal operators in the Sultanate along with their addresses and contact details. This initiative aims to ensure that the consumers (personal and corporate) are aware of the official and licensed providers and avoid any unlicensed players and reduce unlicensed activity in the market. The list of licensees is also available on the TRA website and social media channels.

Awareness to the Investors and Government:



- Communications are sent to the different governmental bodies and private sector companies informing them of the licensed postal providers and the importance of procuring the services from the official licensed operators only. The different ministries, authorities and government and private sector institutions are also requested to direct those concerned within their establishments to circulate the list of TRA licensed postal companies and ensure their cooperation.
- The TRA organized a two day visit to the Special Economic Zone Duqum for all the postal licensees to introduce them to all the facilities and services available, potential investment opportunities and special arrangements in the area that could serve the postal service providers such as but not limited to:



COVERAGE

Coverage Initiatives

The following are summaries of the joint initiatives between TRA and operators to provide telecommunication services in rural areas (Universal Services Obligation)

The First Initiative (USO 1)

The construction and installation of 200 mobile communications stations, (100 Omantel, 100 Ooredoo) to provide the mobile telecom service to around 250 rural villages.

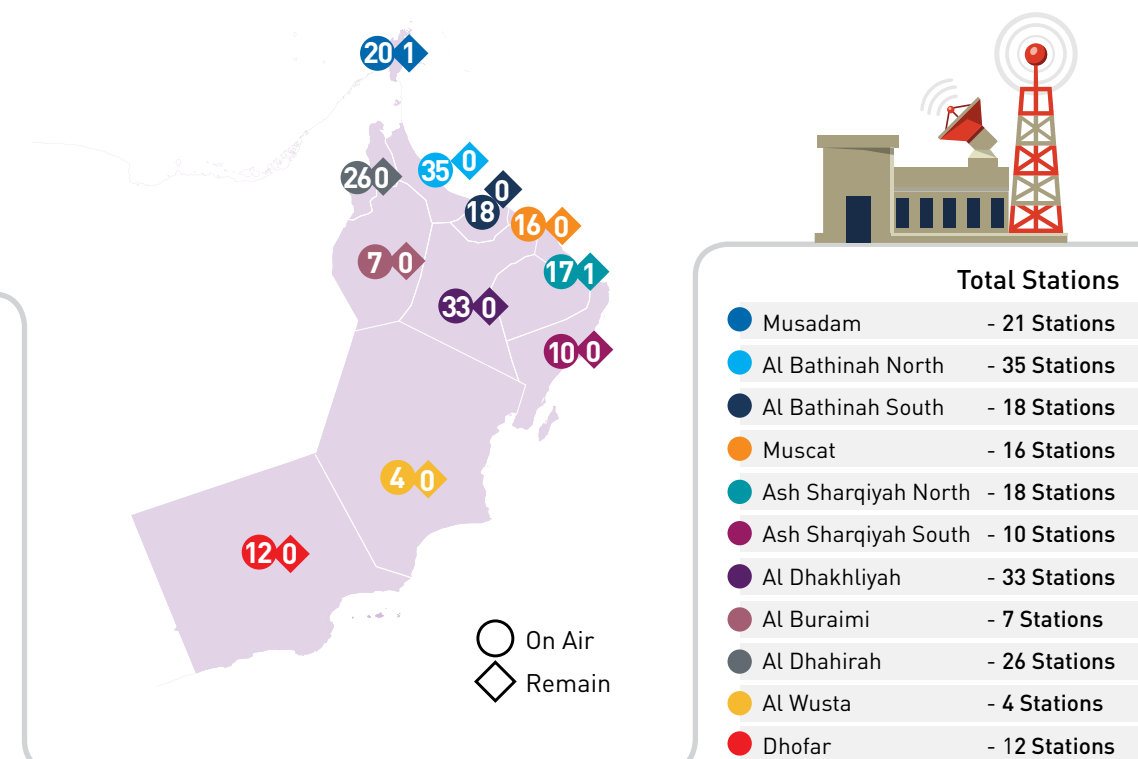
The table below shows the latest project updates for December 2019.

Project status	Omantel	Ooredoo	Total
Total number of sites	100	100	200
No. of Built & activated Sites	100	98	198
No. of the remaining sites	0	2	0



Dar Lawah Site in Al Hamra (OM_USO_05)

The status of the project is summarized in the map below, which shows the stations distributed by region:



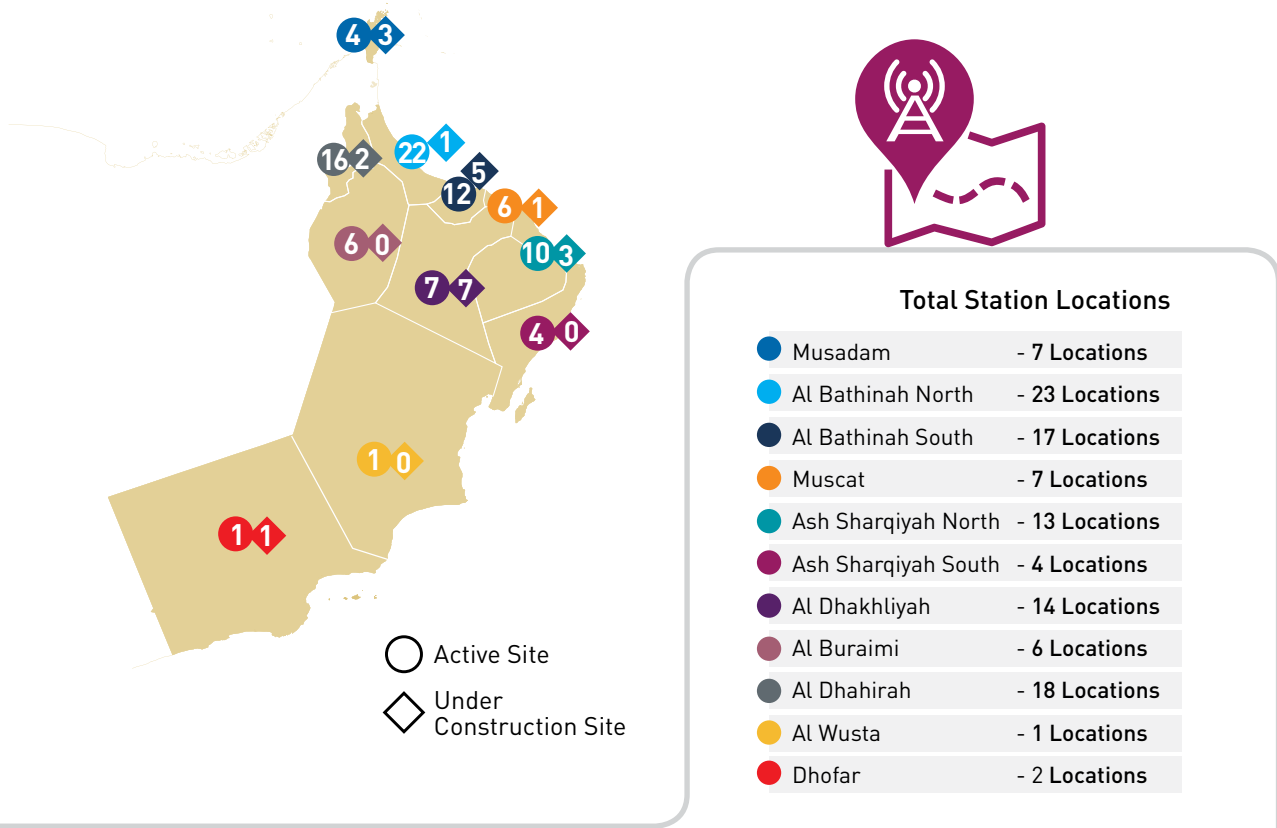
The Second Initiative (USO 2)

The construction and installation of 112 mobile communications stations (50 Omantel, 62 Ooredoo) to provide the mobile telecom service to around 160 rural villages.



Project status	Omantel	Ooredoo	Total
Total number of sites	50	62	112
No. of Built & activated Sites	49	40	89
No. of the remaining sites	1	22	23

The map below summarizes the status of the project by each region:



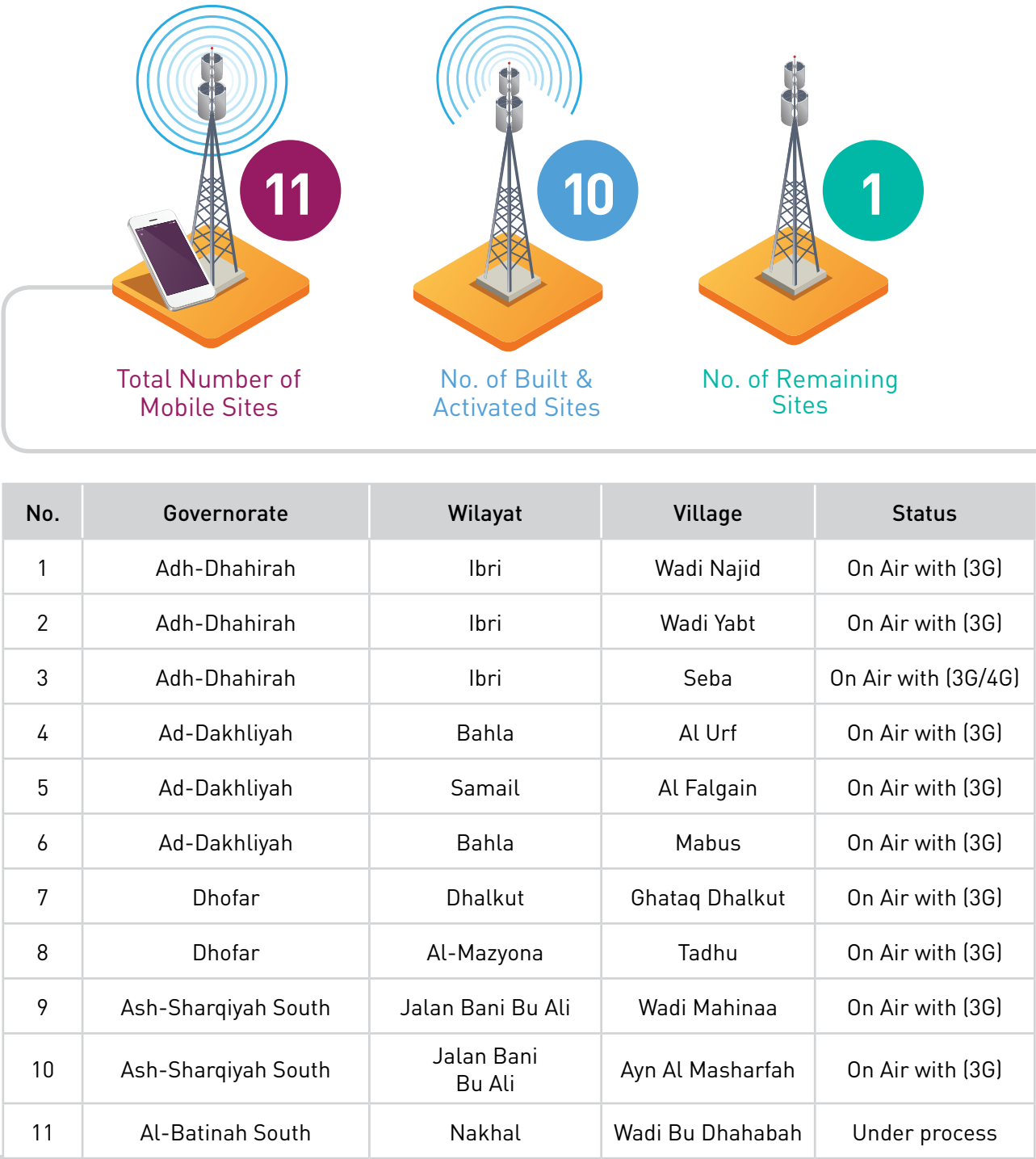
Other Coverage Initiatives

Additional Obligations were imposed on Omantel out of the settlement related to the outage which occurred in the company network for eight hours. It was agreed to provide broadband telecom services to a number of villages in the rural areas with a total cost of RO. 2 Million.

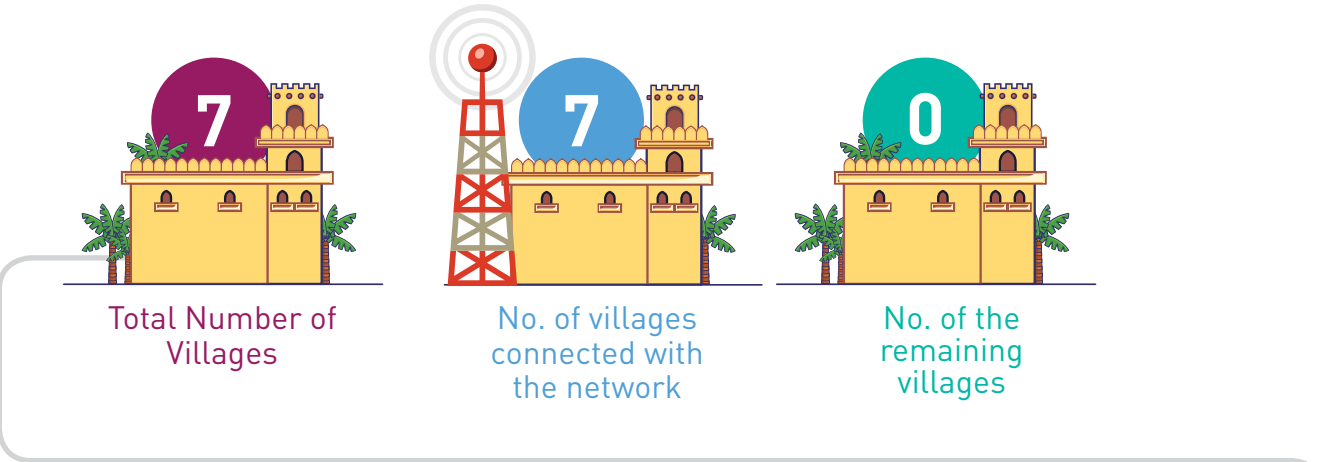
The following summarize the obligation which was split in two parts:

Part 1: Mobile Service (11 Sites)

