AREGNET

Broadband Benchmark Study In the Arab Region

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Contents

Introduction

Information and Communication Technologies (ICTs), and especially broadband networks and services, resembles a base for economic development. They are vital for driving success in today's global economy. Not only that, but ICT products and services are part of the higher-value high-tech sector, the sector which is growing fast in the international trade, and which can sustain faster growth in incomes. It is this dual role of ICTs and broadband as enablers leveraging technological efficiency across other sectors, as well as an economic booster in their own sector – which makes them critical for the overall advancement of nations. Broadband is essential for generating new opportunities and technological change across the entire economy from agriculture to finance, education, healthcare and modern services.

The Arab countries has determined early the importance of broadband technologies to their national advancement. Many efforts have been exerted on both the local and regional level.

AREGNET has been keen to ensure the sustainable growth of ICTs, in general, and broadband, in specific, in the Arab states. Benchmarking is the first step in the way forward for proper determination and adequate decision-making.
This report represents a second round of reviewing the broadband development in the Arab states; the first round was released back in 2010.

Scope & Objective

The aim of this report is to present the current status and the ongoing developments in the Arab world in information and communication technology (ICT); to highlight the obstacles hindering growth; and to present recommendations for further development.

Sharing data and best practices supports informed decisions. By making this information available, it is hoped to be used by countries to benchmark against their neighbors in the region.

In order to develop the report, the Arab countries were requested to submit their answers to every question indicated in the below table.

	Item	**Brief Description**
1	Broadband Definition	The definition of Broadband services in terms of minimum speed.
2	Broadband technologies	List all available technologies for broadband for both fixed and mobile platform
3	Internet penetration and Broadband penetration	Provide both household penetration and population penetration. Provide a trend (2010-2015)
4	PC penetration & smartphones penetration	Provide a trend for penetration (2010-2015)
5	International Bandwidth Availability	Number of International Gateways and Capacities (total and utilized in Gbps)
6	Evolution of number of Broadband subscribers with Regulatory framework	Compare the evolution of the number of subscribers with the regulatory framework changes.
7	Different BB packages and Services provided	List the available Broadband packages over different platforms (ADSL, Fiber) and different services (VoIP, IPTV …)
8	BB prices compared to GDP per capita	Please provide updated BB prices (in USD) referenced to the nominal GDP per capita
9	Broadband market structure	Number of licensed operators for both fixed and mobile technologies
10	Legal and Regulatory Framework	• Applicable law • Licensing/authorization regime for Broadband services. • SMP regulations (if any?) • Wholesale regulations related to broadband (for example: unbundling regulations, wholesale broadband services (Bit stream – Virtual unbundling), infrastructure sharing, etc.…) • Retail regulation related to Broadband (tariff control, etc.….) • Universal service policy related to broadband (if any?)
11	Existence of Broad Band Plans	An existing BB plan, if any please provide the main plan highlights.
12	Universal Service policy related to broadband	Please list any universal service policies related to Broadband (if any)

Broadband Status in the Arab Region

Broadband Definitions

Some countries published their definition for broadband indicating the minimum level of quality in terms of speed, and sometimes the deployed technology is mentioned.

For example, in UAE, Fixed-broadband subscriptions refer to fixed subscriptions to high-speed access to the public Internet (a TCP/IP connection), at downstream speeds equal to, or greater than, 256 Kbit/s. This includes cable modem, DSL, fiber-to-the-home/building, other fixed (wired)-broadband subscriptions, satellite broadband and terrestrial fixed wireless broadband.

As for Algeria, the term broadband is used to describe systems which allow a large amount of digital data or information to be transmitted in efficient way at the same time between communication and/or electronic devices by using a wide band of frequencies or channels and even an aggregate of different frequency bands to allow more information to be transmitted in a given amount of time. Such a system can be based on optical fiber and/or wireless means.

In Egypt the minimum speed for broadband service is 512 Kbps, while in Morocco it is 2 Mbps.

Broadband Technologies

A number of technologies exists in the Arab region, for example in the fixed networks xDSL is prominent in many countries such as Algeria, Egypt, Morocco and UAE. Moreover, FTTx starts to boom in the region more specifically in Egypt, Morocco and UAE.

