

Telecommunications Retail Price Benchmarking for Arab Countries 2017



Report from the AREGNET Price Benchmarking Study

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STRATEGY ANALYTICS
TELIGEN TARIFF & BENCHMARKING



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BACKGROUND TO THE STUDY AND BASKET CONTEXT

- The benchmarking study was originally initiated by TRA Bahrain in 2008 and updated in 2009, 2010, 2011, 2012, 2013, 2015 and 2016. This update for 2017 was commissioned by TRA Bahrain.
- In increasingly competitive markets it is important for regulators to be able to track the evolution of prices and analyze the impact of price changes and competition on the effective prices paid by consumers.
- This study allows Arab countries to compare the price levels within and between countries, and also to compare with the OECD countries. To enable such comparisons, this study shows the cost of purchasing ‘baskets’ of telecommunications services. Additionally, time series data is presented, showing how the cost of such baskets has changed in each country over the period from 2012 to 2017.
- The benchmarking covers the following services:
 - Fixed voice (PSTN) (OECD basket equivalent)
 - Mobile telephony (OECD basket equivalent)
 - Leased Lines (OECD basket equivalent)
 - Broadband ADSL (OECD basket equivalent)
 - Mobile broadband (OECD basket equivalent)
 - Call cost for specific types of calls
- The basket methodologies used are identical to the OECD Price Benchmarking baskets from 2010, with minor changes. A separate document explaining the methodology used in this study is available.
 - The OECD adopted a new set of Mobile Broadband baskets in 2012, and a subset of these are used for the analysis of the mobile broadband services.
 - The mobile voice baskets were also extended to incorporate handset data, and results for these new baskets are covered in this report.
 - The OECD adopted a new set of Fixed Broadband baskets in 2014, and a subset of these are used for the analysis of the fixed broadband services.
- The data was collected in October 2017 by Teligen from public sources on the Internet, and was subsequently passed to national regulators for comments and checking.

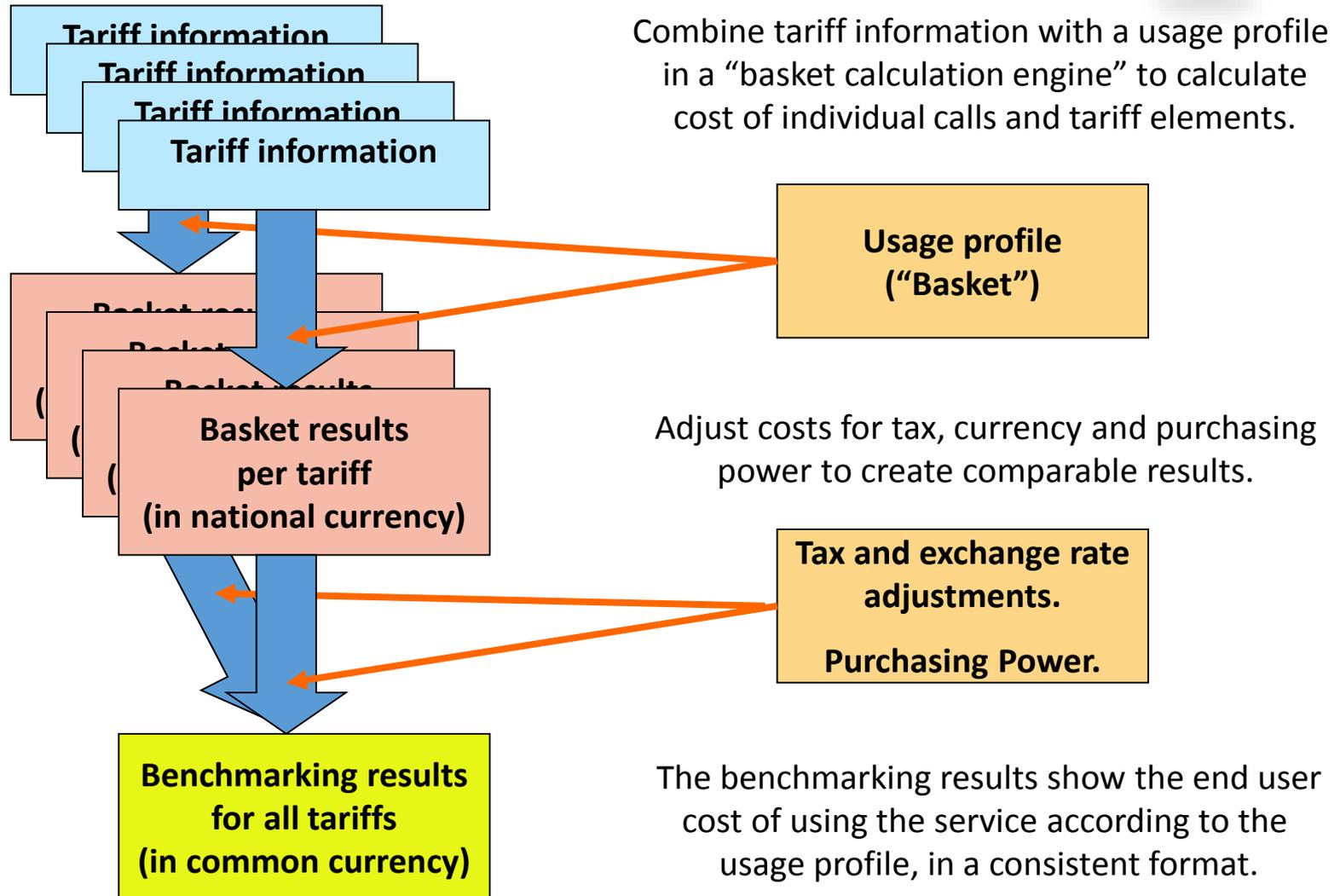
COMPARATIVE PRICE LEVEL (CPL) AND PURCHASING POWER PARITY (PPP)



- The data presented in the report is presented using purchasing power parities (PPPs), which are used to incorporate both the financial differences between exchange rates, and the differences in the state of the economies as seen through the purchasing power of the citizens in each country.
- In order to create an up to date PPP conversion factor, published Comparative Price Level (CPL) data is used
 - This is described in more depth on pages 155 and 156, in the appendix of this report.
- The CPL data used for this study has been obtained from the World Bank, and is based on 2016 data.
- The World Bank CPL data also contained some gaps i.e. data for some countries was not available, so assumptions were made as to the likely CPL values for these countries
- The PPP values have been applied retrospectively to any historic data presented in this report
 - This is to ensure that any changes observed in the time series are as a result of changes to tariffs and not to exchange rates and CPL values.
- The output from this report will not necessarily be comparable with previous reports up to 2015 due to the changes in World Bank CPL data that occurred between production of the 2015 and 2016 benchmarking reports. This is described in more detail in the 2016 benchmarking report.



PRICE BENCHMARKING WITH “BASKETS”





PSTN BASKET RESULTS 2017



FIXED VOICE (PSTN) DATA ISSUES

- Due to lack of published data, and lack of feedback, only partial (or no) data is available (and no results are included) for:
 - Comoros (no prices for international calls)
 - Iraq
 - Libya
 - Kuwait
 - Somalia
 - Syria
 - Yemen (no prices for national calls and fixed line)
- Business tariffs are not published (and no business results are included) for:
 - Algeria
 - Egypt
 - Qatar
 - Sudan
- The Arab average does not include Mauritania as the costs here are significantly higher than the other countries.
- The analysis covers up to 113 tariffs from the incumbent operators in 14 countries





FIXED VOICE (PSTN) BASKETS, OECD 2010 DEFINITIONS

- Six different basket definitions:
 - Defined by number of calls per month
 - Residential: 20, 60, 140 and 420 calls per month
 - Business: 100 and 260 calls per month

Calls per month	Total calls	Call distribution			
		Fixed to fixed Local	Fixed to fixed National	Fixed to mobile	International
20 calls residential basket	20	61%	20%	17%	2%
60 calls residential basket	60	60%	15%	21%	4%
140 calls residential basket	140	58%	15%	23%	4%
420 calls residential basket	420	73%	17%	8%	2%
100 calls business basket	100	48%	19%	30%	3%
260 calls business basket	260	43%	23%	25%	9%

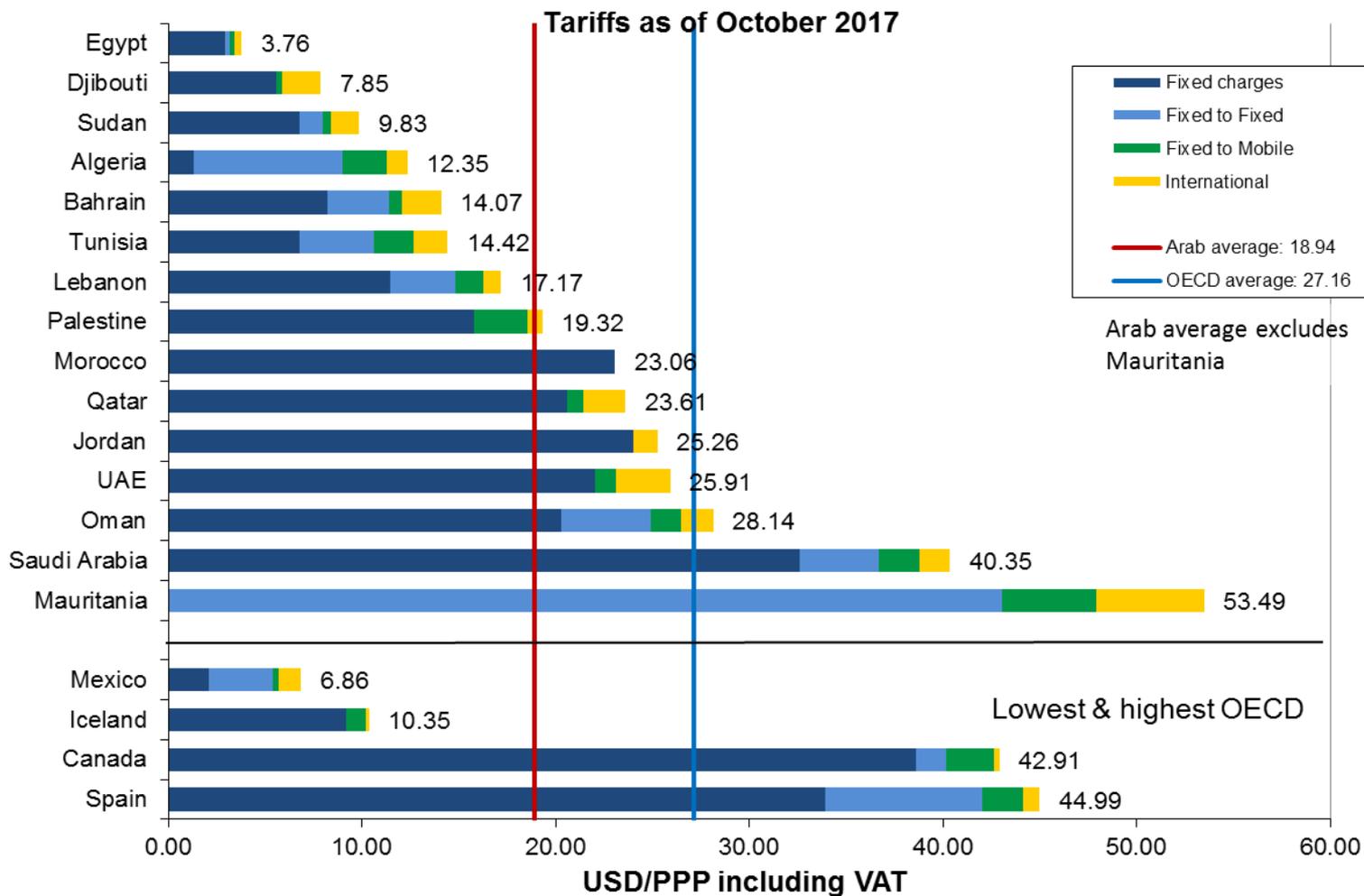
- Tariffs from the incumbent operator in each country
 - Several tariff packages can be covered for each operator
 - The results show the lowest cost option for each operator
- Tariff information included in basket calculation:
 - Fixed charges for installation and rental
 - Usage charges covering local through to national calls, calls to mobiles, and international calls to other AREGNET countries plus a few other destinations



20 CALLS/MONTH, RESIDENTIAL BASED ON 2010 OECD PSTN BASKET



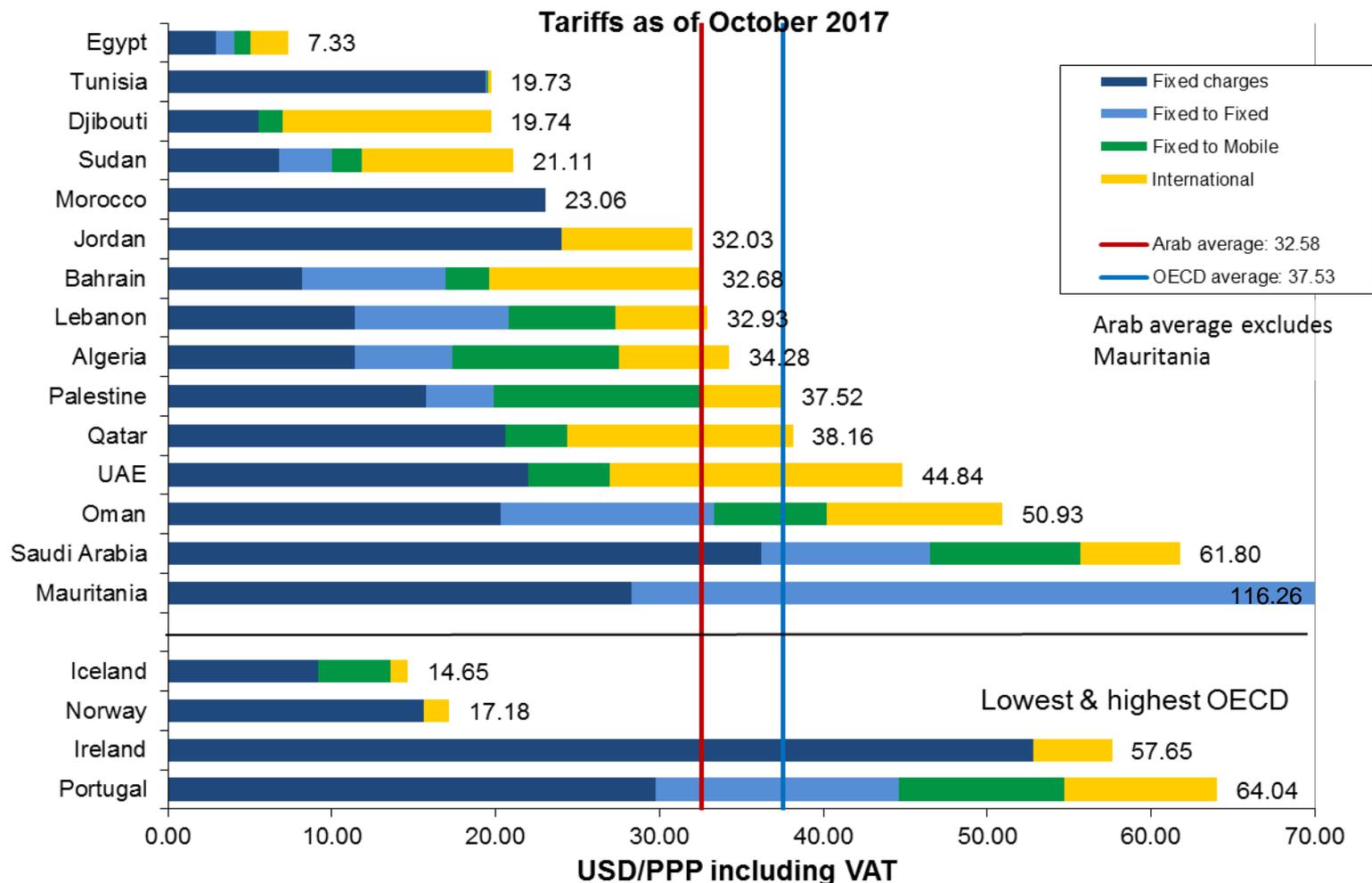
20 calls residential basket based on 2010 OECD basket



60 CALLS/MONTH, RESIDENTIAL BASED ON 2010 OECD PSTN BASKET



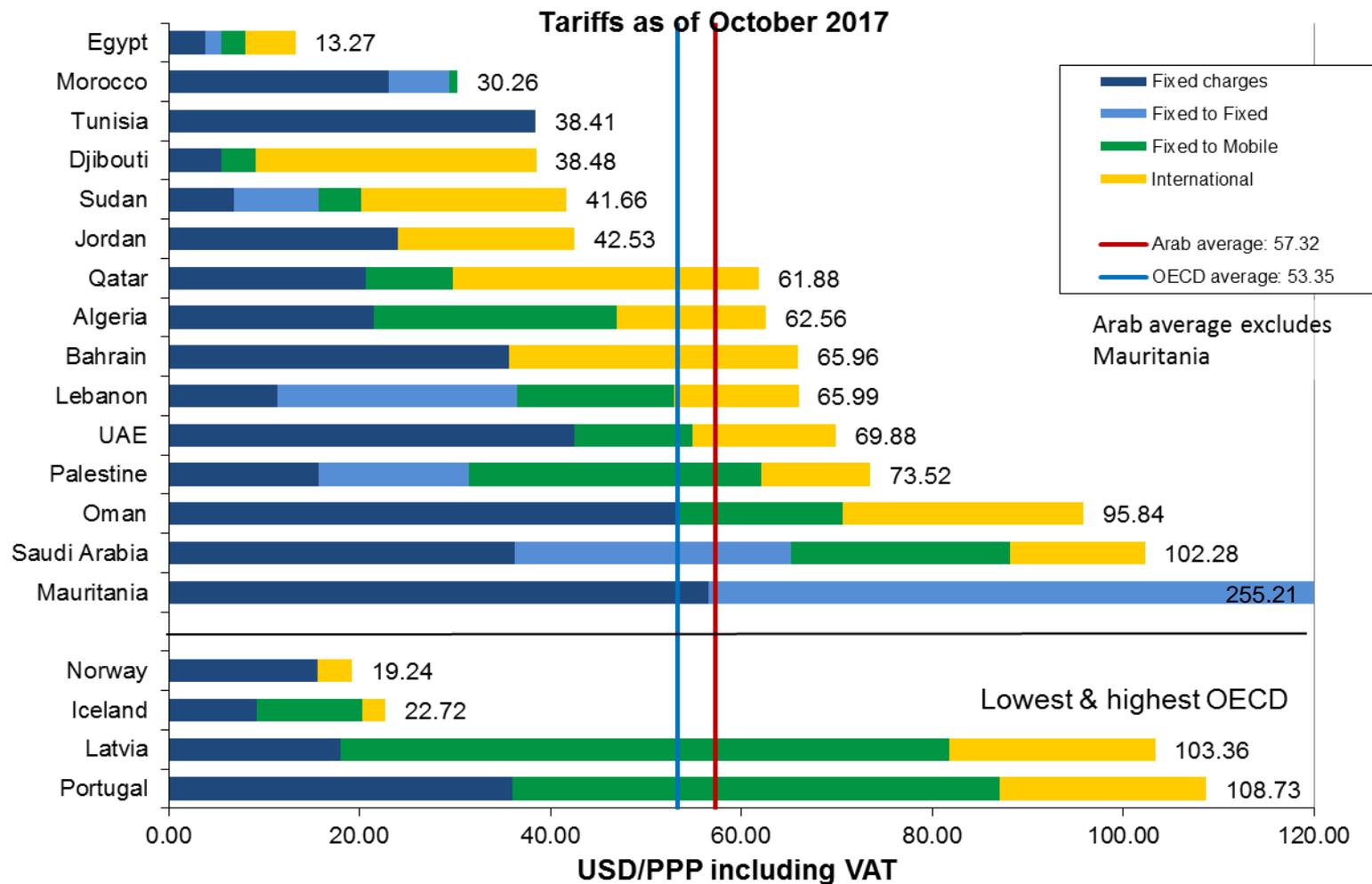
60 calls residential basket based on 2010 OECD basket



140 CALLS/MONTH, RESIDENTIAL BASED ON 2010 OECD PSTN BASKET



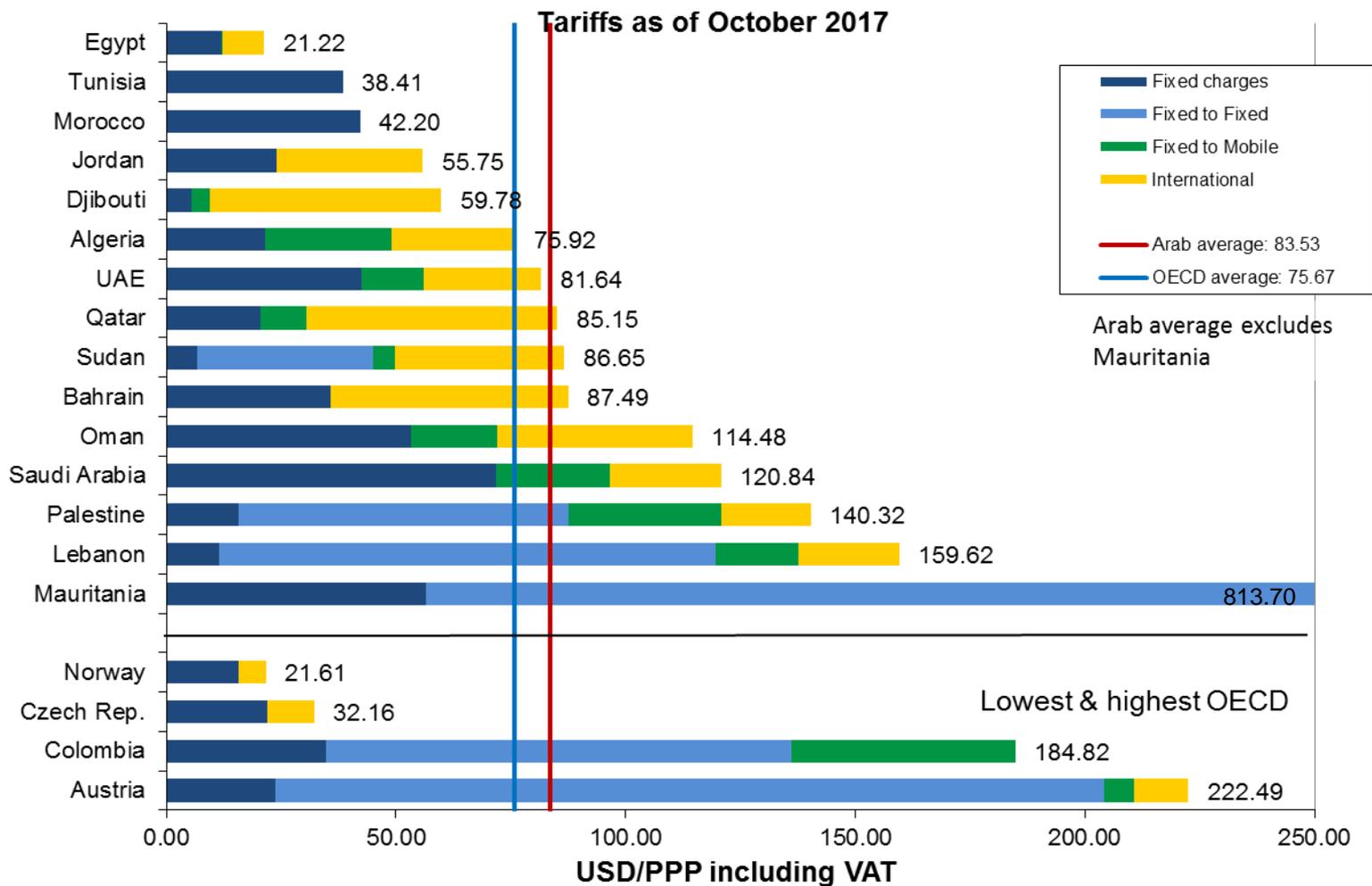
140 calls residential basket based on 2010 OECD basket



420 CALLS/MONTH, RESIDENTIAL BASED ON 2010 OECD PSTN BASKET



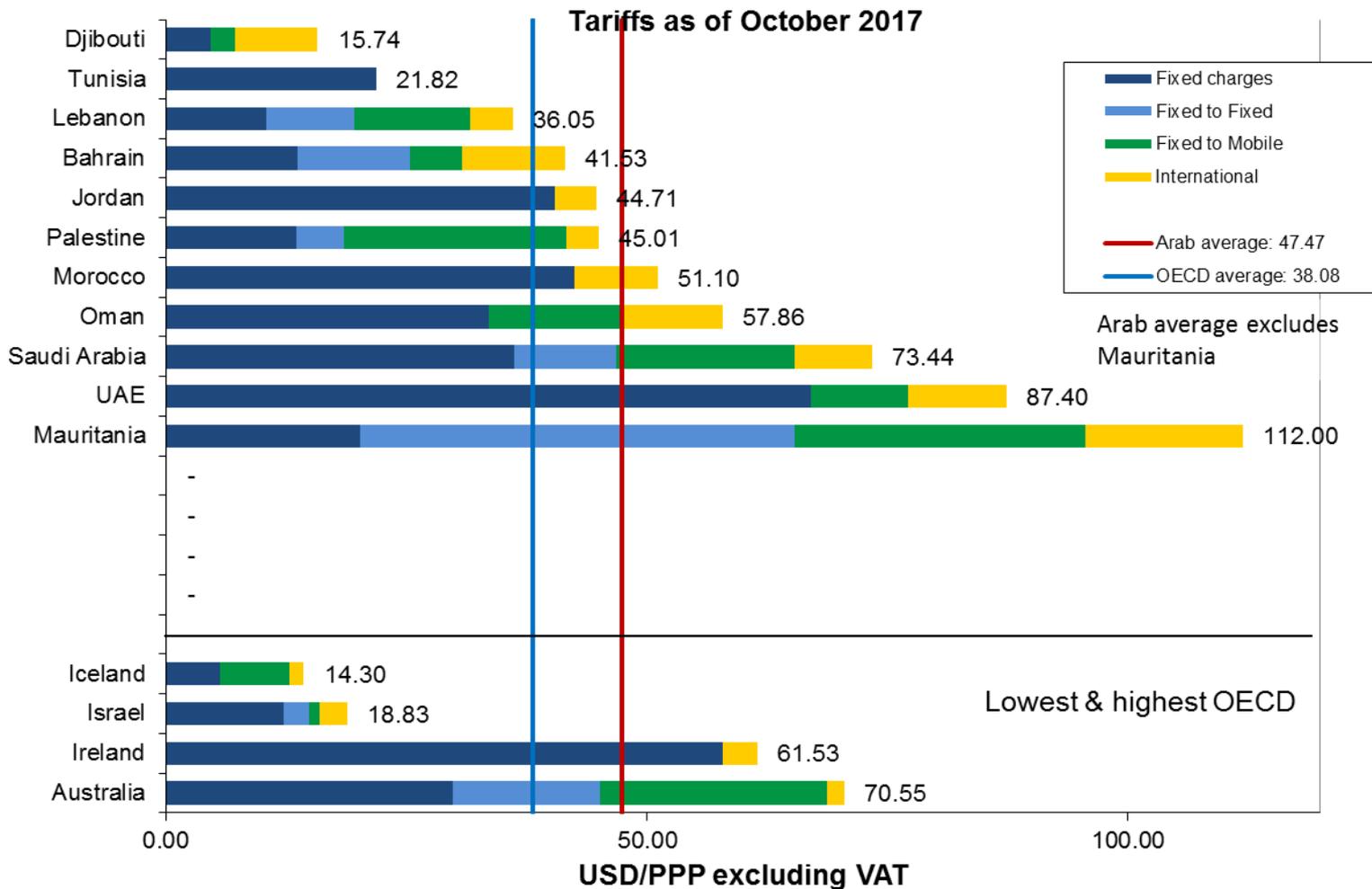
420 calls residential basket based on 2010 OECD basket



100 CALLS/MONTH, BUSINESS BASED ON 2010 OECD PSTN BASKET



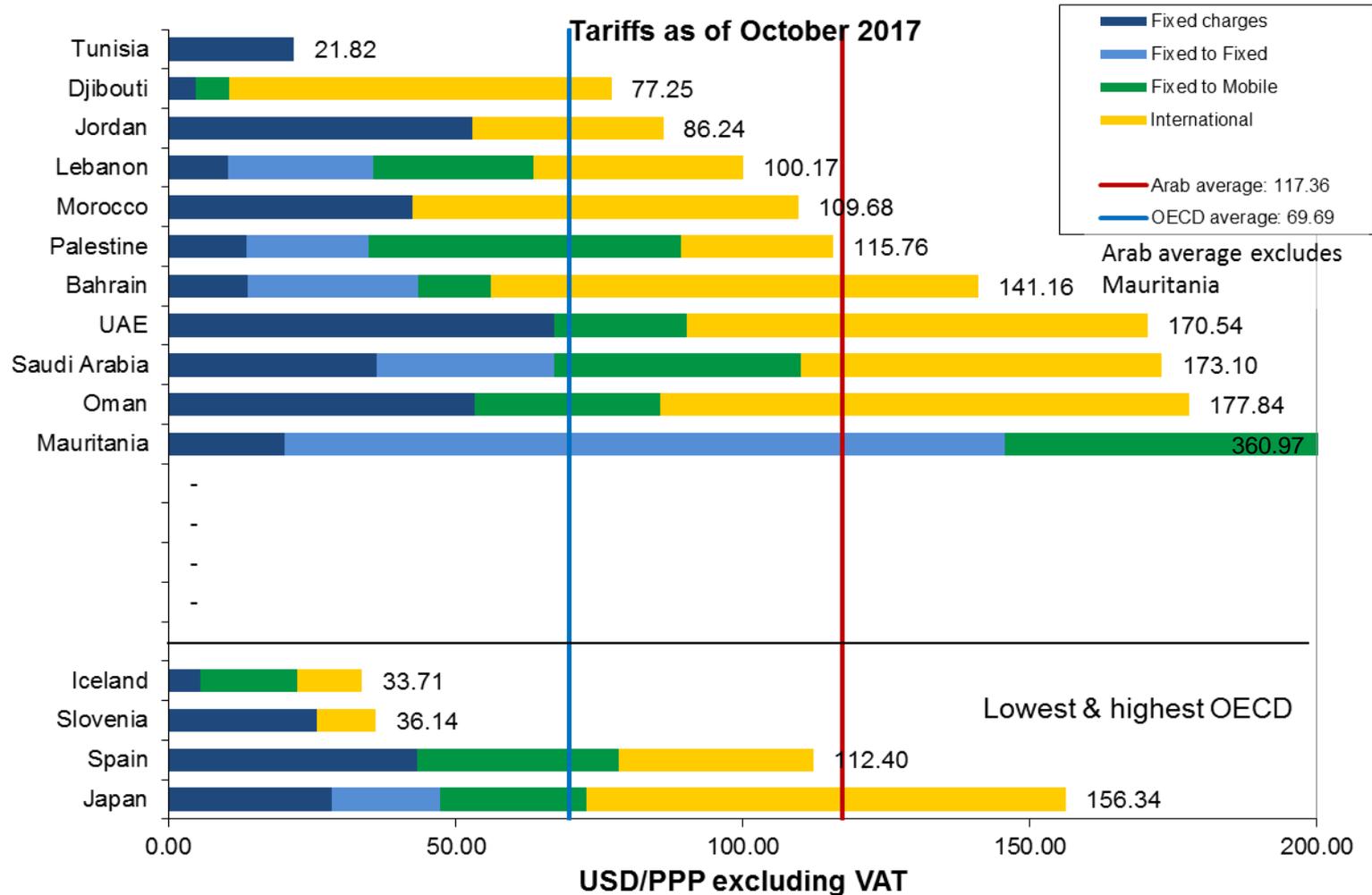
100 calls business basket based on 2010 OECD basket



260 CALLS/MONTH, BUSINESS BASED ON 2010 OECD PSTN BASKET



260 calls business basket based on 2010 OECD basket





OBSERVATIONS FROM PSTN BASKET RESULTS

- The cheapest countries throughout are : (*)

	Cheapest			Most expensive		
	1st	2nd	3rd	1st	2nd	3rd
20 calls residential	Egypt	Djibouti	Sudan	Mauritania	Saudi Arabia	Oman
60 calls residential	Egypt	Tunisia	Djibouti	Mauritania	Saudi Arabia	Oman
140 calls residential	Egypt	Morocco	Tunisia	Mauritania	Saudi Arabia	Oman
420 calls residential	Egypt	Tunisia	Morocco	Mauritania	Lebanon	Palestine
100 calls business	Djibouti	Tunisia	Lebanon	Mauritania	UAE	Saudi Arabia
260 calls business	Tunisia	Djibouti	Jordan	Mauritania	Oman	Saudi Arabia

- Comparison between OECD and Arab averages are shown on the following slide, however, the following can be observed:
 - For low to medium residential usage (20 and 60 calls), most countries are either below the OECD average, or are on par with it. Consequently, at this level of usage, the Arab average is below that of the OECD.
 - Although the balance shifts slightly as usage increases for consumers, the Arab average is still in line with that of the OECD.
 - Costs for the business baskets in the Arab countries vary, depending on usage. For the lower use basket – 100 calls/month, over half of the Arab countries are either lower or on par with the OECD average, and the Arab average is around 24% higher than the OECD average. For higher usage – the 260 calls basket - the Arab average is up to 70% above the OECD average.
- In contrast to previous years, a number of the Arab countries in North Africa are cheaper than those in the Middle East, with the exception of Egypt and to a lesser extent, Tunisia.
- Mauritania is the most expensive country for residential PSTN, and, for higher usage, by some considerable way. Saudi Arabia, Oman, Palestine and Lebanon are among the most expensive countries. Mauritania, Oman and Saudi Arabia are also the most expensive of the Arab countries for the business baskets.
- If Mauritania is excluded from the residential analysis, then the price range for the Arab countries (cheapest to most expensive) is similar to that of the cheapest and most expensive OECD countries. This is in contrast to previous years.
- A number of Arab countries continue to have fixed costs well below the OECD countries, causing the usage element to dominate. This makes the overall cost grow quicker with increasing usage, something that will discourage growth in usage. In some Arab countries, however, both fixed and usage costs are much higher than OECD countries.
- International calls remain significantly more expensive than in OECD countries



* Countries with gaps in the tariff information are not considered.

COMPARISON OF OECD AND ARAB AVERAGES



	USD PPP/month*	
	OECD average	Arab average
20 calls residential	27.16	19.84
60 calls residential	37.53	32.58
140 calls residential	53.35	57.32
420 calls residential	75.67	83.53
100 calls business	38.08	47.47
260 calls business	69.69	117.36

* residential baskets include VAT, business baskets exclude VAT
Arab average excludes Mauritania

	% that Arab average is higher or lower than OECD average
20 calls residential	-27%
60 calls residential	-13%
140 calls residential	7%
420 calls residential	10%
100 calls business	25%
260 calls business	68%

- For lower and medium usage residential baskets, the Arab average is either lower than or on par with the OECD average
- Even for the high usage residential basket, the Arab average is only 10% more than the OECD average
- For both business baskets, the Arab average is more expensive than the OECD average, with high usage businesses paying considerably more





PSTN TIME SERIES ANALYSIS AND RANKING TABLES 2012-2017

2010 OECD PSTN BASKETS RANKING, 20 CALLS/MONTH, RESIDENTIAL



Total results for PSTN OECD 20 calls residential 2010 basket, tariffs 2012-2017
Results in USD/PPP including VAT, residential results

	2012	2013	2015	2016	2017
Algeria	23.54	21.23	21.44	21.62	12.35
Bahrain	14.07	14.07	14.07	14.07	14.07
Comoros					
Djibouti	17.30	17.30			7.85
Egypt	4.99	5.92	1.55	1.52	3.76
Iraq					
Jordan	27.13	24.58	24.13	24.13	25.26
Kuwait					
Lebanon	22.31	22.31	17.09	17.09	17.17
Libya	8.07	8.07			
Mauritania	49.17	49.17	76.36	76.36	53.49
Morocco	50.67	49.09	43.75	46.01	23.06
Oman	36.75	28.14	28.14	28.14	28.14
Palestine	19.74	19.32	19.32	19.32	19.32
Qatar	23.61	23.61	23.61	23.61	23.61
Saudi Arabia	43.69	74.44	40.35	40.35	40.35
Somalia	41.24	41.24			
Sudan	4.68	4.68	4.68	4.68	9.83
Syria	0.86	1.17	2.26	2.48	
Tunisia	12.77	9.82	11.14	13.03	14.42
UAE	12.30	24.02	21.68	25.91	25.91
Yemen	2.19	2.19			

Arab average	21.85	23.18	23.30	23.89	21.24
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■ Below Arab average
■ Above Arab average

Ranking for PSTN OECD 20 calls residential 2010 basket
Residential results

	2012	2013	2015	2016	2017
Algeria	12	10	8	8	4
Bahrain	8	7	5	5	5
Comoros	-	-	-	-	-
Djibouti	9	8	-	-	2
Egypt	4	4	1	1	1
Iraq	-	-	-	-	-
Jordan	14	14	11	10	11
Kuwait	-	-	-	-	-
Lebanon	11	11	6	6	7
Libya	5	5	-	-	-
Mauritania	18	18	15	15	15
Morocco	19	17	14	14	9
Oman	15	15	12	12	13
Palestine	10	9	7	7	8
Qatar	13	12	10	9	10
Saudi Arabia	17	19	13	13	14
Somalia	16	16	-	-	-
Sudan	3	3	3	3	3
Syria	1	1	2	2	-
Tunisia	7	6	4	4	6
UAE	6	13	9	11	12
Yemen	2	2	-	-	-

■ Least expensive
■ Most expensive



2010 OECD PSTN BASKETS RANKING, 60 CALLS/MONTH, RESIDENTIAL



Total results for PSTN OECD 60 calls residential 2010 basket, tariffs 2012-2017
Results in USD/PPP including VAT, residential results

	2012	2013	2015	2016	2017
Algeria	56.41	52.51	53.86	55.02	34.28
Bahrain	32.65	32.65	32.65	32.65	32.68
Comoros					
Djibouti	64.01	64.01			19.74
Egypt	9.54	13.80	5.87	5.57	7.33
Iraq					
Jordan	45.66	34.04	41.68	41.68	32.03
Kuwait					
Lebanon	40.44	40.44	32.40	32.40	32.93
Libya	28.77	28.77			
Mauritania	90.20	90.20	191.33	191.33	116.26
Morocco	81.78	66.50	63.67	62.24	23.06
Oman	58.44	50.93	50.93	50.93	50.93
Palestine	39.40	37.52	37.52	37.52	37.52
Qatar	38.16	38.16	38.16	38.16	38.16
Saudi Arabia	69.57	87.28	62.16	62.16	61.80
Somalia	63.46	63.46			
Sudan	11.56	11.56	11.56	11.56	21.11
Syria	2.57	4.28	7.04	7.59	
Tunisia	31.05	25.88	19.74	19.71	19.73
UAE	22.62	32.82	28.08	44.84	44.84
Yemen	14.10	14.10			

Arab average	42.12	41.52	45.11	46.22	38.16
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■ Below Arab average
■ Above Arab average

Ranking for PSTN OECD 60 calls residential 2010 basket
Residential results

	2012	2013	2015	2016	2017
Algeria	13	14	12	12	9
Bahrain	8	7	7	6	7
Comoros	-	-	-	-	-
Djibouti	16	16	-	-	3
Egypt	2	3	1	1	1
Iraq	-	-	-	-	-
Jordan	12	9	10	9	6
Kuwait	-	-	-	-	-
Lebanon	11	12	6	5	8
Libya	6	6	-	-	-
Mauritania	19	19	15	15	15
Morocco	18	17	14	14	5
Oman	14	13	11	11	13
Palestine	10	10	8	7	10
Qatar	9	11	9	8	11
Saudi Arabia	17	18	13	13	14
Somalia	15	15	-	-	-
Sudan	3	2	3	3	4
Syria	1	1	2	2	-
Tunisia	7	5	4	4	2
UAE	5	8	5	10	12
Yemen	4	4	-	-	-

■ Least expensive
■ Most expensive



2010 OECD PSTN BASKETS RANKING, 140 CALLS/MONTH, RESIDENTIAL



Total results for PSTN OECD 140 calls residential 2010 basket, tariffs 2012-2017
Results in USD/PPP including VAT, residential results

	2012	2013	2015	2016	2017
Algeria	126.62	120.25	123.37	126.03	62.56
Bahrain	67.32	67.13	65.91	65.91	65.96
Comoros					
Djibouti	139.99	139.99			38.48
Egypt	18.99	26.71	14.85	14.28	13.27
Iraq					
Jordan	84.91	51.17	48.95	48.95	42.53
Kuwait					
Lebanon	77.26	77.26	64.77	64.77	65.99
Libya	64.38	64.38			
Mauritania	134.83	141.61	436.04	436.04	255.21
Morocco	115.40	86.30	82.86	79.18	30.26
Oman	95.84	95.84	95.84	95.84	95.84
Palestine	80.79	73.52	73.52	73.52	73.52
Qatar	61.88	61.88	61.88	61.88	61.88
Saudi Arabia	111.16	107.80	105.64	105.64	102.28
Somalia	103.05	103.05			
Sudan	25.29	25.29	25.29	25.29	41.66
Syria	5.48	9.39	16.36	17.51	
Tunisia	66.54	60.47	38.41	38.41	38.41
UAE	41.83	47.74	38.95	69.88	69.88
Yemen	32.55	32.55			

Arab average	76.53	73.28	86.18	88.21	70.51
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■ Below Arab average
■ Above Arab average