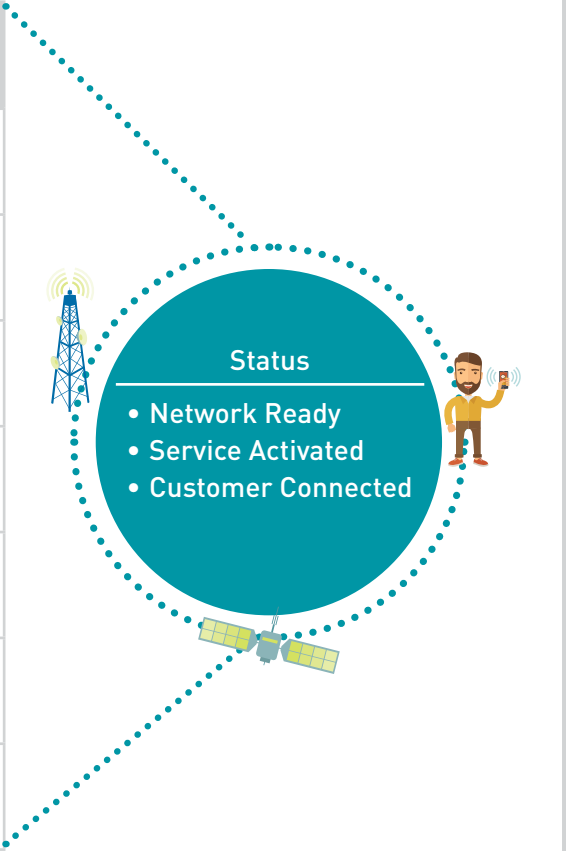
The table below shows the latest project updates for December 2019.



Part 2: Fixed Broadband Service (FTTH):



No.	Governorate	Wilayat	Village
1	Al-Wusta	Duqm	Dhahar
2	Al-Wusta	Al Jazer	Hitham
3	Al-Wusta	Al Jazer	Sawqrah
4	Ash-Sharqiyah South	Sur	Al Felaij
5	Ash-Sharqiyah South	Al Kamil Wal Wafi	Tahwa
6	Dhofar	Dhlkout	Dhlkout
7	Dhofar	Rakhyut	Rakhyut



NUMBER AUCTIONING SYSTEM

TRA developed, and launched in 2018 an auctioning system of special (Diamond and Gold) numbers in coordination with the licensees. The auctioning was conducted through the websites of telecom licensees. Press releases were published to invite those interested in registering for the auction to follow the updates by the licensees on the date of first online auction for special numbers (Diamond and Gold). TRA supervised the implementation of the auction process by these telecom companies.

The revenue of the number auctions will be allocated to charitable organizations approved by the Ministry of Social Development in the Sultanate, as stipulated by Article 16 of the Telecommunications Regulatory Act and its executive regulations [49], which stipulates that 'the authority shall determine and collect the allocation charge for special numbers.

With regard to auctioning process, this is regulated by the recently issued regulation organizing the allocation of telecommunications numbers pursuant to Decision No 1/2018, under which the Diamond and Gold numbers are auctioned as per the conditions set out in this regulation, with the objective of achieving transparency in the allocation of telecommunication special numbers to end users.

A total of 8 auctions have been conducted in the year 2019 and the pertaining statistics are shown below:

Auction ID	Operator Name	Auction Numbers	Bidders	Bidding	Allocated Numbers	Invoice Amount (R.O)
ACS2	Omantel	75	58	512	42	41,517
ACS4	Omantel	50	72	434	22	15,424
ACS6	Omantel	40	55	295	14	6,637
ACS8	Omantel	100	27	178	42	34,023
ACS1	Ooredoo	100	22	142	27	15,866
ACS3	Ooredoo	50	24	83	11	6,173
ACS5	Ooredoo	100	16	74	28	9,105
ACS7	Ooredoo	49	38	292	17	39,425
Total		564	312	2010	203	168,174

Further analysis of the 2018 and 2019 Auctions are below:

Year	Auction by licensee		Total No. of Auctions	Auction Numbers	Allocated Numbers	Revenue (R.O)
	Omantel	Ooredoo				
2018	4	4	8	186	78	449,321
2019	4	4	8	564	203	168,174



*Due to higher revenues from the first auction in 2018.



**PARTICIPATIONS
IN REGIONAL &
INTERNATIONAL EVENTS**

REGIONAL & INTERNATIONAL REPRESENTATIONS

It is part of TRA's strategy to have an international regulatory presence; hence, TRA is active in participating in international events to preserve the relevant interests of the Sultanate, gain and transfer knowledge of the regulatory nature of the telecom and postal services sectors. Below is a summary of the most important international representations during 2019:

World Radio Communication Conferences (WRC-19)



The TRA participated in the World Radio communication Conference in 2019 (WRC-19), which was held in Sharm El-Sheikh, Egypt during the period from 28 October to 22 November 2019.

In the conference, Radio Regulations, the international treaty governing the use of the radio-frequency spectrum and the geostationary-satellite and non-geostationary-satellite orbits, was reviewed and revised. TRA along with other Arab countries submitted more than 40 joint contributions to the conference. The main results of the conference were:

- Approval of identifying the frequency bands 24.25– 27.5 GHz, 37–43.5 GHz, 45.5–47 GHz, 47.2–48.2 and 66–71 GHz for International Mobile Telecommunications (IMT) for the deployment of 5G networks.
- Identification of additional radio-frequency bands for High Altitude Platform Station (HAPS) systems in the frequency bands 31–31.3 GHz and 38–39.5 GHz for worldwide use and the existing frequency bands 47.2 – 47.5 GHz and 47.9 – 48.2 GHz are available for worldwide use by administrations wishing to implement high-altitude platform stations.
- Approval of a new Resolution of spectrum harmonization for railway radio communication systems between train and trackside (RSTT) and approval of a new Recommendation for harmonization of frequency bands for evolving Intelligent Transport Systems (ITS) applications.
- Adoption of a new milestone-based approach for the deployment of non-geostationary satellite (NGSO) systems in specific radio-frequency bands and services.
- Earth stations in motion (ESIM) will enable connectivity in planes, ships, and trains.