As for the mobile networks, 3G and 4G are the dominant technologies in the Arab countries. In addition, other technologies exist such as satellite broadband and terrestrial fixed wireless broadband. Moreover, cable modems exist in UAE.
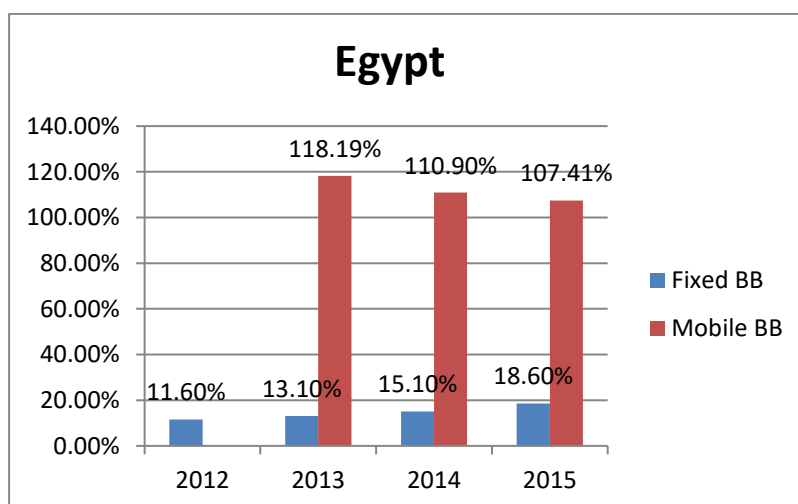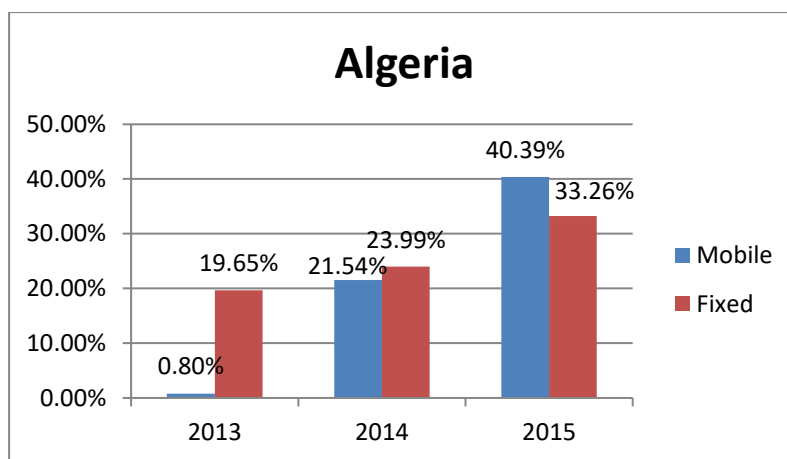
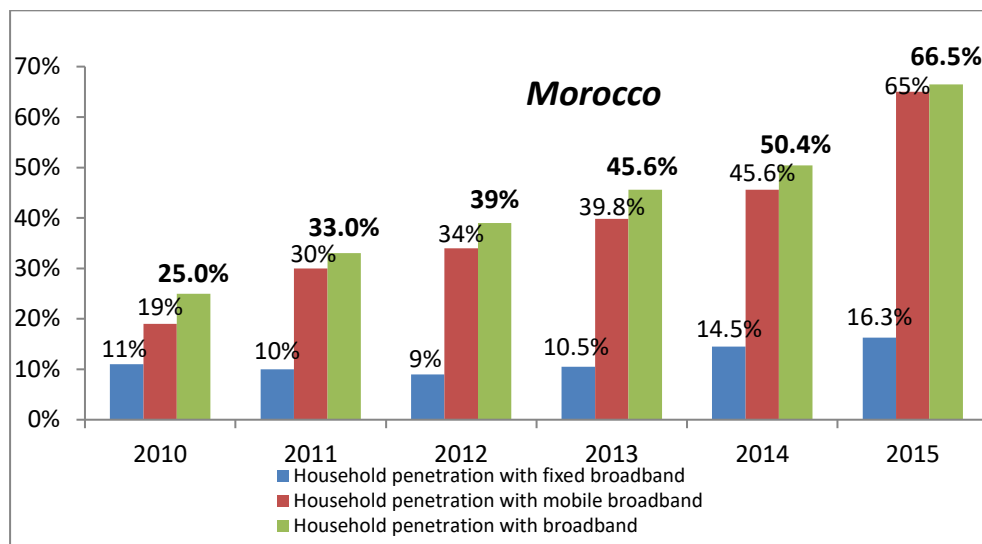## Internet penetration and Broadband penetration