Ranking for PSTN OECD 140 calls residential 2010 basket
Residential results

	2012	2013	2015	2016	2017
Algeria	17	17	14	14	8
Bahrain	9	10	9	8	9
Comoros	-	-	-	-	-
Djibouti	19	18	-	-	4
Egypt	2	3	1	1	1
Iraq	-	-	-	-	-
Jordan	12	6	6	5	6
Kuwait	-	-	-	-	-
Lebanon	10	12	8	7	10
Libya	7	9	-	-	-
Mauritania	18	19	15	15	15
Morocco	16	13	11	11	2
Oman	13	14	12	12	13
Palestine	11	11	10	10	12
Qatar	6	8	7	6	7
Saudi Arabia	15	16	13	13	14
Somalia	14	15	-	-	-
Sudan	3	2	3	3	5
Syria	1	1	2	2	-
Tunisia	8	7	4	4	3
UAE	5	5	5	9	11
Yemen	4	4	-	-	-

■ Least expensive
■ Most expensive



2010 OECD PSTN BASKETS RANKING, 420 CALLS/MONTH, RESIDENTIAL



Total results for PSTN OECD 420 calls residential 2010 basket, tariffs 2012-2017
Results in USD/PPP including VAT, residential results

	2012	2013	2015	2016	2017
Algeria	339.51	330.02	335.37	339.94	75.92
Bahrain	159.72	89.16	87.39	87.39	87.49
Comoros					
Djibouti	277.45	277.45			59.78
Egypt	41.43	39.63	20.71	20.61	21.22
Iraq					
Jordan	180.25	58.38	58.12	58.12	55.75
Kuwait					
Lebanon	175.43	175.43	157.53	157.53	159.62
Libya	89.09	89.09			
Mauritania	171.60	181.41	1536.25	1536.25	813.70
Morocco	139.41	110.74	103.49	100.53	42.20
Oman	114.48	114.48	114.48	114.48	114.48
Palestine	157.87	140.32	140.32	140.32	140.32
Qatar	85.15	85.15	85.15	85.15	85.15
Saudi Arabia	125.43	119.67	124.46	124.46	120.84
Somalia	155.47	155.47			
Sudan	61.69	61.69	61.69	61.69	86.65
Syria	10.97	17.59	31.91	33.14	
Tunisia	87.03	76.62	38.41	38.41	38.41
UAE	63.19	58.32	44.62	81.64	81.64
Yemen	55.80	55.80			

Arab average	131.10	117.71	195.99	198.65	132.21
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■ Below Arab average
■ Above Arab average

Ranking for PSTN OECD 420 calls residential 2010 basket
Residential results

	2012	2013	2015	2016	2017
Algeria	19	19	14	14	6
Bahrain	14	10	8	8	10
Comoros	-	-	-	-	-
Djibouti	18	18	-	-	5
Egypt	2	2	1	1	1
Iraq	-	-	-	-	-
Jordan	17	5	5	4	4
Kuwait	-	-	-	-	-
Lebanon	16	16	13	13	14
Libya	8	9	-	-	-
Mauritania	15	17	15	15	15
Morocco	11	11	9	9	3
Oman	9	12	10	10	11
Palestine	13	14	12	12	13
Qatar	6	8	7	7	8
Saudi Arabia	10	13	11	11	12
Somalia	12	15	-	-	-
Sudan	4	6	6	5	9
Syria	1	1	2	2	-
Tunisia	7	7	3	3	2
UAE	5	4	4	6	7
Yemen	3	3	-	-	-

■ Least expensive
■ Most expensive



2010 OECD PSTN BASKETS RANKING, 100 CALLS/MONTH, BUSINESS



Total results for PSTN OECD 100 calls business 2010 basket, tariffs 2012-2017
Results in USD/PPP excluding VAT, business results

	2012	2013	2015	2016	2017
Algeria	55.31	52.31	57.45	58.24	
Bahrain	41.52	41.52	41.52	41.52	41.53
Comoros					
Djibouti	54.49	54.49			15.74
Egypt	15.80	14.25	12.24	12.24	
Iraq					
Jordan	65.50	54.31	65.96	47.72	44.71
Kuwait					
Lebanon	42.65	42.65	35.67	35.67	36.05
Libya	42.67	42.67			
Mauritania	110.07	110.07	181.10	181.10	112.00
Morocco	62.35	55.50	53.14	51.10	51.10
Oman	65.58	64.92	57.86	57.86	57.86
Palestine	47.16	45.01	45.01	45.01	45.01
Qatar	88.02	135.08	135.08	135.08	
Saudi Arabia	73.70				73.44
Somalia	68.40	68.40			
Sudan					
Syria	2.57	4.04	8.74	9.78	
Tunisia	30.70	50.26	54.02	53.94	21.82
UAE	51.62	74.52	71.68	74.23	87.40
Yemen	10.23	10.23			

Arab average	51.57	54.13	63.04	61.81	53.33
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■ Below Arab average
■ Above Arab average

Ranking for PSTN OECD 100 calls business 2010 basket
Business results

	2012	2013	2015	2016	2017
Algeria	11	9	8	10	-
Bahrain	5	4	4	4	4
Comoros	-	-	-	-	-
Djibouti	10	11	-	-	1
Egypt	3	3	2	2	-
Iraq	-	-	-	-	-
Jordan	13	10	10	6	5
Kuwait	-	-	-	-	-
Lebanon	6	5	3	3	3
Libya	7	6	-	-	-
Mauritania	18	16	13	13	11
Morocco	12	12	6	7	7
Oman	14	13	9	9	8
Palestine	8	7	5	5	6
Qatar	17	17	12	12	-
Saudi Arabia	16	-	-	-	9
Somalia	15	14	-	-	-
Sudan	-	-	-	-	-
Syria	1	1	1	1	-
Tunisia	4	8	7	8	2
UAE	9	15	11	11	10
Yemen	2	2	-	-	-

■ Least expensive
■ Most expensive



2010 OECD PSTN BASKETS RANKING, 260 CALLS/MONTH, BUSINESS



Total results for PSTN OECD 260 calls business 2010 basket, tariffs 2012-2017
Results in USD/PPP excluding VAT, business results

	2012	2013	2015	2016	2017
Algeria	175.61	163.84	182.36	188.51	
Bahrain	141.12	141.12	141.12	141.12	141.16
Comoros					
Djibouti	284.62	284.62			77.25
Egypt	54.27	61.80	31.82	31.82	
Iraq					
Jordan	145.91	98.91	143.33	109.66	86.24
Kuwait					
Lebanon	124.29	124.29	97.21	97.21	100.17
Libya	146.56	146.56			
Mauritania	365.83	365.83	536.70	536.70	360.97
Morocco	143.43	161.35	132.08	109.68	109.68
Oman	177.84	177.84	177.84	177.84	177.84
Palestine	120.07	115.76	115.76	115.76	115.76
Qatar	185.43	232.49	232.49	232.49	
Saudi Arabia	193.52				173.10
Somalia	186.87	186.87			
Sudan					
Syria	13.46	25.22	37.18	39.44	
Tunisia	105.07	78.93	100.82	100.82	21.82
UAE	154.32	171.62	154.82	181.51	170.54
Yemen	79.81	79.81			

Arab average	155.45	153.93	160.27	158.66	139.50
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■ Below Arab average
■ Above Arab average

Ranking for PSTN OECD 260 calls business 2010 basket
Business results

	2012	2013	2015	2016	2017
Algeria	12	11	11	11	-
Bahrain	7	8	7	8	7
Comoros	-	-	-	-	-
Djibouti	17	16	-	-	2
Egypt	2	2	1	1	-
Iraq	-	-	-	-	-
Jordan	9	5	8	5	3
Kuwait	-	-	-	-	-
Lebanon	6	7	3	3	4
Libya	10	9	-	-	-
Mauritania	18	17	13	13	11
Morocco	8	10	6	6	5
Oman	13	13	10	9	10
Palestine	5	6	5	7	6
Qatar	14	15	12	12	-
Saudi Arabia	16	-	-	-	9
Somalia	15	14	-	-	-
Sudan	-	-	-	-	-
Syria	1	1	2	2	-
Tunisia	4	3	4	4	1
UAE	11	12	9	10	8
Yemen	3	4	-	-	-

■ Least expensive
■ Most expensive





OBSERVATIONS FROM PSTN TIME SERIES RESULTS

- There were price (or other) changes in around three quarters of the Arab countries since 2016
 - Prices for Djibouti were published, and were introduced into the analysis for both residential and business baskets. Business pricing was also introduced in Saudi Arabia. Conversely, residential and business pricing for Syria is no longer available, and results for Syria for 2017 were excluded. Similarly, business pricing for Algeria, Egypt and Qatar was not being published at the time of data collection.
- Notable price changes 2016 - 2017:
 - Algeria: introduced new price plans for residential users, with the basic plan offered as a pay as you go, attracting no line rental, and higher plans with line rental but reduced or free calls. This resulted in a significant decrease across all baskets.
 - Egypt: Rentals and option charges were increased, and connection charges decreased. Per minute charges for national calls were decreased, and calls to mobile for some packages increased. Overall impact was a decrease in the cost of some baskets, and an increase in the cost of others
 - Mauritania: Rental for (basic) residential services was increased, while call costs decreased – and significantly so, resulting in an overall reduction in cost across all residential baskets. For low end users, Mauritel also introduced a prepaid offer.
 - Morocco: international call charges for most Arab countries have reduced by 25% which has an impact on most baskets particularly higher ones.
 - Morocco: introduction of new lower-priced offers.
 - Sudan: residential rental charges increased significantly, resulting in an increase across all residential baskets.
- Average costs across all residential and business baskets have fallen since last year, with greater falls for higher usage baskets.
- Over the period 2012-2017, the average price has not changed dramatically, with some overall increases and decreases depending on the basket. Changes are driven in part by price changes, but also by changes in data availability for selected countries.

*** Countries with gaps in the tariff information are not considered.**





MOBILE BASKET RESULTS 2017



MOBILE TARIFF DATA ISSUES

- No tariff information available for:
 - Djibouti
 - Only pre-paid for Comoros, Somalia
 - One operator only for Comoros, Somalia
- Otherwise two operators are covered for each country
- A total of 1057 tariff packages covered for 40 operators in 21 countries

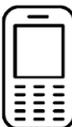




OECD MOBILE BASKETS 2010 DEFINITIONS

- The OECD adopted the current baskets for mobile voice in March 2010, with additional data usage included from 2013. The key information about the basket definitions is shown below.
 - The following 11 pages show the results using the latest basket definitions
 - Pre- and Post-paid tariffs are included for all baskets
 - Handset data baskets included (introduced 2013 with an additional set of 5 baskets)

Basket	Calls/month	Call distribution				SMS	Data MB
		To fixed	Mobile On	Mobile Off	Voicemail		
30 calls basket	30	16%	55%	25%	4%	100	0
100 calls basket	100	17%	52%	28%	3%	140	0
300 calls basket	300	14%	46%	37%	3%	225	0
900 calls basket	900	14%	55%	28%	3%	350	0
40 calls prepaid basket	40	14%	64%	18%	4%	60	0
400 messages basket	8	8%	55%	25%	12%	400	0
30 calls + 100 MB	30	16%	55%	25%	4%	100	100
100 calls + 500 MB	100	17%	52%	28%	3%	140	500
300 calls + 1 GB	300	14%	46%	37%	3%	225	1000
900 calls + 2 GB	900	14%	55%	28%	3%	350	2000
100 calls + 2 GB	100	14%	52%	28%	3%	140	2000

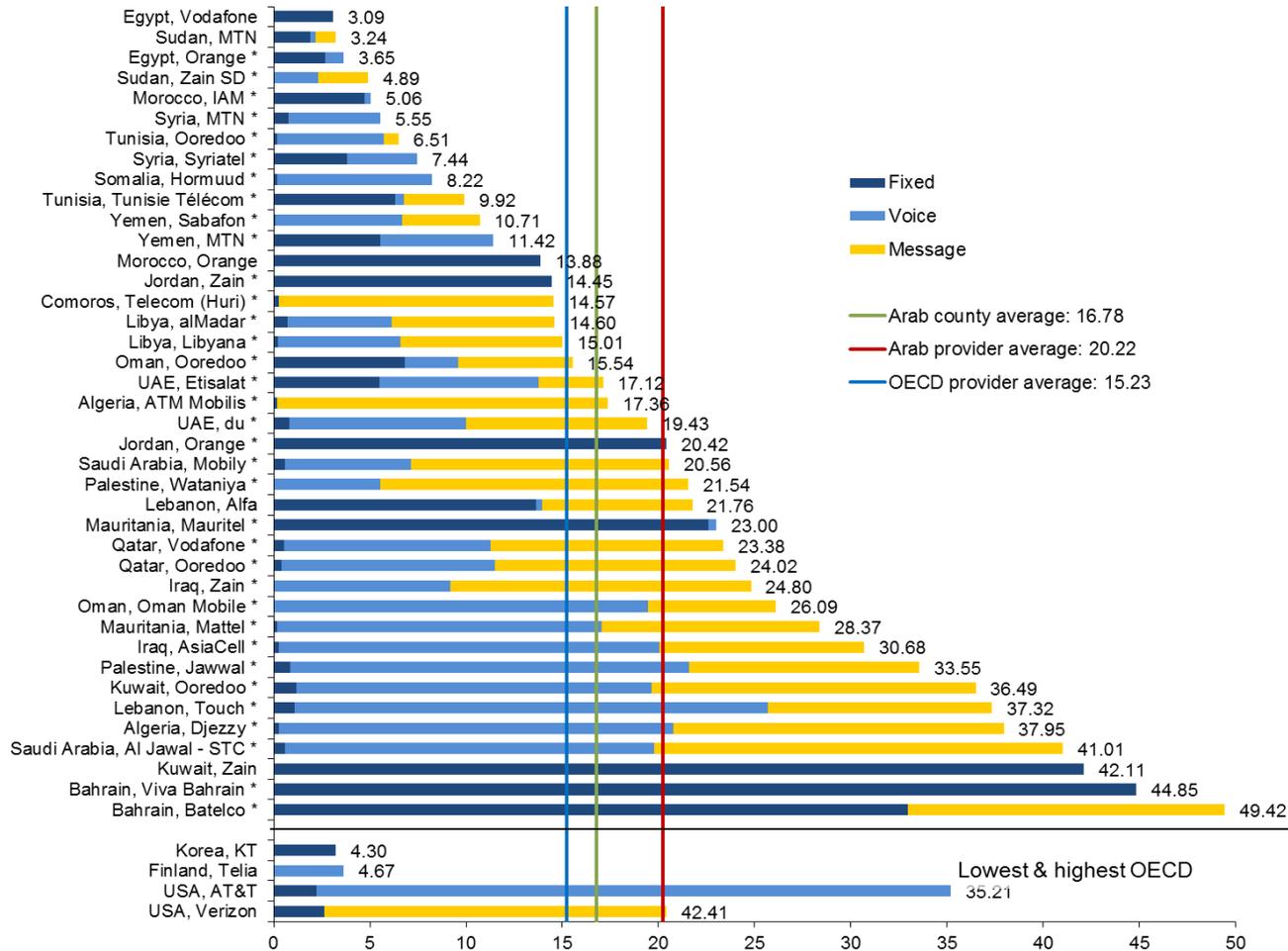


30 CALLS/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET

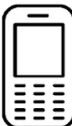


30 calls basket based on 2010 OECD mobile basket

Tariffs as of October 2017



Please note:
 No data for Djibouti.
 Selective discounts included.
 * marks pre-paid tariffs.

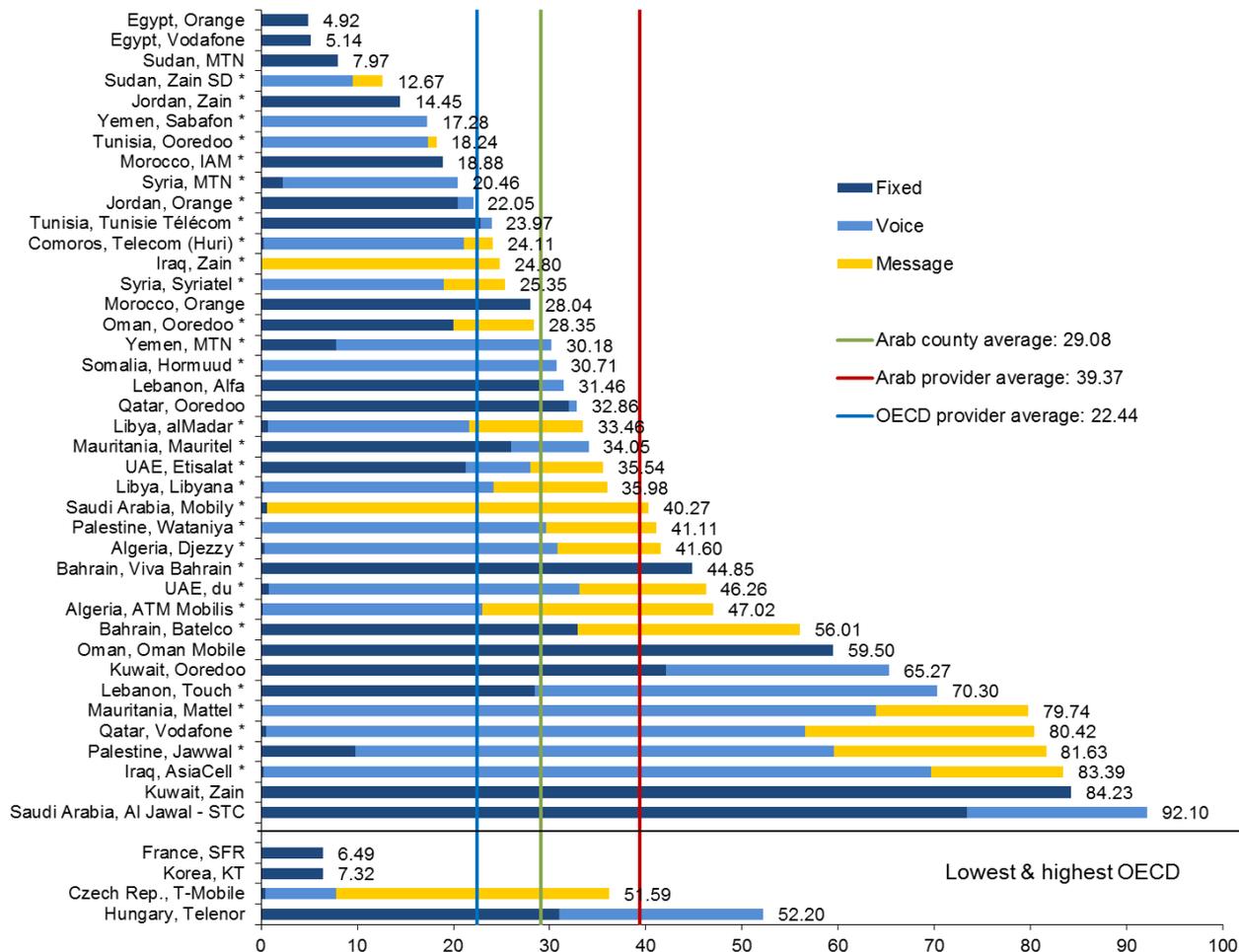


100 CALLS/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



100 calls basket based on 2010 OECD mobile basket

Tariffs as of October 2017



Please note:
No data for Djibouti.
Selective discounts included.
* marks pre-paid tariffs.

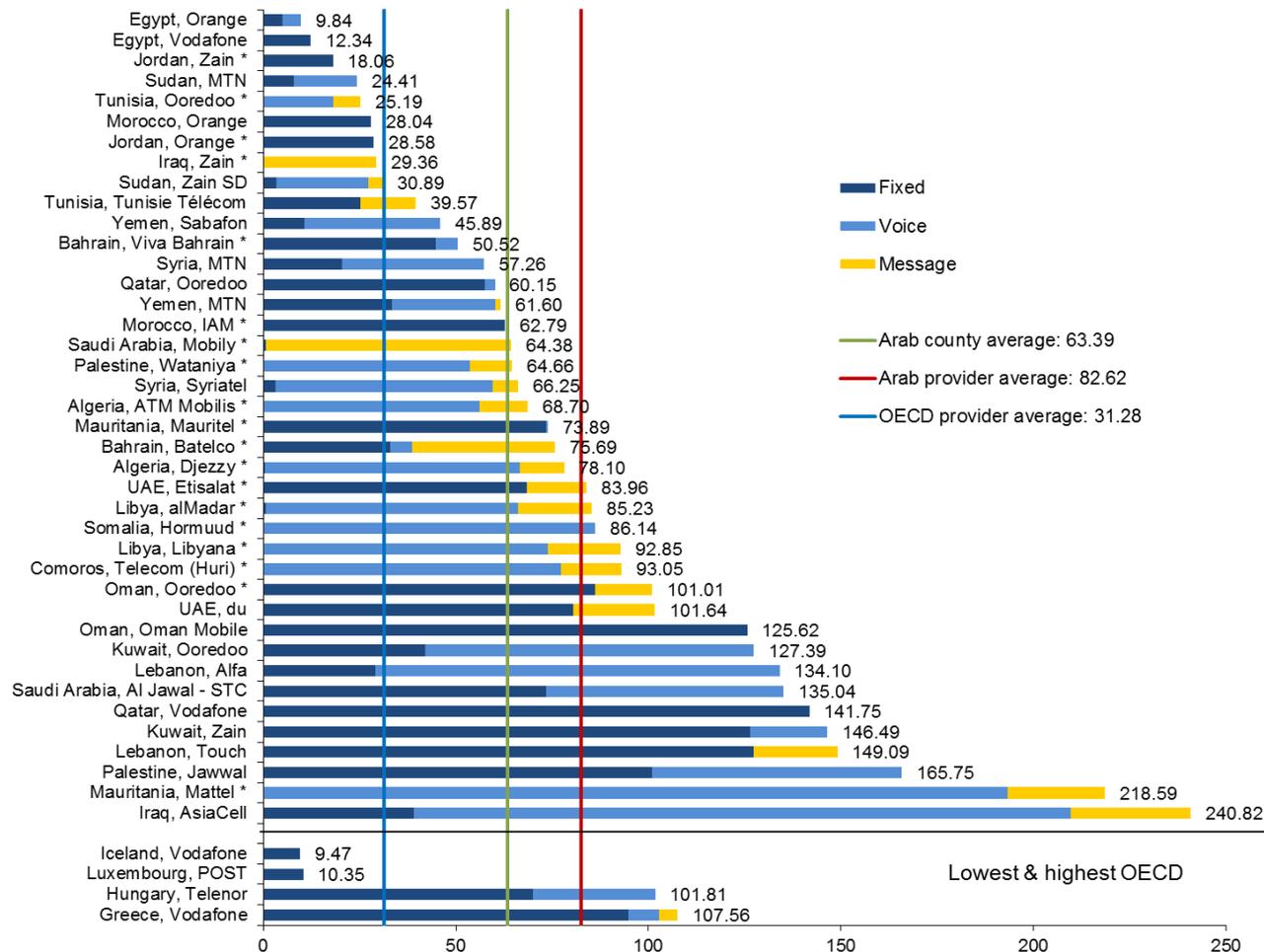


300 CALLS/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



300 calls basket based on 2010 OECD mobile basket

Tariffs as of October 2017



Please note:
No data for Djibouti.
Selective discounts included.
* marks pre-paid tariffs.

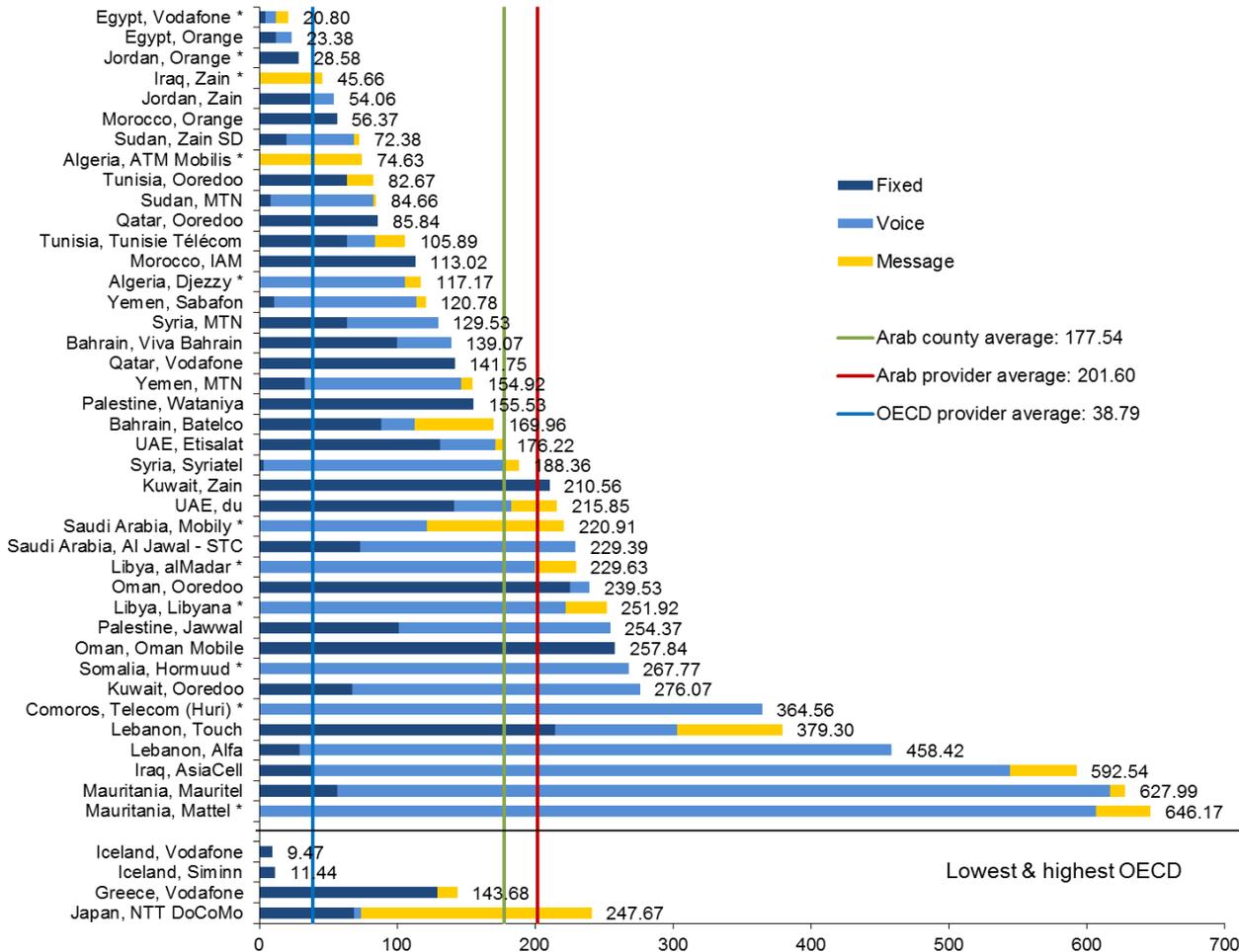


900 CALLS/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET

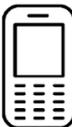


900 calls basket based on 2010 OECD mobile basket

Tariffs as of October 2017



Please note:
 No data for
 Djibouti.
 Selective discounts
 included.
 * marks pre-paid
 tariffs.

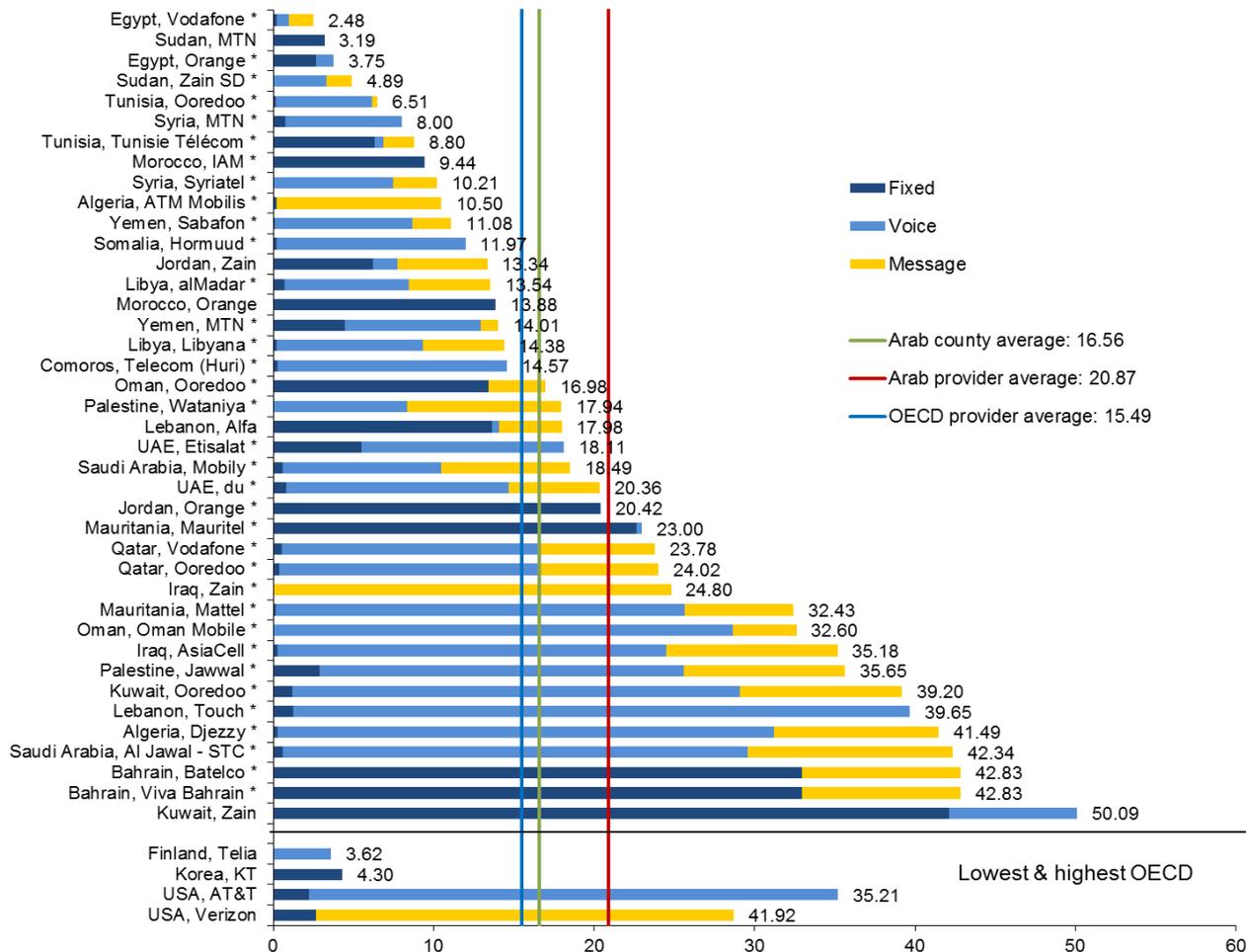


40 CALLS/MONTH PREPAID BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



40 calls prepaid basket based on 2010 OECD mobile basket

Tariffs as of October 2017



Please note:
 No data for
 Djibouti.
 Selective discounts
 included.
 * marks pre-paid
 tariffs.

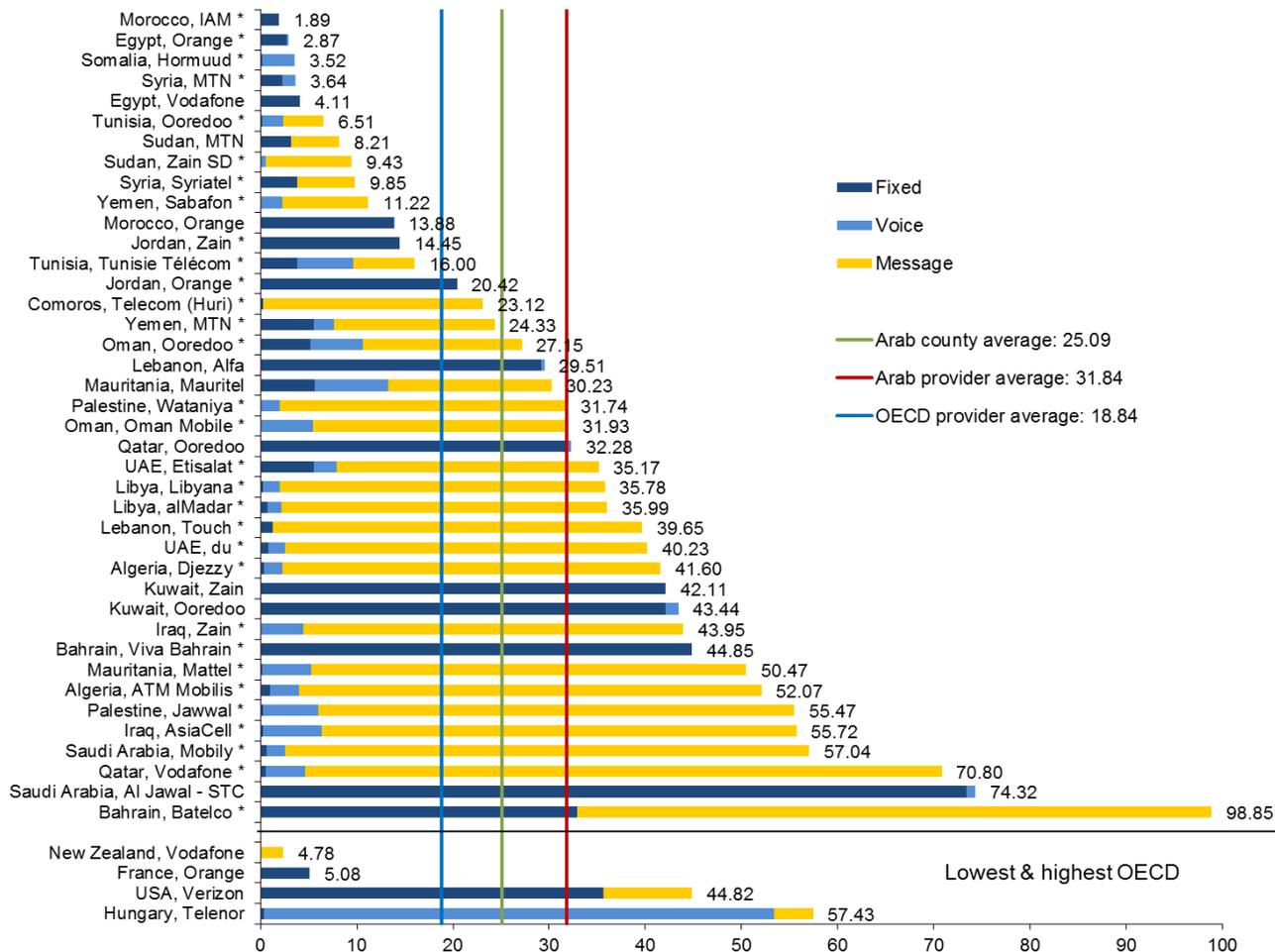


400 MESSAGES/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



400 messages basket based on 2010 OECD mobile basket

Tariffs as of October 2017



Please note:
No data for
Djibouti.
Selective discounts
included.
* marks pre-paid
tariffs.

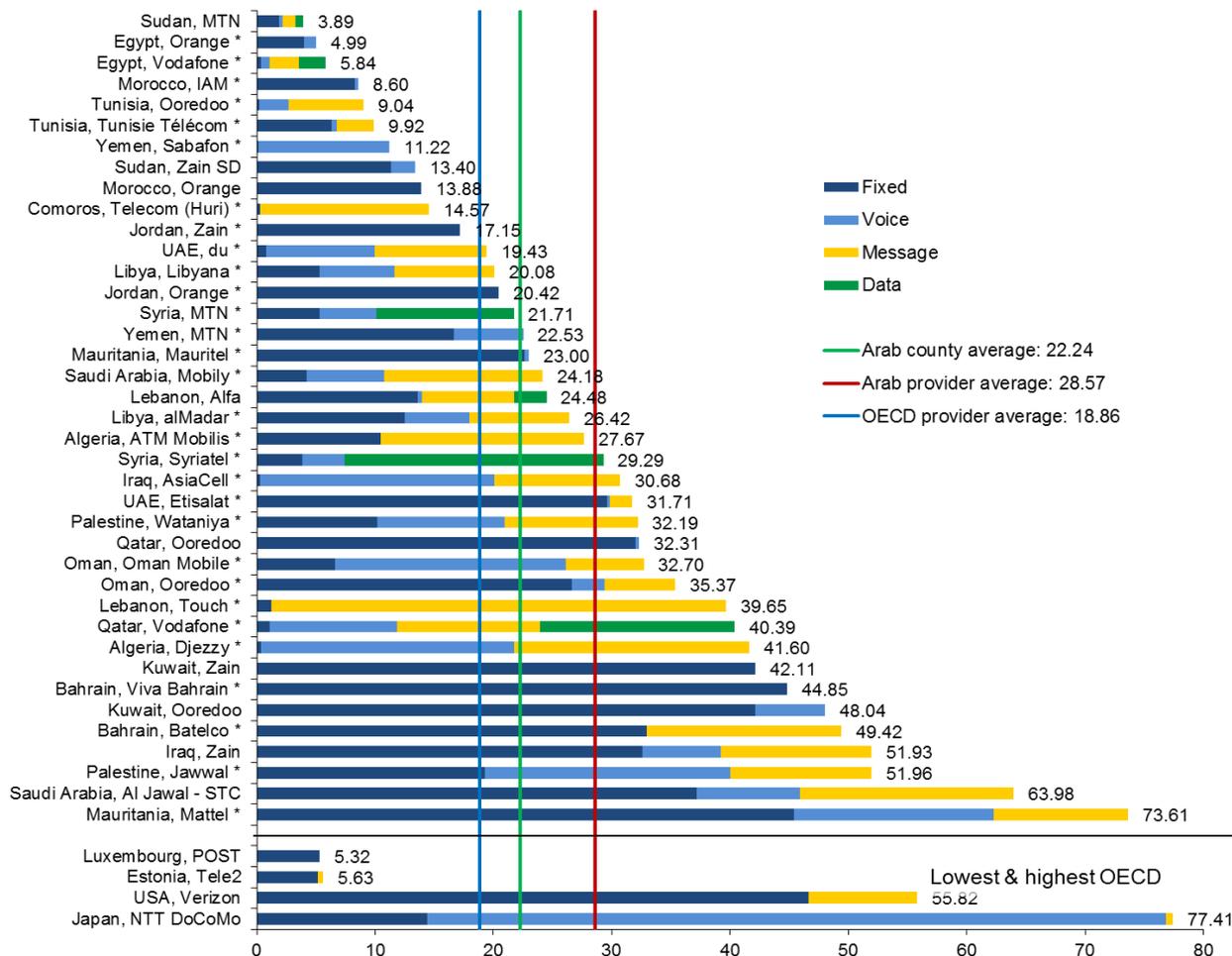


30 CALLS + 100 MB/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



30 calls + 100 MB based on 2010 OECD mobile basket

Tariffs as of October 2017



Please note:
No data for Djibouti and Somalia.
Selective discounts included.

* marks pre-paid tariffs.

The data charges shown on the graph refer to overage charges only. Fixed data charges may be embedded in the monthly fixed charges.

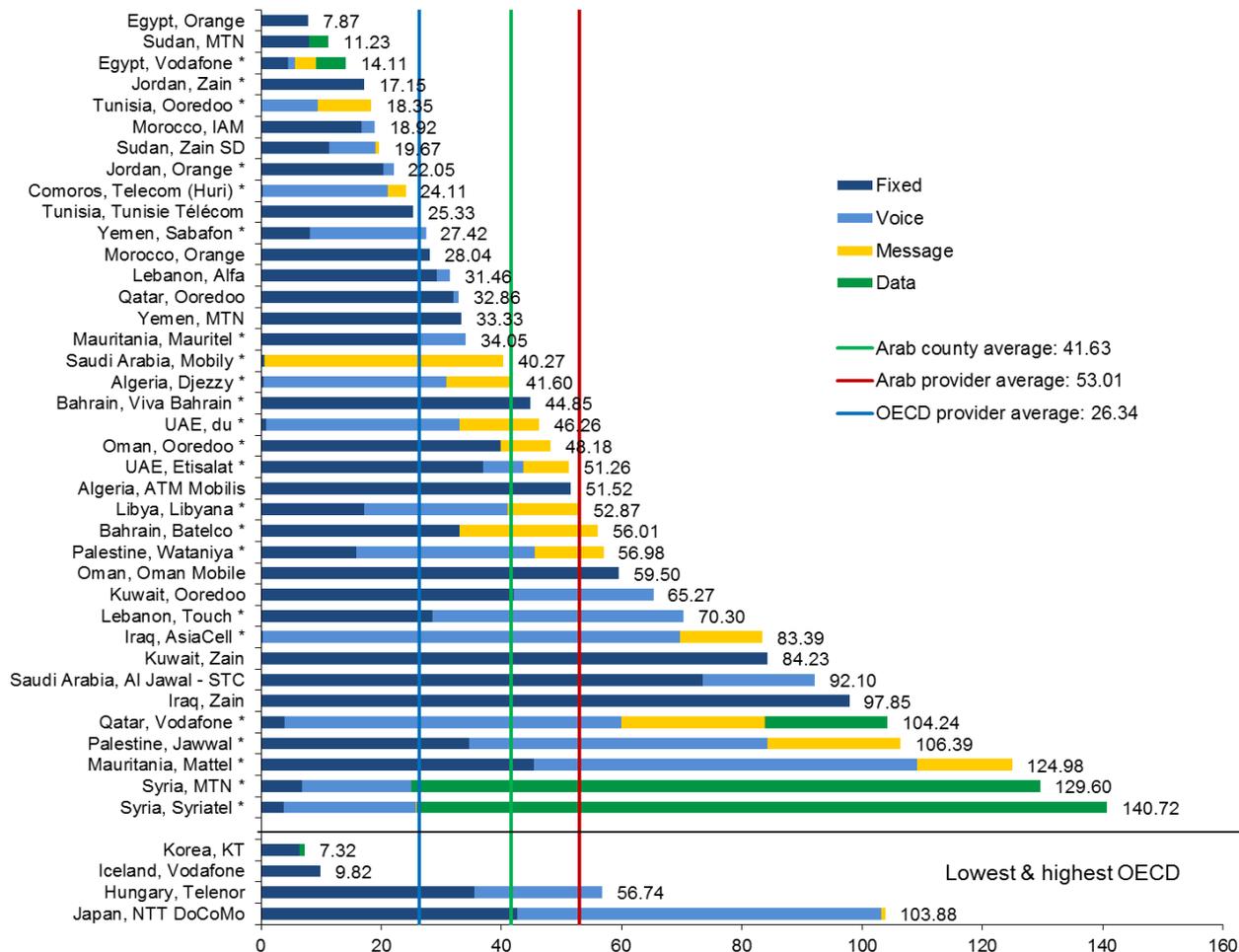


100 CALLS + 500 MB/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



100 calls + 500 MB based on 2010 OECD mobile basket

Tariffs as of October 2017



Please note:
No data for Djibouti and Somalia.
Selective discounts included.