Global Forum on Emergency Telecommunications (GET-19)

The TRA participated in the 3rd Global Forum on Emergency Telecommunications (GET-19) which took place from 6 to 8 March 2019, in Balaclava, Mauritius.

The GET-19 discussed the following:

- How humanitarian organizations can leverage technology to prepare and respond more effectively and to help victims of conflict or humanitarian crises.
- Disaster risk reduction strategies, national emergency telecommunication planning and policies,
- Resilient infrastructure, national coordination and the importance of early-warning and monitoring systems
- The role of new technologies such as big data, Internet of Things, robotics, and Artificial Intelligence in detecting, monitoring and predicting disasters as well as their applications in the immediate aftermath of disasters.



Hosting the 16th GCC Roaming Working Group

TRA hosted the 16th GCC Roaming Working Group in Muscat in the period from 16th to 18th April 2019. The meeting discussed the latest developments in GCC roaming regulation implementation. Deliberations also covered the data collection process, and the continuous monitoring of market developments in international mobile roaming services in the GCC countries markets, as well as on regional and international levels.

MOU with Telecom Regulatory in Morocco signed in Rabat

In March 2019, TRA signed a Memorandum of Understanding (MOU) with Moroccan Telecommunication Regulator with aims to promote the development of cooperation in matters of mutual interest through the exchange of ideas, information, personnel, skills and experience, which will be of reciprocal benefit to both Parties, in the field of regulating the telecommunication sector.



Hosting Two Batches of the Iraqi Legal Delegation

TRA hosted in June bilateral workshops between TRA with their counterparts from the Iraqi Communications and Media Commission for the purpose of increasing the legal capacity of both sides. This initiative roots from TRA recognizing the importance of exchanging views and promoting dialogue on topics of common interest and within the endeavors of sharing information and expertise as well as regulatory knowledge transfer. The workshops addressed the Telecom and Postal Acts and the provisions of Telecom/Postal licenses and the Competition and Tariff regulations in both countries as well as the regulatory side for dealing with the violations and reconciliation procedures, disputes in the telecommunications sector and the mechanism for adjudication. Furthermore, discussions also covered the consumer affairs and the way to handle the consumer complains

Global Symposium for Regulators (GSR)

The TRA participated in the 19th GSR that took place in Port Vila, Vanuatu, Gabon, in July 2019. TRA's active participation is part of exchanging information and discussion of means towards better and more active cooperation between the Regulatory Associations in the various regions. In GSR19, regulators from around the world identified and endorsed a set of regulatory Best Practice Guidelines to fast forward digital connectivity for all and allow people across geographies, economic and social status to benefit from the digital transformation and participate in today's digital economy. The Guidelines urge regulators and all stakeholders to be open to new regulatory tools and solutions and act without further delay.

Hosting the 3rd Regional Workshop and the 3rd Meeting on Internet Policies

Within the efforts made to keep abreast of the digital transformation and laying a solid base towards the creation of a sound legal and regulatory environment, the Sultanate of Oman, represented in the Telecommunications Regulatory Authority (TRA), and in collaboration with the Internet Society (ISOC) hosted the third regional workshop and the third meeting on internet policies from 6 to 7 November 2019 in Muscat. This event is complementary to the previous workshops and meetings held between governments and all the relevant stakeholders to discuss issues of mutual interest relating to the internet. The workshop addressed a number of important internet issues such as shifting from IPv4 to IPv6 edition, the best practices and practical experiments in IXPs, highlighting the role of Internet Engineering Task Force (IETF), discussing the encryption techniques and reviewing the latest updates on cloud services and data centers.



Preparation Works for World Radio-communication Conference in 2019 (WRC-19)

TRA participated in the second session of the 2019 Conference Preparatory Meeting (CPM-19) which was held in Geneva from 18 to 28 February 2019 in order to prepare a consolidated report on the ITU-R preparatory studies and possible solutions to the WRC agenda items, to be used in support of the work of World Radio communication Conferences.

Following the continuous efforts to be a leader in the region in frequency Spectrum Management, TRA participated in the Arab Spectrum Management Group (ASMG) meeting, which was held in Egypt during the period from 27 July to 1 August 2019. TRA also contributed in the GCC meeting in Bahrain during the period 23-25 June 2019. During these meetings, TRA submitted 39 working documents presenting and supporting the positions of The Administration of Oman to the WRC-19 agenda items.