Broadband penetration refers to the amount of the Internet access market that high speed or broadband Internet has captured.

Broadband penetration grew by leaps and bounds initially after being widely introduced in the early 2000s. The penetration for fixed & Mobile broadband in the Arab world varied from one country to another. As for the fixed broadband household penetration, it was 95% in UAE, 33.26% in Algeria, 16% in Morocco & 18.04% in Egypt.

While for the Mobile Broadband Population penetration, it was 146% in UAE, 40.39% in Algeria, 65% in Morocco & 29% in Egypt.

The trends of the broadband penetration in Algeria, Egypt and Morocco are shown in the following charts:

Algeria

	Mobile	Fixed
2013	0.80%	19.65%
2014	21.54%	23.99%
2015	40.39%	33.26%

Egypt

|	Fixed BB	Mobile BB
2012	11.60%	
2013	13.10%	118.19%
2014	15.10%	110.90%
2015	18.60%	107.41%

PC penetration & Smart Phone

Access devices penetration is a mean to determine the potential of maximum broadband penetration. Also, it's an indication of the country efforts on the supply side to overcome the accessibility problem. Smartphone penetration is measured mainly on the three known platforms: Android, iOS or Windows phone.

The smart phone population penetration rate in UAE was 67.3% in 2015, & 54.7% in Morocco 2015.

While for the PC household penetration, it was 89.3% in UAE 2015, 21.97% in Algeria 2016 & 54.8% in Morocco 2015.

As for the trend in the PCs and smartphone penetrations in Algeria and Morocco, they are shown as follows:
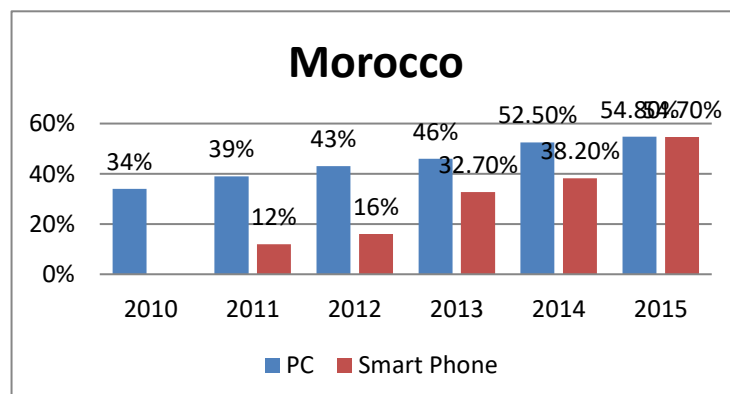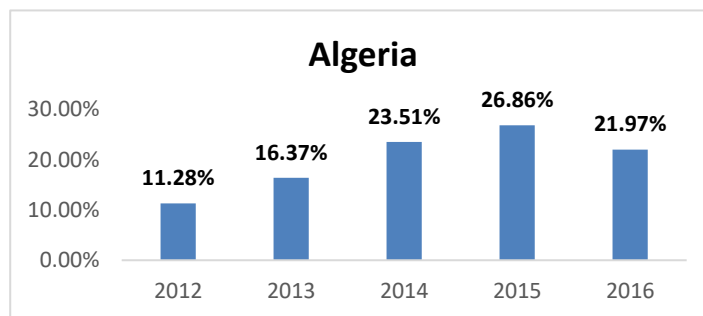
International Bandwidth Availability

International capacity is an indication to competitiveness and the extent of connection of each country. International capacity could be linked to an international submarine cable system or to a satellite through an Earth station. The purpose is to aggregate and distribute incoming and outgoing international data traffic.