* marks pre-paid tariffs.

The data charges shown on the graph refer to overage charges only. Fixed data charges may be embedded in the monthly fixed charges.

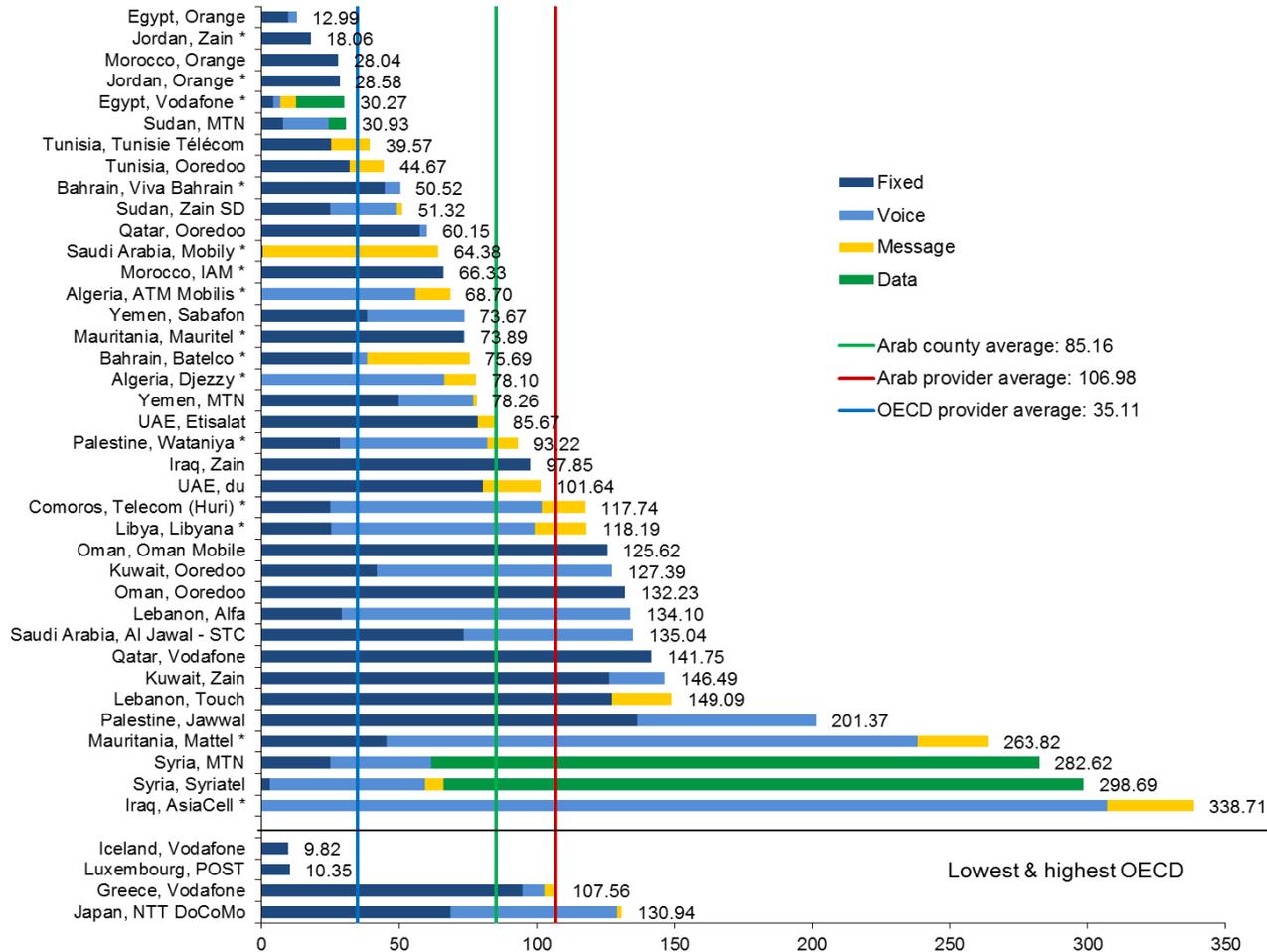


300 CALLS + 1 GB/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



300 calls + 1 GB based on 2010 OECD mobile basket

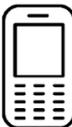
Tariffs as of October 2017



Please note:
No data for Djibouti and Somalia.
Selective discounts included.

* marks pre-paid tariffs.

The data charges shown on the graph refer to overage charges only. Fixed data charges may be embedded in the monthly fixed charges.

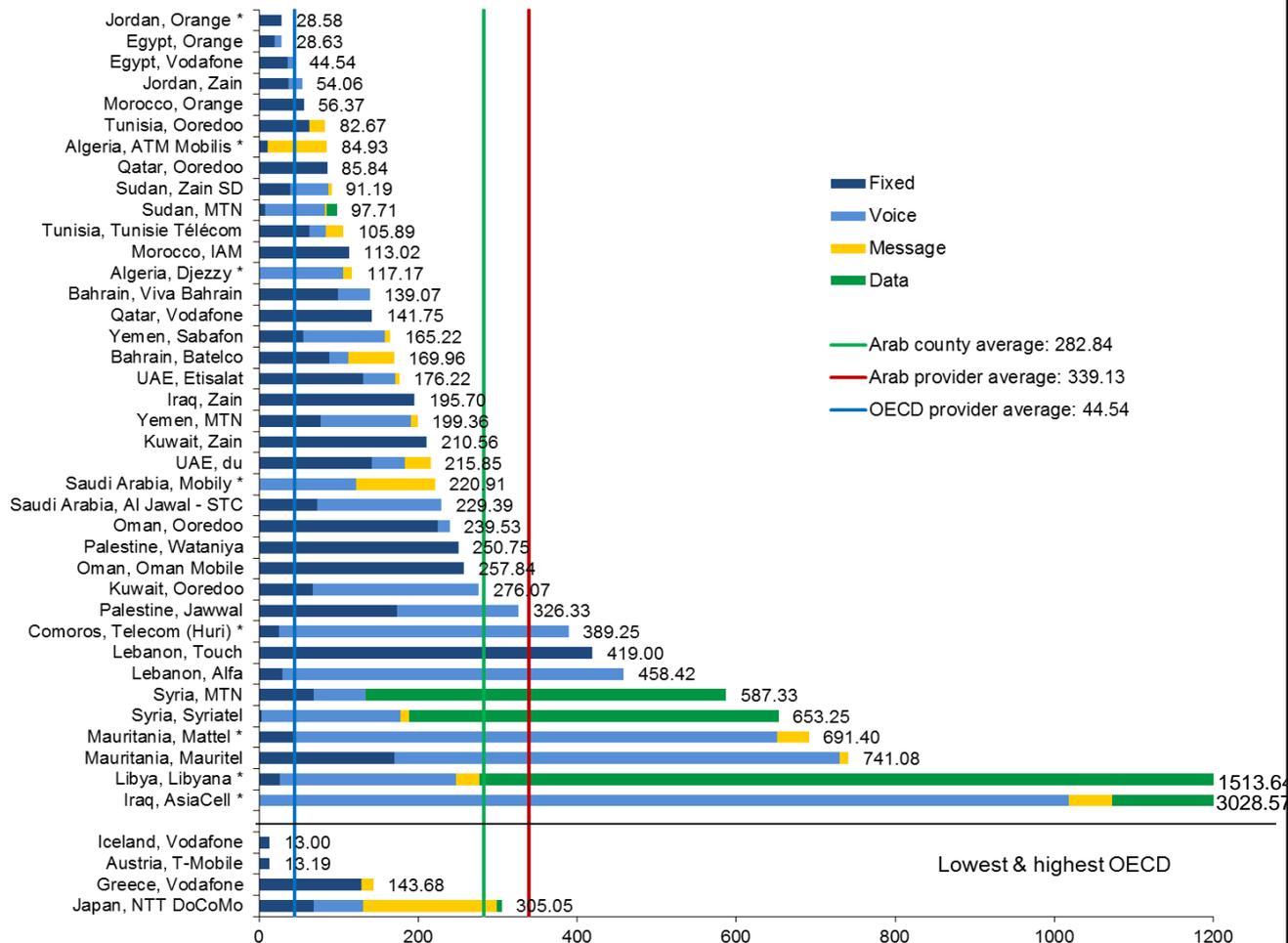


900 CALLS + 2 GB/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



900 calls + 2 GB based on 2010 OECD mobile basket

Tariffs as of October 2017



Please note:
No data for Djibouti and Somalia.
Selective discounts included.

* marks pre-paid tariffs.

The data charges shown on the graph refer to overage charges only. Fixed data charges may be embedded in the monthly fixed charges.

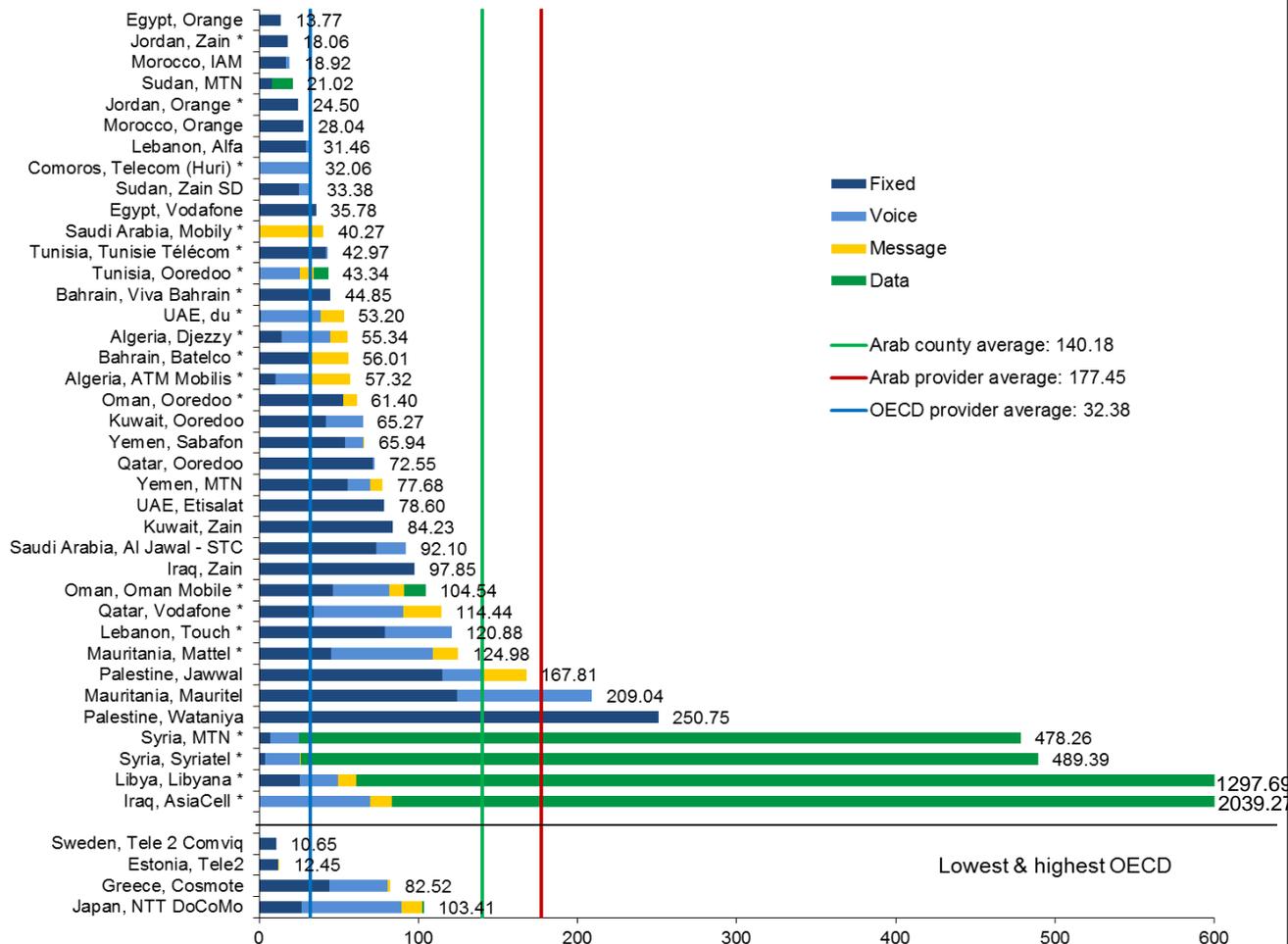


100 CALLS + 2 GB/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



100 calls + 2 GB based on 2010 OECD mobile basket

Tariffs as of October 2017



Please note: No data for Djibouti and Somalia. Selective discounts included.

* marks pre-paid tariffs.

The data charges shown on the graph refer to overage charges only. Fixed data charges may be embedded in the monthly fixed charges.





OBSERVATIONS FROM MOBILE BASKET RESULTS

- The cheapest and most expensive countries, based on the cheapest result per country, are :

	Cheapest			Most expensive		
	1st	2nd	3rd	1st	2nd	3rd
30 calls	Egypt	Sudan	Morocco	Bahrain	Kuwait	Iraq
100 calls	Egypt	Sudan	Jordan	Kuwait	Bahrain	Algeria
300 calls	Egypt	Jordan	Sudan	Lebanon	Kuwait	Oman
900 calls	Egypt	Jordan	Iraq	Mauritania	Lebanon	Comoros
40 calls prepaid	Egypt	Sudan	Tunisia	Bahrain	Kuwait	Iraq
400 messages	Morocco	Egypt	Somalia	Saudi Arabia	Bahrain	Iraq
30 calls + 100 MB	Sudan	Egypt	Morocco	Bahrain	Kuwait	Oman
100 calls + 500 MB	Egypt	Sudan	Jordan	Syria	Iraq	Kuwait
300 calls + 1 GB	Egypt	Jordan	Morocco	Syria	Lebanon	Kuwait
900 calls + 2 GB	Jordan	Egypt	Morocco	Libya	Mauritania	Syria
100 calls + 2 GB	Egypt	Jordan	Morocco	Libya	Syria	Palestine

- A comparison between the OECD and Arab averages is shown in the next slide, both per country and per provider
- There is a clear correlation between the size of the basket (in terms of number of calls and volume of data), and the extent to which countries fall below the OECD average. For smaller baskets, more countries fall below the OECD average
 - For 30 calls, 100 calls, 40 calls prepaid, 400 message and 30 calls plus 100 MB baskets, between 7 and 11 Arab countries have price levels either below or on par with the OECD average.
 - This number steadily declines as the number of calls and the data volume increases.
- The average result for the Arab providers is consistently higher than the OECD provider average across all mobile voice baskets, and the larger the basket the greater the variation.
- Baskets which incorporate handset data show a broad variation in price across the Arab providers – the difference becoming more marked for baskets with higher data requirements, indicating that in a number of countries, high mobile data use is still prohibitively expensive, and consequently, mobile data use is probably more limited.
- Similar to the voice baskets, the Arab provider average for the data baskets is typically much higher than the OECD one, although this is skewed by particularly expensive countries at the upper end.
- Where data costs are shown on the graph, these refer to overage charges or data add-on packages, rather than data included in the basic voice tariff. Where overage charges are higher, this indicates a limited range of data options, and mobile handset data services are much less well established, and are geared only towards very modest use. Over time, these costs should fall significantly, as mobile data use becomes more commonplace, and operators offer more competitively priced tariffs with more data included.
- The average number of tariff packages offered by the Arab operators is up slightly from 23 per operator in 2016, to 26 per operator in 2017.





COMPARISON OF OECD AND ARAB AVERAGES

	OECD- USD PPP inc VAT/month		Arab countries - USD PPP inc VAT/month	
	Per country average	Per provide average	Per country average	Per provide average
30 calls	12.80	15.23	16.78	20.22
100 calls	18.86	22.44	29.08	39.37
300 calls	26.99	31.28	63.39	82.62
900 calls	31.55	38.79	177.54	201.60
40 calls prepaid	13.08	15.49	16.56	20.87
400 messages	16.22	18.84	25.09	31.84
30 calls + 100 MB	15.57	18.86	22.24	28.57
100 calls + 500 MB	21.83	26.34	41.63	53.01
300 calls + 1 GB	29.80	35.11	85.16	106.98
900 calls + 2 GB	37.08	44.54	282.84	339.13
100 calls + 2 GB	28.08	32.38	140.18	177.45

- The Arab average is consistently higher than the OECD average, with higher usage baskets being significantly more expensive.
- This is true for both the per country and the per provider averages.

% that Arab average is higher or lower than OECD average

	Per country average	Per provider average
30 calls	31%	33%
100 calls	54%	75%
300 calls	135%	164%
900 calls	463%	420%
40 calls prepaid	27%	35%
400 messages	55%	69%
30 calls + 100 MB	43%	51%
100 calls + 500 MB	91%	101%
300 calls + 1 GB	186%	205%
900 calls + 2 GB	663%	661%
100 calls + 2 GB	399%	448%





MOBILE TIME SERIES ANALYSIS AND RANKING TABLES 2012-2017

2010 OECD MOBILE BASKETS RANKING, 30 CALLS/MONTH



Total results for OECD mobile voice - 30 calls basket

Results in USD/PPP including VAT

	2012	2013	2015	2016	2017
Algeria	17.17	17.17	14.39	14.39	17.36
Bahrain	19.51	20.04	20.04	20.04	44.85
Comoros	26.29	26.29	26.29	26.29	14.57
Djibouti					
Egypt	6.55	3.94	3.09	3.09	3.09
Iraq	27.38	31.55	24.16	24.16	24.80
Jordan	12.30	13.20	12.36	14.45	14.45
Kuwait	23.60	33.18	33.54	33.54	36.49
Lebanon	28.68	32.38	37.27	24.10	21.76
Libya	14.36	14.36	9.53	14.36	14.60
Mauritania	32.02	38.40	29.32	29.32	23.00
Morocco	28.04	21.54	11.33	11.33	5.06
Oman	24.42	27.03	24.81	24.45	15.54
Palestine	29.87	21.81	22.11	22.04	21.54
Qatar	24.61	37.50	17.19	23.15	23.38
Saudi Arabia	16.83	28.02	28.12	20.56	20.56
Somalia					8.22
Sudan	3.42	2.89	2.89	3.32	3.24
Syria	3.85	3.84	4.11	4.11	5.55
Tunisia	13.03	12.50	9.59	6.33	6.51
UAE	16.67	17.13	18.69	18.69	17.12
Yemen	16.10	8.01	8.01	8.01	10.71

Arab average	19.24	20.54	17.84	17.29	16.78
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■ Below Arab average
■ Above Arab average

Ranking for OECD mobile 30 calls basket

	2012	2013	2015	2016	2017
Algeria	10	9	9	8	13
Bahrain	11	10	12	11	21
Comoros	15	13	16	18	9
Djibouti	-	-	-	-	-
Egypt	3	3	2	1	1
Iraq	16	16	14	16	19
Jordan	4	6	8	9	8
Kuwait	12	18	19	20	20
Lebanon	18	17	20	15	16
Libya	6	7	5	7	10
Mauritania	20	20	18	19	17
Morocco	17	11	7	6	3
Oman	13	14	15	17	11
Palestine	19	12	13	13	15
Qatar	14	19	10	14	18
Saudi Arabia	9	15	17	12	14
Somalia	-	-	-	-	6
Sudan	1	1	1	2	2
Syria	2	2	3	3	4
Tunisia	5	5	6	4	5
UAE	8	8	11	10	12
Yemen	7	4	4	5	7

■ Least expensive
■ Most expensive



Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries

2010 OECD MOBILE BASKETS RANKING, 100 CALLS/MONTH



Total results for OECD mobile voice - 100 calls basket

Results in USD/PPP including VAT

	2012	2013	2015	2016	2017
Algeria	24.52	28.76	34.54	34.54	41.60
Bahrain	49.24	35.45	27.76	27.76	44.85
Comoros	70.90	70.90	70.90	70.90	24.11
Djibouti					
Egypt	9.56	8.23	7.67	5.14	4.92
Iraq	70.22	86.11	39.02	53.63	24.80
Jordan	25.71	18.70	14.45	14.45	14.45
Kuwait	67.45	78.38	50.54	65.22	65.27
Lebanon	98.61	79.15	70.30	57.92	31.46
Libya	33.22	33.22	28.44	33.22	33.46
Mauritania	98.71	106.47	53.28	46.08	34.05
Morocco	70.50	28.04	22.66	28.04	18.88
Oman	72.43	80.02	72.98	54.64	28.35
Palestine	83.32	69.67	45.56	41.11	41.11
Qatar	53.83	64.58	41.48	50.53	32.86
Saudi Arabia	48.27	68.59	64.42	44.79	40.27
Somalia					30.71
Sudan	9.42	7.97	7.97	7.97	7.97
Syria	11.48	13.27	14.08	14.08	20.46
Tunisia	33.50	19.35	19.17	19.00	18.24
UAE	40.73	40.73	35.54	35.54	35.54
Yemen	35.00	24.58	24.58	24.58	17.28

Arab average	50.33	48.11	37.27	36.46	29.08
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■ Below Arab average
■ Above Arab average

Ranking for OECD mobile 100 calls basket

	2012	2013	2015	2016	2017
Algeria	4	8	10	10	19
Bahrain	11	10	8	7	20
Comoros	16	15	19	20	8
Djibouti	-	-	-	-	-
Egypt	2	2	1	1	1
Iraq	14	19	12	16	9
Jordan	5	4	4	4	3
Kuwait	13	16	15	19	21
Lebanon	19	17	18	18	12
Libya	6	9	9	9	14
Mauritania	20	20	16	14	15
Morocco	15	7	6	8	6
Oman	17	18	20	17	10
Palestine	18	14	14	12	18
Qatar	12	12	13	15	13
Saudi Arabia	10	13	17	13	17
Somalia	-	-	-	-	11
Sudan	1	1	2	2	2
Syria	3	3	3	3	7
Tunisia	7	5	5	5	5
UAE	9	11	11	11	16
Yemen	8	6	7	6	4

■ Least expensive
■ Most expensive



Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries

2010 OECD MOBILE BASKETS RANKING, 300 CALLS/MONTH



Total results for OECD mobile voice - 300 calls basket
Results in USD/PPP including VAT

	2012	2013	2015	2016	2017
Algeria	39.12	46.37	68.70	68.70	68.70
Bahrain	87.18	87.03	55.68	52.55	50.52
Comoros	191.51	191.51	191.51	191.51	93.05
Djibouti					
Egypt	20.62	8.23	12.34	12.34	9.84
Iraq	186.47	237.11	113.17	145.58	29.36
Jordan	61.33	35.84	19.31	19.31	18.06
Kuwait	165.14	179.75	63.55	85.40	127.39
Lebanon	196.22	136.83	151.91	151.91	134.10
Libya	84.99	84.99	80.99	84.99	85.23
Mauritania	276.32	289.05	212.24	212.24	73.89
Morocco	150.87	122.37	28.04	28.04	28.04
Oman	149.84	132.72	140.20	121.04	101.01
Palestine	227.02	139.07	110.55	64.66	64.66
Qatar	129.37	77.18	81.12	72.87	60.15
Saudi Arabia	153.38	110.27	98.53	98.53	64.38
Somalia					86.14
Sudan	28.99	23.64	24.53	27.31	24.41
Syria	30.67	26.65	31.62	31.62	57.26
Tunisia	64.90	82.38	43.77	29.13	25.19
UAE	80.87	80.87	83.96	83.96	83.96
Yemen	73.90	73.07	73.07	73.07	45.89

Arab average	119.94	108.25	84.24	82.74	63.39
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Below Arab average
 Above Arab average

Ranking for OECD mobile 300 calls basket

	2012	2013	2015	2016	2017
Algeria	4	5	9	9	13
Bahrain	10	11	7	7	8
Comoros	17	18	19	19	18
Djibouti	-	-	-	-	-
Egypt	1	1	1	1	1
Iraq	16	19	16	17	6
Jordan	5	4	2	2	2
Kuwait	15	17	8	14	20
Lebanon	18	15	18	18	21
Libya	9	10	11	13	16
Mauritania	20	20	20	20	14
Morocco	13	13	4	4	5
Oman	12	14	17	16	19
Palestine	19	16	15	8	12
Qatar	11	7	12	10	10
Saudi Arabia	14	12	14	15	11
Somalia	-	-	-	-	17
Sudan	2	2	3	3	3
Syria	3	3	5	6	9
Tunisia	6	9	6	5	4
UAE	8	8	13	12	15
Yemen	7	6	10	11	7

Least expensive
 Most expensive



Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries

2010 OECD MOBILE BASKETS RANKING, 900 CALLS/MONTH



Total results for OECD mobile voice - 900 calls basket

Results in USD/PPP including VAT

	2012	2013	2015	2016	2017
Algeria	252.51	94.46	128.81	128.81	74.63
Bahrain	162.89	136.60	88.63	89.93	139.07
Comoros	555.24	555.24	555.24	555.24	364.56
Djibouti					
Egypt	27.10	18.51	30.02	30.02	20.80
Iraq	409.25	592.54	366.23	366.23	45.66
Jordan	166.68	46.70	23.98	23.98	28.58
Kuwait	303.21	303.21	127.51	102.24	210.56
Lebanon	475.02	332.53	402.60	402.60	379.30
Libya	229.40	229.40	229.40	229.40	229.63
Mauritania	827.94	847.73	579.34	579.34	627.99
Morocco	326.83	281.87	56.37	56.37	56.37
Oman	381.75	225.15	239.53	239.53	239.53
Palestine	528.30	456.77	314.87	297.21	155.53
Qatar	275.07	141.75	141.75	140.61	85.84
Saudi Arabia	380.07	202.22	221.45	222.05	220.91
Somalia					267.77
Sudan	98.82	53.91	68.00	73.10	72.38
Syria	78.09	59.74	71.12	71.12	129.53
Tunisia	148.80	235.46	126.64	78.35	82.67
UAE	252.72	234.88	260.78	235.96	176.22
Yemen	180.01	180.01	180.01	180.01	120.78

Arab average	302.98	261.43	210.61	205.10	177.54
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■ Below Arab average
■ Above Arab average

Ranking for OECD mobile 900 calls basket

	2012	2013	2015	2016	2017
Algeria	9	5	9	9	6
Bahrain	5	6	6	7	11
Comoros	19	18	19	19	19
Djibouti	-	-	-	-	-
Egypt	1	1	2	2	1
Iraq	16	19	17	17	3
Jordan	6	2	1	1	2
Kuwait	12	15	8	8	14
Lebanon	17	16	18	18	20
Libya	8	11	13	13	16
Mauritania	20	20	20	20	21
Morocco	13	14	3	3	4
Oman	15	10	14	15	17
Palestine	18	17	16	16	12
Qatar	11	7	10	10	8
Saudi Arabia	14	9	12	12	15
Somalia	-	-	-	-	18
Sudan	3	3	4	5	5
Syria	2	4	5	4	10
Tunisia	4	13	7	6	7
UAE	10	12	15	14	13
Yemen	7	8	11	11	9

■ Least expensive
■ Most expensive



Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries

2010 OECD MOBILE BASKETS RANKING, 40 CALLS/MONTH PREPAID



Total results for OECD mobile voice - 40 calls prepaid basket

Results in USD/PPP including VAT

	2012	2013	2015	2016	2017
Algeria	10.78	10.49	6.87	6.87	10.50
Bahrain	18.45	19.03	19.03	19.03	42.83
Comoros	28.56	28.56	28.56	28.56	14.57
Djibouti					
Egypt	4.47	3.05	3.05	3.05	2.48
Iraq	27.92	32.52	24.80	24.93	24.80
Jordan	10.56	10.50	9.57	11.87	13.34
Kuwait	19.88	34.76	34.76	34.76	39.20
Lebanon	35.39	39.37	41.00	20.21	17.98
Libya	13.31	13.31	11.24	13.31	13.54
Mauritania	39.88	43.11	34.30	34.30	23.00
Morocco	28.33	21.54	11.33	11.33	9.44
Oman	32.52	33.58	32.92	27.53	16.98
Palestine	30.75	21.81	19.54	20.46	17.94
Qatar	23.10	32.85	14.57	23.55	23.78
Saudi Arabia	17.85	26.54	26.64	18.49	18.49
Somalia					11.97
Sudan	3.77	3.19	3.19	3.19	3.19
Syria	4.94	5.44	5.54	5.54	8.00
Tunisia	13.75	12.95	8.42	6.33	6.51
UAE	16.67	16.67	19.69	19.69	18.11
Yemen	14.13	11.11	11.11	11.11	11.08

Arab average	19.75	21.02	18.31	17.20	16.56
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■ Below Arab average
■ Above Arab average

Ranking for OECD mobile 40 calls prepaid basket

	2012	2013	2015	2016	2017
Algeria	5	4	4	5	6
Bahrain	11	10	11	11	21
Comoros	16	14	16	18	11
Djibouti	-	-	-	-	-
Egypt	2	1	1	1	1
Iraq	14	15	14	16	19
Jordan	4	5	6	8	9
Kuwait	12	18	19	20	20
Lebanon	19	19	20	13	14
Libya	6	8	8	9	10
Mauritania	20	20	18	19	17
Morocco	15	11	9	7	5
Oman	18	17	17	17	12
Palestine	17	12	12	14	13
Qatar	13	16	10	15	18
Saudi Arabia	10	13	15	10	16
Somalia	-	-	-	-	8
Sudan	1	2	2	2	2
Syria	3	3	3	3	4
Tunisia	7	7	5	4	3
UAE	9	9	13	12	15
Yemen	8	6	7	6	7

■ Least expensive
■ Most expensive



Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries

2010 OECD MOBILE BASKETS RANKING, 400 MESSAGES/MONTH



Total results for OECD mobile voice - 400 messages basket
Results in USD/PPP including VAT

	2012	2013	2015	2016	2017
Algeria	35.68	35.68	35.68	35.68	41.60
Bahrain	54.61	41.95	44.70	46.98	44.85
Comoros	50.86	50.86	50.86	50.86	23.12
Djibouti					
Egypt	19.68	8.23	4.11	4.11	2.87
Iraq	59.28	45.71	31.15	31.15	43.95
Jordan	37.51	27.24	14.45	14.45	14.45
Kuwait	68.21	72.00	50.54	68.55	42.11
Lebanon	32.31	38.10	34.76	34.76	29.51
Libya	35.75	35.75	13.46	35.75	35.78
Mauritania	43.05	63.53	12.76	12.76	30.23
Morocco	55.23	49.52	16.45	13.06	1.89
Oman	30.30	32.54	27.34	27.34	27.15
Palestine	54.48	49.22	32.09	31.74	31.74
Qatar	69.09	87.23	66.95	49.76	32.28
Saudi Arabia	37.33	28.97	33.73	33.73	57.04
Somalia					3.52
Sudan	6.35	5.84	4.55	6.83	8.21
Syria	9.66	3.15	3.24	3.24	3.64
Tunisia	27.45	19.17	19.08	10.13	6.51
UAE	38.60	40.66	40.41	40.41	35.17
Yemen	37.22	20.69	20.69	20.69	11.22

Arab average	40.13	37.80	27.85	28.60	25.09
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■ Below Arab average
■ Above Arab average

Ranking for OECD mobile 400 messages basket

	2012	2013	2015	2016	2017
Algeria	7	9	15	14	17
Bahrain	16	13	17	17	20
Comoros	14	17	19	19	9
Djibouti	-	-	-	-	-
Egypt	3	3	2	2	2
Iraq	18	14	11	10	19
Jordan	11	6	6	7	8
Kuwait	19	19	18	20	18
Lebanon	6	11	14	13	11
Libya	8	10	5	15	16
Mauritania	13	18	4	5	12
Morocco	17	16	7	6	1
Oman	5	8	10	9	10
Palestine	15	15	12	11	13
Qatar	20	20	20	18	14
Saudi Arabia	10	7	13	12	21
Somalia	-	-	-	-	3
Sudan	1	2	3	3	6
Syria	2	1	1	1	4
Tunisia	4	4	8	4	5
UAE	12	12	16	16	15
Yemen	9	5	9	8	7

■ Least expensive
■ Most expensive



Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries

2010 OECD MOBILE BASKETS RANKING, 30 CALLS + 100 MB/MONTH



Total results for OECD mobile voice - 30 calls + 100 MB basket
Results in USD/PPP including VAT

	2013	2015	2016	2017
Algeria	68.70	19.55	19.55	27.67
Bahrain	27.76	27.76	27.76	44.85
Comoros				
Djibouti				
Egypt	6.58	5.29	5.03	4.99
Iraq	231.95	24.16	24.16	30.68
Jordan	26.00	17.15	17.15	17.15
Kuwait	43.28	75.66	65.22	42.11
Lebanon	67.76	52.51	26.82	24.48
Libya	32.08	26.42	31.91	20.08
Mauritania	152.91	142.42	142.42	23.00
Morocco	28.04	11.33	11.33	8.60
Oman	70.40	57.86	44.29	32.70
Palestine	165.07	189.00	62.11	32.19
Qatar	59.04	25.69	31.65	32.31
Saudi Arabia	38.88	42.97	38.66	24.18
Somalia				
Sudan	3.55	3.55	3.98	3.89
Syria	23.16	23.43	23.43	21.71
Tunisia	20.10	25.33	10.87	9.04
UAE	43.33	49.06	33.88	19.43
Yemen	37.10	35.71	22.71	11.22

Arab average	60.30	44.99	33.84	22.65
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■ Below Arab average
■ Above Arab average

Ranking for OECD mobile 30 calls + 100 MB basket

	2013	2015	2016	2017
Algeria	15	5	6	13
Bahrain	6	11	11	19
Comoros	-	-	-	-
Djibouti	-	-	-	-
Egypt	2	2	2	2
Iraq	19	7	9	14
Jordan	5	4	5	6
Kuwait	11	17	18	18
Lebanon	14	15	10	12
Libya	8	10	13	8
Mauritania	17	18	19	10
Morocco	7	3	4	3
Oman	16	16	16	17
Palestine	18	19	17	15
Qatar	13	9	12	16
Saudi Arabia	10	13	15	11
Somalia	-	-	-	-
Sudan	1	1	1	1
Syria	4	6	8	9
Tunisia	3	8	3	4
UAE	12	14	14	7
Yemen	9	12	7	5

■ Least expensive
■ Most expensive



Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries

2010 OECD MOBILE BASKETS RANKING, 100 CALLS + 500 MB/MONTH



Total results for OECD mobile voice - 100 calls + 500 MB basket
Results in USD/PPP including VAT

	2013	2015	2016	2017
Algeria	71.95	41.22	41.86	41.60
Bahrain	51.93	44.24	33.25	44.85
Comoros				
Djibouti				
Egypt	12.91	10.82	11.60	7.87
Iraq	1088.10	74.26	74.26	83.39
Jordan	27.24	17.15	17.15	17.15
Kuwait	118.80	84.23	65.22	65.27
Lebanon	127.88	81.97	77.38	31.46
Libya	154.69	112.89	154.21	52.87
Mauritania	223.60	166.37	159.17	34.05
Morocco	46.70	27.62	28.04	18.92
Oman	83.03	83.03	66.11	48.18
Palestine	385.34	441.21	112.73	56.98
Qatar	92.93	69.83	61.87	32.86
Saudi Arabia	72.28	100.79	88.23	40.27
Somalia				
Sudan	11.23	11.23	11.23	11.23
Syria	123.50	124.30	124.30	129.60
Tunisia	26.95	25.33	19.00	18.35
UAE	52.40	56.17	52.40	46.26
Yemen	313.44	313.44	40.64	27.42

Arab average	162.36	99.27	65.19	42.56
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■ Below Arab average
■ Above Arab average

Ranking for OECD mobile 100 calls + 500 MB basket

	2013	2015	2016	2017
Algeria	8	6	8	11
Bahrain	6	7	6	12
Comoros	-	-	-	-
Djibouti	-	-	-	-
Egypt	2	1	2	1
Iraq	19	10	13	18
Jordan	4	3	3	3
Kuwait	12	13	11	17
Lebanon	14	11	14	7
Libya	15	15	18	15
Mauritania	16	17	19	9
Morocco	5	5	5	5
Oman	10	12	12	14
Palestine	18	19	16	16
Qatar	11	9	10	8
Saudi Arabia	9	14	15	10
Somalia	-	-	-	-
Sudan	1	2	1	2
Syria	13	16	17	19
Tunisia	3	4	4	4
UAE	7	8	9	13
Yemen	17	18	7	6

■ Least expensive
■ Most expensive



Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries

2010 OECD MOBILE BASKETS RANKING, 300 CALLS + 1 GB/MONTH



Total results for OECD mobile voice - 300 calls + 1 GB basket
Results in USD/PPP including VAT

	2013	2015	2016	2017
Algeria	120.22	72.13	72.13	68.70
Bahrain	110.80	55.68	52.55	50.52
Comoros				
Djibouti				
Egypt	26.82	16.37	17.35	12.99
Iraq	2243.15	324.03	324.03	97.85
Jordan	35.84	19.31	19.31	18.06
Kuwait	221.87	106.57	85.40	127.39
Lebanon	210.83	188.87	188.87	134.10
Libya	339.19	249.89	337.76	118.19
Mauritania	414.27	325.33	325.33	73.89
Morocco	150.69	28.04	28.04	28.04
Oman	134.25	140.20	132.23	125.62
Palestine	601.87	689.14	218.95	93.22
Qatar	105.53	109.47	91.02	60.15
Saudi Arabia	110.27	146.25	127.70	64.38
Somalia				
Sudan	31.06	30.21	33.48	30.93
Syria	250.51	255.48	255.48	282.62
Tunisia	89.98	43.77	43.77	39.57
UAE	131.00	135.83	98.28	85.67
Yemen	646.35	646.35	84.55	73.67

Arab average	314.45	188.58	133.49	83.45
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Below Arab average
 Above Arab average

Ranking for OECD mobile 300 calls + 1 GB basket

	2013	2015	2016	2017
Algeria	8	7	7	9
Bahrain	7	6	6	6
Comoros	-	-	-	-
Djibouti	-	-	-	-
Egypt	1	1	1	1
Iraq	19	16	17	14
Jordan	3	2	2	2
Kuwait	13	8	9	17
Lebanon	12	13	14	18
Libya	15	14	19	15
Mauritania	16	17	18	11
Morocco	11	3	3	3
Oman	10	11	13	16
Palestine	17	19	15	13
Qatar	5	9	10	7
Saudi Arabia	6	12	12	8
Somalia	-	-	-	-
Sudan	2	4	4	4
Syria	14	15	16	19
Tunisia	4	5	5	5
UAE	9	10	11	12
Yemen	18	18	8	10

Least expensive
 Most expensive



Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries

2010 OECD MOBILE BASKETS RANKING, 900 CALLS + 2 GB/MONTH



Total results for OECD mobile voice - 900 calls + 2 GB basket
Results in USD/PPP including VAT

	2013	2015	2016	2017
Algeria	304.03	255.94	255.94	84.93
Bahrain	220.45	88.63	89.93	139.07
Comoros				
Djibouti				
Egypt	53.67	39.86	39.86	28.63
Iraq	4600.49	3005.74	3005.74	195.70
Jordan	182.66	23.98	23.98	28.58
Kuwait	363.34	127.51	102.24	210.56
Lebanon	605.25	459.01	459.01	419.00
Libya	754.88	572.24	750.19	1513.64
Mauritania	997.21	692.43	692.43	691.40
Morocco	324.88	56.37	56.37	56.37
Oman	225.15	239.53	239.53	239.53
Palestine	1143.33	1309.11	538.42	250.75
Qatar	198.46	141.75	141.75	85.84
Saudi Arabia	202.22	221.45	222.05	220.91
Somalia				
Sudan	97.17	73.10	78.36	91.19
Syria	510.89	522.27	522.27	587.33
Tunisia	248.12	126.64	78.35	82.67
UAE	261.99	313.25	235.96	176.22
Yemen	1354.46	1354.46	208.34	165.22

Arab average	665.72	506.49	407.41	277.24
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Below Arab average
 Above Arab average

Ranking for OECD mobile 900 calls + 2 GB basket

	2013	2015	2016	2017
Algeria	10	11	13	5
Bahrain	6	5	6	8
Comoros	-	-	-	-
Djibouti	-	-	-	-
Egypt	1	2	2	2
Iraq	19	19	19	11
Jordan	3	1	1	1
Kuwait	12	7	7	12
Lebanon	14	13	14	16
Libya	15	15	18	19
Mauritania	16	16	17	18
Morocco	11	3	3	3
Oman	7	10	12	14
Palestine	17	17	16	15
Qatar	4	8	8	6
Saudi Arabia	5	9	10	13
Somalia	-	-	-	-
Sudan	2	4	5	7
Syria	13	14	15	17
Tunisia	8	6	4	4
UAE	9	12	11	10
Yemen	18	18	9	9

Least expensive
 Most expensive



Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries

2010 OECD MOBILE BASKETS RANKING, 100 CALLS + 2 GB/MONTH



Total results for OECD mobile voice - 100 calls + 2 GB basket
Results in USD/PPP including VAT

	2013	2015	2016	2017
Algeria	71.95	41.86	41.86	55.34
Bahrain	90.37	46.74	38.75	44.85
Comoros				
Djibouti				
Egypt	18.28	17.70	16.28	13.77
Iraq	4094.06	2030.14	2030.14	97.85
Jordan	118.09	18.06	18.06	18.06
Kuwait	118.80	84.23	65.22	65.27
Lebanon	186.24	111.00	114.34	31.46
Libya	534.72	366.25	534.25	1297.69
Mauritania	223.60	166.37	159.17	124.98
Morocco	103.63	28.33	28.33	18.92
Oman	132.61	106.54	120.75	61.40
Palestine	893.51	1023.07	167.81	167.81
Qatar	121.28	98.18	95.89	72.55
Saudi Arabia	72.28	120.61	109.50	40.27
Somalia				
Sudan	21.02	16.56	18.47	21.02
Syria	464.41	465.22	465.22	478.26
Tunisia	32.01	63.32	63.32	42.97
UAE	121.40	113.61	52.40	53.20
Yemen	1166.69	1166.69	45.08	65.94

Arab average	451.84	320.24	220.25	145.87
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Below Arab average
 Above Arab average

Ranking for OECD mobile 100 calls + 2 GB basket

	2013	2015	2016	2017
Algeria	4	5	6	10
Bahrain	6	6	5	8
Comoros	-	-	-	-
Djibouti	-	-	-	-
Egypt	1	2	1	1
Iraq	19	19	19	15
Jordan	8	3	2	2
Kuwait	9	8	10	12
Lebanon	13	11	13	5
Libya	16	15	18	19
Mauritania	14	14	15	16
Morocco	7	4	4	3
Oman	12	10	14	11
Palestine	17	17	16	17
Qatar	10	9	11	14
Saudi Arabia	5	13	12	6
Somalia	-	-	-	-
Sudan	2	1	3	4
Syria	15	16	17	18
Tunisia	3	7	9	7
UAE	11	12	8	9
Yemen	18	18	7	13

Least expensive
 Most expensive



Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries



OBSERVATIONS FROM MOBILE TIME SERIES RESULTS

- The main trend observed is one of falling prices, with the average cost of each basket falling over the period 2016 to 2017. The fall in costs for the data baskets were the greatest. Please note that changes in the basket results may come from price changes, but also from removal or other changes to the range of tariffs offered by each provider.
- The falls in average costs masks increases in some countries, in some of the baskets. Notable examples include:
 - Costs for Bahrain increased significantly for a number of baskets – most notably , due to an overhaul by the Bahraini providers in the offerings. For prepaid tariffs, add on data is available in packages of 1GB as a minimum, while for postpaid plans, the minimum data allowance is 8GB, and generally, generous call allowances. This is suggestive of a market where mobile voice and data usage is high, however, such plans are less cost effective for users with lower call and data volumes, and this is where costs have been negatively impacted.
 - Costs for Syria increased for all baskets excluding data, driven by increases in call costs. For baskets including data, the increase in call costs was countered in part by revised data offers.
- There were also a number of countries where costs across all or most of the baskets fell substantially, following revised pricing. The large falls reflect the period of time between the 2016 and 2017 update, and the fact that mobile pricing is generally undergoing large changes. The same is true across the OECD, with some markets experiencing dramatic changes.
- Many operators across the Arab countries have made some changes to their mobile tariff offerings since 2016, and the average number of offerings per provider has increased slightly, from 23 to 26.
- Prepaid plans account for just under half of all plans, while 54% of plans now some data allowance as part of the offering. This is not a significant change since last year.
- Baskets which include handset data generally experienced more dramatic decreases.
- Over the period 2012-2017 costs have generally fallen dramatically, most notably for higher use baskets and baskets including data.