LOCAL EVENTS

Communications and Information Technology Exhibition (COMEX 2019)

The TRA participated in the Communications and Information Technology Exhibition (COMEX 2019) that took place from 17 -19 March 2019. This year TRA highlighted three projects to educate the public about some of TRA's services. The projects are:

- TRA interactive map of coverage and quality of service, which was developed after conducting a field technical survey of all villages and wilayats of the Sultanate with the aim of providing information about the level of coverage and quality for users of mobile communications services in various villages and states.
- An interactive poster to educate the beneficiaries about Internet of Things (IOT), and on the importance of security of internal networks and the quality of communication equipment used at homes or offices.
- Beneficiaries rights in postal services (Know Your Rights) poster: the aim is to provide awareness on the rights of beneficiaries when availing to poster services. This was done by focusing on the most important rights in this sector such as the right of the user to protect the confidentiality and privacy of his data ,etc.

Oman Science and Technology Festival

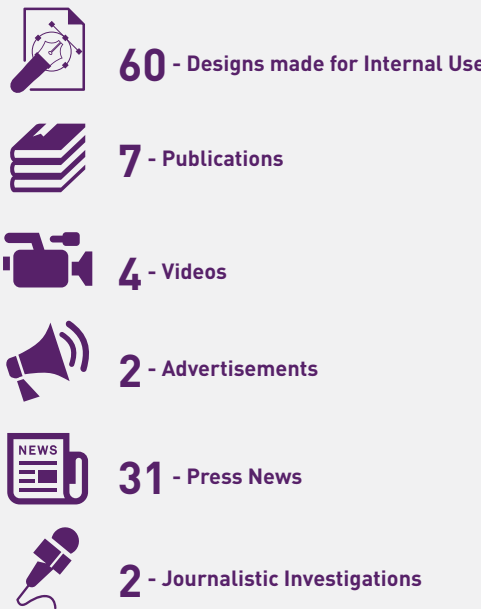
The participation of TRA in the Oman Science and Technology Festival revolve around exploring applications and concepts of scientific materials used in the field of communications, in order to motivate and encourage students to understand the scientific curricula. The participation included three different activities:

- Monitoring and analyzing the frequency spectrum using advanced monitoring systems,
- The effectiveness of measuring the level of radiation the electromagnetism emitted from the communication stations to ensure their conformity with the international standards adopted in the Sultanate.
- The atomic clock project, which is an essential element in the communication networks.

TRA Health Week

TRA hosted a Health Week with the aim to raise awareness on general health concerns and to highlight the importance of living a healthy lifestyle. As well as the awareness, TRA included free medical examinations to the staff, and encouraged employees to participate in the blood donation campaign hosted in the TRA building. Moreover, a breast cancer awareness lecture was hosted for female staff in TRA and females from neighboring government and private organizations, with free breast screening.

TRA PRESENCE ON DIFFERENT MEDIA CHANNELS



Events & Activities



CORPORATE SOCIAL RESPONSIBILITY



CORPORATE SOCIAL RESPONSIBILITY

The TRA is keen to contribute to the support of the Omani charitable organizations and institutions throughout the Sultanate, either by funding new projects or providing a financial contribution to existing charitable programs, thereby complying with the provisions of the Telecom Act and the regulations in force in this regard. The TRA's financial donations in 2019, which amounted to 300.000 OMR, revolved around sustainable development projects and distributed as follows:

45,000 Omani riyals for the "Association of Early Intervention for Children with Disabilities": this center provides all educational and rehabilitation services for children with disabilities, as well as training services for medical and rehabilitation teams. The center is used to provide a sustainable income for the Association.



40,000 Omani riyals for the "Al-Noor Association for the Blind" to purchase special devices for the blind. This Association conducts training courses for the blind on how to deal with various life matters and participate in international forums for the blind.

35,000 Omani riyals for the "Oman Cancer Association/ Dar Al Hanan" to facilitate the provision of cancer patients' needs such as purchasing medicines, nutritional supplements, prosthetic devices and other expenses.



35,000 Omani riyals for the "Association for the Welfare of the Handicapped Children" to contribute in the professional training project in the Association's centers, by training students to do simple jobs that can generate income for them. This was achieved by establishing training and rehabilitation centers in all nine branches of the Association through building caravans and providing raw materials, machines and human resources.

30,000 Omani riyals for the “Oman Association for the Disabled” to provide different types of wheelchairs and hospital beds.



25,000 Omani riyals for the “Dar Al Atta’a Charity” to contribute to the **Apiary Project**, with the aim of providing a stable income to indigent families by training individuals to beekeeping and selling honey products. In this project, the Charity cooperates with the Ministry of Agriculture and Fisheries to provide training, workshops and marketing, and provides sales contracts or distribution outlets along with shaping the commercial identity for the product.



20,000 Omani riyals for the “Omani Society for Hearing Impaired” to support several projects, including training of the deaf on the basics of computers and Internet use, and providing hearing aids.



15,000 Omani riyals for the “Oman Holy Quran Association” to support the Association’s Holy Qur’an centers in the governorates of the Sultanate, which focus on indoctrinating young minds with reciting and memorizing the Holy Quran, participating in Quranic competitions, and conducting lectures and training courses for memorization, indoctrination, chain of narration (sanad), etc.



10,000 Omani riyals for the “Ihsaan Association” to support establishing the Elderly Day Care Club project.