Regulatory environment can enhance the competitiveness in this segment through introducing new models of sharing and collocation, and lowering the barriers to new market entrants.

In UAE, the International Capacity is 952.56 Gbps while the utilized capacity is 920.82 Gbps, in Algeria the total Capacity was 485 Gbps in 2015 & 630 Gbps in 2016 while the utilized capacity was 500 Gbps in 2016. In Morocco the international capacity was 450 Gbps in 2015 while the Utilized capacity was 355 Gbps in 2015. In Egypt the International Capacity was 652.35 Gbps in 2015 While the Utilized Capacity was 431.2 Gbps in 2015.

Different Broadband packages and Services provided

Broadband bundles combine services such as home telephone, digital TV and mobile phone with a broadband connection. Internet service providers (ISPs) often offer free broadband or free calls as part of bundle deals as an incentive to sign up. Broadband bundling is a great way to overcome affordability obstacles as well as fulfill users' requirements of triple- or quad-play. Many telecommunications companies also try to increase their broadband market by offering it as part of bundled phone, Internet, and/or cable services. Combining this with low prices makes broadband appeal to low income subscribers.

There are varieties of broadband packages in the Arab region, both in the fixed and mobile networks, and the trend of bundled packages is still booming with a mix of services between the two networks.

BB prices compared to GDP per capita

Most Arab countries are keen to offer entry packages that are affordable to the least economical clusters but with less features.

The below table shows broadband prices of the lowest packages compared to GDP/Capita

Country	Minimum Speed	Price/Monthly	Price compared to GDP/Capita
Algeria	1 Mbps	USD 14.62	4.17%
Egypt	512 Kbps	USD 5.25	1.74%
Lebanon	2 Mbps	USD 19.70	1.47%
Morocco	4 Mbps	USD 9.92	4.13%
UAE	256 Kbps	USD 18.79	0.5%

The below table shows broadband prices of the Highest packages compared to GDP/Capita

Country	Maximum Speed	Price/Monthly	Price compared to GDP/Capita
Algeria	20 Mbps	USD 72.17	20.59%
Egypt	48 Mbps	USD 110.44	36.6%
Lebanon	16 Mbps	USD 114.91	17.13%
Morocco	12 Mbps	USD 13.93	5.8%
UAE	10 Mbps	USD 81.41	2.4%

More details to the packages are presented in Annex (1).

Broadband Market Structure

The Moroccan telecommunications market includes three global operators each one has mobile licenses 2G, 3G and 4G and fixed licenses. Moreover, the satellites operators who provide satellites services like VSAT, GMPCS and 3RP. While the Algerian Telecommunication market includes 1 fixed license Technology with xDSL, 4G LTE and WIMAX. In addition to 6 mobile license technology that includes 3G and 4G.

As for the Egypt, the broadband market consists of:

Fixed broadband:

Class A: The license gives the licensee the right to set up, manage and operate the core infrastructure necessary for offering internet services only and does not include the right to offer voice telephony services. (7 operators)

Class B: The license gives the licensee the right to set up, manage and operate the core infrastructure necessary for offering local and international data transfer services only and does not include the right to offer voice telephony services. (2 operators)

Class C:

Mobile Broadband:

Currently, four licensed operators have the right to offer mobile services across Egypt. (4 operators)

Satellite Broadband:

In the Egyptian telecommunication market, there are 3 providers for the GMPCS and 6 providers for the VSAT technologies.

Legal and Regulatory Framework

The importance of the regulatory frameworks is that it sets the scene and the enabling environment to allow for the smooth diffusion of telecommunications services as well as foster investment in the sector. Acknowledging the international best practice is crucial to determine the successful tools and techniques as well as the risks and lesson learned. In the Arab region, there are many similarities in the regulatory and legal infrastructure.