LEASED LINE BASKET RESULTS 2017



OECD LEASED LINE BASKET, 2010 DEFINITIONS

- Prices for 2 Mb/s and 34 Mb/s national circuits
- 6 specific distances are used:
 - 2 km, 20 km, 50 km, 100 km, 200 km and 500 km
- Each distance is weighted in order to calculate a **weighted average price for one circuit** as follows:

National Distance	2km	20km	50km	100km	200km	500km	Total
64 kb/s	50%	18%	6%	8%	10%	8%	100%
2 Mb/s	50%	18%	6%	8%	10%	8%	100%
34 Mb/s	42%	18%	15%	9%	8%	8%	100%

- The 2 bitrates are calculated and reported separately.
- Where the distances in the basket go beyond the country borders, the weights of those distances are attributed to the longest available tariff zone.
 - For example: In Bahrain a 2 Mb/s circuit costs BD 890 regardless of distance. The longest possible circuit distance in Bahrain is approximately 50 km. But the weights for 100 km (8%), 200 km (10%) and 500 km (8%) are still applied to this price as the price for the longest possible circuit in order to cover 100%.
 - This may bias the results for small countries with distance-sensitive prices in the sense that a relatively higher proportion of the circuits will be at maximum cost
 - Small countries with no distance pricing will be favoured by this scheme.
- For the Arab country price benchmarking three more bitrates are added, to the extent they are offered in the countries concerned:
 - 64 kb/s (formerly used in the OECD 2006 baskets) and 256 kb/s in order to cover a wider range of services relevant for the region, and 155 Mb/s to show the potential for future development.
 - The calculations for these speeds use the same weighted average price as for 2 Mb/s and 34 Mb/s respectively



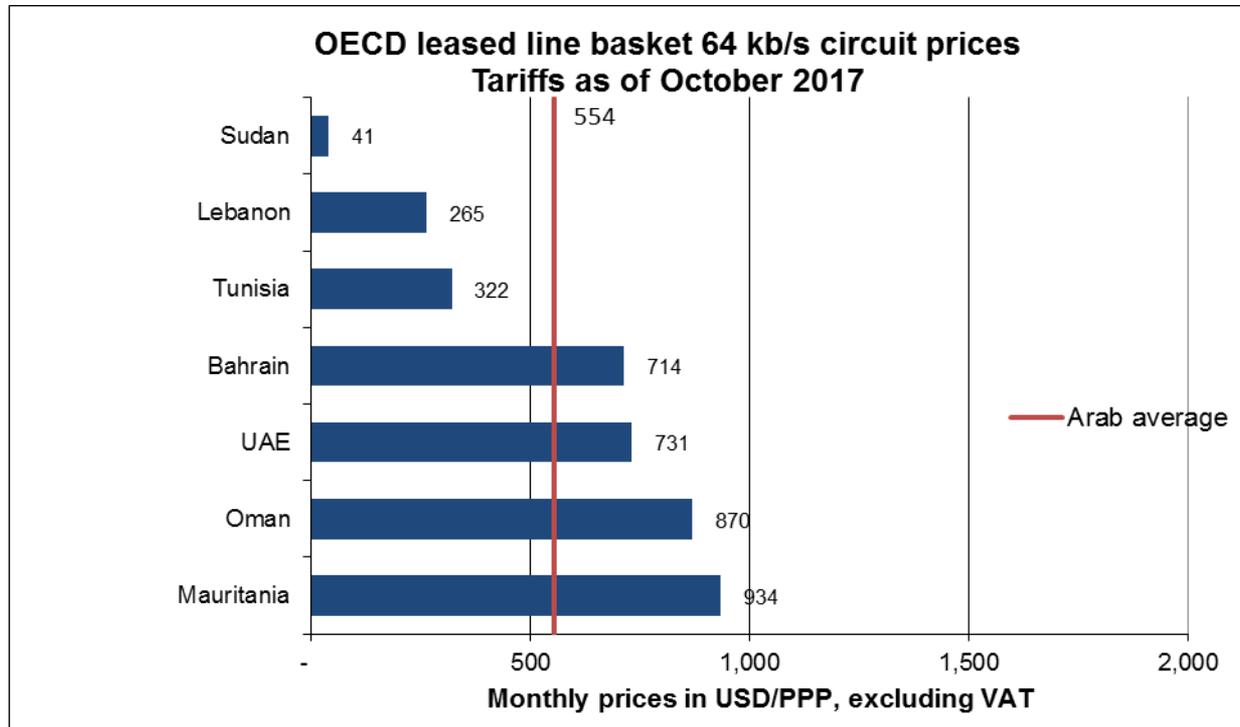


LEASED LINE DATA ISSUES

- No price data available for:
 - Comoros
 - Djibouti
 - Egypt
 - Iraq
 - Jordan
 - Kuwait
 - Libya
 - Morocco
 - Palestine
 - Qatar
 - Saudi Arabia
 - Somalia
 - Syria
 - Yemen
- Other countries may have data missing for specific bitrates



64 KB/S OECD LEASED LINE BASKET RESULTS

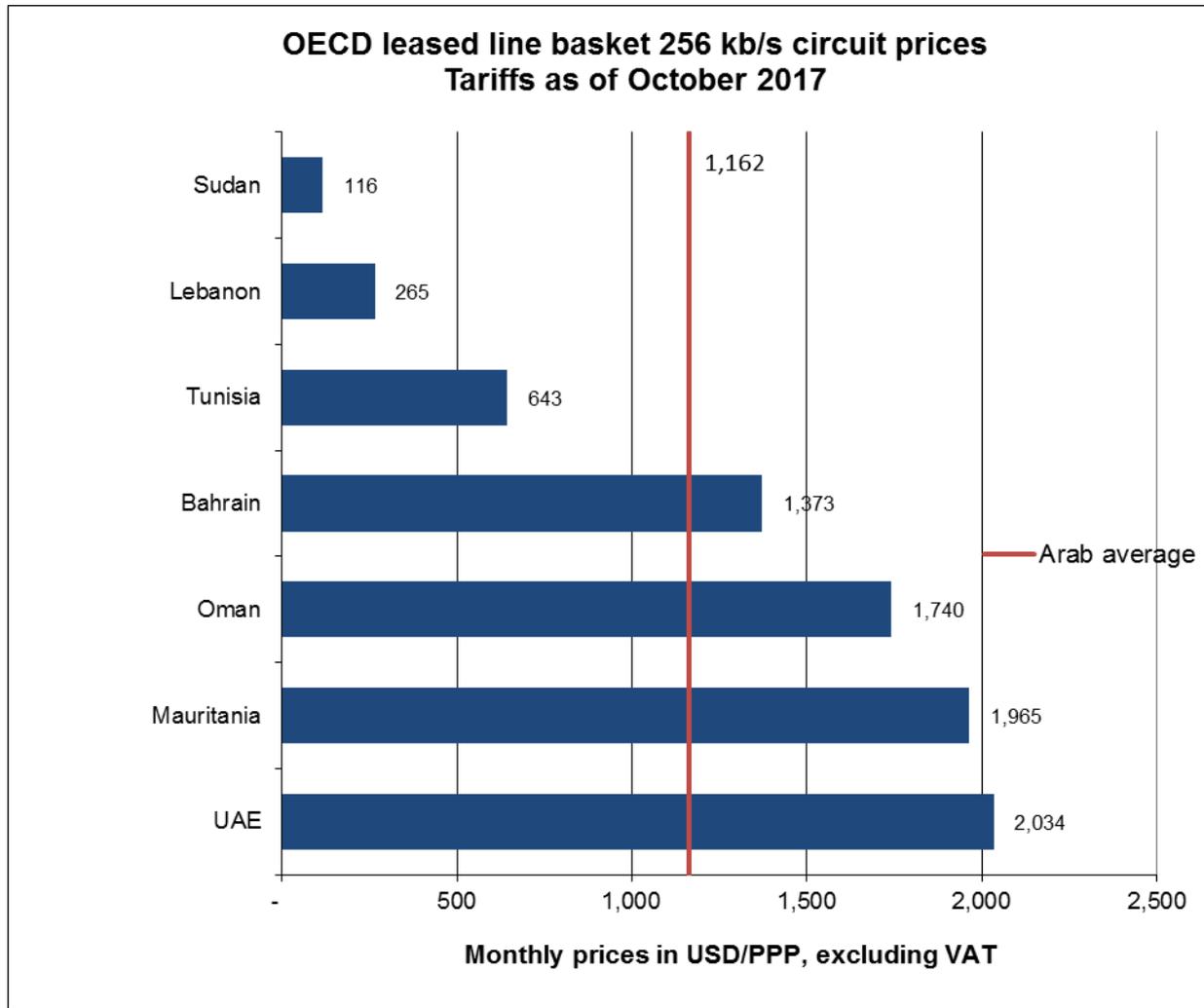


The 64 kb/s basket is no longer covered within the OECD baskets, however the standard 2010 methodology has been applied to 64 kb/s circuits for the Arab countries

Note: No equivalent OECD data exists.



256KB/S OECD LEASED LINE BASKET RESULTS



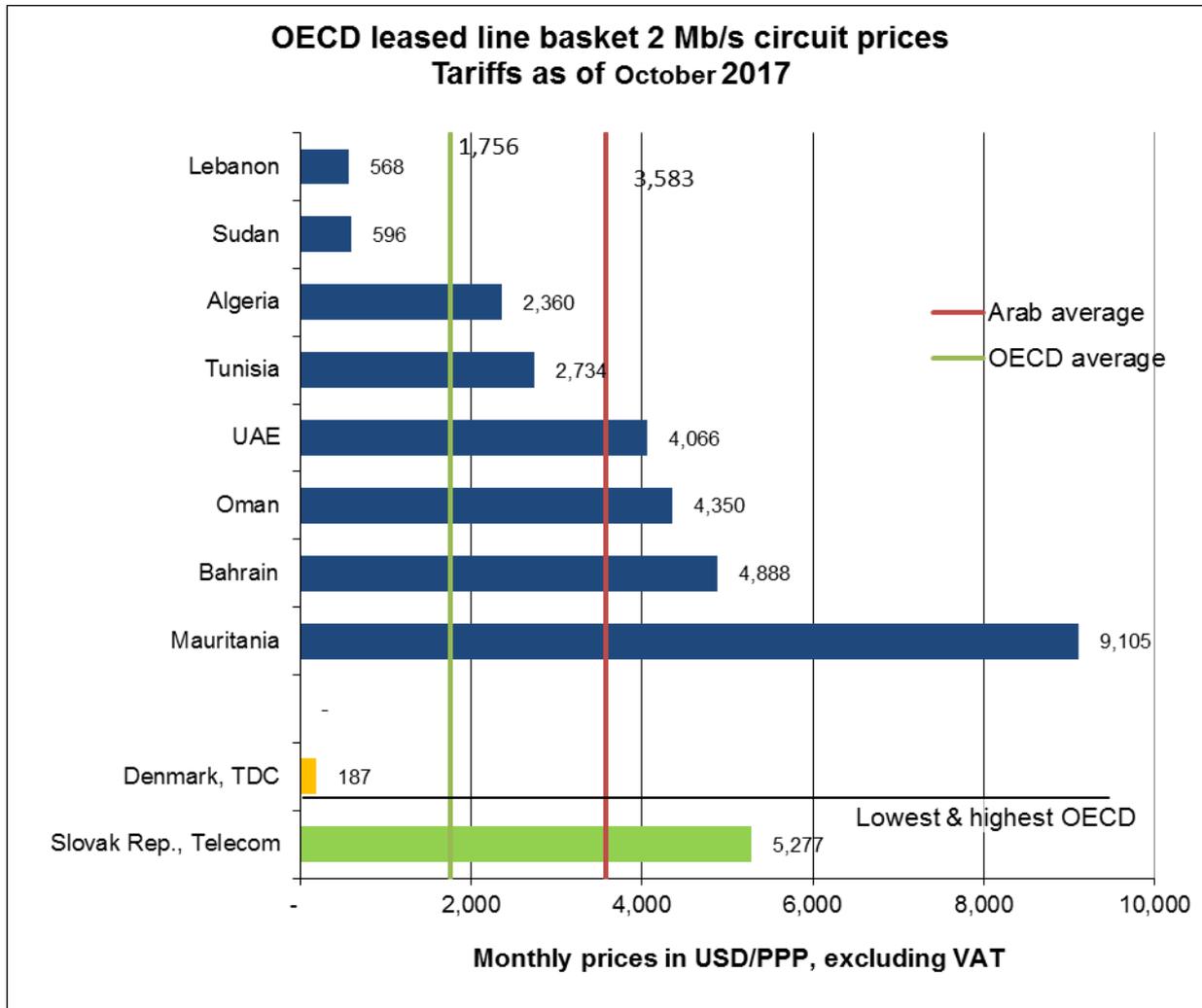
The OECD basket does not cover 256 kb/s, however the standard 2010 methodology has been applied to 256 kb/s circuits for the Arab countries

Note: No equivalent OECD data exists.





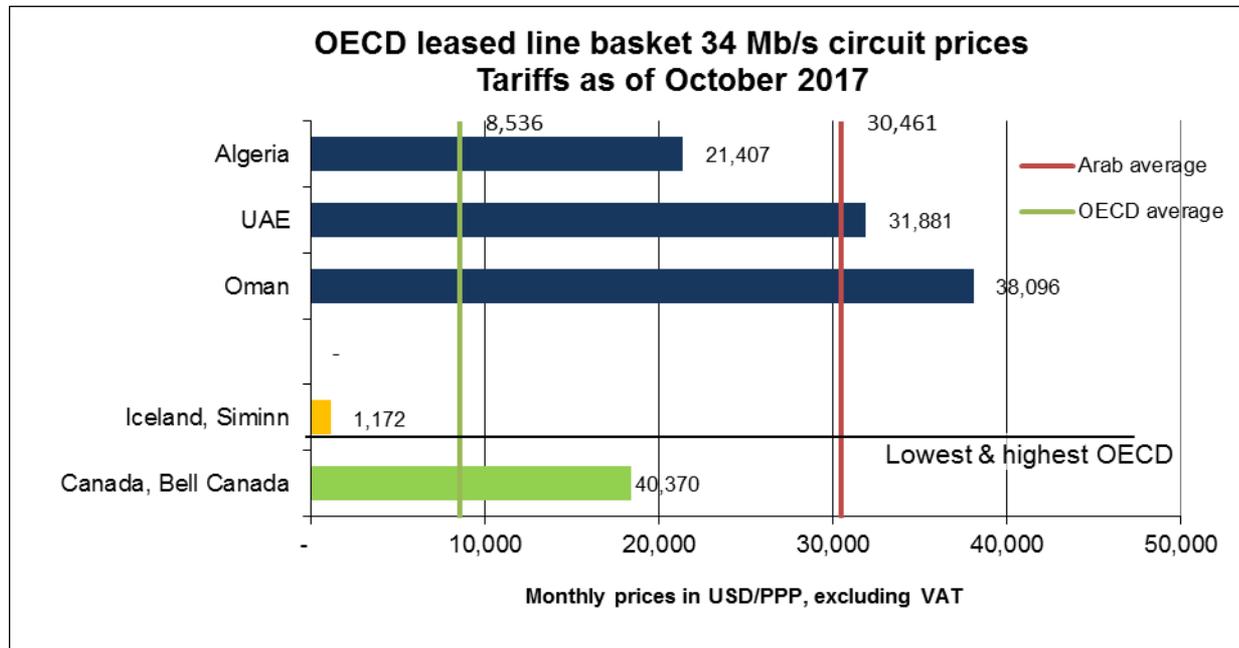
2 MB/S OECD LEASED LINE BASKET RESULTS



The OECD data shown represents the lowest and highest prices found in OECD countries, and the average price across all 34 OECD countries.



34 MB/S OECD LEASED LINE BASKET RESULTS



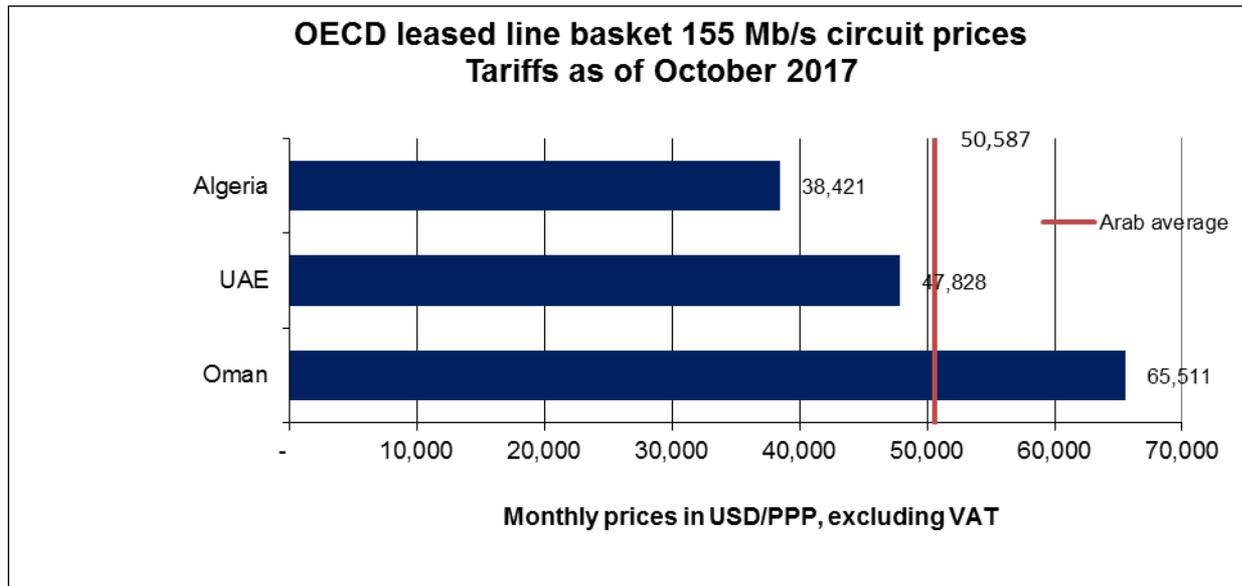
The OECD data shown represents the lowest and highest prices found in OECD countries, and the average price across all 34 OECD countries.

Only a few of the Arab countries publish these prices. The service may still be offered, though.





155 MB/S OECD LEASED LINE BASKET RESULTS



Only a few of the Arab countries publish these prices. The service may still be offered, though.

The OECD basket does not cover 155 Mb/s, however the standard 2010 methodology has been applied to 155 Mb/s circuits for the Arab countries

Note: No equivalent OECD data exists.





OBSERVATIONS FROM LEASED LINE RESULTS

- The table below shows a summary of the cheapest and most expensive countries for each basket.

	Cheapest			Most expensive		
	1st	2nd	3rd	1st	2nd	3rd
64 kb/s	Sudan	Lebanon	Tunisia	Mauritania	Oman	UAE
256 kb/s	Sudan	Lebanon	Tunisia	UAE	Mauritania	Oman
2 Mb/s	Lebanon	Sudan	Algeria	Mauritania	Bahrain	Oman
34 Mb/s*	Algeria	UAE	Oman	N/A		
155 Mb/s*	Algeria	UAE	Oman	N/A		

* Offers only available from 3 countries

- For leased lines up to 256 kb/s, Sudan, Lebanon and Tunisia have the lowest prices
- For 2 Mb/, Lebanon and Sudan still feature as the cheapest, along with Algeria
- Algeria has the cheapest offers for 34 Mb/s and 155 Mb/s, followed by UAE and Oman
 - There are no offers from any other countries for these speeds
- The number of Arab countries publishing leased line pricing has fallen significantly since 2017
 - Only 7 of the 22 countries publish prices for 64 kb/s and 256 kb/s circuits, 8 countries for 2 Mb/s, and 3 countries for 34 Mb/s and 155 Mb/s.
 - This trend is also one that has been observed in OECD countries
- For 2 Mb/s, only Lebanon and Sudan have prices below the OECD average
- For 34 Mb/s, all three Arab countries are considerably higher than the OECD average cost.
- Many of the Arab countries are quite small in size and this price comparison may give advantage to the tariff structure used in these small countries.
 - i.e. the reality may be worse than the result shown here.





LEASED LINE TIME SERIES ANALYSIS AND RANKING TABLES 2012-2017

2010 OECD LEASED LINE BASKETS RANKING, 64 KB/S



Total results for OECD 64 kb/s leased line basket
Results in US\$PPP excluding VAT

	2012	2013	2015	2016	2017
Algeria	300	300			
Bahrain	714	714	714	714	714
Comoros					
Djibouti	1,626	1,626	1,626	1,626	
Egypt	77	77	77	77	
Iraq					
Jordan	455	455	455	455	
Kuwait					
Lebanon	306	306	306	306	265
Libya	235	235	235	235	
Mauritania	1,347	1,347	1,347	1,347	934
Morocco	922	922	922	922	
Oman	870	870	870	870	870
Palestine	331	331	331	331	
Qatar	638	869	869	869	
Saudi Arabia	893	893	893	893	
Somalia					
Sudan					41
Syria	16	16	16	16	
Tunisia	322	322	322	322	322
UAE	763	763	1,472	1,472	731
Yemen	633	633	633	633	

Arab average	615	628	693	693	554
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Below Arab average
 Above Arab average

Ranking for OECD 64 kb/s leased line basket

	2012	2013	2015	2016	2017
Algeria	4	4	-	-	-
Bahrain	11	10	9	9	4
Comoros	-	-	-	-	-
Djibouti	17	17	16	16	-
Egypt	2	2	2	2	-
Iraq	-	-	-	-	-
Jordan	8	8	7	7	-
Kuwait	-	-	-	-	-
Lebanon	5	5	4	4	2
Libya	3	3	3	3	-
Mauritania	16	16	14	14	7
Morocco	15	15	13	13	-
Oman	13	13	11	11	6
Palestine	7	7	6	6	-
Qatar	10	12	10	10	-
Saudi Arabia	14	14	12	12	-
Somalia	-	-	-	-	-
Sudan	-	-	-	-	1
Syria	1	1	1	1	-
Tunisia	6	6	5	5	3
UAE	12	11	15	15	5
Yemen	9	9	8	8	-

Least expensive
 Most expensive



2010 OECD LEASED LINE BASKETS RANKING, 256 KB/S



Total results for OECD 256 kb/s leased line basket
Results in US\$PPP excluding VAT

	2012	2013	2015	2016	2017
Algeria	702	702			
Bahrain	1,373	1,373	1,373	1,373	1,373
Comoros					
Djibouti	2,333	2,333	2,333	2,333	
Egypt	201	201	201	201	
Iraq					
Jordan	999	999	999	999	
Kuwait					
Lebanon	306	306	306	306	265
Libya	820	820	820	820	
Mauritania	2,003	2,003	2,003	2,003	1,965
Morocco	1,863	1,863	1,863	1,863	
Oman	1,740	1,740	1,740	1,740	1,740
Palestine	573	590	590	590	
Qatar	1,579	1,579	1,579	1,579	
Saudi Arabia	2,073	2,819	2,819	2,819	
Somalia					
Sudan					116
Syria	52	52	52	52	
Tunisia	643	643	643	643	643
UAE	2,139	2,139	3,871	3,871	2,034
Yemen	1,059	1,059	1,059	1,059	

Arab average	1,203	1,248	1,391	1,391	1,162
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■ Below Arab average
■ Above Arab average

Ranking for OECD 256 kb/s leased line basket

	2012	2013	2015	2016	2017
Algeria	6	6	-	-	-
Bahrain	10	10	9	9	4
Comoros	-	-	-	-	-
Djibouti	17	16	14	14	-
Egypt	2	2	2	2	-
Iraq	-	-	-	-	-
Jordan	8	8	7	7	-
Kuwait	-	-	-	-	-
Lebanon	3	3	3	3	2
Libya	7	7	6	6	-
Mauritania	14	14	13	13	6
Morocco	13	13	12	12	-
Oman	12	12	11	11	5
Palestine	4	4	4	4	-
Qatar	11	11	10	10	-
Saudi Arabia	15	17	15	15	-
Somalia	-	-	-	-	-
Sudan	-	-	-	-	1
Syria	1	1	1	1	-
Tunisia	5	5	5	5	3
UAE	16	15	16	16	7
Yemen	9	9	8	8	-

■ Least expensive
■ Most expensive



2010 OECD LEASED LINE BASKETS RANKING, 2 MB/S



Total results for OECD 2 Mb/s leased line basket
Results in US\$PPP excluding VAT

	2012	2013	2015	2016	2017
Algeria	2,360	2,360	2,360	2,360	2,360
Bahrain	4,888	4,888	4,888	4,888	4,888
Comoros					
Djibouti	4,353	4,353	4,353	4,353	
Egypt	463	463	463	463	
Iraq					
Jordan	5,104	5,104	5,104	5,104	
Kuwait					
Lebanon	611	611	611	611	568
Libya	1,385	1,385	1,385	1,385	
Mauritania					9,105
Morocco	4,560	4,560	4,560	4,560	
Oman	4,350	4,350	4,350	4,350	4,350
Palestine	2,697	2,697	2,697	2,697	
Qatar	3,567	4,486	4,486	4,486	
Saudi Arabia	4,656	4,656	4,656	4,656	
Somalia					
Sudan		11,293	11,293	11,293	596
Syria	303	303	303	303	
Tunisia	2,734	2,734	2,734	2,734	2,734
UAE	4,492	4,492	6,333	6,333	4,066
Yemen	4,989	4,989	4,989	4,989	

Arab average	3,219	3,748	3,857	3,857	3,583
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Below Arab average
 Above Arab average

Ranking for OECD 2 Mb/s leased line basket

	2012	2013	2015	2016	2017
Algeria	5	5	5	5	3
Bahrain	14	14	13	13	7
Comoros	-	-	-	-	-
Djibouti	10	9	9	9	-
Egypt	2	2	2	2	-
Iraq	-	-	-	-	-
Jordan	16	16	15	15	-
Kuwait	-	-	-	-	-
Lebanon	3	3	3	3	1
Libya	4	4	4	4	-
Mauritania	-	-	-	-	8
Morocco	12	12	11	11	-
Oman	9	8	8	8	6
Palestine	6	6	6	6	-
Qatar	8	10	10	10	-
Saudi Arabia	13	13	12	12	-
Somalia	-	-	-	-	-
Sudan	-	17	17	17	2
Syria	1	1	1	1	-
Tunisia	7	7	7	7	4
UAE	11	11	16	16	5
Yemen	15	15	14	14	-

Least expensive
 Most expensive



2010 OECD LEASED LINE BASKETS RANKING, 34 MB/S



Total results for OECD 34 Mb/s leased line basket
Results in US\$PPP excluding VAT

	2012	2013	2015	2016	2017
Algeria			21,407	21,407	21,407
Bahrain					
Comoros					
Djibouti					
Egypt	3,084	3,084	3,084	3,084	
Iraq					
Jordan					
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco	47,068	47,000	47,000	18,748	
Oman	38,096	38,096	38,096	38,096	38,096
Palestine					
Qatar	11,603	11,603	11,603	11,603	
Saudi Arabia	28,593	28,593	28,593	28,593	
Somalia					
Sudan					
Syria					
Tunisia					
UAE			45,362	45,362	31,881
Yemen	62,403	62,403	62,403	62,403	

Arab average	31,808	31,797	32,194	28,662	30,461
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Below Arab average
 Above Arab average

Ranking for OECD 34 Mb/s leased line basket

	2012	2013	2015	2016	2017
Algeria	-	-	3	4	1
Bahrain	-	-	-	-	-
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	1	1	1	1	-
Iraq	-	-	-	-	-
Jordan	-	-	-	-	-
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	5	5	7	3	-
Oman	4	4	5	6	3
Palestine	-	-	-	-	-
Qatar	2	2	2	2	-
Saudi Arabia	3	3	4	5	-
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	-
UAE	-	-	6	7	2
Yemen	6	6	8	8	-

Least expensive
 Most expensive



2010 OECD LEASED LINE BASKETS RANKING, 155 MB/S



Total results for OECD 155 Mb/s leased line basket
Results in US\$PPP excluding VAT

	2012	2013	2015	2016	2017
Algeria			38,421	38,421	38,421
Bahrain					
Comoros					
Djibouti					
Egypt	6,169	6,169	6,169	6,169	
Iraq					
Jordan					
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					
Oman	65,511	65,511	65,511	65,511	65,511
Palestine					
Qatar	45,258	42,270	42,270	42,270	
Saudi Arabia	58,407	58,407	58,407	58,407	
Somalia					
Sudan					
Syria					
Tunisia					
UAE			68,051	68,051	47,828
Yemen					

Arab average	43,836	43,089	46,471	46,471	50,587
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Below Arab average
 Above Arab average

Ranking for OECD 155 Mb/s leased line basket

	2012	2013	2015	2016	2017
Algeria	-	-	2	2	1
Bahrain	-	-	-	-	-
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	1	1	1	1	-
Iraq	-	-	-	-	-
Jordan	-	-	-	-	-
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	-
Oman	4	4	5	5	3
Palestine	-	-	-	-	-
Qatar	2	2	3	3	-
Saudi Arabia	3	3	4	4	-
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	-
UAE	-	-	6	6	2
Yemen	-	-	-	-	-

Least expensive
 Most expensive





OBSERVATIONS FROM LEASED LINE TIME SERIES RESULTS

- Leased line prices have been generally stable since 2012, with no change to most of the operator prices, however, in the period 2016 to 2017, a number of operators stopped publishing prices.
 - For 64 kb/s circuits, for example, 10 countries stopped publishing prices.
- For those countries that have published prices, there were some price changes (reductions)
 - For 64 kb/s and 256 kb/s circuits, Lebanon, Mauritania, and UAE all reduced prices. Sudan began publishing prices
 - For 2 Mb/s: Lebanon, Sudan and UAE reduced prices
 - For 34 Mb/s and 155 Mb/s, there were no changes to the three operators still publishing prices at this speed.
- The cumulative effect of the reductions in some countries, and the removal of results for other countries, due to lack of published prices is a decrease in the average cost for speeds up to and including 2 Mb/s. For 34 Mb/s and 155 Mb/s, the Arab average cost has increased, however this is solely driven by some lower cost countries no longer publishing prices
- The average price changes for each basket between 2015/2016 and 2016/2017 are shown in the table below

	2015-2016	2016-2017
64 kb/s	0.00%	-20.09%
256 kb/s	0.00%	-16.42%
2 Mb/s	0.00%	-7.09%
34 Mb/s*	-10.97%	6.28%
155 Mb/s*	0.00%	8.86%

Percentage change 2015/6 and 2016/17





FIXED BROADBAND BASKET RESULTS 2017



FIXED BROADBAND BASKET METHODOLOGY

- Research covering 354 fixed broadband service offerings from the incumbent ISP* in 19 Arab countries
- Costs are derived using the OECD broadband basket methodology, and are based on the baskets that were defined by OECD in 2014, which consider a number of speed ranges and usage levels (18 in total). The baskets are shown in the table below. As most ISPs in the Arab countries do not offer services in the highest speed category (greyed out in the table), results for these have not been included.
 - As of January 2016, only two of the Arab countries had broadband services >1000 Mb/s; Qatar and UAE. The availability of very high speed services at 1G/s and above also have limited availability across the OECD countries.
 - Costs are shown separately for both residential and business services
- Total monthly cost calculated based on usage profiles, which are dependent on the speed of service, as shown below (15 of the total 18) :

Service speeds		Usage volume (GB/month)		
Download speed (Mb/s)	Minimum upload speed (Mb/s)	Low	Medium	High
≤ 1.5/2.0	0.256	5	10	20
> 1.5/2.0 - 10	0.512	5	15	50
> 10 - 25/30	0.768	10	25	100
> 25/30 - 100	1	15	50	200
> 100 - 1000	3	25	100	400
> 1000	10	100	250	1000

The OECD data shown refer to the incumbent ISP* fixed broadband services in the 35 OECD countries

- Tariff data cover the cheapest form of installation, amortized over three years, modem cost (if applicable), monthly rental, usage allowances and any usage charges. Additional information on speed, web-space, email addresses, penalties with excess usage, and contract term duration is also included in the basic data and presented along with the cost results.
 - To the extent this information is published by the provider

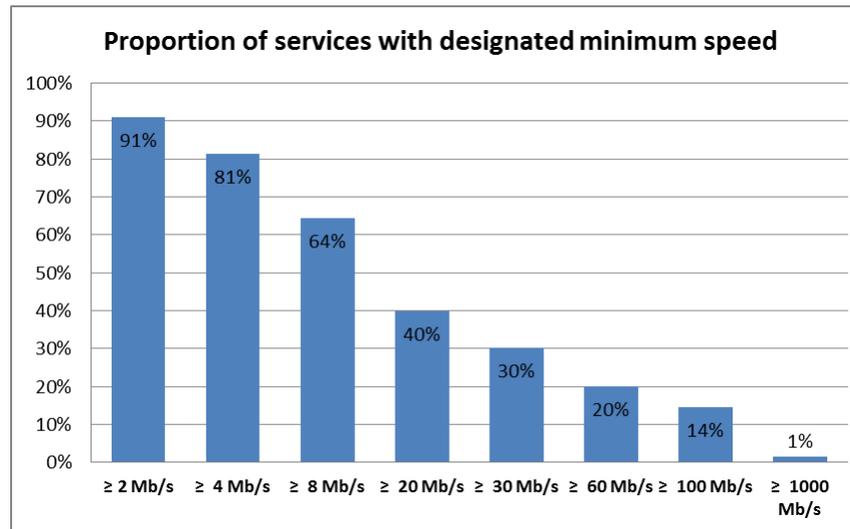
* **Incumbent ISP will normally mean the ISP owned by the incumbent operator in the country.**





FIXED BROADBAND DATA ISSUES

- Price data is not available for broadband services in Iraq, Kuwait, and Somalia
- Speeds have continued to increase, with no ISPs having offerings below 256 kb/s. Maximum speeds have increased dramatically. As shown in the table below, over 90% of services have a minimum advertised download speed of 2 Mb/s or above, and 40% are at speeds of at least 20 Mb/s.



- Speeds above 2 Mb/s are available in 18 of the 19 countries. Only Libya has broadband speeds not exceeding 2 Mb/s (only 512kb/s is available. This is the same as the situation in 2016)
- Average speed across the Arab countries has risen dramatically - up from 23.9 Mb/s in 2016 to 40 Mb/s in 2017

Note: the average speed is a simple average across the packages, and does not take into account the distribution of customers across available plans. Information on customer distribution is not available, and hence a weighted average is not possible.