10,000 Omani riyals for the “Oman Autism Association” to support the Association’s activities, events, workshops and external partnerships, in addition to other expenses for providing training, awareness and education programs for this category and participating in parents’ workshops.



10,000 Omani riyals for the “Oman Diabetes Association” to support the Association’s activities for implementing awareness programs, scientific activities and support programs for over than 350 thousand Omanis who suffer from diabetes.



10,000 Omani riyals for the “Masirah Charity Team” to support the various Team’s activities to help supporting the indigent families at Wilayat Masirah.



5,000 Omani riyals for the “Oman Down Syndrome Association” to support the various Association’s activities in caring for this important group of the society.



5,000 Omani riyals for the “Nidaa Charity Team” to support the Charitable Cart project with the aim to create job opportunities and stable income to indigent families and their children, and transform them from underprivileged families into productive ones, in addition to finding income for families, by purchasing carts to be mobile cafés at beaches.



5,000 Omani riyals for the “Special Olympics Oman Association” to support the various Association’s activities in caring for this important group of the society.





FINANCIAL STATEMENTS

TELECOMMUNICATIONS REGULATORY AUTHORITY

FINANCIAL STATEMENTS FOR THE YEAR ENDED
31 DECEMBER 2019

Registered Office & Principal Place of Business

P.O. Box: 3555, Postal Code: 111

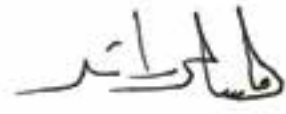
Al-Seeb, Sultanate of Oman

STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 2019

	Note	2019 RQ	2018 RQ
ASSETS			
Non-current assets			
Property and equipment	4	10,962,001	11,801,437
Intangible assets	5	597,186	604,444
		<u>11,559,187</u>	<u>12,405,881</u>
Current assets			
Trade receivables	6	211,878	142,528
Advances, prepayments and other receivables	7	566,692	1,218,781
Financial asset at amortised cost	8	17,018,301	16,012,767
Cash and bank balances	9	12,464,350	11,144,740
		<u>30,261,221</u>	<u>28,518,816</u>
Total assets		<u>41,820,408</u>	<u>40,924,697</u>
EQUITY AND LIABILITIES			
Equity			
Retained surplus	10	15,713,908	16,377,054
Liabilities			
Non-current liabilities			
Deferred government contributions	11	6,202,863	6,635,595
Employees' end of service benefits	12	2,926,171	2,690,615
		<u>9,129,034</u>	<u>9,326,210</u>
Current liabilities			
Contract liabilities	13	13,816,139	11,312,765
Trade and other payables	14	3,161,327	3,908,668
		<u>16,977,466</u>	<u>15,221,433</u>
Total liabilities		<u>26,106,500</u>	<u>24,547,643</u>
Total equity and liabilities		<u>41,820,408</u>	<u>40,924,697</u>

These financial statements were approved for issue on 25 March 2020 and signed by:


CHAIRMAN


EXECUTIVE PRESIDENT


STATEMENT OF COMPREHENSIVE INCOME
FOR THE YEAR ENDED 31 DECEMBER 2019

	Note	2019 RQ	2018 RQ
Income			
Radio spectrum income	15	12,513,444	13,842,598
Annual telecom fee	16	5,260,903	5,525,400
Income from issuing numbers		803,249	1,090,372
Postal service income		918,578	808,227
Telecom equipment type approval income	17	437,305	409,673
Domain name income		59,455	55,685
Other telecom license fee		46,150	47,050
		<u>20,039,084</u>	<u>21,779,005</u>
Operating Expenses			
Salaries and employee related costs	18	(7,487,919)	(7,373,358)
General and administrative expenses	19	(1,874,612)	(1,609,014)
Consultancy fees		(68,650)	(308,014)
Depreciation	4	(976,675)	(1,128,721)
Amortization	5	(342,498)	(613,487)
Monitoring station cost		(353,268)	(279,259)
Donation to charitable institutions	20	(300,000)	(300,000)
Allowance for credit losses on trade receivables	6	(10,120)	(10,160)
Remuneration to Board of Directors		(72,000)	(72,000)
Withholding tax		(46,517)	(53,749)
		<u>(11,532,259)</u>	<u>(11,747,762)</u>
Net income from operations		<u>8,506,825</u>	<u>10,031,243</u>
Non-operating income			
Interest income	21	904,376	742,919
Government contributions	11	432,732	432,733
Provisions reversed during the year	22	121,212	213,441
Other income	23	88,384	173,831
		<u>1,546,704</u>	<u>1,562,924</u>
Surplus and total comprehensive income for the year		<u>10,053,529</u>	<u>11,594,167</u>

STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED 31 DECEMBER 2019

	<u>Retained surplus RO</u>
At 1 January 2018	20,032,946
Surplus transferred to Ministry of Finance	(15,250,059)
Surplus for the year	11,594,167
At 31 December 2018	<u>16,377,054</u>
At 1 January 2019	16,377,054
Surplus transferred to Ministry of Finance	(10,716,675)
Surplus for the year	10,053,529
At 31 December 2019	<u>15,713,908</u>

STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED 31 DECEMBER 2019

<u>Note</u>	<u>2019 RO</u>	<u>2018 RO</u>
Cash flows from operating activities		
Surplus for the year	10,053,529	11,594,167
Adjustments for:		
Depreciation	976,675	1,128,721
Amortization	342,498	613,487
Allowance for credit losses	10,120	10,160
Interest income	(904,376)	(742,919)
Government contribution	(432,732)	(432,733)
Accrual of employee end of service benefits	348,615	345,353
Increase in trade receivables	(79,470)	(28,270)
Decrease/(increase) in advance, prepayments and other receivables	652,089	(711,902)
Increase in contract liabilities	2,503,374	421,058
Decrease in trade and other payables	(747,341)	(1,844,734)
Cash generated from operations	<u>12,722,981</u>	<u>10,352,388</u>
Employees' end of service benefits paid	(113,059)	(50,304)
Net cash from operating activities	<u>12,609,922</u>	<u>10,302,084</u>
Cash flows from investing activities		
Purchase of property and equipment	(137,239)	(137,992)
Additions in intangible assets	(13,453)	(127,440)
Additions in intangible assets under development	(321,787)	(119,310)
Net movement in term deposits	(1,000,000)	(1,000,000)
Interest received	898,842	936,211
Net cash used in investing activities	<u>(573,637)</u>	<u>(448,531)</u>
Cash flows from financing activities		
Surplus transferred to Ministry of Finance	(10,716,675)	(15,250,059)
Net cash used in financing activities	<u>(10,716,675)</u>	<u>(15,250,059)</u>
Net change in cash and cash equivalents during the year	<u>1,319,610</u>	<u>(5,396,506)</u>
Cash and cash equivalents at the beginning of the year	11,144,740	16,541,246
Cash and cash equivalents at the end of the year	<u>12,464,350</u>	<u>11,144,740</u>



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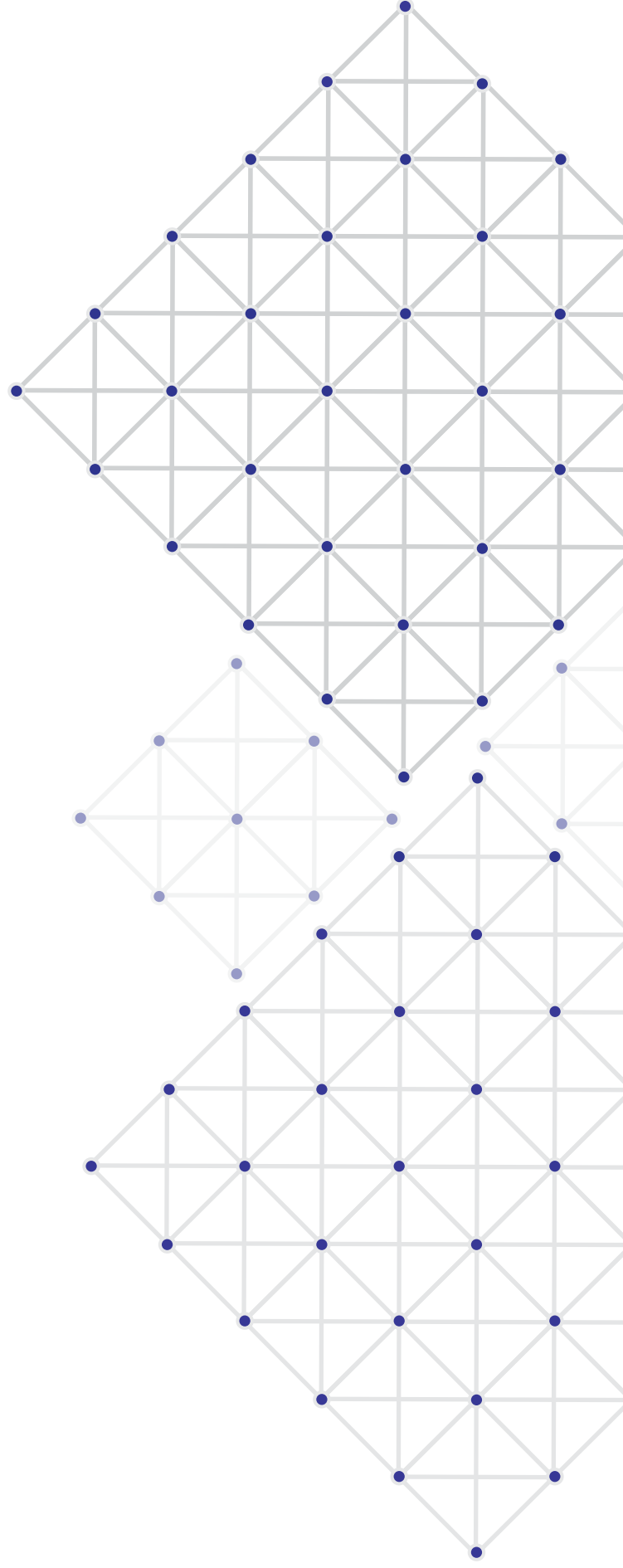


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