In Morocco, the act 24-96 on post and telecommunications had set up five legal frameworks in order to manage the telecommunication sector which are the licensing framework, the authorizing framework, the approval Framework the declaration framework, and the free framework. The details of each framework are presented in Annex (2).

As for SMP regulations, and according to the article number 15 of the decree number 2-97-1025 (25th February 1998), on the interconnection of public telecommunications networks, the National Telecommunications Regulatory Agency (ANRT) designates yearly the operators of public telecommunications networks having a significant influence on the telecommunications market.

The Moroccan Incumbent was declared SMP on the wholesale market for access to infrastructure, the wired local loop, on the one hand, and on the wholesale market of access to its infrastructure on the other hand throughout the national territory and in relation to all Segments of the network. To this end, the incumbent operator has received especially three reasonable requests for access to its GC (underground and aerial) and to submit to the validation of the ANRT a reference offer, intended for the attention of other network operators. The reference offer of civil engineering was published on 2015.

Morocco has done significant efforts in the area of access and unbundling, where unbundling became a regulatory requirement for the incumbent operator since 2007, in accordance with the Government's note of general guidelines. The Unbundling then became a reality on July 8th 2008, as seen in the full unbundling of the incumbent's local loop after approval of the reference offer of unbundling local loop by the ANRT.

There are three kind of unbundling in Morocco; physical unbundling, virtual unbundling and bit stream access. The unbundling could be either total (broadband and fixed voice) or partial (fixed broadband only).

In 2013, Morocco has adopted guidelines on the operational, economic and conventional modalities for the sharing and pooling of fiber-to-the-home (FTTH) under objective, proportionate and non-discriminatory technical and financial conditions while ensuring fair and loyal competition. As for the Leased lines publication of wholesale leased lines constitutes an obligation to the SMP IAM. Leased lines offers and tariffs should be cost oriented and are enhanced on a yearly basis based on the study of the operators' requests or after a dispute resolution as it has been the case on 2014.

In Egypt, the telecommunications sector operates within a legislative framework of Law 10/2003. The National Telecom Regulatory Authority (NTRA) is the regulator for the sector. The Egyptian telecom law incorporate provisions for interconnection and infrastructure access, dispute resolution, consumer protection and numbering administration, frequency spectrum management and usage licensing, national security and general mobilization.

As for the licensing for fixed data services, providers are divided into three classes: Class A, Class B and Class C (virtual operators). The licenses for the three classes were first awarded in 2000. Currently, there are 7 companies in Class A, 2 companies in class B, and 3 companies in Class C. The Class A license gives the operators the right to set up, manage and operate the core infrastructure necessary for offering internet services only and does not include the right to offer voice telephony services. Class B license gives the operators the right to set up, manage and operate the core infrastructure necessary for offering local and international data transfer services only and does not include the right to offer voice telephony services. Finally, Class C license gives the operator to offer free internet services at the same tariff of fixed telephony calls.

With regard to the wholesale regulations, shared access local loop unbundling has been mandated on the incumbent operator since 2002 leading to a vibrant ISP sector. As a result, other licensed operator acquired a market share of up to 40% at a certain point. Within the context of introducing the next generation network, the operational model of unbundling was no longer valid, this led to the NTRA introducing layer-2 Bit stream and virtual unbundling regulations.

Existence of Broad Band Plans

'eMisr' is Egypt's national broadband plan, and it was announced in 2011 with the key strategic objectives of:

- Recognize Egypt as a front-runner in digital communications,
- Increase job opportunities,
- Stimulate economic growth nationwide and foster social cohesion,
- Harmonize with other sectors in the Government to improve the quality of life for all citizens
- Avoid an increased digital divide within Egypt.

Multi-dimensional targets were specified in eMisr. The first set of targets addressed availability and focused on expanding the geographical coverage of the broadband infrastructure. The second set of targets focused on penetration and aimed to increase the number of the broadband subscribers base to reach the required critical mass that will lead to a sustainable growth cycle. Social targets were the third set of targets that focused on providing citizens in rural and non-economically viable areas with means to access broadband services. This aimed at minimizing the digital divide within Egypt.