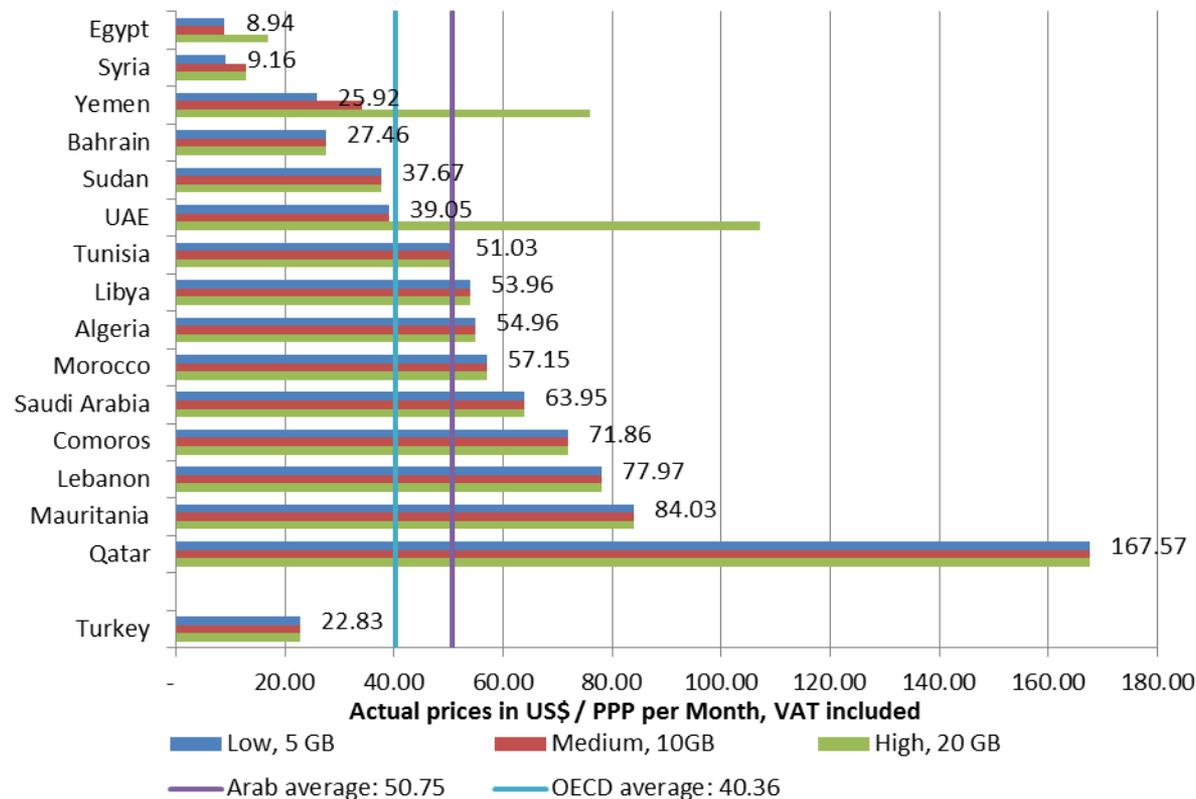


RESIDENTIAL FIXED BROADBAND VERY LOW SPEED OECD 2014 BASKET > 256 KB/S UP TO 2 MB/S



Residential Fixed Broadband, 0.25 - 2 Mb/s

Data as of October 2017



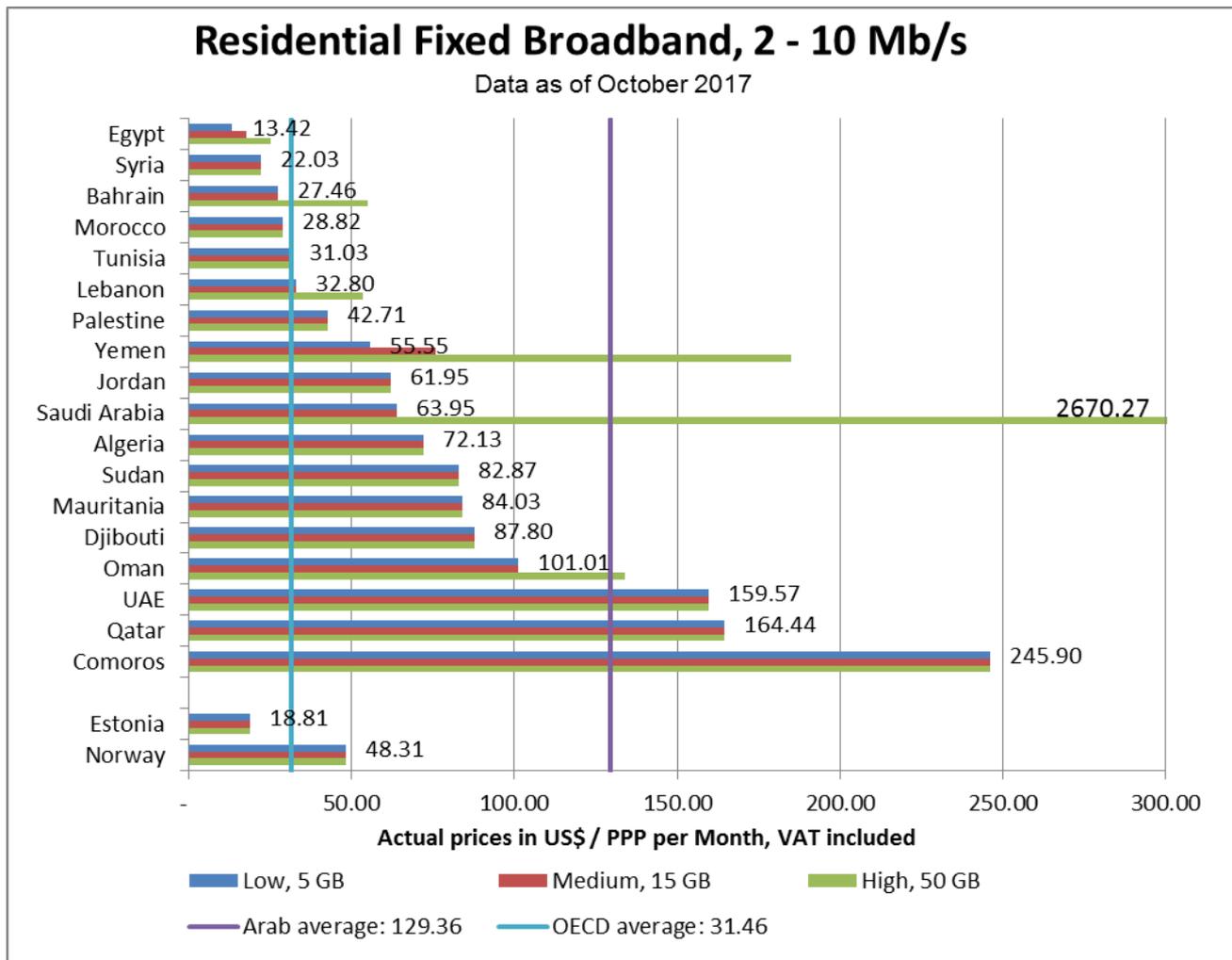
Total monthly cost calculated based on three usage baskets:

Low usage: 5 GB
 Medium usage: 10 GB
 High usage: 20 GB.

Average lines are based on average across the overall results for the 3 usage levels.



RESIDENTIAL FIXED BROADBAND LOW SPEED OECD 2014 BASKET > 2 MB/S UP TO 10 MB/S



Total monthly cost calculated based on three usage baskets:

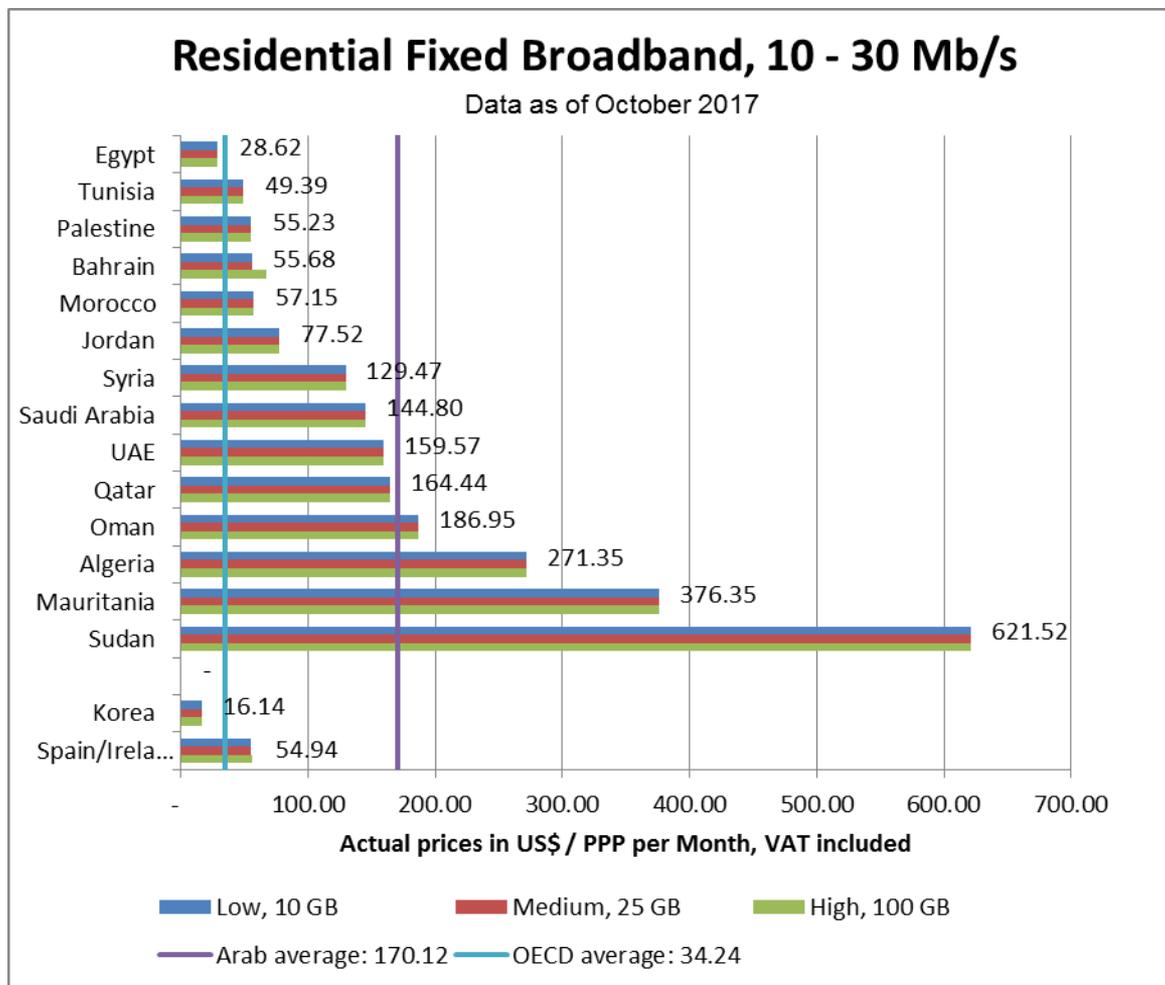
Low usage: 5 GB
Medium usage: 15 GB
High usage: 50 GB.

Average lines are based on average across the overall results for the 3 usage levels.

Note the high cost for Saudi Arabia for high usage. This is due to tariff changes in this speed range, with the only offer available now being a basic internet service not suited for high usage. Higher speed services in Saudi Arabia are more cost effective, but do not fit the profile of this basket.



RESIDENTIAL FIXED BROADBAND MEDIUM SPEED OECD 2014 BASKET > 10 MB/S UP TO 30 MB/S



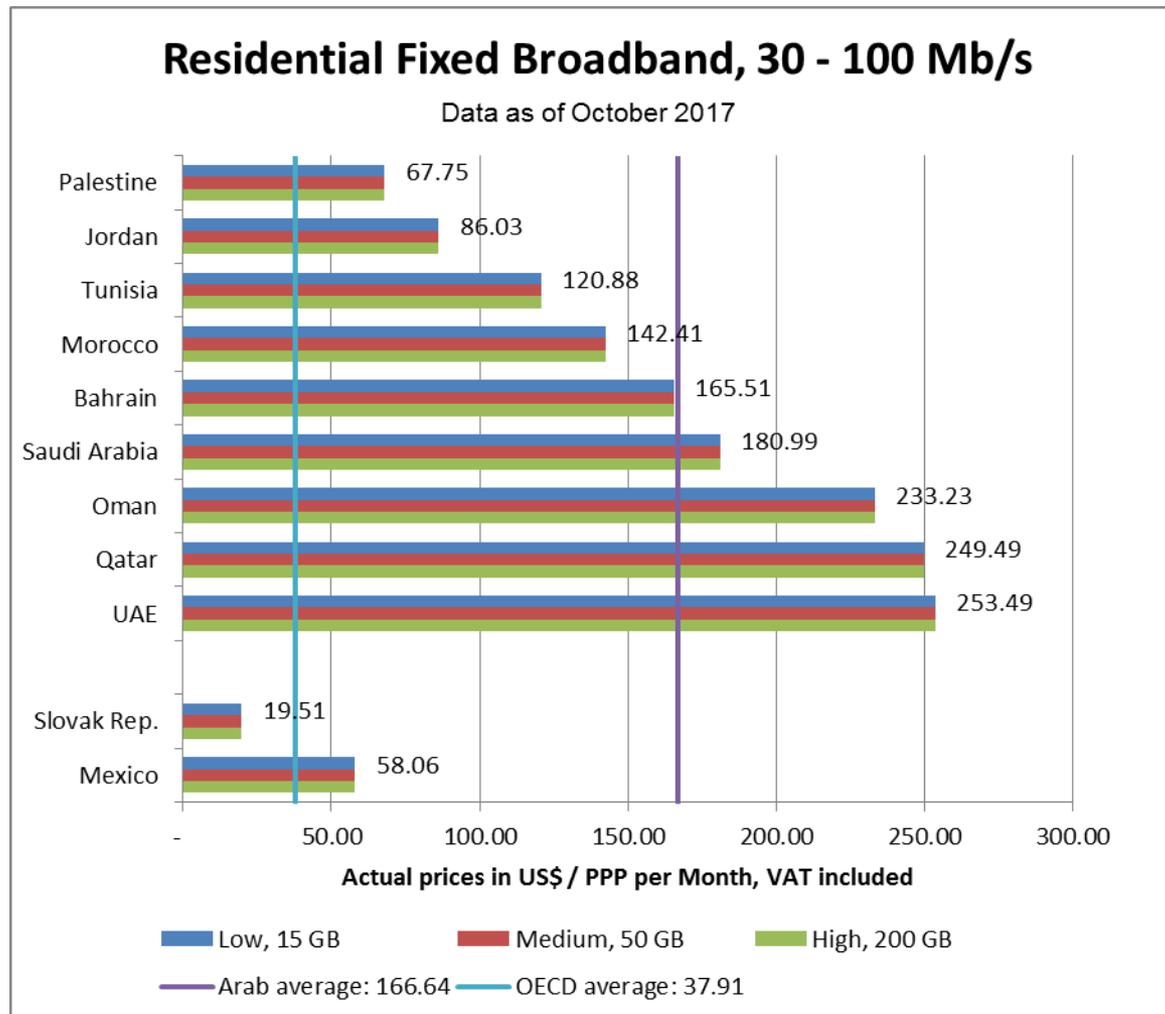
Total monthly cost calculated based on three usage baskets:

Low usage: 10 GB
 Medium usage: 25 GB
 High usage: 100 GB.

Average lines are based on average across the overall results for the 3 usage levels.



RESIDENTIAL FIXED BROADBAND HIGH SPEED OECD 2014 BASKET > 30 MB/S UP TO 100 MB/S



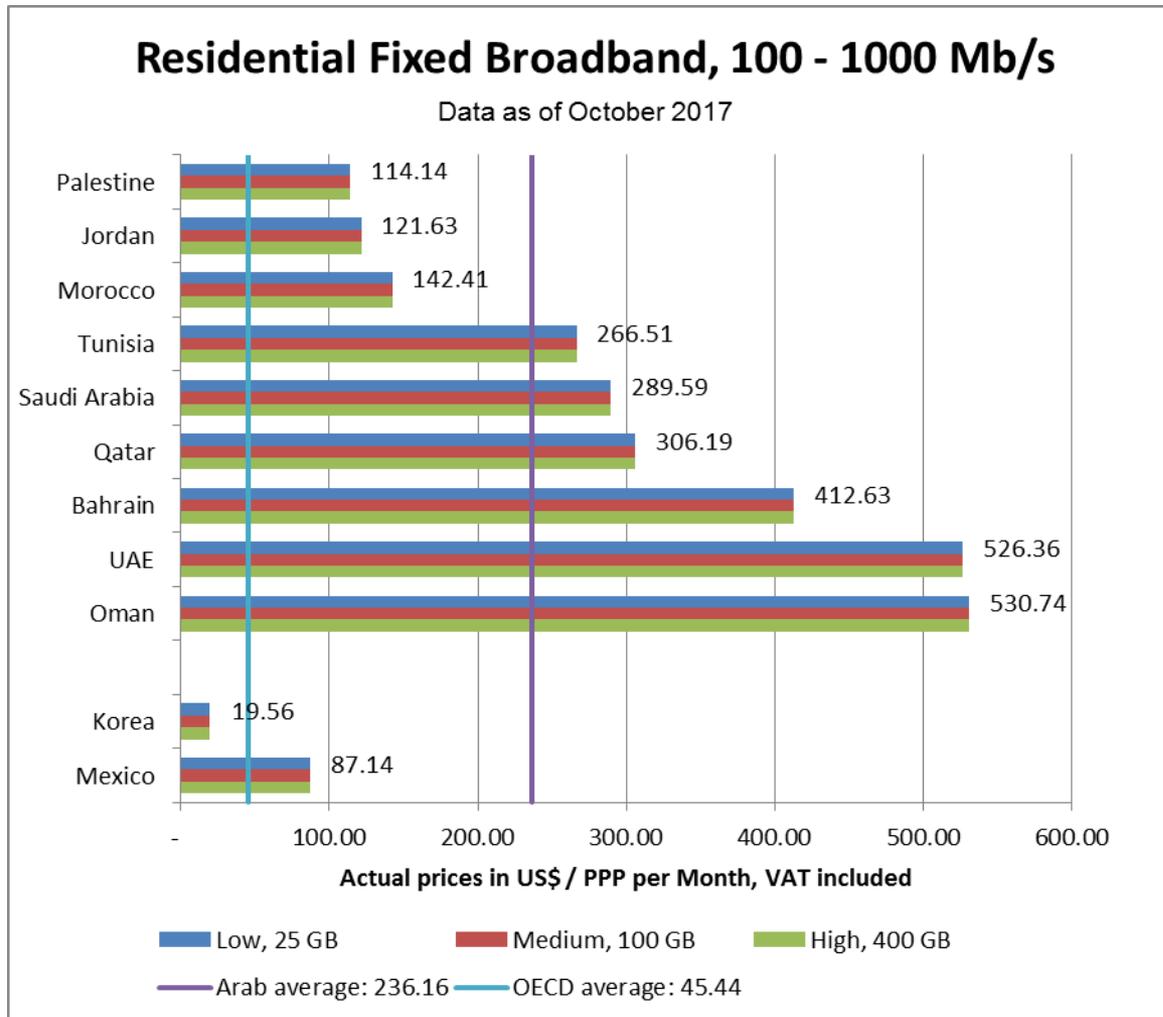
Total monthly cost calculated based on three usage baskets:

Low usage: 15 GB
 Medium usage: 50 GB
 High usage: 200 GB.

Average lines are based on average across the overall results for the 3 usage levels.



RESIDENTIAL FIXED BROADBAND HIGH SPEED OECD 2014 BASKET > 100 MB/S UP TO 1000 MB/S



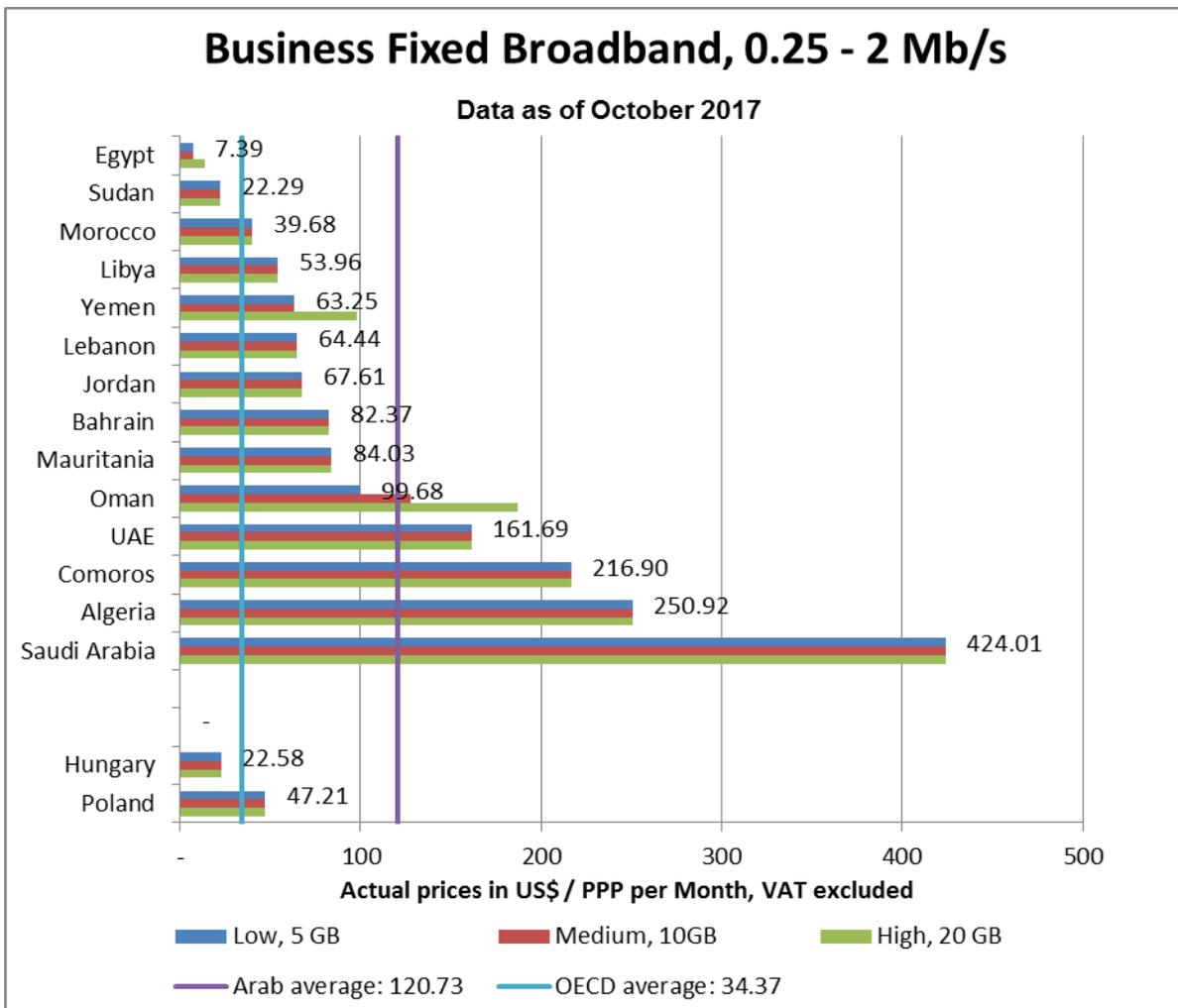
Total monthly cost calculated based on three usage baskets:

Low usage: 25 GB
 Medium usage: 100 GB
 High usage: 400 GB.

Average lines are based on average across the overall results for the 3 usage levels.



BUSINESS FIXED BROADBAND VERY LOW SPEED OECD 2014 BASKET > 256 KB/S UP TO 2 MB/S



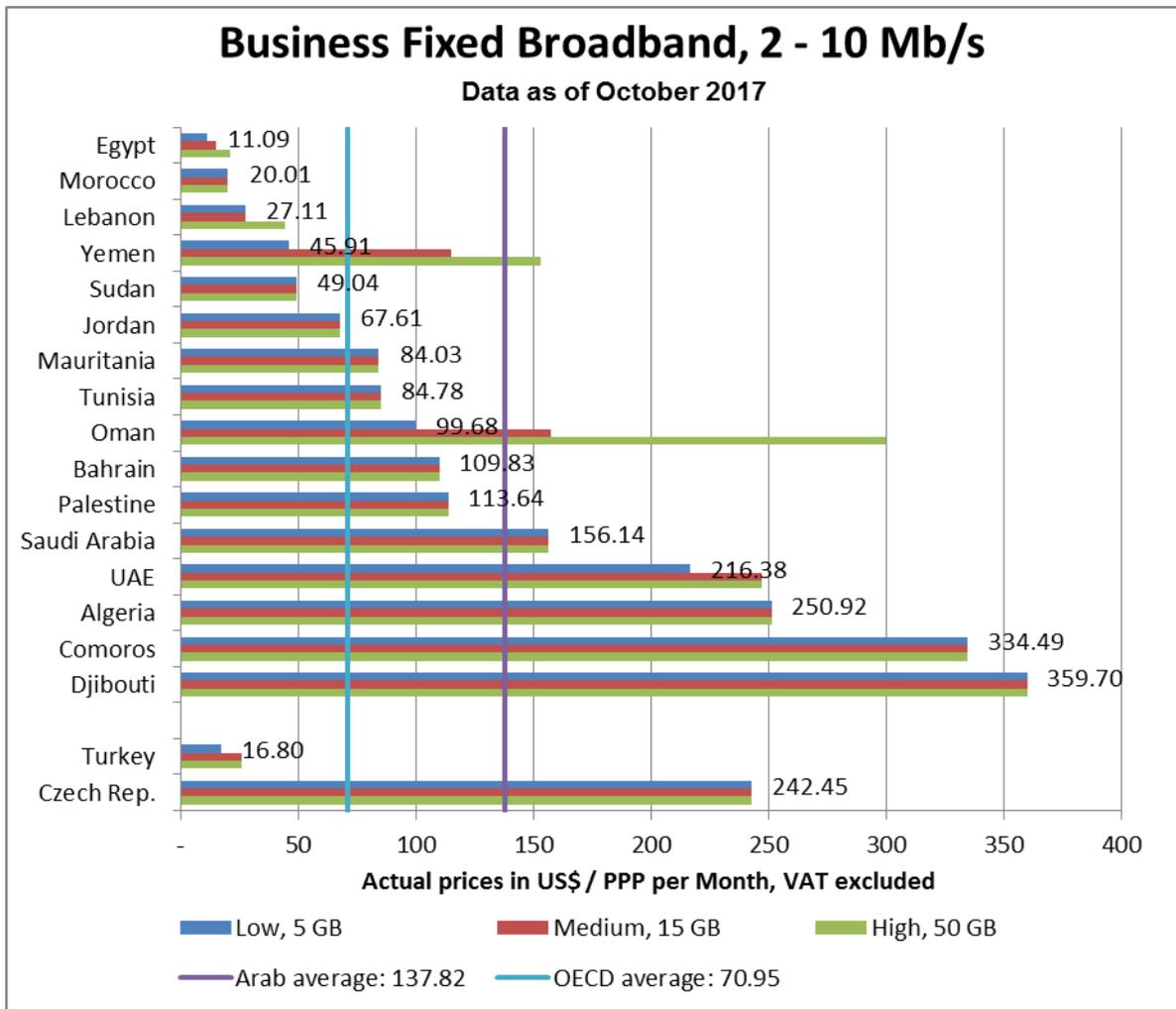
Total monthly cost calculated based on three usage baskets:

Low usage: 5 GB
Medium usage: 10 GB
High usage: 20 GB.

Average lines are based on average across the overall results for the 3 usage levels.



BUSINESS FIXED BROADBAND LOW SPEED OECD 2014 BASKET > 2 MB/S UP TO 10 MB/S



Total monthly cost calculated based on three usage baskets:

Low usage: 5 GB
 Medium usage: 15 GB
 High usage: 50 GB.

Average lines are based on average across the overall results for the 3 usage levels.

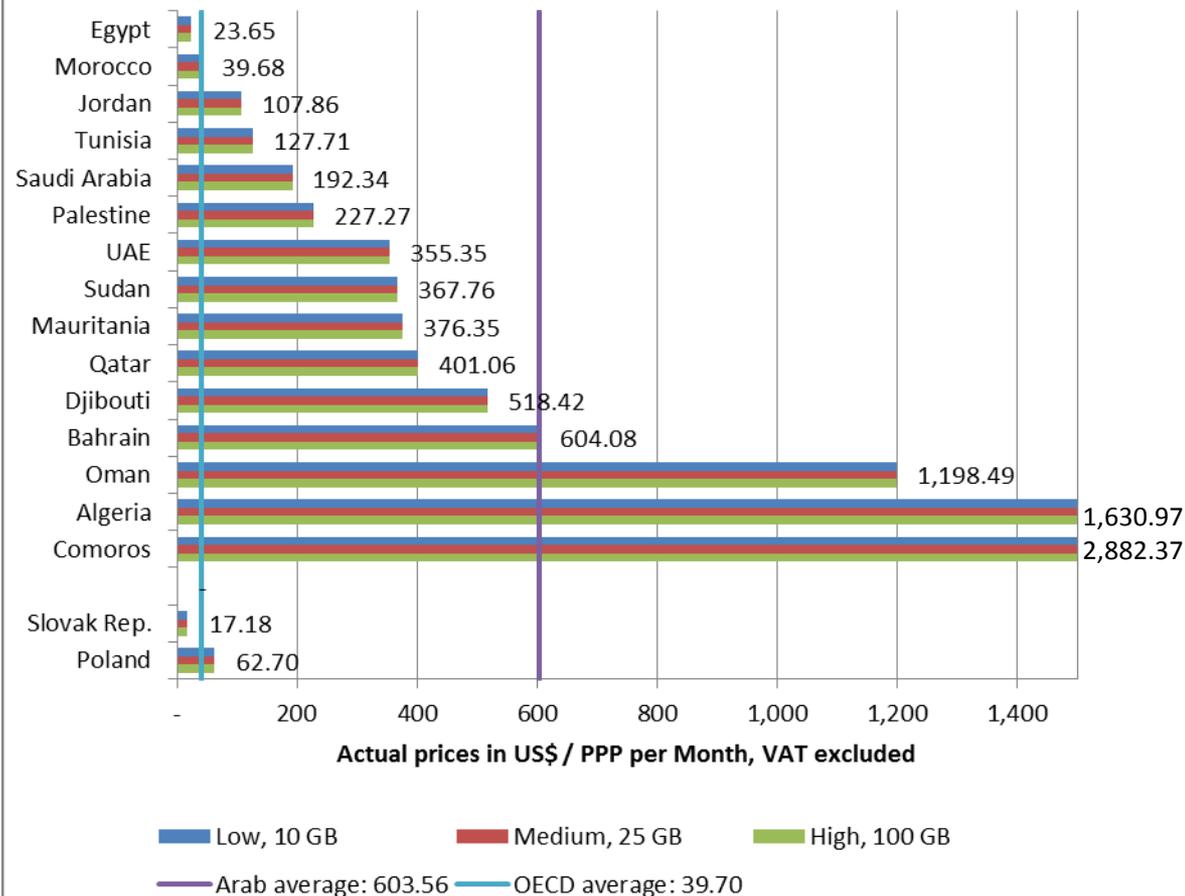


BUSINESS FIXED BROADBAND MEDIUM SPEED OECD 2014 BASKET > 10 MB/S UP TO 30 MB/S



Business Fixed Broadband, 10 - 30 Mb/s

Data as of October 2017



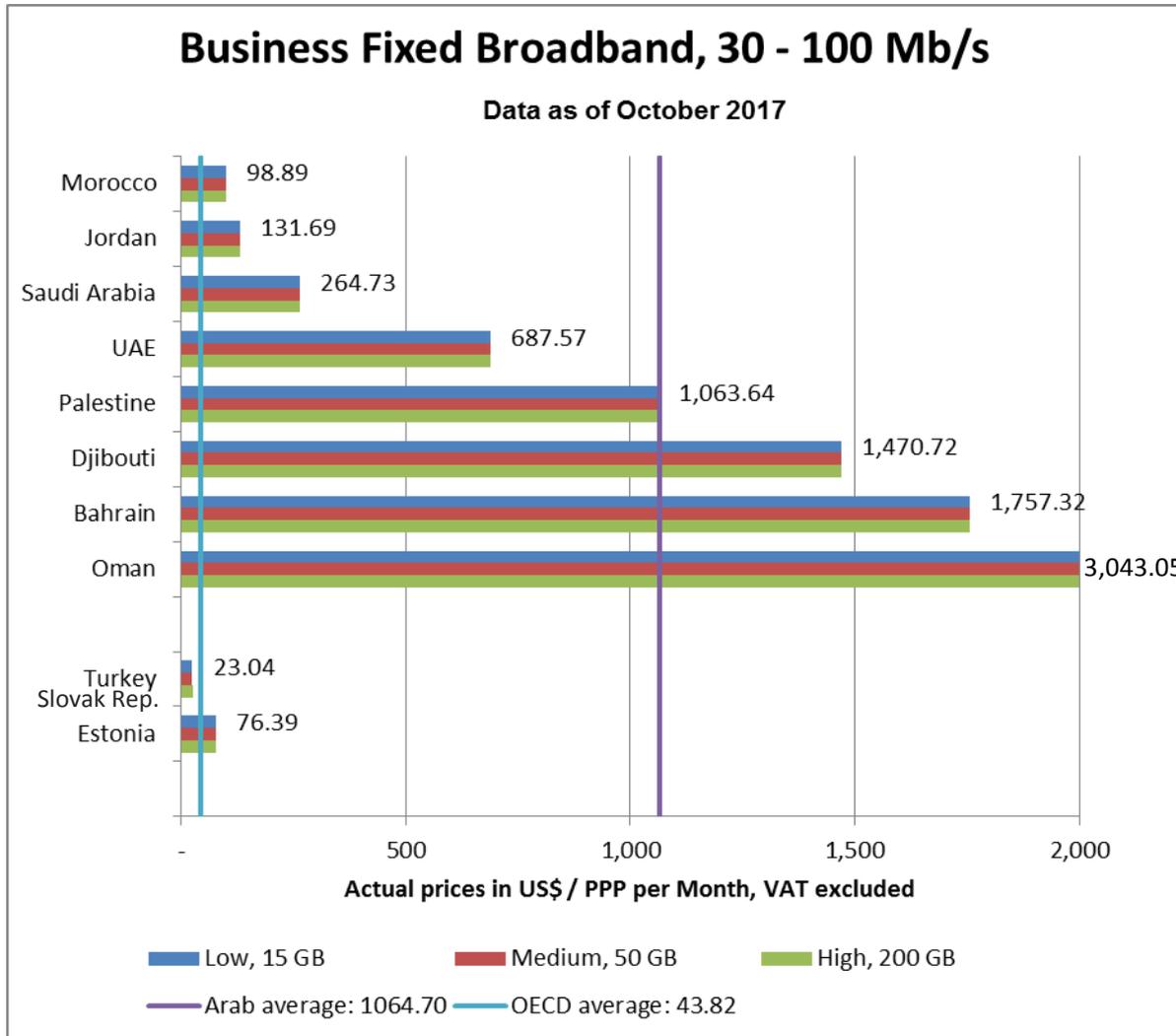
Total monthly cost calculated based on three usage baskets:

Low usage: 10 GB
 Medium usage: 25 GB
 High usage: 100 GB.

Average lines are based on average across the overall results for the 3 usage levels.



BUSINESS FIXED BROADBAND HIGH SPEED OECD 2014 BASKET > 30 MB/S UP TO 100 MB/S



Total monthly cost calculated based on three usage baskets:

Low usage: 15 GB
 Medium usage: 50 GB
 High usage: 200 GB.

Average lines are based on average across the overall results for the 3 usage levels.

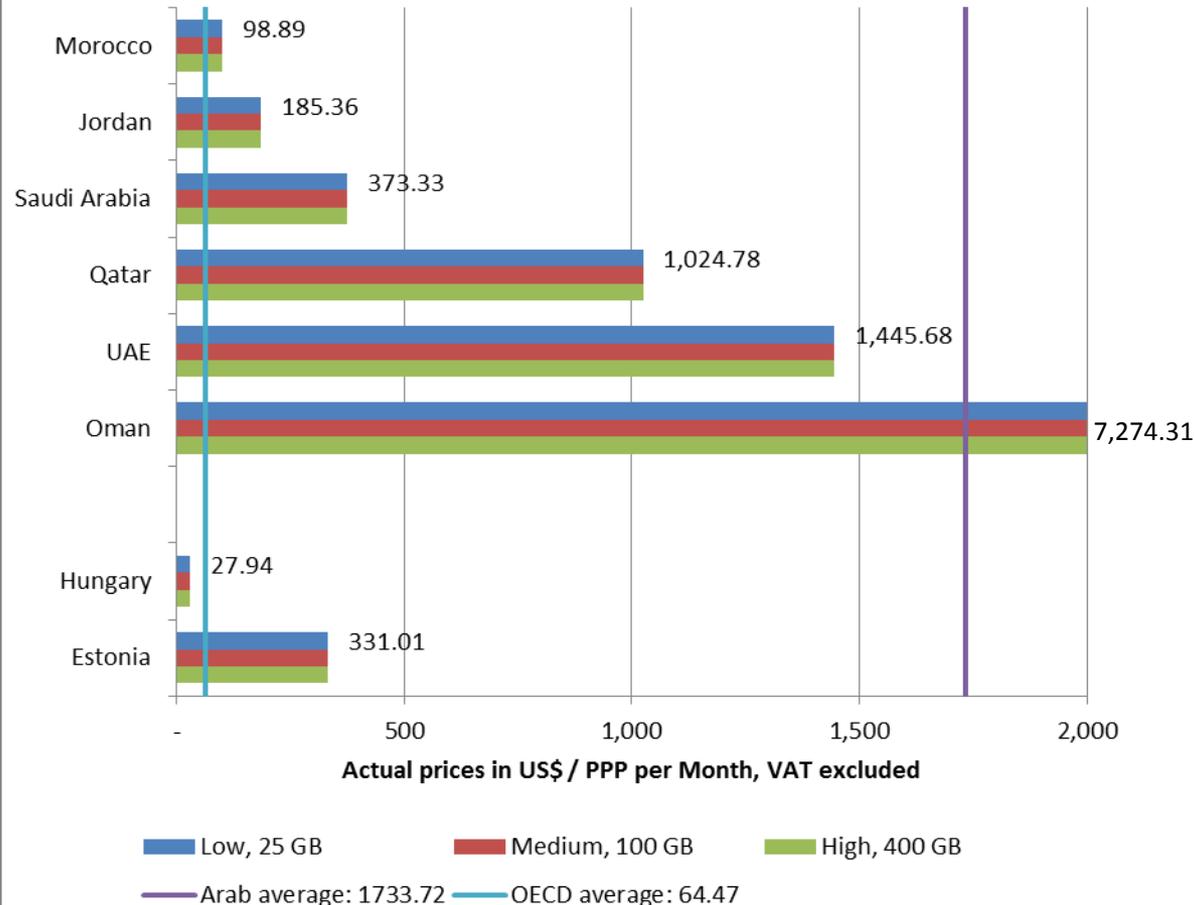


BUSINESS FIXED BROADBAND HIGH SPEED OECD 2014 BASKET > 100 MB/S UP TO 1000 MB/S



Business Fixed Broadband, 100 - 1000 Mb/s

Data as of October 2017



Total monthly cost calculated based on three usage baskets:

Low usage: 25 GB
 Medium usage: 100 GB
 High usage: 400 GB.

Average lines are based on average across the overall results for the 3 usage levels.



OBSERVATIONS FROM FIXED BROADBAND BASKET RESULTS



- There is a large variation in ranking according to the speed of service, for both residential services. The side-by-side tables below shows the 3 cheapest and 3 most expensive countries for each of the 5 baskets considered for medium usage (low and high usage may differ, but typically don't)

Residential-medium usage	Cheapest			Most expensive			Business-medium usage	Cheapest			Most expensive		
	1st	2nd	3rd	1st	2nd	3rd		1st	2nd	3rd	1st	2nd	3rd
0.25 - 2 Mb/s / 10 GB	Egypt	Syria	Bahrain	Lebanon	Mauritania	Qatar	0.25 - 2 Mb/s / 10 GB	Egypt	Sudan	Morocco	Comoros	Algeria	Saudi Arabia
2 - 10 Mb/s / 15 GB	Egypt	Syria	Bahrain	UAE	Qatar	Comoros	2 - 10 Mb/s / 15 GB	Egypt	Morocco	Lebanon	Algeria	Comoros	Djibouti
10 - 30 Mb/s / 25 GB	Egypt	Tunisia	Palestine	Algeria	Mauritania	Sudan	10 - 30 Mb/s / 25 GB	Egypt	Morocco	Jordan	Oman	Algeria	Comoros
30 - 100 Mb/s / 50 GB	Palestine	Jordan	Tunisia	Oman	Qatar	UAE	30 - 100 Mb/s / 50 GB	Morocco	Jordan	Saudi Arabia	Djibouti	Bahrain	Oman
100 - 1000 Mb/s / 100 GB	Palestine	Jordan	Morocco	Bahrain	UAE	Oman	100 - 1000 Mb/s / 100 GB	Morocco	Jordan	Saudi Arabia	Qatar	UAE	Oman

- Egypt features as the cheapest country for both residential and business services up to 30 Mb/s (speeds above 30 Mb/s were not available in Egypt at the time of data collection). Syria, Bahrain, Yemen, Morocco, Palestine and Tunisia are also among the cheapest for residential users. In addition to Egypt, Sudan, Morocco, Lebanon, Jordan and Saudi Arabia are the cheapest countries for business broadband. Residential users in Lebanon, UAE, Algeria, Qatar, Mauritania and Sudan, among others, face the most expensive costs for broadband, while for business users, Comoros, Algerian, Oman, Djibouti and UAE are among the most expensive.
- The number of Arab countries that are below the OECD average depends on the speed of service, and, for some countries, on the usage level.
- The Arab average residential cost is up to 5.2 times higher than the average OECD cost (similar to 2016). For business services, the average is up to 15.2 times higher (down from 18 times in 2016).
 - The residential figure continues to be skewed by particularly high costs in a number of countries, in particular, Qatar, Comoros, Mauritania, Sudan and, for high usage in particular, Yemen and Saudi Arabia. For business services, the Arab average is heavily skewed by a number of countries, including Comoros, Djibouti, Saudi Arabia, Algeria and Oman.
- Usage based charges are still prevalent, and appear in offers across 7 of the Arab countries, however, they have had limited impact on the basket results, and flat rate services have featured as the cheapest. In many OECD countries, usage-based charges often only apply for a very few ISPs.





FIXED BROADBAND TIME SERIES ANALYSIS AND RANKING TABLES 2012-2017

2014 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 256 KB/S - 2 MB/S LOW USAGE



Total results for OECD L1: 0.25-2Mb/s, 5GB, residential offers
Results in US\$ / PPP VAT included, lowest per country

	2012	2013	2015	2016	2017
Algeria	39.13	39.13	58.22	54.96	54.96
Bahrain	71.52	71.52	27.46	27.46	27.46
Comoros	98.00	90.94	90.94	90.94	71.86
Djibouti	87.47	87.47	87.47	111.51	
Egypt	13.42	16.99	8.94	8.94	8.94
Iraq					
Jordan	57.20	71.87	71.87	67.87	
Kuwait					
Lebanon	41.67	41.67	34.37	34.02	77.97
Libya	53.96	53.96	53.96	53.96	53.96
Mauritania	57.20	55.28	31.32	31.32	84.03
Morocco					57.15
Oman	114.23	114.23			
Palestine	33.70	49.97	72.43		
Qatar	119.85	138.56	138.56	138.56	167.57
Saudi Arabia	118.33	71.67			63.95
Somalia					
Sudan	17.79	19.12	15.94	15.94	37.67
Syria	11.81	11.81	5.38	5.38	9.16
Tunisia	36.09	30.39	30.39	49.39	51.03
UAE	84.48	110.66	110.66	84.46	39.05
Yemen	33.58	33.58	24.75	24.75	25.92

Arab average	60.52	61.60	53.92	53.30	55.38
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■ Below Arab average
■ Above Arab average

Ranking for OECD L1: 0.25-2Mb/s, 5GB, residential offers

	2012	2013	2015	2016	2017
Algeria	7	6	10	10	9
Bahrain	12	11	5	5	4
Comoros	15	15	14	13	12
Djibouti	14	14	13	14	-
Egypt	2	2	2	2	1
Iraq	-	-	-	-	-
Jordan	11	13	11	11	-
Kuwait	-	-	-	-	-
Lebanon	8	7	8	7	13
Libya	9	9	9	9	8
Mauritania	10	10	7	6	14
Morocco	-	-	-	-	10
Oman	16	17	-	-	-
Palestine	5	8	12	-	-
Qatar	18	18	16	15	15
Saudi Arabia	17	12	-	-	11
Somalia	-	-	-	-	-
Sudan	3	3	3	3	5
Syria	1	1	1	1	2
Tunisia	6	4	6	8	7
UAE	13	16	15	12	6
Yemen	4	5	4	4	3

■ Least expensive
■ Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 256 KB/S - 2 MB/S MEDIUM USAGE



Total results for OECD M1: 0.25-2Mb/s, 10GB, residential offers
Results in US\$ / PPP VAT included, lowest per country

	2012	2013	2015	2016	2017
Algeria	39.13	39.13	58.22	54.96	54.96
Bahrain	93.62	93.62	27.46	27.46	27.46
Comoros	98.00	90.94	90.94	90.94	71.86
Djibouti	87.47	87.47	123.53	111.51	
Egypt	13.42	16.99	8.94	8.94	8.94
Iraq					
Jordan	70.65	71.87	71.87	67.87	
Kuwait					
Lebanon	51.70	51.70	34.37	34.02	77.97
Libya	53.96	53.96	53.96	53.96	53.96
Mauritania	57.20	55.28	31.32	31.32	84.03
Morocco					57.15
Oman	134.06	134.06			
Palestine	33.70	49.97	72.43		
Qatar	119.85	138.56	138.56	138.56	167.57
Saudi Arabia	118.33	71.67			63.95
Somalia					
Sudan	17.79	19.12	19.12	19.12	37.67
Syria	11.81	11.81	5.38	5.38	12.95
Tunisia	36.09	30.39	30.39	49.39	51.03
UAE	84.48	110.66	110.66	84.46	39.05
Yemen	33.58	33.58	24.75	24.75	34.26

Arab average	64.16	64.49	56.37	53.51	56.19
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■ Below Arab average
■ Above Arab average

Ranking for OECD M1: 0.25-2Mb/s, 10GB, residential offers

	2012	2013	2015	2016	2017
Algeria	7	6	10	10	9
Bahrain	14	15	5	5	3
Comoros	15	14	13	13	12
Djibouti	13	13	15	14	-
Egypt	2	2	2	2	1
Iraq	-	-	-	-	-
Jordan	11	12	11	11	-
Kuwait	-	-	-	-	-
Lebanon	8	8	8	7	13
Libya	9	9	9	9	8
Mauritania	10	10	7	6	14
Morocco	-	-	-	-	10
Oman	18	17	-	-	-
Palestine	5	7	12	-	-
Qatar	17	18	16	15	15
Saudi Arabia	16	11	-	-	11
Somalia	-	-	-	-	-
Sudan	3	3	3	3	5
Syria	1	1	1	1	2
Tunisia	6	4	6	8	7
UAE	12	16	14	12	6
Yemen	4	5	4	4	4

■ Least expensive
■ Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 256 KB/S - 2 MB/S HIGH USAGE



Total results for OECD H1: 0.25-2Mb/s, 20GB, residential offers
Results in US\$ / PPP VAT included, lowest per country

	2012	2013	2015	2016	2017
Algeria	39.13	39.13	58.22	54.96	54.96
Bahrain	137.95	137.95	27.46	27.46	27.46
Comoros	98.00	90.94	90.94	90.94	71.86
Djibouti	183.63	183.63	303.82	111.51	
Egypt	13.42	16.99	8.94	8.94	16.99
Iraq					
Jordan	104.61	144.09	144.09	140.10	
Kuwait					
Lebanon	98.13	98.13	34.37	34.02	77.97
Libya	222.86	138.41	53.96	53.96	53.96
Mauritania	57.20	55.28	31.32	55.28	84.03
Morocco					57.15
Oman	134.06	134.06			
Palestine	33.70	49.97	72.43		
Qatar	119.85	138.56	138.56	138.56	167.57
Saudi Arabia	118.33	71.67			63.95
Somalia					
Sudan	17.79	28.69	28.69	28.69	37.67
Syria	11.81	11.81	5.38	7.65	12.95
Tunisia	36.09	30.39	30.39	49.39	51.03
UAE	84.48	110.66	110.66	110.66	107.17
Yemen	33.58	33.58	24.75	32.70	75.92

Arab average	85.81	84.11	72.75	62.99	64.04
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Below Arab average
 Above Arab average

Ranking for OECD H1: 0.25-2Mb/s, 20GB, residential offers

	2012	2013	2015	2016	2017
Algeria	7	6	10	9	7
Bahrain	16	14	4	3	3
Comoros	10	10	12	11	10
Djibouti	17	18	16	13	-
Egypt	2	2	2	2	2
Iraq	-	-	-	-	-
Jordan	12	17	15	15	-
Kuwait	-	-	-	-	-
Lebanon	11	11	8	6	12
Libya	18	15	9	8	6
Mauritania	8	8	7	10	13
Morocco	-	-	-	-	8
Oman	15	13	-	-	-
Palestine	5	7	11	-	-
Qatar	14	16	14	14	15
Saudi Arabia	13	9	-	-	9
Somalia	-	-	-	-	-
Sudan	3	3	5	4	4
Syria	1	1	1	1	1
Tunisia	6	4	6	7	5
UAE	9	12	13	12	14
Yemen	4	5	3	5	11

Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 2 MB/S - 10 MB/S LOW USAGE



Total results for OECD L2: 2-10Mb/s, 5GB, residential offers
Results in US\$ / PPP VAT included, lowest per country

	2012	2013	2015	2016	2017
Algeria	118.12	118.12	104.38	72.13	72.13
Bahrain	71.52	71.52	27.46	27.46	27.46
Comoros	827.08	591.89	356.70	356.70	245.90
Djibouti				111.51	87.80
Egypt	26.83	13.42	13.42	13.42	13.42
Iraq					
Jordan	104.61	107.98	100.28	95.69	61.95
Kuwait					
Lebanon	98.13	98.13	34.37	34.02	32.80
Libya					
Mauritania	242.17	242.17	146.33	146.33	84.03
Morocco	28.82	28.82	28.82	29.54	28.82
Oman	114.23	114.23	114.23	114.23	101.01
Palestine	51.14	76.85	90.11	103.10	42.71
Qatar	176.55	195.26	135.42	135.42	164.44
Saudi Arabia	190.73	71.67	107.87	107.87	63.95
Somalia					
Sudan	145.68	79.68	79.68	79.68	82.87
Syria	47.00	47.00	19.00	19.00	22.03
Tunisia	48.12	30.39	30.39	30.39	31.03
UAE	137.11	163.06	163.06	163.06	159.57
Yemen	97.21	97.21	72.47	72.47	55.55

Arab average	148.53	126.32	95.53	95.11	76.53
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Below Arab average
 Above Arab average

Ranking for OECD L2: 2-10Mb/s, 5GB, residential offers

	2012	2013	2015	2016	2017
Algeria	11	13	11	7	11
Bahrain	6	5	3	3	3
Comoros	17	17	17	18	18
Djibouti	-	-	-	13	14
Egypt	1	1	1	1	1
Iraq	-	-	-	-	-
Jordan	9	11	10	10	9
Kuwait	-	-	-	-	-
Lebanon	8	10	6	6	6
Libya	-	-	-	-	-
Mauritania	16	16	15	16	13
Morocco	2	2	4	4	4
Oman	10	12	13	14	15
Palestine	5	7	9	11	7
Qatar	14	15	14	15	17
Saudi Arabia	15	6	12	12	10
Somalia	-	-	-	-	-
Sudan	13	8	8	9	12
Syria	3	4	2	2	2
Tunisia	4	3	5	5	5
UAE	12	14	16	17	16
Yemen	7	9	7	8	8

Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 2 MB/S - 10 MB/S MEDIUM USAGE



Total results for OECD M2: 2-10Mb/s, 15GB, residential offers
Results in US\$ / PPP VAT included, lowest per country

	2012	2013	2015	2016	2017
Algeria	118.12	118.12	104.38	72.13	72.13
Bahrain	109.83	109.83	27.46	27.46	27.46
Comoros	827.08	591.89	356.70	356.70	245.90
Djibouti				111.51	87.80
Egypt	26.83	13.42	17.89	17.89	17.89
Iraq					
Jordan	104.61	107.98	100.28	95.69	61.95
Kuwait					
Lebanon	98.13	98.13	34.37	34.02	32.80
Libya					
Mauritania	242.17	242.17	146.33	146.33	84.03
Morocco	28.82	28.82	28.82	29.54	28.82
Oman	134.06	134.06	134.06	134.06	101.01
Palestine	51.14	76.85	90.11	103.10	42.71
Qatar	176.55	195.26	135.42	135.42	164.44
Saudi Arabia	190.73	71.67	107.87	107.87	63.95
Somalia					
Sudan	145.68	79.68	79.68	79.68	82.87
Syria	47.00	47.00	19.00	19.00	22.03
Tunisia	48.12	30.39	30.39	30.39	31.03
UAE	137.11	163.06	163.06	163.06	159.57
Yemen	97.21	97.21	72.47	72.47	75.92

Arab average	151.95	129.74	96.96	96.46	77.91
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Below Arab average
 Above Arab average

Ranking for OECD M2: 2-10Mb/s, 15GB, residential offers

	2012	2013	2015	2016	2017
Algeria	10	12	11	7	10
Bahrain	9	11	3	3	3
Comoros	17	17	17	18	18
Djibouti	-	-	-	13	14
Egypt	1	1	1	1	1
Iraq	-	-	-	-	-
Jordan	8	10	10	10	8
Kuwait	-	-	-	-	-
Lebanon	7	9	6	6	6
Libya	-	-	-	-	-
Mauritania	16	16	15	16	13
Morocco	2	2	4	4	4
Oman	11	13	13	14	15
Palestine	5	6	9	11	7
Qatar	14	15	14	15	17
Saudi Arabia	15	5	12	12	9
Somalia	-	-	-	-	-
Sudan	13	7	8	9	12
Syria	3	4	2	2	2
Tunisia	4	3	5	5	5
UAE	12	14	16	17	16
Yemen	6	8	7	8	11

Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 2 MB/S - 10 MB/S HIGH USAGE



Total results for OECD H2: 2-10Mb/s, 50GB, residential offers
Results in US\$ / PPP VAT included, lowest per country

	2012	2013	2015	2016	2017
Algeria	118.12	118.12	104.38	72.13	72.13
Bahrain	277.22	277.22	27.46	54.92	54.92
Comoros	827.08	591.89	356.70	356.70	245.90
Djibouti				111.51	87.80
Egypt	26.83	13.42	25.04	25.04	25.04
Iraq					
Jordan	166.05	107.98	100.28	95.69	61.95
Kuwait					
Lebanon	323.98	323.98	59.46	59.11	53.50
Libya					
Mauritania	242.17	242.17	146.33	146.33	84.03
Morocco	28.82	28.82	28.82	29.54	28.82
Oman	134.06	134.06	134.06	134.06	134.06
Palestine	51.14	76.85	90.11	103.10	42.71
Qatar	176.55	195.26	135.42	135.42	164.44
Saudi Arabia	190.73	71.67	107.87	107.87	2670.27
Somalia					
Sudan	145.68	79.68	79.68	79.68	82.87
Syria	47.00	47.00	19.00	19.00	22.03
Tunisia	48.12	30.39	30.39	30.39	31.03
UAE	137.11	163.06	163.06	163.06	159.57
Yemen	97.21	97.21	72.47	72.47	184.86

Arab average	178.70	152.87	98.86	99.78	233.66
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Below Arab average
 Above Arab average

Ranking for OECD H2: 2-10Mb/s, 50GB, residential offers

	2012	2013	2015	2016	2017
Algeria	7	10	11	7	9
Bahrain	15	15	3	5	7
Comoros	17	17	17	18	17
Djibouti	-	-	-	13	12
Egypt	1	1	2	2	2
Iraq	-	-	-	-	-
Jordan	11	9	10	10	8
Kuwait	-	-	-	-	-
Lebanon	16	16	6	6	6
Libya	-	-	-	-	-
Mauritania	14	14	15	16	11
Morocco	2	2	4	3	3
Oman	8	11	13	14	13
Palestine	5	6	9	11	5
Qatar	12	13	14	15	15
Saudi Arabia	13	5	12	12	18
Somalia	-	-	-	-	-
Sudan	10	7	8	9	10
Syria	3	4	1	1	1
Tunisia	4	3	5	4	4
UAE	9	12	16	17	14
Yemen	6	8	7	8	16

Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 10 MB/S - 30 MB/S LOW USAGE



Total results for OECD L3: 10-30Mb/s, 10GB, residential offers
Results in US\$ / PPP VAT included, lowest per country

	2012	2013	2015	2016	2017
Algeria					271.35
Bahrain	329.50	274.58	109.83	82.37	55.68
Comoros					
Djibouti					
Egypt	125.22	125.22	125.22	125.22	28.62
Iraq					
Jordan	104.27	128.84	114.73	109.33	77.52
Kuwait					
Lebanon					
Libya					
Mauritania			376.35	376.35	376.35
Morocco	57.15	57.15	57.15	57.86	57.15
Oman	233.23	233.23	233.23	233.23	186.95
Palestine		235.91	162.27	168.63	55.23
Qatar	460.06	195.26	135.42	135.42	164.44
Saudi Arabia	224.75	144.07	107.87	107.87	144.80
Somalia					
Sudan					621.52
Syria					129.47
Tunisia	139.30	119.04	68.38	60.79	49.39
UAE	175.88	163.06	163.06	163.06	159.57
Yemen					

Arab average	205.48	167.64	150.32	147.29	169.86
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Below Arab average
 Above Arab average

Ranking for OECD L3: 10-30Mb/s, 10GB, residential offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	-	12
Bahrain	8	10	4	3	4
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	3	3	6	6	1
Iraq	-	-	-	-	-
Jordan	2	4	5	5	6
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	11	11	13
Morocco	1	1	1	1	5
Oman	7	8	10	10	11
Palestine	-	9	8	9	3
Qatar	9	7	7	7	10
Saudi Arabia	6	5	3	4	8
Somalia	-	-	-	-	-
Sudan	-	-	-	-	14
Syria	-	-	-	-	7
Tunisia	4	2	2	2	2
UAE	5	6	9	8	9
Yemen	-	-	-	-	-

Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 10 MB/S - 30 MB/S MEDIUM USAGE



Total results for OECD M3: 10-30Mb/s, 25GB, residential offers
Results in US\$ / PPP VAT included, lowest per country

	2012	2013	2015	2016	2017
Algeria					271.35
Bahrain	329.50	274.58	109.83	82.37	55.68
Comoros					
Djibouti					
Egypt	125.22	125.22	125.22	125.22	28.62
Iraq					
Jordan	126.59	128.84	114.73	109.33	77.52
Kuwait					
Lebanon					
Libya					
Mauritania			376.35	376.35	376.35
Morocco	57.15	57.15	57.15	57.86	57.15
Oman	233.23	233.23	233.23	233.23	186.95
Palestine		235.91	162.27	168.63	55.23
Qatar	460.06	195.26	135.42	135.42	164.44
Saudi Arabia	224.75	144.07	107.87	107.87	144.80
Somalia					
Sudan					621.52
Syria					129.47
Tunisia	139.30	119.04	68.38	60.79	49.39
UAE	175.88	163.06	163.06	163.06	159.57
Yemen					

Arab average	207.96	167.64	150.32	147.29	169.86
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■ Below Arab average
■ Above Arab average

Ranking for OECD M3: 10-30Mb/s, 25GB, residential offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	-	12
Bahrain	8	10	4	3	4
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	2	3	6	6	1
Iraq	-	-	-	-	-
Jordan	3	4	5	5	6
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	11	11	13
Morocco	1	1	1	1	5
Oman	7	8	10	10	11
Palestine	-	9	8	9	3
Qatar	9	7	7	7	10
Saudi Arabia	6	5	3	4	8
Somalia	-	-	-	-	-
Sudan	-	-	-	-	14
Syria	-	-	-	-	7
Tunisia	4	2	2	2	2
UAE	5	6	9	8	9
Yemen	-	-	-	-	-

■ Least expensive
■ Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 10 MB/S - 30 MB/S HIGH USAGE



Total results for OECD H3: 10-30Mb/s, 100GB, residential offers
Results in US\$ / PPP VAT included, lowest per country

	2012	2013	2015	2016	2017
Algeria					271.35
Bahrain	329.50	329.50	109.83	82.37	66.66
Comoros					
Djibouti					
Egypt	125.22	125.22	125.22	125.22	28.62
Iraq					
Jordan	405.68	144.09	114.73	109.33	77.52
Kuwait					
Lebanon					
Libya					
Mauritania			376.35	376.35	376.35
Morocco	57.15	57.15	57.15	57.86	57.15
Oman	233.23	233.23	233.23	233.23	186.95
Palestine		235.91	162.27	168.63	55.23
Qatar	460.06	195.26	135.42	135.42	164.44
Saudi Arabia	224.75	144.07	107.87	107.87	144.80
Somalia					
Sudan					621.52
Syria					129.47
Tunisia	139.30	119.04	68.38	60.79	49.39
UAE	175.88	163.06	163.06	163.06	159.57
Yemen					

Arab average	238.98	174.65	150.32	147.29	170.64
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Below Arab average
 Above Arab average

Ranking for OECD H3: 10-30Mb/s, 100GB, residential offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	-	12
Bahrain	7	10	4	3	5
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	2	3	6	6	1
Iraq	-	-	-	-	-
Jordan	8	5	5	5	6
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	11	11	13
Morocco	1	1	1	1	4
Oman	6	8	10	10	11
Palestine	-	9	8	9	3
Qatar	9	7	7	7	10
Saudi Arabia	5	4	3	4	8
Somalia	-	-	-	-	-
Sudan	-	-	-	-	14
Syria	-	-	-	-	7
Tunisia	3	2	2	2	2
UAE	4	6	9	8	9
Yemen	-	-	-	-	-

Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 30 MB/S - 100 MB/S LOW USAGE



Total results for OECD L4: 30-100Mb/s, 15GB, residential offers
Results in US\$ / PPP VAT included, lowest per country

	2012	2013	2015	2016	2017
Algeria					
Bahrain		411.87	274.58	274.58	165.51
Comoros					
Djibouti					
Egypt					
Iraq					
Jordan			271.00	161.68	86.03
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					142.41
Oman	398.52	398.52	365.46	365.46	233.23
Palestine				189.99	67.75
Qatar		289.95	286.82	286.82	249.49
Saudi Arabia		243.01	216.47	216.47	180.99
Somalia					
Sudan					
Syria					
Tunisia					120.88
UAE	239.46	320.26	320.26	267.86	253.49
Yemen					

Arab average	318.99	332.72	289.10	251.84	166.64
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Below Arab average
 Above Arab average

Ranking for OECD L4: 30-100Mb/s, 15GB, residential offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	-	-
Bahrain	-	5	3	5	5
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	2	1	2
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	4
Oman	2	4	6	7	7
Palestine	-	-	-	2	1
Qatar	-	2	4	6	8
Saudi Arabia	-	1	1	3	6
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	3
UAE	1	3	5	4	9
Yemen	-	-	-	-	-

Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 30 MB/S - 100 MB/S MEDIUM USAGE



Total results for OECD M4: 30-100Mb/s, 50GB, residential offers
Results in US\$ / PPP VAT included, lowest per country

	2012	2013	2015	2016	2017
Algeria					
Bahrain		411.87	274.58	274.58	165.51
Comoros					
Djibouti					
Egypt					
Iraq					
Jordan			271.00	161.68	86.03
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					142.41
Oman	398.52	398.52	365.46	365.46	233.23
Palestine				189.99	67.75
Qatar		289.95	286.82	286.82	249.49
Saudi Arabia		243.01	216.47	216.47	180.99
Somalia					
Sudan					
Syria					
Tunisia					120.88
UAE	239.46	320.26	320.26	267.86	253.49
Yemen					

Arab average	318.99	332.72	289.10	251.84	166.64
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■ Below Arab average
■ Above Arab average

Ranking for OECD M4: 30-100Mb/s, 50GB, residential offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	-	-
Bahrain	-	5	3	5	5
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	2	1	2
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	4
Oman	2	4	6	7	7
Palestine	-	-	-	2	1
Qatar	-	2	4	6	8
Saudi Arabia	-	1	1	3	6
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	3
UAE	1	3	5	4	9
Yemen	-	-	-	-	-

■ Least expensive
■ Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 30 MB/S - 100 MB/S HIGH USAGE



Total results for OECD H4: 30-100Mb/s, 200GB, residential offers
Results in US\$ / PPP VAT included, lowest per country

	2012	2013	2015	2016	2017
Algeria					
Bahrain		1255.38	274.58	274.58	165.51
Comoros					
Djibouti					
Egypt					
Iraq					
Jordan			271.00	161.68	86.03
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					142.41
Oman	398.52	398.52	365.46	365.46	233.23
Palestine				189.99	67.75
Qatar		289.95	286.82	286.82	249.49
Saudi Arabia		243.01	216.47	216.47	180.99
Somalia					
Sudan					
Syria					
Tunisia					120.88
UAE	239.46	320.26	320.26	267.86	253.49
Yemen					

Arab average	318.99	501.42	289.10	251.84	166.64
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■ Below Arab average
■ Above Arab average

Ranking for OECD H4: 30-100Mb/s, 200GB, residential offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	-	-
Bahrain	-	5	3	5	5
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	2	1	2
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	4
Oman	2	4	6	7	7
Palestine	-	-	-	2	1
Qatar	-	2	4	6	8
Saudi Arabia	-	1	1	3	6
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	3
UAE	1	3	5	4	9
Yemen	-	-	-	-	-

■ Least expensive
■ Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 100 MB/S - 1000 MB/S LOW USAGE



Total results for OECD L5: 100-1000Mb/s, 25GB, residential offers
Results in US\$ / PPP VAT included, lowest per country

	2012	2013	2015	2016	2017
Algeria					
Bahrain		713.91	411.87	411.87	412.63
Comoros					
Djibouti					
Egypt					
Iraq					
Jordan					121.63
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					142.41
Oman					530.74
Palestine					114.14
Qatar		375.00	371.87	371.87	306.19
Saudi Arabia	588.91	366.09	325.07	325.07	289.59
Somalia					
Sudan					
Syria					
Tunisia					266.51
UAE		529.85	529.85	529.85	526.36
Yemen					

Arab average	588.91	496.21	409.66	409.66	301.13
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Below Arab average
 Above Arab average

Ranking for OECD L5: 100-1000Mb/s, 25GB, residential offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	-	-
Bahrain	-	4	3	3	7
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	-	-	2
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	3
Oman	-	-	-	-	9
Palestine	-	-	-	-	1
Qatar	-	2	2	2	6
Saudi Arabia	1	1	1	1	5
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	4
UAE	-	3	4	4	8
Yemen	-	-	-	-	-

Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 100 MB/S - 1000 MB/S MEDIUM USAGE



Total results for OECD M5: 100-1000Mb/s, 100GB, residential offers
Results in US\$ / PPP VAT included, lowest per country

	2012	2013	2015	2016	2017
Algeria					
Bahrain		713.91	411.87	411.87	412.63
Comoros					
Djibouti					
Egypt					
Iraq					
Jordan					121.63
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					142.41
Oman					530.74
Palestine					114.14
Qatar		375.00	371.87	371.87	306.19
Saudi Arabia	588.91	366.09	325.07	325.07	289.59
Somalia					
Sudan					
Syria					
Tunisia					266.51
UAE		529.85	529.85	529.85	526.36
Yemen					

Arab average	588.91	496.21	409.66	409.66	301.13
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■ Below Arab average
■ Above Arab average

Ranking for OECD M5: 100-1000Mb/s, 100GB, residential offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	-	-
Bahrain	-	4	3	3	7
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	-	-	2
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	3
Oman	-	-	-	-	9
Palestine	-	-	-	-	1
Qatar	-	2	2	2	6
Saudi Arabia	1	1	1	1	5
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	4
UAE	-	3	4	4	8
Yemen	-	-	-	-	-

■ Least expensive
■ Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 100 MB/S - 1000 MB/S HIGH USAGE



Total results for OECD H5: 100-1000Mb/s, 400GB, residential offers
Results in US\$ / PPP VAT included, lowest per country

	2012	2013	2015	2016	2017
Algeria					
Bahrain		2400.94	411.87	411.87	412.63
Comoros					
Djibouti					
Egypt					
Iraq					
Jordan					121.63
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					142.41
Oman					530.74
Palestine					114.14
Qatar		375.00	371.87	371.87	306.19
Saudi Arabia	588.91	366.09	325.07	325.07	289.59
Somalia					
Sudan					
Syria					
Tunisia					266.51
UAE		529.85	529.85	529.85	526.36
Yemen					

Arab average	588.91	917.97	409.66	409.66	301.13
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 Below Arab average
 Above Arab average

Ranking for OECD H5: 100-1000Mb/s, 400GB, residential offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	-	-
Bahrain	-	4	3	3	7
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	-	-	2
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	3
Oman	-	-	-	-	9
Palestine	-	-	-	-	1
Qatar	-	2	2	2	6
Saudi Arabia	1	1	1	1	5
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	4
UAE	-	3	4	4	8
Yemen	-	-	-	-	-

 Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 256 KB/S - 2 MB/S LOW USAGE



Total results for OECD L1: 0.25-2Mb/s, 5GB, business offers
Results in US\$ / PPP VAT excluded, lowest per country

	2012	2013	2015	2016	2017
Algeria	112.70	112.70	318.00	250.92	250.92
Bahrain	120.82	82.37	82.37	82.37	82.37
Comoros					216.90
Djibouti	427.01	427.01	427.01	358.83	3365.76
Egypt	12.20	15.45	15.45	7.39	7.39
Iraq					
Jordan	118.03	109.95		70.72	67.61
Kuwait					
Lebanon	37.88	37.88	31.24	28.11	64.44
Libya	53.96	53.96	53.96	53.96	53.96
Mauritania			57.20	57.20	84.03
Morocco					39.68
Oman	101.01	99.68	99.68	99.68	99.68
Palestine		109.42			
Qatar	346.65	346.65	343.35	343.35	
Saudi Arabia	424.01	424.01			424.01
Somalia					
Sudan	13.68	14.71	12.26	9.43	22.29
Syria					
Tunisia	606.07	978.38	987.85		
UAE	215.51	189.31	189.31	161.85	161.69
Yemen	30.53	30.53	66.42	60.38	63.25

Arab average	187.15	202.13	206.47	121.86	333.60
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Below Arab average
 Above Arab average

Ranking for OECD L1: 0.25-2Mb/s, 5GB, business offers

	2012	2013	2015	2016	2017
Algeria	7	10	10	11	13
Bahrain	9	6	7	8	8
Comoros	-	-	-	-	12
Djibouti	13	14	12	13	15
Egypt	1	2	2	1	1
Iraq	-	-	-	-	-
Jordan	8	9	-	7	7
Kuwait	-	-	-	-	-
Lebanon	4	4	3	3	6
Libya	5	5	4	4	4
Mauritania	-	-	5	5	9
Morocco	-	-	-	-	3
Oman	6	7	8	9	10
Palestine	-	8	-	-	-
Qatar	11	12	11	12	-
Saudi Arabia	12	13	-	-	14
Somalia	-	-	-	-	-
Sudan	2	1	1	2	2
Syria	-	-	-	-	-
Tunisia	14	15	13	-	-
UAE	10	11	9	10	11
Yemen	3	3	6	6	5

Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 256 KB/S - 2 MB/S MEDIUM USAGE



Total results for OECD M1: 0.25-2Mb/s, 10GB, business offers
Results in US\$ / PPP VAT excluded, lowest per country

	2012	2013	2015	2016	2017
Algeria	112.70	112.70	318.00	250.92	250.92
Bahrain	120.82	82.37	82.37	82.37	82.37
Comoros					216.90
Djibouti	427.01	427.01	427.01	358.83	3365.76
Egypt	12.20	15.45	15.45	7.39	7.39
Iraq					
Jordan	118.03	109.95		70.72	67.61
Kuwait					
Lebanon	47.00	47.00	31.24	28.11	64.44
Libya	53.96	53.96	53.96	53.96	53.96
Mauritania			57.20	57.20	84.03
Morocco					39.68
Oman	127.45	127.45	127.45	127.45	127.45
Palestine		109.42			
Qatar	346.65	346.65	343.35	343.35	
Saudi Arabia	424.01	424.01			424.01
Somalia					
Sudan	13.68	14.71	14.71	11.32	22.29
Syria					
Tunisia	606.07	978.38	987.85		
UAE	250.93	250.93	319.05	161.85	161.69
Yemen	30.53	30.53	66.42	60.38	63.25

Arab average	192.22	208.70	218.77	124.14	335.45
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Below Arab average
 Above Arab average

Ranking for OECD M1: 0.25-2Mb/s, 10GB, business offers

	2012	2013	2015	2016	2017
Algeria	6	9	9	11	13
Bahrain	8	6	7	8	8
Comoros	-	-	-	-	12
Djibouti	13	14	12	13	15
Egypt	1	2	2	1	1
Iraq	-	-	-	-	-
Jordan	7	8	-	7	7
Kuwait	-	-	-	-	-
Lebanon	4	4	3	3	6
Libya	5	5	4	4	4
Mauritania	-	-	5	5	9
Morocco	-	-	-	-	3
Oman	9	10	8	9	10
Palestine	-	7	-	-	-
Qatar	11	12	11	12	-
Saudi Arabia	12	13	-	-	14
Somalia	-	-	-	-	-
Sudan	2	1	1	2	2
Syria	-	-	-	-	-
Tunisia	14	15	13	-	-
UAE	10	11	10	10	11
Yemen	3	3	6	6	5

Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 256 KB/S - 2 MB/S HIGH USAGE



Total results for OECD H1: 0.25-2Mb/s, 20GB, business offers
Results in US\$ / PPP VAT excluded, lowest per country

	2012	2013	2015	2016	2017
Algeria	112.70	112.70	318.00	250.92	250.92
Bahrain	120.82	82.37	82.37	82.37	82.37
Comoros					216.90
Djibouti	427.01	427.01	427.01	358.83	3365.76
Egypt	12.20	15.45	15.45	7.39	14.04
Iraq					
Jordan	160.37	159.77		70.72	67.61
Kuwait					
Lebanon	89.21	89.21	31.24	28.11	64.44
Libya	222.86	138.41	53.96	53.96	53.96
Mauritania			57.20	86.55	84.03
Morocco					39.68
Oman	193.57	186.95	186.95	186.95	186.95
Palestine		109.42			
Qatar	346.65	346.65	343.35	343.35	
Saudi Arabia	424.01	424.01			424.01
Somalia					
Sudan	13.68	22.07	22.07	16.97	22.29
Syria					
Tunisia	606.07	978.38	987.85		
UAE	250.93	250.93	319.05	161.85	161.69
Yemen	30.53	30.53	66.42	93.24	97.68

Arab average	2012	2013	2015	2016	2017
	215.04	224.92	223.92	133.94	342.16

Below Arab average
 Above Arab average

Ranking for OECD H1: 0.25-2Mb/s, 20GB, business offers

	2012	2013	2015	2016	2017
Algeria	5	7	9	11	13
Bahrain	6	4	7	6	7
Comoros	-	-	-	-	12
Djibouti	13	14	12	13	15
Egypt	1	1	1	1	1
Iraq	-	-	-	-	-
Jordan	7	9	-	5	6
Kuwait	-	-	-	-	-
Lebanon	4	5	3	3	5
Libya	9	8	4	4	4
Mauritania	-	-	5	7	8
Morocco	-	-	-	-	3
Oman	8	10	8	10	11
Palestine	-	6	-	-	-
Qatar	11	12	11	12	-
Saudi Arabia	12	13	-	-	14
Somalia	-	-	-	-	-
Sudan	2	2	2	2	2
Syria	-	-	-	-	-
Tunisia	14	15	13	-	-
UAE	10	11	10	9	10
Yemen	3	3	6	8	9

Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 2 MB/S - 10 MB/S LOW USAGE



Total results for OECD L2: 2-10Mb/s, 5GB, business offers
Results in US\$ / PPP VAT excluded, lowest per country

	2012	2013	2015	2016	2017
Algeria	230.13	230.13	1042.60	250.92	250.92
Bahrain	443.14	219.66	164.75	164.75	109.83
Comoros					334.49
Djibouti	709.81	709.81	709.81	384.30	359.70
Egypt	24.39	12.20	12.20	11.09	11.09
Iraq					
Jordan	177.18	147.31		101.14	67.61
Kuwait					
Lebanon	89.21	89.21	31.24	28.11	27.11
Libya					
Mauritania			242.17	242.17	84.03
Morocco	24.67	24.02	24.02	20.51	20.01
Oman	101.01	99.68	99.68	99.68	99.68
Palestine		150.05			113.64
Qatar	516.76	346.65	340.21	340.21	
Saudi Arabia	279.21	279.21			156.14
Somalia					
Sudan	112.06	61.29	61.29	47.15	49.04
Syria					
Tunisia	989.11	978.38	987.85	84.78	84.78
UAE	309.83	267.91	214.25	214.25	216.38
Yemen	88.38	88.38	160.41	145.83	45.91

Arab average	292.49	246.93	314.65	152.49	126.90
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Below Arab average
 Above Arab average

Ranking for OECD L2: 2-10Mb/s, 5GB, business offers

	2012	2013	2015	2016	2017
Algeria	8	10	13	12	14
Bahrain	11	9	7	9	10
Comoros	-	-	-	-	15
Djibouti	13	14	11	14	16
Egypt	1	1	1	1	1
Iraq	-	-	-	-	-
Jordan	7	7	-	7	6
Kuwait	-	-	-	-	-
Lebanon	4	5	3	3	3
Libya	-	-	-	-	-
Mauritania	-	-	9	11	7
Morocco	2	2	2	2	2
Oman	5	6	5	6	9
Palestine	-	8	-	-	11
Qatar	12	13	10	13	-
Saudi Arabia	9	12	-	-	12
Somalia	-	-	-	-	-
Sudan	6	3	4	4	5
Syria	-	-	-	-	-
Tunisia	14	15	12	5	8
UAE	10	11	8	10	13
Yemen	3	4	6	8	4

Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 2 MB/S - 10 MB/S MEDIUM USAGE



Total results for OECD M2: 2-10Mb/s, 15GB, business offers
Results in US\$ / PPP VAT excluded, lowest per country

	2012	2013	2015	2016	2017
Algeria	230.13	230.13	1042.60	250.92	250.92
Bahrain	443.14	219.66	164.75	164.75	109.83
Comoros					334.49
Djibouti	709.81	709.81	709.81	384.30	359.70
Egypt	24.39	12.20	16.26	14.78	14.78
Iraq					
Jordan	177.18	147.31		101.14	67.61
Kuwait					
Lebanon	89.21	89.21	31.24	28.11	27.11
Libya					
Mauritania			242.17	242.17	84.03
Morocco	24.67	24.02	24.02	20.51	20.01
Oman	160.51	157.20	157.20	157.20	157.20
Palestine		150.05			113.64
Qatar	516.76	346.65	340.21	340.21	
Saudi Arabia	279.21	279.21			156.14
Somalia					
Sudan	112.06	61.29	61.29	47.15	49.04
Syria					
Tunisia	989.11	978.38	987.85	84.78	84.78
UAE	685.84	644.97	214.25	214.25	246.80
Yemen	88.38	88.38	160.41	145.83	114.77

Arab average	323.60	275.90	319.39	156.86	136.93
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■ Below Arab average
■ Above Arab average

Ranking for OECD M2: 2-10Mb/s, 15GB, business offers

	2012	2013	2015	2016	2017
Algeria	8	10	13	12	14
Bahrain	10	9	7	9	8
Comoros	-	-	-	-	15
Djibouti	13	14	11	14	16
Egypt	1	1	1	1	1
Iraq	-	-	-	-	-
Jordan	7	6	-	6	5
Kuwait	-	-	-	-	-
Lebanon	4	5	3	3	3
Libya	-	-	-	-	-
Mauritania	-	-	9	11	6
Morocco	2	2	2	2	2
Oman	6	8	5	8	12
Palestine	-	7	-	-	9
Qatar	11	12	10	13	-
Saudi Arabia	9	11	-	-	11
Somalia	-	-	-	-	-
Sudan	5	3	4	4	4
Syria	-	-	-	-	-
Tunisia	14	15	12	5	7
UAE	12	13	8	10	13
Yemen	3	4	6	7	10

■ Least expensive
■ Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 2 MB/S - 10 MB/S HIGH USAGE



Total results for OECD H2: 2-10Mb/s, 50GB, business offers
Results in US\$ / PPP VAT excluded, lowest per country

	2012	2013	2015	2016	2017
Algeria	230.13	230.13	1042.60	250.92	250.92
Bahrain	443.14	219.66	164.75	164.75	109.83
Comoros					334.49
Djibouti	709.81	709.81	709.81	384.30	359.70
Egypt	24.39	12.20	35.78	20.70	20.70
Iraq					
Jordan	323.01	209.58		101.14	67.61
Kuwait					
Lebanon	294.53	294.53	54.05	48.85	44.22
Libya					
Mauritania			242.17	242.17	84.03
Morocco	24.67	24.02	24.02	20.51	20.01
Oman	299.35	299.35	299.35	299.35	299.35
Palestine		150.05			113.64
Qatar	516.76	346.65	340.21	340.21	
Saudi Arabia	279.21	279.21			156.14
Somalia					
Sudan	112.06	61.29	61.29	47.15	49.04
Syria					
Tunisia	989.11	978.38	987.85	84.78	84.78
UAE	793.26	793.26	214.25	214.25	246.80
Yemen	88.38	88.38	160.41	145.83	152.78

Arab average	366.27	313.10	333.58	168.92	149.63
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■ Below Arab average
■ Above Arab average

Ranking for OECD H2: 2-10Mb/s, 50GB, business offers

	2012	2013	2015	2016	2017
Algeria	5	8	13	11	13
Bahrain	10	7	6	8	8
Comoros	-	-	-	-	15
Djibouti	12	13	11	14	16
Egypt	1	1	2	2	2
Iraq	-	-	-	-	-
Jordan	9	6	-	6	5
Kuwait	-	-	-	-	-
Lebanon	7	10	3	4	3
Libya	-	-	-	-	-
Mauritania	-	-	8	10	6
Morocco	2	2	1	1	1
Oman	8	11	9	12	14
Palestine	-	5	-	-	9
Qatar	11	12	10	13	-
Saudi Arabia	6	9	-	-	11
Somalia	-	-	-	-	-
Sudan	4	3	4	3	4
Syria	-	-	-	-	-
Tunisia	14	15	12	5	7
UAE	13	14	7	9	12
Yemen	3	4	5	7	10

■ Least expensive
■ Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 10 MB/S - 30 MB/S LOW USAGE



Total results for OECD L3: 10-30Mb/s, 10GB, business offers
Results in US\$ / PPP VAT excluded, lowest per country

	2012	2013	2015	2016	2017
Algeria				1630.97	1630.97
Bahrain	1102.14	827.56	690.27	690.27	604.08
Comoros					2882.37
Djibouti				766.23	518.42
Egypt	113.84	113.84	113.84	103.49	23.65
Iraq					
Jordan	270.58	209.58		151.83	107.86
Kuwait					
Lebanon					
Libya					
Mauritania			568.03	568.03	376.35
Morocco	48.28	47.62	47.62	40.18	39.68
Oman	1198.49	1198.49	1198.49	1198.49	1198.49
Palestine		380.49			227.27
Qatar		346.65	340.21	340.21	401.06
Saudi Arabia	293.69	293.69			192.34
Somalia					
Sudan					367.76
Syria					
Tunisia	2960.79	2960.79	2976.05	127.71	127.71
UAE	450.05	376.69	376.69	376.69	355.35
Yemen					

Arab average	804.73	675.54	788.90	544.92	603.56
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 Below Arab average
 Above Arab average

Ranking for OECD L3: 10-30Mb/s, 10GB, business offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	11	14
Bahrain	6	8	6	8	12
Comoros	-	-	-	-	15
Djibouti	-	-	-	9	11
Egypt	2	2	2	2	1
Iraq	-	-	-	-	-
Jordan	3	3	-	4	3
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	5	7	9
Morocco	1	1	1	1	2
Oman	7	9	7	10	13
Palestine	-	7	-	-	6
Qatar	-	5	3	5	10
Saudi Arabia	4	4	-	-	5
Somalia	-	-	-	-	-
Sudan	-	-	-	-	8
Syria	-	-	-	-	-
Tunisia	8	10	8	3	4
UAE	5	6	4	6	7
Yemen	-	-	-	-	-

 Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 10 MB/S - 30 MB/S MEDIUM USAGE



Total results for OECD M3: 10-30Mb/s, 25GB, business offers
Results in US\$ / PPP VAT excluded, lowest per country

	2012	2013	2015	2016	2017
Algeria				1630.97	1630.97
Bahrain	1102.14	827.56	690.27	690.27	604.08
Comoros					2882.37
Djibouti				766.23	518.42
Egypt	113.84	113.84	113.84	103.49	23.65
Iraq					
Jordan	270.58	209.58		151.83	107.86
Kuwait					
Lebanon					
Libya					
Mauritania			568.03	568.03	376.35
Morocco	48.28	47.62	47.62	40.18	39.68
Oman	1198.49	1198.49	1198.49	1198.49	1198.49
Palestine		380.49			227.27
Qatar		346.65	340.21	340.21	401.06
Saudi Arabia	293.69	293.69			192.34
Somalia					
Sudan					367.76
Syria					
Tunisia	2960.79	2960.79	2976.05	127.71	127.71
UAE	1168.74	1056.09	387.17	387.17	355.35
Yemen					

Arab average	894.57	743.48	790.21	545.87	603.56
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Below Arab average
 Above Arab average

Ranking for OECD M3: 10-30Mb/s, 25GB, business offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	11	14
Bahrain	5	7	6	8	12
Comoros	-	-	-	-	15
Djibouti	-	-	-	9	11
Egypt	2	2	2	2	1
Iraq	-	-	-	-	-
Jordan	3	3	-	4	3
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	5	7	9
Morocco	1	1	1	1	2
Oman	7	9	7	10	13
Palestine	-	6	-	-	6
Qatar	-	5	3	5	10
Saudi Arabia	4	4	-	-	5
Somalia	-	-	-	-	-
Sudan	-	-	-	-	8
Syria	-	-	-	-	-
Tunisia	8	10	8	3	4
UAE	6	8	4	6	7
Yemen	-	-	-	-	-

Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 10 MB/S - 30 MB/S HIGH USAGE



Total results for OECD H3: 10-30Mb/s, 100GB, business offers
Results in US\$ / PPP VAT excluded, lowest per country

	2012	2013	2015	2016	2017
Algeria				1630.97	1630.97
Bahrain	1102.14	827.56	690.27	690.27	604.08
Comoros					2882.37
Djibouti				766.23	518.42
Egypt	113.84	113.84	113.84	103.49	23.65
Iraq					
Jordan	765.27	334.11		151.83	107.86
Kuwait					
Lebanon					
Libya					
Mauritania			568.03	568.03	376.35
Morocco	48.28	47.62	47.62	40.18	39.68
Oman	1198.49	1198.49	1198.49	1198.49	1198.49
Palestine		380.49			227.27
Qatar		346.65	340.21	340.21	401.06
Saudi Arabia	293.69	293.69			192.34
Somalia					
Sudan					367.76
Syria					
Tunisia	2960.79	2960.79	2976.05	127.71	127.71
UAE	2548.61	2548.61	387.17	387.17	355.35
Yemen					

Arab average	1,128.89	905.18	790.21	545.87	603.56
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Below Arab average
 Above Arab average

Ranking for OECD H3: 10-30Mb/s, 100GB, business offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	11	14
Bahrain	5	7	6	8	12
Comoros	-	-	-	-	15
Djibouti	-	-	-	9	11
Egypt	2	2	2	2	1
Iraq	-	-	-	-	-
Jordan	4	4	-	4	3
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	5	7	9
Morocco	1	1	1	1	2
Oman	6	8	7	10	13
Palestine	-	6	-	-	6
Qatar	-	5	3	5	10
Saudi Arabia	3	3	-	-	5
Somalia	-	-	-	-	-
Sudan	-	-	-	-	8
Syria	-	-	-	-	-
Tunisia	8	10	8	3	4
UAE	7	9	4	6	7
Yemen	-	-	-	-	-

Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 30 MB/S - 100 MB/S LOW USAGE



Total results for OECD L4: 30-100Mb/s, 15GB, business offers
Results in US\$ / PPP VAT excluded, lowest per country

	2012	2013	2015	2016	2017
Algeria					
Bahrain					1757.32
Comoros					
Djibouti			1869.61	1470.72	
Egypt					
Iraq					
Jordan			215.20	131.69	
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					98.89
Oman		3043.05	3043.05	3043.05	
Palestine					1063.64
Qatar	686.87	680.42	680.42		
Saudi Arabia					264.73
Somalia					
Sudan					
Syria					
Tunisia					
UAE	1052.63	879.71	753.96	753.96	687.57
Yemen					

Arab average	1,052.63	783.29	1,492.48	1,312.45	1,064.70
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Below Arab average
 Above Arab average

Ranking for OECD L4: 30-100Mb/s, 15GB, business offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	-	-
Bahrain	-	-	-	-	7
Comoros	-	-	-	-	-
Djibouti	-	-	-	4	6
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	-	1	2
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	1
Oman	-	-	3	5	8
Palestine	-	-	-	-	5
Qatar	-	1	1	2	-
Saudi Arabia	-	-	-	-	3
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	-
UAE	1	2	2	3	4
Yemen	-	-	-	-	-

Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 30 MB/S - 100 MB/S MEDIUM USAGE



Total results for OECD M4: 30-100Mb/s, 50GB, business offers
Results in US\$ / PPP VAT excluded, lowest per country

	2012	2013	2015	2016	2017
Algeria					
Bahrain					1757.32
Comoros					
Djibouti			1869.61		1470.72
Egypt					
Iraq					
Jordan				215.20	131.69
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					98.89
Oman			3043.05	3043.05	3043.05
Palestine					1063.64
Qatar		686.87	680.42	680.42	
Saudi Arabia					264.73
Somalia					
Sudan					
Syria					
Tunisia					
UAE	1052.63	879.71	753.96	753.96	687.57
Yemen					

Arab average	1,052.63	783.29	1,492.48	1,312.45	1,064.70
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Below Arab average
 Above Arab average

Ranking for OECD M4: 30-100Mb/s, 50GB, business offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	-	-
Bahrain	-	-	-	-	7
Comoros	-	-	-	-	-
Djibouti	-	-	-	4	6
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	-	1	2
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	1
Oman	-	-	3	5	8
Palestine	-	-	-	-	5
Qatar	-	1	1	2	-
Saudi Arabia	-	-	-	-	3
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	-
UAE	1	2	2	3	4
Yemen	-	-	-	-	-

Least expensive
 Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 30 MB/S - 100 MB/S HIGH USAGE



Total results for OECD H4: 30-100Mb/s, 200GB, business offers
Results in US\$ / PPP VAT excluded, lowest per country

	2012	2013	2015	2016	2017
Algeria					
Bahrain					1757.32
Comoros					
Djibouti			1869.61		1470.72
Egypt					
Iraq					
Jordan				215.20	131.69
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					98.89
Oman			3043.05	3043.05	3043.05
Palestine					1063.64
Qatar		686.87	680.42	680.42	
Saudi Arabia					264.73
Somalia					
Sudan					
Syria					
Tunisia					
UAE	1052.63	879.71	753.96	753.96	687.57
Yemen					

Arab average	2012	2013	2015	2016	2017
	1,052.63	783.29	1,492.48	1,312.45	1,064.70

■ Below Arab average
■ Above Arab average

Ranking for OECD H4: 30-100Mb/s, 200GB, business offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	-	-
Bahrain	-	-	-	-	7
Comoros	-	-	-	-	-
Djibouti	-	-	-	4	6
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	-	1	2
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	1
Oman	-	-	3	5	8
Palestine	-	-	-	-	5
Qatar	-	1	1	2	-
Saudi Arabia	-	-	-	-	3
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	-
UAE	1	2	2	3	4
Yemen	-	-	-	-	-

■ Least expensive
■ Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 100 MB/S - 1 000 MB/S LOW USAGE



Total results for OECD L5: 100-1000Mb/s, 25GB, business offers
Results in US\$ / PPP VAT excluded, lowest per country

	2012	2013	2015	2016	2017
Algeria					
Bahrain					
Comoros					
Djibouti					
Egypt					
Iraq					
Jordan					185.36
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					98.89
Oman			7274.31	7274.31	7274.31
Palestine					
Qatar		1367.29	1360.85	1360.85	1024.78
Saudi Arabia					373.33
Somalia					
Sudan					
Syria					
Tunisia					
UAE	1891.01	1576.62	1576.62	1576.62	1445.68
Yemen					

Arab average	1,891.01	1,471.95	3,403.92	3,403.92	1,733.72
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■ Below Arab average
■ Above Arab average

Ranking for OECD L5: 100-1000Mb/s, 25GB, business offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	-	-
Bahrain	-	-	-	-	-
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	-	-	2
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	1
Oman	-	-	3	3	6
Palestine	-	-	-	-	-
Qatar	-	1	1	1	4
Saudi Arabia	-	-	-	-	3
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	-
UAE	1	2	2	2	5
Yemen	-	-	-	-	-

■ Least expensive
■ Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 100 MB/S - 1 000 MB/S MEDIUM USAGE



Total results for OECD M5: 100-1000Mb/s, 100GB, business offers
Results in US\$ / PPP VAT excluded, lowest per country

	2012	2013	2015	2016	2017
Algeria					
Bahrain					
Comoros					
Djibouti					
Egypt					
Iraq					
Jordan					185.36
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					98.89
Oman			7274.31	7274.31	7274.31
Palestine					
Qatar		1367.29	1360.85	1360.85	1024.78
Saudi Arabia					373.33
Somalia					
Sudan					
Syria					
Tunisia					
UAE	1891.01	1576.62	1576.62	1576.62	1445.68
Yemen					

Arab average	2012	2013	2015	2016	2017
	1,891.01	1,471.95	3,403.92	3,403.92	1,733.72

■ Below Arab average
■ Above Arab average

Ranking for OECD M5: 100-1000Mb/s, 100GB, business offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	-	-
Bahrain	-	-	-	-	-
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	-	-	2
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	1
Oman	-	-	3	3	6
Palestine	-	-	-	-	-
Qatar	-	1	1	1	4
Saudi Arabia	-	-	-	-	3
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	-
UAE	1	2	2	2	5
Yemen	-	-	-	-	-

■ Least expensive
■ Most expensive



2014 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 100 MB/S - 1000 MB/S HIGH USAGE



Total results for OECD H5: 100-1000Mb/s, 400GB, business offers
Results in US\$ / PPP VAT excluded, lowest per country

	2012	2013	2015	2016	2017
Algeria					
Bahrain					
Comoros					
Djibouti					
Egypt					
Iraq					
Jordan					185.36
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					98.89
Oman			7274.31	7274.31	7274.31
Palestine					
Qatar		1367.29	1360.85	1360.85	1024.78
Saudi Arabia					373.33
Somalia					
Sudan					
Syria					
Tunisia					
UAE	1891.01	1576.62	1576.62	1576.62	1445.68
Yemen					

Arab average	1,891.01	1,471.95	3,403.92	3,403.92	1,733.72
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Below Arab average
 Above Arab average

Ranking for OECD H5: 100-1000Mb/s, 400GB, business offers

	2012	2013	2015	2016	2017
Algeria	-	-	-	-	-
Bahrain	-	-	-	-	-
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	-	-	2
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	1
Oman	-	-	3	3	6
Palestine	-	-	-	-	-
Qatar	-	1	1	1	4
Saudi Arabia	-	-	-	-	3
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	-
UAE	1	2	2	2	5
Yemen	-	-	-	-	-

Least expensive
 Most expensive



OBSERVATIONS FROM FIXED BROADBAND TIME SERIES RESULTS



- The table below summarizes how the overall Arab average changed from 2016-2017. The picture is one of declining prices for higher speed services. Although the general trend for 10-30 Mb/s services is one of increasing costs, this is driven by the introduction of (relatively high priced) services in Algeria and Sudan, rather than increases in costs since 2016 in other countries.

Change in overall average 2016-2017	Residential			Business		
	Low	Medium	High	Low	Medium	High
0.25 - 2 Mb/s / 10 GB	↑	↑	↑	↑	↑	↑
2 - 10 Mb/s / 15 GB	↓	↓	↑	↓	↓	↓
10 - 30 Mb/s / 25 GB	↑	↑	↑	↑	↑	↑
30 - 100 Mb/s / 50 GB	↓	↓	↓	↓	↓	↓
100 - 1000 Mb/s / 100 GB	↓	↓	↓	↓	↓	↓

- For low speed services up to 2 Mb/s, services are no longer available in several countries (Djibouti, Jordan), as higher speeds become more commonplace. In contrast, higher speed services (100-1000 Mb/s) are much more widely available. This can be seen from the overall average increase in speed, which climbed from 23.9 Mb/s in 2016 to 40 Mb/s in 2017
- There were price changes in a number of Arab countries, due to general portfolio changes. The more notable changes are:
 - Bahrain: Higher speed service costs fell sharply, for both residential and (where available) business services, to encourage take up. The average speed of Batelco services is 33.4 Mb/s, compared to 23.7 Mb/s in 2016.
 - Costs for higher speed services also fell sharply in a number of other countries, notably, for residential services in Djibouti, Egypt, Jordan, Mauritania, Oman, Palestine and Saudi Arabia, and for business services, in Djibouti, Egypt, Jordan and Mauritania, in particular.
 - In UAE, the cost of low speed residential services also fell sharply.
 - For selected speeds, increases were observed – most notably for lower speeds up to 30 Mb/s, with the biggest increases being seen in the lowest speed category. In particular, costs increased sharply in Lebanon, Mauritania, Sudan and Syria.





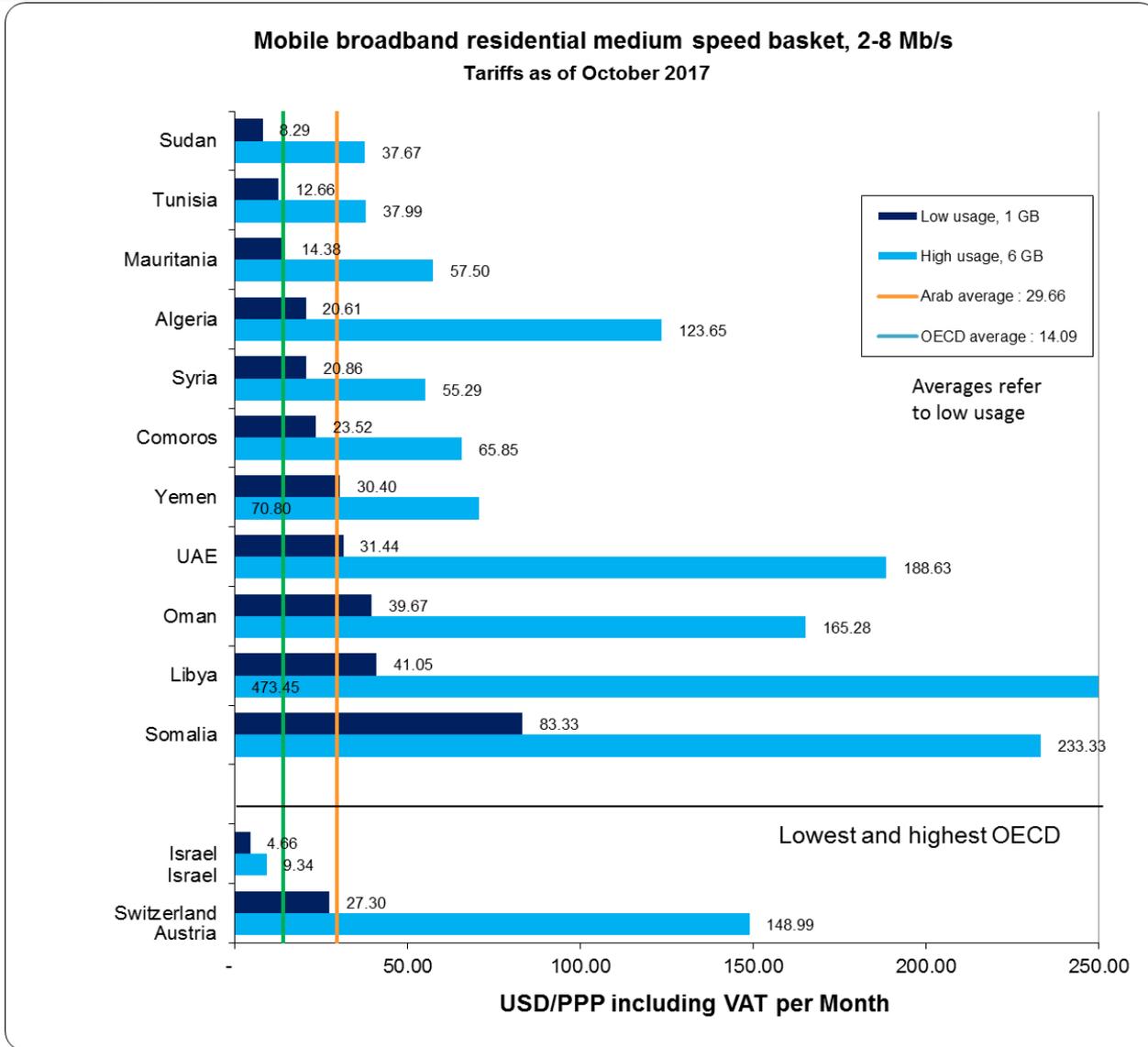
MOBILE BROADBAND BASKET RESULTS 2017



MOBILE BROADBAND DATA ISSUES

- Data collected refers to dedicated mobile broadband packages (i.e. not mobile broadband bundled with or added to mobile voice packages)
- Data was available for all countries, however, not all providers specify speeds of service, so results may not be available for some countries where a speed designation is applied to the basket.
- For countries where data was available, up to three operators were considered
- Total monthly cost calculated based on two usage baskets from the modified OECD baskets:
 - **Low usage:** 1 GB and 5 hours per month.
 - **High usage:** 6 GB and 30 hours per month.
 - Please note that the OECD baskets do not consider time (i.e. hours of usage). This has been added to avoid exclusion of any time related tariffs in this study.
- Two speeds were considered for each usage level:
 - **Medium speed:** 2-8 Mb/s
 - **High speed:** >8 Mb/s
 - Please note that the OECD baskets do not distinguish on speed, but rather includes all speeds above 256 Kb/s. The two speed ranges were included to be able to analyse developments in mobile broadband speeds.
- In addition, a calculation has been included for the same low and high usage levels, for both business and residential services, but not taking into account any speed limitations,
- This captures tariffs which are published but without any download speed information, and which would otherwise not have been considered for the analysis
 - This calculation is especially important for this update, as there are a lot more mobile broadband offers in the market, many of which do not specify the speed of service.
- Results were compared to the recent OECD results covering 35 OECD countries, using the same usage baskets described above
 - The new OECD baskets for mobile broadband were adopted in June 2012

RESIDENTIAL MEDIUM SPEED MOBILE BROADBAND (2-8 MB/S)



Low usage: 1 GB and 5 hours per month over 15 days

High usage: 6 GB and 30 hours over 30 days

Average lines are based on low usage results

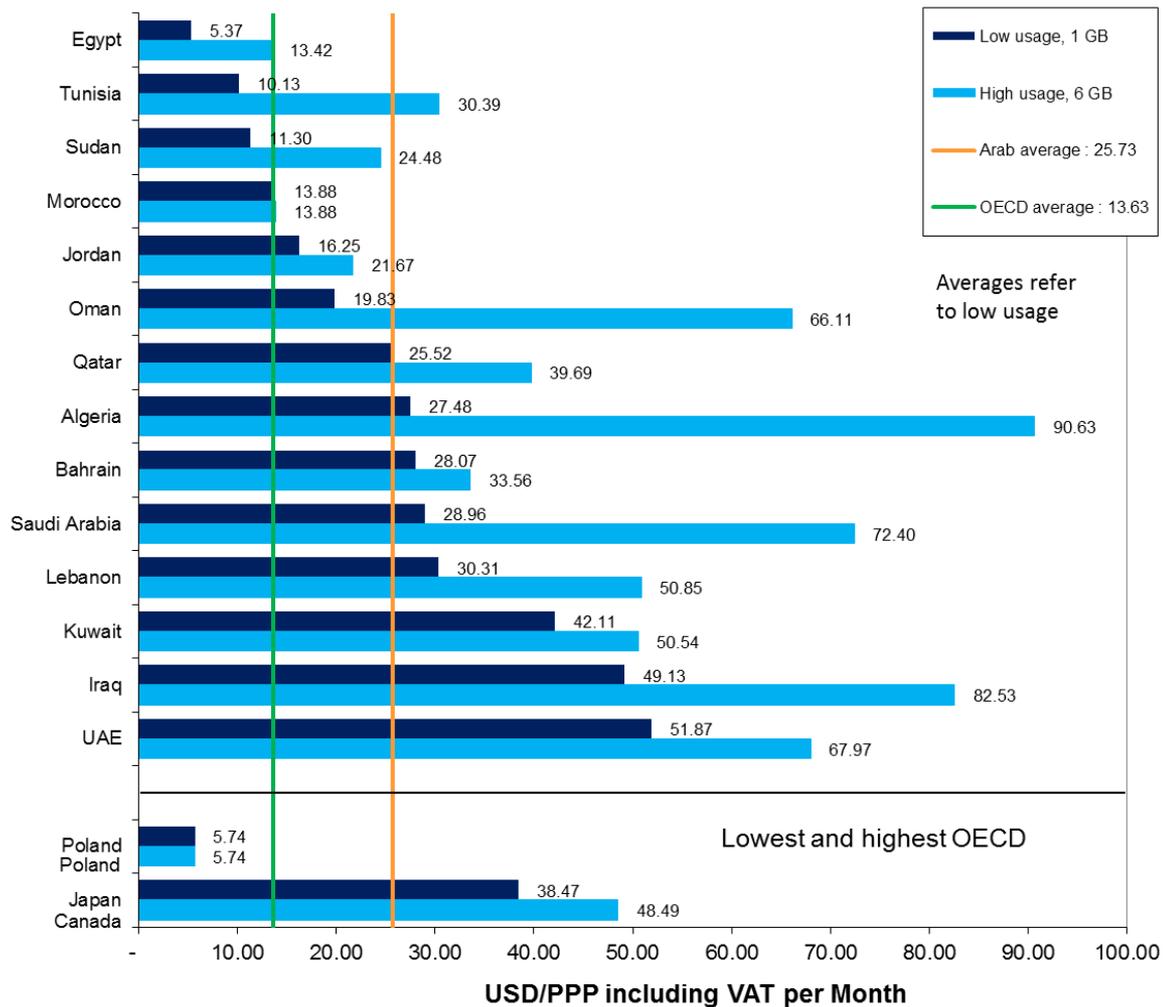
For high usage, some of the results have been truncated, to make the graph easier to read



RESIDENTIAL HIGH SPEED MOBILE BROADBAND (>8 MB/S)



Mobile broadband residential high speed basket, >8 Mb/s
Tariffs as of October 2017



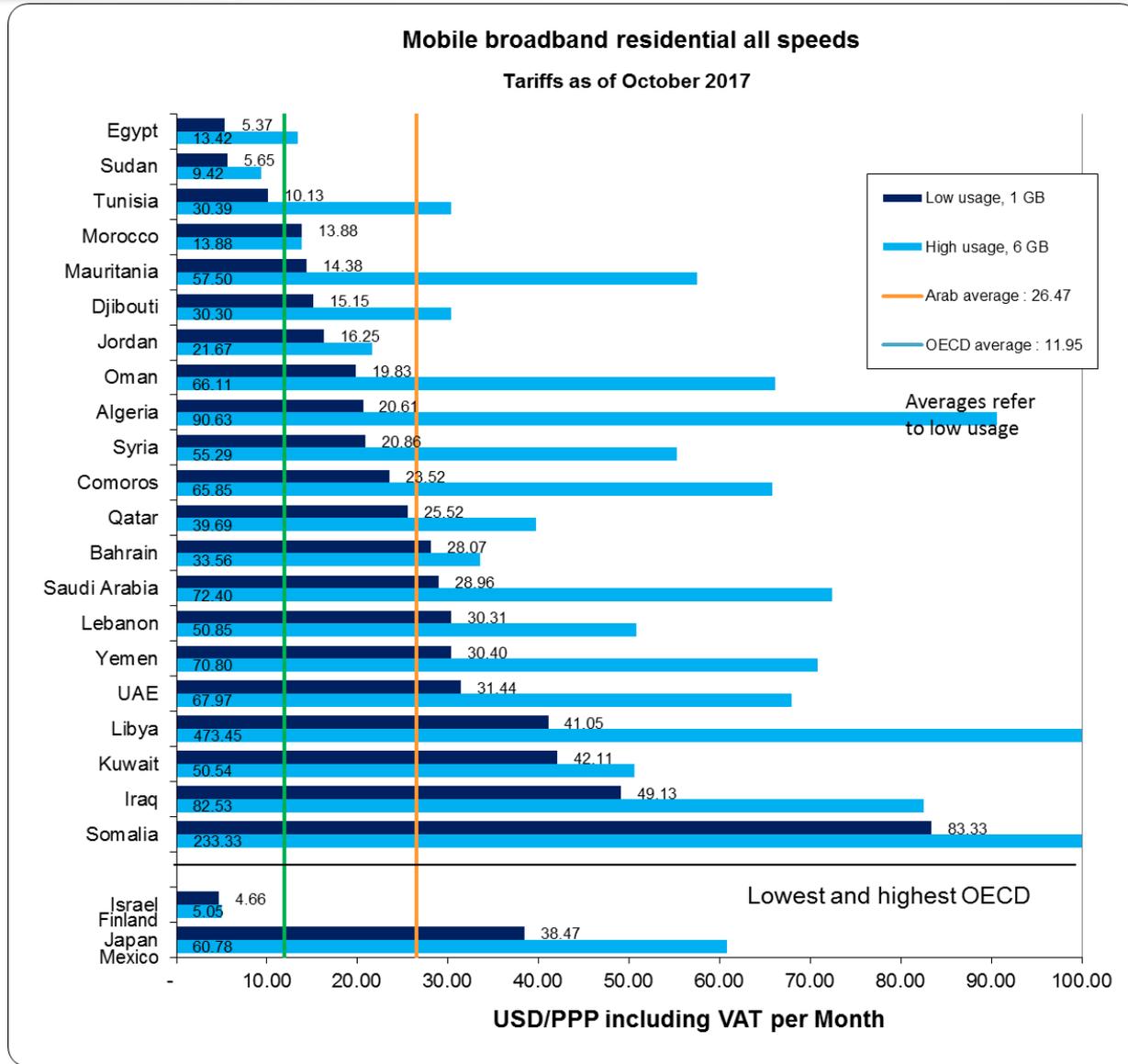
Low usage: 1 GB and 5 hours per month over 15 days

High usage: 6 GB and 30 hours over 30 days

Average lines are based on low usage results



RESIDENTIAL MOBILE BROADBAND ALL SPEEDS



Low usage: 1 GB and 5 hours per month over 15 days

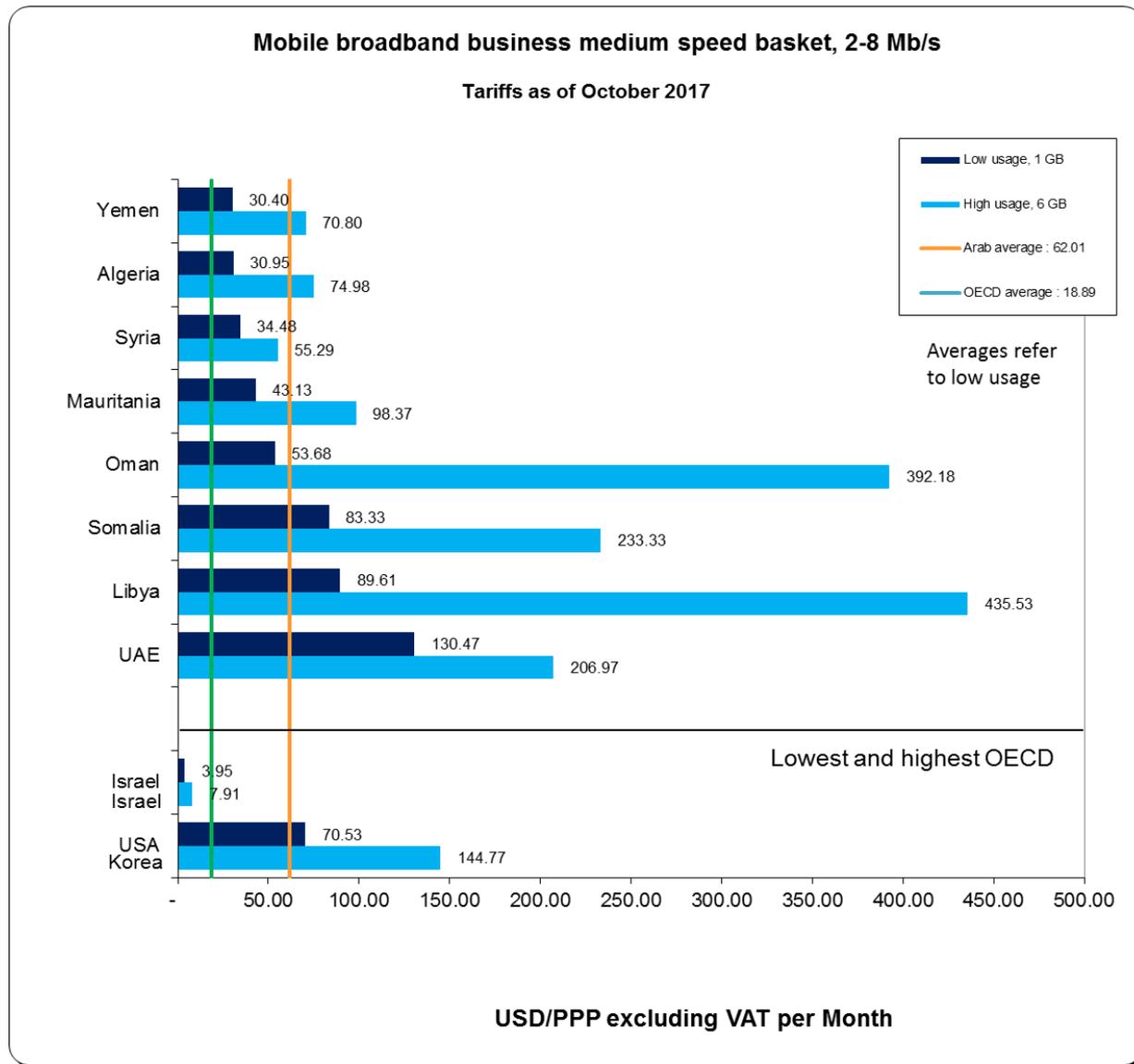
High usage: 6 GB and 30 hours over 30 days

Average lines are based on low usage results

For high usage, some of the results have been truncated, to make the graph easier to read



BUSINESS MEDIUM SPEED MOBILE BROADBAND (2-8 MB/S)



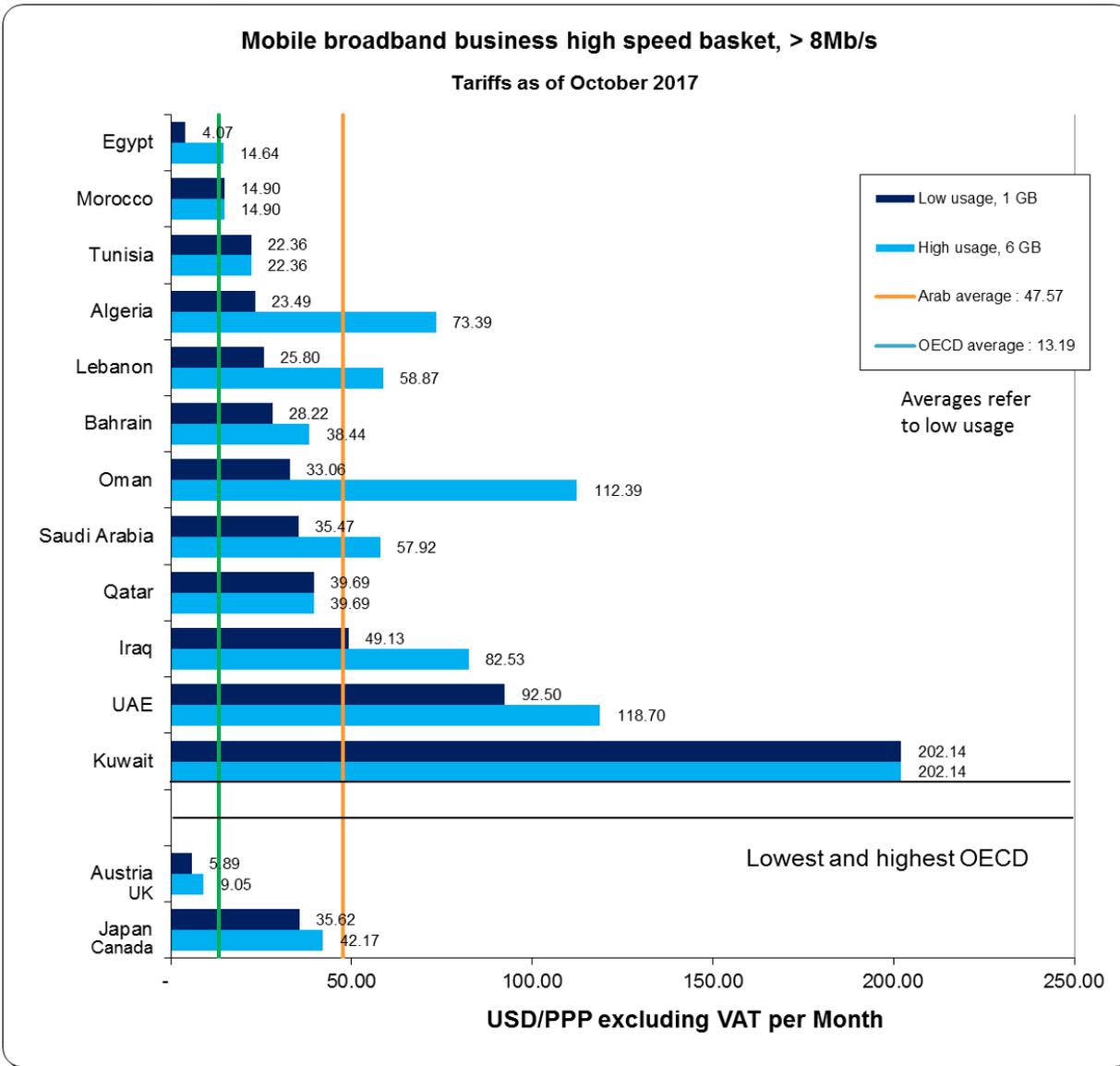
**Low usage: 1 GB
and 5 hours per
month over 15 days**

**High usage: 6 GB
and 30 hours over
30 days**

**Average lines are
based on low usage
results**



BUSINESS HIGH SPEED MOBILE BROADBAND (>8 MB/S)



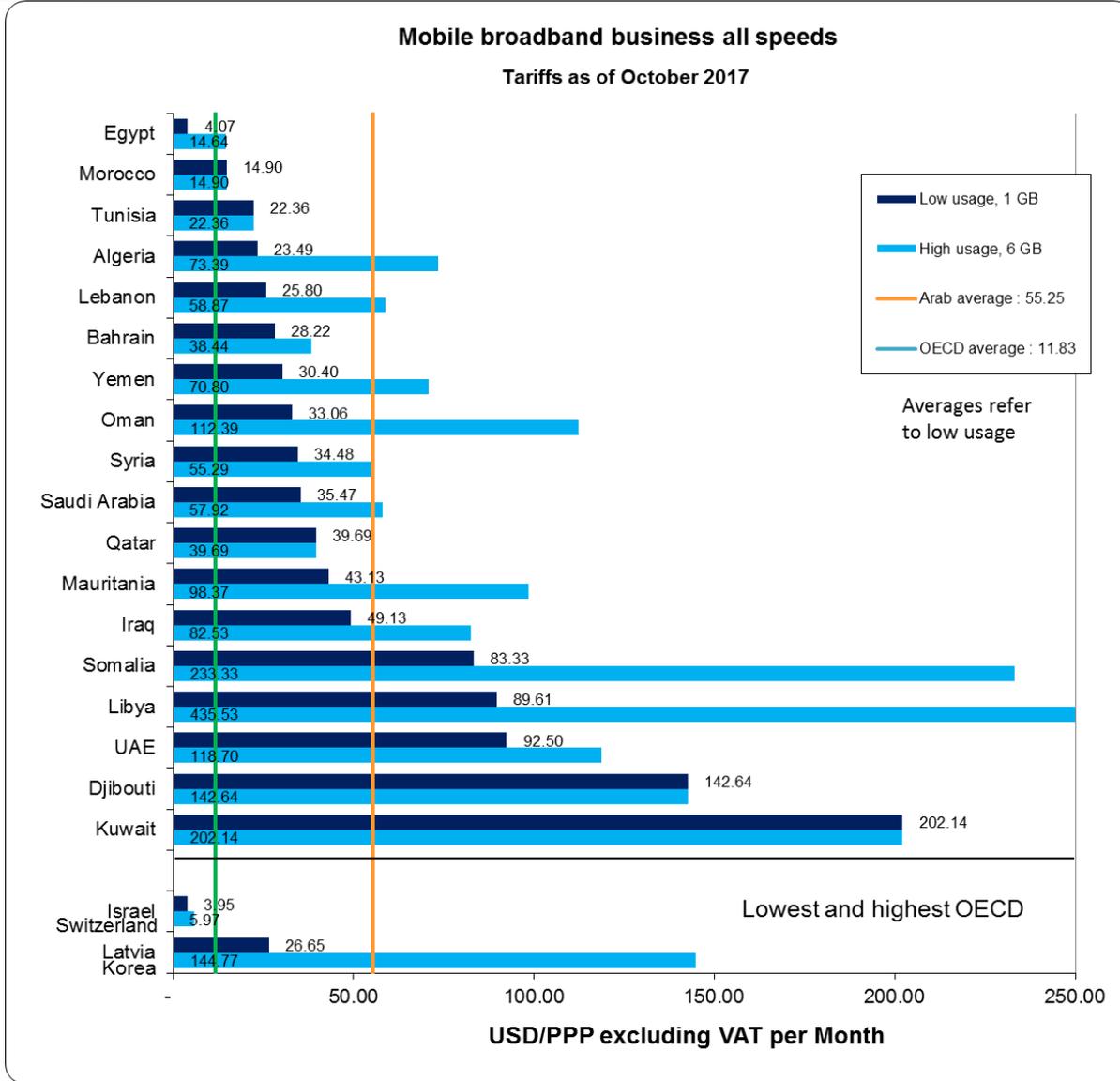
Low usage: 1 GB and 5 hours per month over 15 days

High usage: 6 GB and 30 hours over 30 days

Average lines are based on low usage results



BUSINESS MOBILE BROADBAND ALL SPEEDS



Low usage: 1 GB and 5 hours per month over 15 days

High usage: 6 GB and 30 hours over 30 days

Average lines are based on low usage results

For high usage, the results for Libya have been truncated, to make the graph easier to read



OBSERVATIONS FROM MOBILE BROADBAND BASKET RESULTS



- Mobile broadband services are available across all the Arab countries.
 - The average advertised download speed is just over 86 Mb/s, up from 63 Mb/s in 2016
 - Higher speeds increasingly commonplace, with speeds in excess of 7.2 Mb/s available in 15 of the Arab countries, and accounting for 85% of offers.
 - Very low speeds of < 1Mb/s are only available in Djibouti, while 1 Mb/s services are only available in Sudan.
- The table below shows the 3 cheapest and 3 most expensive countries for each basket, each speed category, for both residential and business services.

		Cheapest			Most expensive		
		1st	2nd	3rd	1st	2nd	3rd
Residential	2-8 Mb/s low usage	Sudan	Tunisia	Mauritania	Oman	Libya	Somalia
	2-8 Mb/s high usage	Sudan	Tunisia	Syria	UAE	Somalia	Libya
	> 8 Mb/s low usage	Egypt	Tunisia	Sudan	Kuwait	Iraq	UAE
	> 8 Mb/s high usage	Egypt	Morocco	Jordan	Saudi Arabia	Iraq	Algeria
	All speed low usage	Egypt	Sudan	Tunisia	Kuwait	Iraq	Somalia
	All speed high usage	Sudan	Egypt	Morocco	Algeria	Somalia	Libya
Business	2-8 Mb/s low usage	Yemen	Algeria	Syria	Somalia	Libya	UAE
	2-8 Mb/s high usage	Syria	Yemen	Algeria	Somalia	Oman	Libya
	> 8 Mb/s low usage	Egypt	Morocco	Tunisia	Iraq	UAE	Kuwait
	> 8 Mb/s high usage	Egypt	Morocco	Tunisia	Oman	UAE	Kuwait
	All speed low usage	Egypt	Morocco	Tunisia	UAE	Djibouti	Kuwait
	All speed high usage	Egypt	Morocco	Tunisia	Kuwait	Somalia	Libya

- Generally, Egypt, Sudan, Morocco and Tunisia are consistently the cheapest countries, for both residential and business services,, and irrespective of speed, and, notably, of usage. Oman, , Somalia, Iraq, Algeria, Kuwait and UAE are among the most expensive.
- The average cost of mobile broadband services for both residential and business customers in the Arab countries compared to the OECD average is shown in the table below.

Arab/OECD average	Low usage		High usage		Low usage	High usage
	2-8 Mb/s	> 8 Mb/s	2-8 Mb/s	> 8 Mb/s	All speeds	All speeds
Arab/OECD residential	2.11	1.89	2.95	2.06	2.22	3.57
Arab/OECD business	3.28	3.61	3.72	3.19	4.67	4.11

- The average varies according to which basket and speed is being considered, and whether the services are residential or business, but broadly, the residential Arab average is anywhere up to 3.6 times more than the OECD average, with higher speed services showing slightly more parity.
- For business services, the Arab/OECD ratio is similarly variable, but can be up to 4.7 times.