As for Morocco, their broadband plan has the following targets: 100% population Broadband coverage by the end of 2022; 50% of the population should have access to ultra-broadband (at least 100 Mbit/s), corresponding to the 195 most densely populated municipalities (less than 2.5% of the territory) by the end of 2027.

Universal Service policy related to broadband

In Egypt, the Universal Service Policy has the following objectives:
- Guarantee of access to basic telecom services to all citizens at affordable prices
- Increase access to basic telecom services at different educational institutions, libraries, and healthcare institutions in all rural and suburban areas
- Guarantee of fair and non-monopolistic practices and free competition
- Enhancement of usage of modernized technologies in order to expanded services.

NTRA, the regulator of Egypt, contributed through the universal service fund in several governmental initiatives to subsidize the internet diffusion. Examples include:

- June 2006: Introduction of local transmission subsidy to ISPs in non-central zones, whereby ISPs were entitled to discounted prices for E1 links outside Cairo and Alexandria.
- September 2007: where prices were halved once again (45 EGP/month for limited 256 Kbps).

Moreover, NTRA contributed, through the universal service fund, in the pilot project to connect 1600 Egyptian communities (including schools, hospital, youth centers, etc.) distributed nationwide with a broadband speed up to 20

In 2017 the NTRA Board approved to amend the universal service policy to include data services and Internet connectivity as a part of basic telecommunication services which will help in laying the foundation for digital economy.

Conclusion

The report presented the submitted information from the respondent countries to benchmark the efforts of the Arab countries in stimulating broadband and drive economic growth in public services as well as foster innovation.

Another important point to be noted is determining the effect of the political and regulatory decisions to stimulate broadband, which helps in reviewing the efficiency of the practiced tools as well as presenting the effect of broadband in other sectors. This requires the necessity to measure quantitatively the economic impact of broadband. A wide number of models have been used to study the economic impact of broadband with different frameworks, variables and regression techniques. The lack of uniformity has constrained the analysis of the different economic impacts in individual countries using a common framework.

Accordingly, and as a recommendation for a future work, it is advisable to extend the analysis to determine the impact of broadband penetration on national domestic growth, employment, productivity, and other relevant economic factors.

Annex I
Broadband Prices in Arab Countries

Algeria:

ADSLtariff plan B2C :

- 1 Mbps speed, 1600 DA/month, unlimited access+email box;
- 2 Mbps speed, 2100DA/month, unlimited access+email box;
- 4 Mbps speed, 3200DA/month, unlimited access+email box;
- 8 Mbps speed, 5000DA/month, unlimited access+email box;
- 20 Mbps speed, 7900DA/month, unlimited access+emailbox+TV box+ books pack.

ADSLtariffplan B2B:

- 2 Mbps speed, 10000DA/month, unlimited access + 3 email box pro + Edrive 5 Go + 1 fix IP Adress;
- 4 Mbps speed, 18000DA/month, unlimited access+ 5 email box pro + Edrive 5 Go + 2 fix IP Adress;
- 8 Mbps speed, 32000DA/month, unlimited access + 10 email boxpro + Edrive 5 Go + 2 fix IP Adress + wifi modem;
- 20 Mbps speed, 65000DA/month, unlimited access + 30 email box pro+ Edrive 10 Go + 2 fix IP Adress + wifi modem;

4GLTEtariffplan B2C:

- Access : 6000 DA/month,5Govolume + modem 4GLTE+ wireless telephone + 500 DA voice;

Prepaid rechargesfor 4GLTE B2C

- 500 DA/10 days ,1 Go volume;
- 1000 DA/month , 2 Go volume;
- 2500 DA/month, 6 Go volume + 500 DA VoLTE;
- 3500 DA/month ,10 Go volume + 1000 DA VoLTE;
- 6500 DA/month , 20 Go volume + 2000 DA VoLTE;

4GLTEtariffplan B2B :

- Access : 10000 DA/month, 10Go volume + modem 4GLTE professional+ wireless telephone + 1000 DA voice;

Prepaid recharges for 4GLTE B2B

- 500 DA/10 days ,10 Go;
- 1000 DA/month , 2 Go;
- 2500 DA/month, 6 Go + 500 DA VoLTE;
- 3500 DA/month ,10 Go + 1000 DA VoLTE;
- 6500 DA/month , 20 Go + 2000 DA VoLTE;

3Get4Gtariff planB2C:

Postpaid 4G for Mobilis B2C

Offer voice & data internet

- 1800 DA/ month +5 Go internet volume +3h voice;
- 2500 DA/month + 8 Go internet volume +5h voice;
- 4000 DA/month + 15 Go internet volume + 8h voice;

Postpaid 3G for Mobilis B2C

- Access data only "Darynet" :190 DA+ datadongle + Sim+ 50 Mo
- Monthly offer
- Darynet Bronze :750DA/30 days, 500 Movolume;
- Darynet Silver1000DA/30 days, 1Go volume;
- Darynet Gold3000DA /30 days , 4Go volume;

Prepaid4G for MobilisB2C

- Access data only "Pack Navigui4G": 2400 DA, 2 Go/month (3month)+ bonus 3Go volume+ Facebook et Whatsapp unlimited

Prepaid internet plans for Mobilis 4G & 3G B2C

- Pass FB/WhatsApp :60 DA/ 24 Heures ,100 Mo volume;
- Pass Turbo* illimité : 250 DA/1Heure ;
- PassNIGHT* De 2h00 à 5h00illimité : 200 DA/1Heure ;
- Pass internet 7 jours : 300 DA/07 jours, 400 Mo volume;
- Pass internet 3G:1000 DA/ 30 days, 2Go volume;
- Pass internet 4G : 1300 DA/ 30 days, 3Go volume;
- Pass internet 4G: 2100 DA/30 days, 5Go volume;
- Pass internet 4G:3200 DA/30 days , 8 Go volume;

- Pass internet 4G : 4300 DA/30 days, 12 Go volume;
- Pass internet 4G: 5600 DA /30 days,16 Go volume;
- Pass internet 4G : 6000 DA /30 days, 20 Go volume;

Prepaid 4G for Djezzy B2C

- Access modem: 6990 DA = Sim + Djezzy modem 20 Go for 2 month validity.

Prepaid internet plans 3G/4GforDjezzy B2C

- Speed social média @migo semaine : 150 DA,200 Mo
- Speed social media @migojours :30 DA, 50 Mo
- Speed hour: 50 DA /7h-00h00,100 Mo
- Speed hour00h-7h00:50 DA, Illimited
- Speed1 day 24h: 100 DA,100 Mo
- Speed2 days 48H: 200 DA, 300 Mo
- Speed 4 days : 300 DA, 600 Mo
- Speed pay as you go : 4 DA/1 Mo
- Speed month: 800 DA/30days,1 Go internet volume;
- Speed month: 2000 DA/30days,2,5 Go internet volume;
- Speed month: 3500 DA/30days,5 Go internet volume;
- Speed month: 5000 DA/30days, 10 Go internet volume;
- Speed month: 7000 DA/30days, 20 Go internet volume;

Prepaid 4G/3G for Ooredoo B2C

- Access : SIM internet : 250 DA
- Promotion Dongle data : 1950 DA = Datadongle+ SIM+8Go / 2 months

Prepaid internet plans for Ooredoo 4G & 3G B2C

- Hourly plan 50DA /24h: 50 Mo , Facebook illimited validity 2 hours
- Daily plan 100 DA /24h: 50 Mo
- Daily plan100 DA night/ for midnight to 6h : 500 Mo
- Daily plan200 DA/ 48 h: 200 DA
- Daily plan300 DA / 72 h: 400 Mo
- Monthly plan1000 DA / 30 days: 1Go
- Monthly plan2500 DA / 30 days: 3Go

Postpaid 4G/3G for Ooredoo B2C

- Access : 2500 DASIM internet +datadongle

3Get4G+ tariff planB2B:

Postpaid 3G for mobilis business B2B

Smartphone offer3G:

- 1900DA/ month ,2Go internet volume;
- 3500DA/ month ,5 Go internet volume;

Solutions internet3G

- Forfait découverte : 1900DA /month, 2Go internet volume ;
- Forfait essentiel : 3500DA /month , 5Go internet volume ;
- Forfait confort : 5000DA /month , 10Go internet volume ;

Postpaid 4G for mobilis business B2B

Forfait "Only 4G"

- Forfait 1 000 DA /month, 2Go internet volume;
- Forfait 1 700 DA/month, 4Go internet volume;
- Forfait 3 500 DA/month, 10Go internet volume;
- Forfait 5000 DA/month, 20Go internet volume;
- Forfait 10000 DA/month, 50Go internet volume;
- Forfait 18000 DA/month, 100Go internet volume;

Postpaid 4G for Djezzy for business B2B

- Access modem : 6990 DA = Sim + Djezzy modem 20 Go for 2 month validity.

Data monthly fees 3G/4G for B2B

- Monthly package: 800 DA,1 Go internet volume;
- Monthly package: 1900DA,2 Go internet volume;
- Monthly package: 1750 DA,5 Go internet volume;
- Monthly package: 2500 DA, 10 Go internet volume;
- Monthly package: 3000 DA, 15 Go internet volume;
- Monthly package: 3500 DA, 20 Go internet volume;
- Monthly package: 4000 DA, 25 Go internet volume;
- Monthly package : 4500 DA, 30 Go internet volume;
- Monthly package : 5000 DA, 35 Go internet volume;
- Monthly package : 5500 DA, 40 Go internet volume;
- Monthly package : 6000 DA, 45 Go internet volume;
- Monthly package : 6500 DA, 50 Go internet volume;

Prepaid internet plans for Ooredoo 4G & 3G B2B

- Hourly plan 50DA /24h: 50 Mo , Facebook illimited validity 2 hours
- Daily plan 100 DA /24h: 50 Mo
- Daily plan100 DA night/ for midnight to 6h : 500 Mo
- Daily plan200 DA/ 48 h: 200 DA
- Daily plan300 DA / 72 h: 400 Mo
- Monthly plan1000 DA / 30 days: 1Go
- Monthly plan2500 DA / 30 days: 3Go

Postpaid 4G for Ooredoo for business B2B

Data monthly fees 3G/4G for B2B

- Monthly package: 500 DA,500 Mo internet volume;
- Monthly package: 1000DA,1 Go internet volume;
- Monthly package: 2500 DA, 4 Go internet volume;
- Monthly package: 3500 DA, 6 Go internet volume;
- Monthly package : 4500 DA, 8Go internet volume;
- Monthly package : 5000 DA, 10 Go internet volume;

Morocco:

- 4 Mbps speed, 99 MAD/month, unlimited access + 120 MAD monthly access;
- 12 Mbps speed, 199 MAD/month, unlimited access + 120 MAD monthly access.

4G+ tariff plan:

Postpaid

- MAD 99 /month, 10 GO volume;
- MAD 450/month, 45 GO volume.

Prepaid:

- MAD 10, 1 GO volume, 3 days validity;
- MAD 50, 5 GO volume, 30 days validity.

FTTH tariff Plan:

- 50 Mbps speed, MAD 600/month, unlimited access;
- 100 Mbps speed, MAD 1000/month, unlimited access.

Lebanon:

Annex II
Legal & Regulatory Framework in Morocco

- The licensing framework:
  Are submitted to the license regime the establishment and or operate all public networks of telecommunications occupying the public domain or using the radio frequency spectrum, shall be subject to license.

- The authorizing framework
  The establishment and the operation of independent networks, except for internal networks, shall be subject to authorization regime.

- The approval Framework
  The following shall be subject to approval:
    - radio facilities;
    - terminal equipment which is intended to be connected to a public telecommunications network;
    - Laboratories for the testing and measurement of telecommunications equipment.

- The declaration framework
  The declaration framework concerns the commercial exploitation of value added services whose list is set by the decree number 1024. This kind of services could be freely provided by any individual or legal entity after having submitted a declaration of intent of opening such service to the ANRT.

- The free framework
  The Internal networks and radio facilities consisting exclusively of low power and weak range apparatus may be freely established.