MOBILE BROADBAND TIME SERIES ANALYSIS AND RANKING TABLES 2012-2017

RESIDENTIAL MEDIUM SPEED MOBILE BROADBAND (2-8 MB/S), LOW USAGE BASKET RANKING



	Basket 3: 1GB, Residential				
	2012	2013	2015	2016	2017
Algeria	77.28	70.41	22.90	21.55	20.61
Bahrain	16.47	16.47	22.27	22.27	
Comoros			35.28	35.28	23.52
Djibouti					
Egypt	12.16				
Iraq					
Jordan	24.08	18.06			
Kuwait		42.11			
Lebanon	58.06				
Libya			41.05	41.05	41.05
Mauritania			43.13	43.13	14.38
Morocco	28.04	25.49			
Oman	35.81	33.06	39.67	39.67	39.67
Qatar	116.93				
Saudi Arabia	71.67	17.38	39.82	39.82	
Somalia				83.33	83.33
Sudan		9.79	5.65	7.53	8.29
Syria	7.57	7.63		11.40	20.86
Tunisia		20.40	12.66	19.00	12.66
UAE	52.40				31.44
Yemen				40.40	30.40

	Basket 3: 1GB, Residential				
	2012	2013	2015	2016	2017
Algeria	10	10	4	4	4
Bahrain	3	3	3	5	
Comoros			5	6	6
Djibouti					
Egypt	2				
Iraq					
Jordan	4	5			
Kuwait		9			
Lebanon	8				
Libya			8	10	10
Mauritania			9	11	3
Morocco	5	7			
Oman	6	8	6	7	9
Qatar	11				
Saudi Arabia	9	4	7	8	
Somalia				12	11
Sudan		2	1	1	1
Syria	1	1		2	5
Tunisia		6	2	3	2
UAE	7				8
Yemen				9	7

Average	45.50	26.08	29.16	33.70	29.66
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Below Arab average
Above Arab average

Least expensive
Most expensive



RESIDENTIAL MEDIUM SPEED MOBILE BROADBAND (2-8 MB/S), HIGH USAGE BASKET RANKING



	Basket 6: 6GB, Residential				
	2012	2013	2015	2016	2017
Algeria	77.28	70.41	34.35	85.30	123.65
Bahrain	43.93	43.93	44.24	22.27	
Comoros			94.08	94.08	65.85
Djibouti					
Egypt	26.65				
Iraq					
Jordan	71.87	42.98			
Kuwait		42.11			
Lebanon	280.89				
Libya			435.53	473.45	473.45
Mauritania			95.84	95.84	57.50
Morocco	28.04	28.04			
Oman	121.76	99.17	165.28	165.28	165.28
Qatar	230.34				
Saudi Arabia	116.88	99.91	119.46	119.46	
Somalia				233.33	233.33
Sudan		18.08	5.65	7.53	37.67
Syria	18.92	37.83		30.32	55.29
Tunisia		39.40	25.64	25.64	37.99
UAE	173.72				188.63
Yemen				242.40	70.80

	Basket 6: 6GB, Residential				
	2012	2013	2015	2016	2017
Algeria	6	8	3	5	7
Bahrain	4	7	4	2	
Comoros			5	6	5
Djibouti					
Egypt	2				
Iraq					
Jordan	5	6			
Kuwait		5			
Lebanon	11				
Libya			9	12	11
Mauritania			6	7	4
Morocco	3	2			
Oman	8	9	8	9	8
Qatar	10				
Saudi Arabia	7	10	7	8	
Somalia				10	10
Sudan		1	1	1	1
Syria	1	3		4	3
Tunisia		4	2	3	2
UAE	9				9
Yemen				11	6

Average	108.21	52.19	113.34	132.91	137.22
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Below Arab average
Above Arab average

Least expensive
Most expensive



RESIDENTIAL HIGH SPEED MOBILE BROADBAND (>8 MB/S), LOW USAGE BASKET RANKING



	Basket 3: 1GB, Residential				
	2012	2013	2015	2016	2017
Algeria			40.19	34.35	27.48
Bahrain	44.70	16.47	16.47	16.47	28.07
Comoros					
Djibouti					
Egypt	8.94	4.47	4.47	4.47	5.37
Iraq			49.13	49.13	49.13
Jordan	90.28	65.01	18.06	18.06	16.25
Kuwait	88.90	25.27	25.27	25.27	42.11
Lebanon		56.68	37.23	20.48	30.31
Libya					
Mauritania					
Morocco		48.15	14.16	14.16	13.88
Oman		33.06	31.95	31.95	19.83
Qatar	53.71	46.15	14.18	14.18	25.52
Saudi Arabia	78.43	58.92	17.15	17.15	28.96
Somalia					
Sudan			11.30	11.30	11.30
Syria					
Tunisia		17.94	12.66	19.00	10.13
UAE	51.87	51.87	51.87	51.87	51.87
Yemen					

Average	59.55	38.55	24.58	23.42	25.73
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Below Arab average

Above Arab average

	Basket 3: 1GB, Residential				
	2012	2013	2015	2016	2017
Algeria			12	12	8
Bahrain	2	2	6	5	9
Comoros					
Djibouti					
Egypt	1	1	1	1	1
Iraq			13	13	13
Jordan	7	11	8	7	5
Kuwait	6	4	9	10	12
Lebanon		9	11	9	11
Libya					
Mauritania					
Morocco		7	4	3	4
Oman		5	10	11	6
Qatar	4	6	5	4	7
Saudi Arabia	5	10	7	6	10
Somalia					
Sudan			2	2	3
Syria					
Tunisia		3	3	8	2
UAE	3	8	14	14	14
Yemen					

Least expensive

Most expensive



RESIDENTIAL HIGH SPEED MOBILE BROADBAND (>8 MB/S), HIGH USAGE BASKET RANKING



	Basket 6: 6GB, Residential				
	2012	2013	2015	2016	2017
Algeria			326.31		90.63
Bahrain	55.68	49.42	38.44	32.95	33.56
Comoros					
Djibouti					
Egypt	14.31	17.89	17.89	17.89	13.42
Iraq			131.00	131.00	82.53
Jordan	90.28	65.01	21.67	21.67	21.67
Kuwait	114.17	67.38	58.96	42.11	50.54
Lebanon		191.67	95.59	57.44	50.85
Libya					
Mauritania					
Morocco		48.15	25.49	25.49	13.88
Oman		112.39	112.39	112.39	66.11
Qatar	164.69	57.49	39.69	39.69	39.69
Saudi Arabia	122.91	58.92	39.39	39.39	72.40
Somalia					
Sudan			19.78	22.60	24.48
Syria					
Tunisia		24.27	23.89	25.33	30.39
UAE	235.27	209.59	79.40	105.60	67.97
Yemen					

Average	113.90	82.02	73.56	51.81	47.01
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Below Arab average
Above Arab average

	Basket 6: 6GB, Residential				
	2012	2013	2015	2016	2017
Algeria			14		14
Bahrain	2	4	6	6	6
Comoros					
Djibouti					
Egypt	1	1	1	1	1
Iraq			13	13	13
Jordan	3	7	3	2	3
Kuwait	4	8	9	9	8
Lebanon		10	11	10	9
Libya					
Mauritania					
Morocco		3	5	5	2
Oman		9	12	12	10
Qatar	6	5	8	8	7
Saudi Arabia	5	6	7	7	12
Somalia					
Sudan			2	3	4
Syria					
Tunisia		2	4	4	5
UAE	7	11	10	11	11
Yemen					

Least expensive
Most expensive



RESIDENTIAL MOBILE BROADBAND (ALL SPEEDS), LOW USAGE BASKET RANKING



Basket 3: 1GB, Residential

	2012	2013	2015	2016	2017
Algeria	77.28	70.41	22.90	21.55	20.61
Bahrain	16.47	16.47	16.47	16.47	28.07
Comoros		35.28	35.28	35.28	23.52
Djibouti	19.36	15.15	15.15	15.15	15.15
Egypt	8.94	3.58	4.47	4.47	5.37
Iraq		39.30	49.13	49.13	49.13
Jordan	24.08	9.03	18.06	18.06	16.25
Kuwait	88.90	25.27	25.27	25.27	42.11
Lebanon	58.06	56.68	37.23	20.48	30.31
Libya			41.05	41.05	41.05
Mauritania			43.13	43.13	14.38
Morocco	28.04	25.49	14.16	14.16	13.88
Oman	35.81	33.06	31.95	31.95	19.83
Qatar	53.71	46.15	14.18	14.18	25.52
Saudi Arabia	71.67	17.38	17.15	17.15	28.96
Somalia				83.33	83.33
Sudan		9.79	4.24	4.29	5.65
Syria	7.57	7.63		11.40	20.86
Tunisia		17.94	12.66	19.00	10.13
UAE	51.87	51.87	51.87	51.87	31.44
Yemen				40.40	30.40

Average	41.68	28.26	25.24	27.51	26.47
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Below Arab average

Above Arab average

Basket 3: 1GB, Residential

	2012	2013	2015	2016	2017
Algeria	12	17	10	12	9
Bahrain	3	6	7	7	13
Comoros		12	13	15	11
Djibouti	4	5	6	6	6
Egypt	2	1	2	2	1
Iraq		13	17	19	20
Jordan	5	3	9	9	7
Kuwait	13	9	11	13	19
Lebanon	10	16	14	11	15
Libya			15	17	18
Mauritania			16	18	5
Morocco	6	10	4	4	4
Oman	7	11	12	14	8
Qatar	9	14	5	5	12
Saudi Arabia	11	7	8	8	14
Somalia				21	21
Sudan		4	1	1	2
Syria	1	2		3	10
Tunisia		8	3	10	3
UAE	8	15	18	20	17
Yemen				16	16

Least expensive

Most expensive



RESIDENTIAL MOBILE BROADBAND (ALL SPEEDS), HIGH USAGE BASKET RANKING



	Basket 6: 6GB, Residential				
	2012	2013	2015	2016	2017
Algeria	77.28	70.41	34.35	85.30	90.63
Bahrain	43.93	43.93	38.44	22.27	33.56
Comoros		94.08	94.08	94.08	65.85
Djibouti	64.81	60.60	60.60	60.60	30.30
Egypt	14.31	17.89	17.89	17.89	13.42
Iraq		39.30	131.00	131.00	82.53
Jordan	71.87	21.67	21.67	21.67	21.67
Kuwait	114.17	42.11	58.96	42.11	50.54
Lebanon	280.89	191.67	95.59	57.44	50.85
Libya			435.53	473.45	473.45
Mauritania			95.84	95.84	57.50
Morocco	28.04	28.04	25.49	25.49	13.88
Oman	121.76	99.17	112.39	112.39	66.11
Qatar	164.69	57.49	39.69	39.69	39.69
Saudi Arabia	116.88	58.92	39.39	39.39	72.40
Somalia				233.33	233.33
Sudan		18.08	5.65	7.53	9.42
Syria	18.92	37.83		30.32	55.29
Tunisia		24.27	23.89	25.33	30.39
UAE	173.72	209.59	79.40	105.60	67.97
Yemen				242.40	70.80

	Basket 6: 6GB, Residential				
	2012	2013	2015	2016	2017
Algeria	7	13	6	13	19
Bahrain	4	9	7	4	7
Comoros		14	13	14	13
Djibouti	5	12	11	12	5
Egypt	1	1	2	2	2
Iraq		7	17	18	18
Jordan	6	3	3	3	4
Kuwait	8	8	10	10	9
Lebanon	13	16	14	11	10
Libya			18	21	21
Mauritania			15	15	12
Morocco	3	5	5	6	3
Oman	10	15	16	17	14
Qatar	11	10	9	9	8
Saudi Arabia	9	11	8	8	17
Somalia				19	20
Sudan		2	1	1	1
Syria	2	6		7	11
Tunisia		4	4	5	6
UAE	12	17	12	16	15
Yemen				20	16

Average	99.33	65.59	78.32	93.48	77.60
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Below Arab average
Above Arab average

Least expensive
Most expensive



BUSINESS MEDIUM SPEED MOBILE BROADBAND (2-8 MB/S), LOW USAGE BASKET RANKING



	Basket 3: 1GB, Business				
	2012	2013	2015	2016	2017
Algeria	66.05	60.18	29.36	29.36	30.95
Bahrain	21.97	21.97	22.27		
Comoros					
Djibouti					
Egypt	16.10				
Iraq					
Jordan	56.04				
Kuwait		42.11			
Lebanon	48.10				
Libya				89.61	89.61
Mauritania			43.13	43.13	43.13
Morocco	23.37				
Oman	57.23	33.06	53.68	53.68	53.68
Qatar	116.93				
Saudi Arabia	52.35	71.58		208.92	
Somalia				83.33	83.33
Sudan				6.52	
Syria	7.57	15.13		18.97	34.48
Tunisia			21.73	21.73	
UAE	48.03		75.98	75.98	130.47
Yemen					30.40

	Basket 3: 1GB, Business				
	2012	2013	2015	2016	2017
Algeria	10	5	3	4	2
Bahrain	3	2	2		
Comoros					
Djibouti					
Egypt	2				
Iraq					
Jordan	8				
Kuwait		4			
Lebanon	6				
Libya				9	7
Mauritania			4	5	4
Morocco	4				
Oman	9	3	5	6	5
Qatar	11				
Saudi Arabia	7	6		10	
Somalia				8	6
Sudan				1	
Syria	1	1		2	3
Tunisia			1	3	
UAE	5		6	7	8
Yemen					1

Average	46.70	40.67	41.03	63.12	62.01
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Below Arab average
Above Arab average

Least expensive
Most expensive



BUSINESS MEDIUM SPEED MOBILE BROADBAND (2-8 MB/S), HIGH USAGE BASKET RANKING



	Basket 6: 6GB, Business				
	2012	2013	2015	2016	2017
Algeria	66.05	60.18	146.79	146.79	74.98
Bahrain	43.93	43.93	44.24		
Comoros					
Djibouti					
Egypt	24.23				
Iraq					
Jordan					
Kuwait		84.23			
Lebanon	148.82				
Libya				435.53	435.53
Mauritania			95.84	95.84	98.37
Morocco	23.37				
Oman	128.37	112.39	392.18	392.18	392.18
Qatar	230.34				
Saudi Arabia	52.35	71.58		208.92	
Somalia				233.33	233.33
Sudan				8.98	
Syria	18.92	22.70		30.32	55.29
Tunisia			21.73	21.73	
UAE	206.97		206.97	206.97	206.97
Yemen					70.80

	Basket 6: 6GB, Business				
	2012	2013	2015	2016	2017
Algeria	6	3	4	5	3
Bahrain	4	2	2		
Comoros					
Djibouti					
Egypt	3				
Iraq					
Jordan					
Kuwait		5			
Lebanon	8				
Libya				10	8
Mauritania			3	4	4
Morocco	2				
Oman	7	6	6	9	7
Qatar	10				
Saudi Arabia	5	4		7	
Somalia				8	6
Sudan				1	
Syria	1	1		3	1
Tunisia			1	2	
UAE	9		5	6	5
Yemen					2

Average	94.34	65.84	151.29	178.06	195.93
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Below Arab average
Above Arab average

Least expensive
Most expensive



BUSINESS HIGH SPEED MOBILE BROADBAND (>8 MB/S), LOW USAGE BASKET RANKING



	Basket 3: 1GB, Business				
	2012	2013	2015	2016	2017
Algeria			29.36	29.36	23.49
Bahrain	44.70	28.22	28.22	28.22	28.22
Comoros					
Djibouti					
Egypt	8.13	4.07	4.07	4.07	4.07
Iraq			49.13	49.13	49.13
Jordan	108.96			93.09	
Kuwait		160.03	42.11	42.11	202.14
Lebanon		43.84	26.98	28.81	25.80
Libya					
Mauritania					
Morocco			28.33	23.37	14.90
Oman		33.06	33.06	33.06	33.06
Qatar		28.35	34.81	29.14	39.69
Saudi Arabia	66.36	42.84	35.47	35.47	35.47
Somalia					
Sudan				8.69	
Syria					
Tunisia		25.34	22.36	22.36	22.36
UAE	51.87	79.40	32.24	45.98	92.50
Yemen					

Average	56.01	49.46	30.51	33.77	47.57
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Below Arab average

Above Arab average

	Basket 3: 1GB, Business				
	2012	2013	2015	2016	2017
Algeria			6	8	4
Bahrain	2	3	4	5	6
Comoros					
Djibouti					
Egypt	1	1	1	1	1
Iraq			12	13	10
Jordan	5			14	
Kuwait		9	11	11	12
Lebanon		7	3	6	5
Libya					
Mauritania					
Morocco			5	4	2
Oman		5	8	9	7
Qatar		4	9	7	9
Saudi Arabia	4	6	10	10	8
Somalia					
Sudan				2	
Syria					
Tunisia		2	2	3	3
UAE	3	8	7	12	11
Yemen					

Least expensive

Most expensive



BUSINESS HIGH SPEED MOBILE BROADBAND (>8 MB/S), HIGH USAGE BASKET RANKING



	Basket 6: 6GB, Business				
	2012	2013	2015	2016	2017
Algeria			102.75	102.75	73.39
Bahrain	55.68	54.92	38.44	32.95	38.44
Comoros					
Djibouti					
Egypt	13.01	16.26	14.64	14.64	14.64
Iraq			131.00	131.00	82.53
Jordan	108.96			93.09	
Kuwait		160.03	67.38	67.38	202.14
Lebanon		103.97	69.57	73.90	58.87
Libya					
Mauritania					
Morocco			28.33	23.37	14.90
Oman		112.39	112.39	112.39	112.39
Qatar		56.70	56.70	39.69	39.69
Saudi Arabia	66.36	42.84	106.42	57.92	57.92
Somalia					
Sudan				12.31	
Syria					
Tunisia		25.34	22.36	22.36	22.36
UAE	96.06	79.40	66.30	80.04	118.70
Yemen					

	Basket 6: 6GB, Business				
	2012	2013	2015	2016	2017
Algeria			9	12	8
Bahrain	2	4	4	5	4
Comoros					
Djibouti					
Egypt	1	1	1	2	1
Iraq			12	14	9
Jordan	5			11	
Kuwait		9	7	8	12
Lebanon		7	8	9	7
Libya					
Mauritania					
Morocco			3	4	2
Oman		8	11	13	10
Qatar		5	5	6	5
Saudi Arabia	3	3	10	7	6
Somalia					
Sudan				1	
Syria					
Tunisia		2	2	3	3
UAE	4	6	6	10	11
Yemen					

Average	68.02	72.43	68.02	61.70	69.66
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Below Arab average
Above Arab average

Least expensive
Most expensive



BUSINESS MOBILE BROADBAND (ALL SPEEDS), LOW USAGE BASKET RANKING



	Basket 3: 1GB, Business				
	2012	2013	2015	2016	2017
Algeria	66.05	60.18	29.36	29.36	23.49
Bahrain	21.97	21.97	22.27	28.22	28.22
Comoros					
Djibouti	16.27	142.64	142.64	142.64	142.64
Egypt	8.13	4.07	4.07	4.07	4.07
Iraq			49.13	49.13	49.13
Jordan	56.04			93.09	
Kuwait		42.11	42.11	42.11	202.14
Lebanon	48.10	43.84	26.98	28.81	25.80
Libya				89.61	89.61
Mauritania			43.13	43.13	43.13
Morocco	23.37		28.33	23.37	14.90
Oman	57.23	33.06	33.06	33.06	33.06
Qatar	116.93	28.35	34.81	29.14	39.69
Saudi Arabia	52.35	42.84	35.47	35.47	35.47
Somalia				83.33	83.33
Sudan				3.26	
Syria	7.57	15.13		18.97	34.48
Tunisia		25.34	21.73	21.73	22.36
UAE	48.03	79.40	32.24	45.98	92.50
Yemen					30.40

Average	43.50	44.91	38.95	44.45	55.25
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Below Arab average

Above Arab average

	Basket 3: 1GB, Business				
	2012	2013	2015	2016	2017
Algeria	11	10	6	9	4
Bahrain	4	3	3	6	6
Comoros					
Djibouti	3	12	14	19	17
Egypt	2	1	1	2	1
Iraq			13	15	13
Jordan	9			18	
Kuwait		7	11	12	18
Lebanon	7	9	4	7	5
Libya				17	15
Mauritania			12	13	12
Morocco	5		5	5	2
Oman	10	6	8	10	8
Qatar	12	5	9	8	11
Saudi Arabia	8	8	10	11	10
Somalia				16	14
Sudan				1	
Syria	1	2		3	9
Tunisia		4	2	4	3
UAE	6	11	7	14	16
Yemen					7

Least expensive

Most expensive



BUSINESS MOBILE BROADBAND (ALL SPEEDS), HIGH USAGE BASKET RANKING



	Basket 6: 6GB, Business				
	2012	2013	2015	2016	2017
Algeria	66.05	60.18	102.75	102.75	73.39
Bahrain	43.93	43.93	38.44	32.95	38.44
Comoros					
Djibouti	54.46	142.64	142.64	142.64	142.64
Egypt	13.01	4.07	14.64	14.64	14.64
Iraq			131.00	131.00	82.53
Jordan	108.96			93.09	
Kuwait		84.23	67.38	67.38	202.14
Lebanon	148.82	103.97	69.57	73.90	58.87
Libya				435.53	435.53
Mauritania			95.84	95.84	98.37
Morocco	23.37		28.33	23.37	14.90
Oman	128.37	112.39	112.39	112.39	112.39
Qatar	230.34	56.70	56.70	39.69	39.69
Saudi Arabia	52.35	42.84	71.58	57.92	57.92
Somalia				233.33	233.33
Sudan				4.64	
Syria	18.92	22.70		30.32	55.29
Tunisia		25.34	21.73	21.73	22.36
UAE	96.06	79.40	66.30	80.04	118.70
Yemen					70.80

	Basket 6: 6GB, Business				
	2012	2013	2015	2016	2017
Algeria	7	7	11	14	10
Bahrain	4	5	4	6	4
Comoros					
Djibouti	6	12	14	17	15
Egypt	1	1	1	2	1
Iraq			13	16	11
Jordan	9			12	
Kuwait		9	7	9	16
Lebanon	11	10	8	10	8
Libya				19	18
Mauritania			10	13	12
Morocco	3		3	4	2
Oman	10	11	12	15	13
Qatar	12	6	5	7	5
Saudi Arabia	5	4	9	8	7
Somalia				18	17
Sudan				1	
Syria	2	2		5	6
Tunisia		3	2	3	3
UAE	8	8	6	11	14
Yemen					9

Average	82.05	64.86	72.81	94.38	104.00
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Below Arab average
Above Arab average

Least expensive
Most expensive



OBSERVATIONS FROM MOBILE BROADBAND TIME SERIES RESULTS



- There have been price and service changes from most of the Arab providers since 2016, with revisions of portfolios, increases in speed offerings, and increases in data allowances. The table below shows the overall shift in the Arab average for each basket and speed category, for both residential and business services

Change in overall average

2016-2017	Residential	Business
2-8 Mb/s low usage	↓	↓
2-8 Mb/s high usage	↓	↑
> 8 Mb/s low usage	↑	↑
> 8 Mb/s high usage	↓	↑
All speed low usage	↓	↑
All speed high usage	↓	↑

- For residential services, based on all speeds:
 - For low usage, large increases were noted in: Bahrain, Kuwait, Lebanon, Qatar, Saudi Arabia and Syria, while decreases were noted in Comoros, Mauritania, Oman, Tunisia, UAE and Yemen.
 - For high usage, large increases were observed in Bahrain, Saudi Arabia and Syria only. By contrast, large decreases were observed in: Comoros, Djibouti, Iraq, Mauritania, Morocco, Oman, UAE and Yemen.
- For business services:
 - For low usage, large increases were noted in: Kuwait, Qatar, Syria and UAE, while large decreases were noted in Morocco only.
 - For high usage, large increases were observed in: Kuwait, Syria and UAE, while large decreases were seen in Algeria, Iraq, Lebanon and Morocco.
- Although some of the packages available come with extremely high allowances, and this was also the case in 2016, the average allowance (based on all mobile broadband offers) has increased dramatically, from 67 GB to 94 GB. Changes (increases) in allowances negatively impacted some results, most notably for low usage.





SUMMARY OF THE MAIN FINDINGS FROM THE BENCHMARKING STUDY

SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY: FIXED VOICE TELEPHONY (1)



- For lower usage fixed voice for residential users, costs in the Arab countries are lower than the OECD average, while for higher usage, they are broadly on par. Costs for the business baskets in the Arab countries tend to be significantly above the OECD average.
- In contrast to previous years, a number of the Arab countries in North Africa are cheaper than those in the Middle East, with the exception of Egypt and to a lesser extent, Tunisia.
- As in previous years, the price range for the Arab countries (cheapest to most expensive) is wider than for the OECD countries
- A number of Arab countries continue to have fixed costs well below the OECD countries, causing the usage element to dominate. This makes the overall cost grow quicker with increasing usage, something that will discourage growth in usage. In some Arab countries, however, both fixed and usage costs are much higher than OECD countries. International calls remain significantly more expensive than in OECD countries.
- The table below shows the 3 cheapest and 3 most expensive Arab countries for each basket.

	Cheapest			Most expensive		
	1st	2nd	3rd	1st	2nd	3rd
20 calls residential	Egypt	Djibouti	Sudan	Mauritania	Saudi Arabia	Oman
60 calls residential	Egypt	Tunisia	Djibouti	Mauritania	Saudi Arabia	Oman
140 calls residential	Egypt	Morocco	Tunisia	Mauritania	Saudi Arabia	Oman
420 calls residential	Egypt	Tunisia	Morocco	Mauritania	Lebanon	Palestine
100 calls business	Djibouti	Tunisia	Lebanon	Mauritania	UAE	Saudi Arabia
260 calls business	Tunisia	Djibouti	Jordan	Mauritania	Oman	Saudi Arabia

- Average costs across all residential and business baskets have fallen since last year, with greater falls for higher usage baskets.
- Over the period 2012-2017, the average price has not changed dramatically, with some overall increases and decreases depending on the basket. Changes are driven in part by price changes, but also by changes in data availability for selected countries
- A comparison of the Arab averages for each basket, against the OECD averages is shown on the next slide.

SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY: FIXED VOICE TELEPHONY (2)



		Arab average 2017 USD PPP	OECD average 2017 USD PPP	Arab average compared to OECD average
Fixed voice Residential	20 calls	20	27	-27%
	60 calls	33	38	-13%
	140 calls	57	53	7%
	420 calls	84	76	10%
Fixed voice Business	100 calls	47	38	25%
	260 calls	117	70	68%

SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY: MOBILE VOICE TELEPHONY (1)



- There is a clear correlation between the size of the basket (in terms of number of calls and volume of data), and the extent to which countries fall below the OECD average. For smaller baskets, more countries fall below the OECD average
 - For 30 calls, 100 calls, 40 calls prepaid, 400 message and 30 calls plus 100 MB baskets, between 7 and 11 Arab countries have price levels either below or on par with the OECD average.
 - This number steadily declines as the number of calls and the data volume increases.
- The average result for the Arab providers is consistently higher than the OECD provider average across all mobile voice baskets, and the larger the basket the greater the variation.
- Baskets which incorporate handset data show a broad variation in price across the Arab providers – the difference becoming more marked for baskets with higher data requirements, indicating that in a number of countries, high mobile data use is still prohibitively expensive, and consequently, mobile data use is probably more limited.
- Similar to the voice baskets, the Arab provider average for the data baskets is typically much higher than the OECD one, although this is skewed by particularly expensive countries at the upper end.
- The average number of tariff packages offered by the Arab operators is up slightly, 23 per operator in 2016, to 26 per operator in 2017.
- The main trend observed is one of falling prices, with the average cost of each basket falling over the period 2016 to 2017. The fall in costs for the data baskets were the greatest. Please note that changes in the basket results may come from price changes, but also from removal or other changes to the range of tariffs offered by each provider.
- The falls in average costs masks increases in some countries, in some of the baskets, for example, in Bahrain and Syria.
- There were also a number of countries where costs across all or most of the baskets fell substantially, following revised pricing. The large falls reflect the period of time since the 2016 update, and the fact that mobile pricing is generally undergoing large changes. The same is true across the OECD, with some markets experiencing dramatic changes.
- The table on the next slide shows the cheapest and most expensive 3 countries for each basket, while the table on the second to next slide shows a comparison of the Arab averages for each basket, against the OECD averages

SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY: MOBILE VOICE TELEPHONY (2)



- The cheapest and most expensive countries, based on the cheapest result per country, are:

	Cheapest			Most expensive		
	1st	2nd	3rd	1st	2nd	3rd
30 calls	Egypt	Sudan	Morocco	Bahrain	Kuwait	Iraq
100 calls	Egypt	Sudan	Jordan	Kuwait	Bahrain	Algeria
300 calls	Egypt	Jordan	Sudan	Lebanon	Kuwait	Oman
900 calls	Egypt	Jordan	Iraq	Mauritania	Lebanon	Comoros
40 calls prepaid	Egypt	Sudan	Tunisia	Bahrain	Kuwait	Iraq
400 messages	Morocco	Egypt	Somalia	Saudi Arabia	Bahrain	Iraq
30 calls + 100 MB	Sudan	Egypt	Morocco	Bahrain	Kuwait	Oman
100 calls + 500 MB	Egypt	Sudan	Jordan	Syria	Iraq	Kuwait
300 calls + 1 GB	Egypt	Jordan	Morocco	Syria	Lebanon	Kuwait
900 calls + 2 GB	Jordan	Egypt	Morocco	Libya	Mauritania	Syria
100 calls + 2 GB	Egypt	Jordan	Morocco	Libya	Syria	Palestine

SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY: MOBILE VOICE TELEPHONY (3)



		Arab average 2017 USD PPP	OECD average 2017 USD PPP	Arab average compared to OECD average
Mobile voice	30 calls basket	20	15	● 33%
	100 calls basket	39	22	● 75%
	300 calls basket	83	31	● 164%
	900 calls basket	202	39	● 420%
	40 calls prepaid basket	21	15	● 35%
	400 messages basket	32	19	● 69%
Mobile voice & data	30 calls + 100 MB	29	19	● 51%
	100 calls + 500 MB	53	26	● 101%
	300 calls + 1 GB	107	35	● 205%
	900 calls + 2 GB	339	45	● 661%
	100 calls + 2 GB	177	32	● 448%

SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY: LEASED LINES



- The table below shows a summary of the cheapest and most expensive countries for each basket.

	Cheapest			Most expensive		
	1st	2nd	3rd	1st	2nd	3rd
64 kb/s	Sudan	Lebanon	Tunisia	Mauritania	Oman	UAE
256 kb/s	Sudan	Lebanon	Tunisia	UAE	Mauritania	Oman
2 Mb/s	Lebanon	Sudan	Algeria	Mauritania	Bahrain	Oman
34 Mb/s*	Algeria	UAE	Oman	N/A		
155 Mb/s*	Algeria	UAE	Oman	N/A		

* Offers only available from 3 countries

- Leased line prices have been generally stable since 2012, with no change to most of the operator prices, however, in the period 2016 to 2017, a number of operators stopped publishing prices - For 64 kb/s circuits, for example, 10 countries stopped publishing prices. This trend is also one that has been observed in OECD countries
- For those countries that have published prices, there were some price changes (reductions) in some countries, notably Lebanon, Mauritania, Sudan and UAE
- The cumulative effect of the reductions in some countries, and the removal of results for other countries, due to lack of published prices is a decrease in the average cost for speeds up to and including 2 Mb/s. For 34 Mb/s and 155 Mb/s, the Arab average cost has increased, however this is solely driven by some lower cost countries no longer publishing prices

		Arab average 2017 USD PPP	OECD average 2017 USD PPP	Arab average compared to OECD average
Leased Lines	64 Kb/s	554	N/A	
	256 kb/s	1162	N/A	
	2 Mb/s	3583	1756	● 104%
	34 Mb/s	30461	8536	● 257%
	155 Mb/s	50587	N/A	

SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY: FIXED BROADBAND (1)



- The Arab average residential cost is up to 5.2 times higher than the average OECD cost (similar to 2016). For business services, the average is up to 15.2 times higher (down from 18 times in 2016).
 - The residential figure continues to be skewed by particularly high costs in a number of countries, in particular, Qatar, Comoros, Mauritania, Sudan and, for high usage in particular, Yemen and Saudi Arabia. For business services, the Arab average is heavily skewed by a number of countries, including Comoros, Djibouti, Saudi Arabia, Algeria and Oman.
- Usage based charges are still prevalent, and appear in offers across 7 of the Arab countries, however, they have had limited impact on the basket results, and flat rate services have featured as the cheapest. In many OECD countries, usage-based charges often only apply for a very few ISPs
- The table below summarizes how the overall Arab average changed from 2016-2017. The picture is one of declining prices for higher speed services. Although the general trend for 10-30 Mb/s services is one of increasing costs, this is driven by the introduction of (relatively high priced) services in Algeria and Sudan, rather than increases in costs since 2016 in other countries

Change in overall average 2016-2017	Residential			Business		
	Low	Medium	High	Low	Medium	High
0.25 - 2 Mb/s / 10 GB	↑	↑	↑	↑	↑	↑
2 - 10 Mb/s / 15 GB	↓	↓	↑	↓	↓	↓
10 - 30 Mb/s / 25 GB	↑	↑	↑	↑	↑	↑
30 - 100 Mb/s / 50 GB	↓	↓	↓	↓	↓	↓
100 - 1000 Mb/s / 100 GB	↓	↓	↓	↓	↓	↓

- For low speed services up to 2 Mb/s, services are no longer available in some countries (Djibouti, Jordan), as higher speeds become more commonplace. In contrast, higher speed services (100-1000 Mb/s) are much more widely available. This can be seen from the overall average increase in speed, which climbed from 23.9 Mb/s in 2016 to 40 Mb/s in 2017
- The table on the next slide shows the cheapest and most expensive 3 countries for each basket, while the table on the second to next slide shows a comparison of the Arab averages for each basket, against the OECD averages

SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY: FIXED BROADBAND (2)



- There is a large variation in ranking according to the speed of service, for both residential services. The tables below shows the 3 cheapest and 3 most expensive countries for each of the 5 baskets considered for medium usage (low and high usage may differ, but typically don't)

Residential-medium usage	Cheapest			Most expensive		
	1st	2nd	3rd	1st	2nd	3rd
0.25 - 2 Mb/s / 10 GB	Egypt	Syria	Bahrain	Lebanon	Mauritania	Qatar
2 - 10 Mb/s / 15 GB	Egypt	Syria	Bahrain	UAE	Qatar	Comoros
10 - 30 Mb/s / 25 GB	Egypt	Tunisia	Palestine	Algeria	Mauritania	Sudan
30 - 100 Mb/s / 50 GB	Palestine	Jordan	Tunisia	Oman	Qatar	UAE
100 - 1000 Mb/s / 100 GB	Palestine	Jordan	Morocco	Bahrain	UAE	Oman

Business-medium usage	Cheapest			Most expensive		
	1st	2nd	3rd	1st	2nd	3rd
0.25 - 2 Mb/s / 10 GB	Egypt	Sudan	Morocco	Comoros	Algeria	Saudi Arabia
2 - 10 Mb/s / 15 GB	Egypt	Morocco	Lebanon	Algeria	Comoros	Djibouti
10 - 30 Mb/s / 25 GB	Egypt	Morocco	Jordan	Oman	Algeria	Comoros
30 - 100 Mb/s / 50 GB	Morocco	Jordan	Saudi Arabia	Djibouti	Bahrain	Oman
100 - 1000 Mb/s / 100 GB	Morocco	Jordan	Saudi Arabia	Qatar	UAE	Oman

SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY: FIXED BROADBAND (3)



Residential Fixed Broadband		Arab average 2017 USD PPP	OECD average 2017 USD PPP	Arab average compared to OECD average
Very low speed	L1: 0.25-2Mb/s, 5GB	47	40	● 17%
	M1: 0.25-2Mb/s, 10GB	48	40	● 20%
	H1: 0.25-2Mb/s, 20GB	57	40	● 40%
Low speed	L2: 2-10Mb/s, 5GB	77	32	● 142%
	M2: 2-10Mb/s, 15GB	78	31	● 153%
	H2: 2-10Mb/s, 50GB	234	32	● 630%
Medium speed	L3: 10-30Mb/s, 10GB	170	34	● 402%
	M3: 10-30Mb/s, 25GB	170	34	● 399%
	H3: 10-30Mb/s, 100GB	171	35	● 390%
High speed	L4: 30-100Mb/s, 15GB	167	37	● 347%
	M4: 30-100Mb/s, 50GB	167	38	● 344%
	H4: 30-100Mb/s, 200GB	167	39	● 328%
Very high speed	L5: 100-1000Mb/s, 25GB	236	45	● 427%
	M5: 100-1000Mb/s, 100GB	236	45	● 420%
	H5: 100-1000Mb/s, 400GB	236	46	● 412%

SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY: FIXED BROADBAND (4)



Business Fixed Broadband		Arab average 2017 USD PPP	OECD average 2017 USD PPP	Arab average compared to OECD average
Very low speed	L1: 0.25-2Mb/s, 5GB	117	34	● 240%
	M1: 0.25-2Mb/s, 10GB	119	34	● 246%
	H1: 0.25-2Mb/s, 20GB	126	34	● 267%
Low speed	L2: 2-10Mb/s, 5GB	127	70	● 82%
	M2: 2-10Mb/s, 15GB	137	72	● 91%
	H2: 2-10Mb/s, 50GB	150	72	● 109%
Medium speed	L3: 10-30Mb/s, 10GB	604	40	● 1426%
	M3: 10-30Mb/s, 25GB	604	40	● 1417%
	H3: 10-30Mb/s, 100GB	604	40	● 1417%
High speed	L4: 30-100Mb/s, 15GB	1065	43	● 2369%
	M4: 30-100Mb/s, 50GB	1065	43	● 2350%
	H4: 30-100Mb/s, 200GB	1065	45	● 2272%
Very high speed	L5: 100-1000Mb/s, 25GB	1734	63	● 2635%
	M5: 100-1000Mb/s, 100GB	1734	64	● 2612%
	H5: 100-1000Mb/s, 400GB	1734	66	● 2523%

SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY: MOBILE BROADBAND (1)



- Mobile broadband services are available across all the Arab countries.
 - The average advertised download speed is just over 86 Mb/s, up from 63 Mb/s in 2016 , while average data allowances have risen from 67 GB to 94 GB.
 - Higher speeds increasingly commonplace, with speeds in excess of 7.2 Mb/s available in 15 of the Arab countries and accounting for 85% of offers. Very low speeds of < 1Mb/s are only available in Djibouti, while 1 Mb/s services are only available in Sudan.
- The table below shows the 3 cheapest and 3 most expensive countries for each basket, each speed category, for both residential and business services.

		Cheapest			Most expensive		
		1st	2nd	3rd	1st	2nd	3rd
Residential	2-8 Mb/s low usage	Sudan	Tunisia	Mauritania	Oman	Libya	Somalia
	2-8 Mb/s high usage	Sudan	Tunisia	Syria	UAE	Somalia	Libya
	> 8 Mb/s low usage	Egypt	Tunisia	Sudan	Kuwait	Iraq	UAE
	> 8 Mb/s high usage	Egypt	Morocco	Jordan	Saudi Arabia	Iraq	Algeria
	All speed low usage	Egypt	Sudan	Tunisia	Kuwait	Iraq	Somalia
	All speed high usage	Sudan	Egypt	Morocco	Algeria	Somalia	Libya
Business	2-8 Mb/s low usage	Yemen	Algeria	Syria	Somalia	Libya	UAE
	2-8 Mb/s high usage	Syria	Yemen	Algeria	Somalia	Oman	Libya
	> 8 Mb/s low usage	Egypt	Morocco	Tunisia	Iraq	UAE	Kuwait
	> 8 Mb/s high usage	Egypt	Morocco	Tunisia	Oman	UAE	Kuwait
	All speed low usage	Egypt	Morocco	Tunisia	UAE	Djibouti	Kuwait
	All speed high usage	Egypt	Morocco	Tunisia	Kuwait	Somalia	Libya

- The average varies by basket and speed, and for residential or business, but broadly, the residential Arab average is anywhere up to 3.6 times more than the OECD average, and for business services, up to 4.7 times.
- Most Arab providers have made changes to portfolios, speeds and data allowance since 2016. The table below shows the overall shift in the Arab average for each basket and speed category, for both residential and business services

Change in overall average

2016-2017	Residential	Business
	2-8 Mb/s low usage	↓
2-8 Mb/s high usage	↓	↑
> 8 Mb/s low usage	↑	↑
> 8 Mb/s high usage	↓	↑
All speed low usage	↓	↑
All speed high usage	↓	↑

SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY: MOBILE BROADBAND (2)



Mobile Broadband for Laptops & Tablets		Arab average 2017 USD PPP	OECD average 2017 USD PPP	Arab average compared to OECD average
Residential	1GB, 15 days	26	12	● 122%
	6GB, 30 days	78	22	● 257%
Business	1GB, 15 days	55	12	● 367%
	6GB, 30 days	104	25	● 311%



APPENDIX



EXCHANGE RATES AND VAT

Country	VAT	Exchange rate into €	Exchange rate into US\$	Exchange rate into BHD	National currency	PPP rate into US\$
Algeria	17.0%	0.00741	0.00876	0.00333	1	0.0343
Bahrain	0.0%	2.22857	2.63234	1.00000	1	5.4916
Comoros	0.0%	0.00203	0.00240	0.00091	1	0.0047
Djibouti	19.0%	0.00476	0.00563	0.00214	1	0.0101
Egypt	10.0%	0.04781	0.05648	0.02146	1	0.1789
Iraq	0.0%	0.84661	1.00000	0.37989	1	3.7646
Jordan	16.0%	1.19057	1.40627	0.53423	1	3.1133
Kuwait	0.0%	2.79899	3.30611	1.25596	1	8.4226
Lebanon	10.0%	0.00055	0.00065	0.00025	1	0.0011
Libya	0.0%	0.60266	0.71185	0.27042	1	1.6890
Mauritania	0.0%	0.00227	0.00268	0.00102	1	0.0096
Morocco	20.0%	0.08666	0.10236	0.03889	1	0.2833
Oman	0.0%	2.17767	2.57222	0.97716	1	6.6113
Palestine	16.0%	0.23916	0.28250	0.10732	1	0.6348
Qatar	0.0%	0.22334	0.26381	0.10022	1	0.5670
Saudi Arabia	0.0%	0.22554	0.26640	0.10120	1	0.7240
Somalia	0.0%	0.84661	1.00000	0.37989	1	3.3333
Sudan	30.0%	0.12524	0.14793	0.05620	1	0.2898
Syria	0.0%	0.00394	0.00465	0.00177	1	0.0076
Tunisia	18.0%	0.34096	0.40274	0.15300	1	1.2664
UAE	0.0%	0.23046	0.27222	0.10341	1	0.5240
Yemen	10.0%	0.00338	0.00399	0.00152	1	0.0101
USA	10.0%	0.84661	1.00000	0.37989	1	1.0000

VAT rate shown for Jordan is rate applied to businesses.

Rate for residential users is 8%

Exchange rates taken from the Oanda web service on the 1st October 2017

PPPs are based on World Bank CPL data in 2016 (latest available).



PURCHASING POWER PARITIES (PPP)

- PPPs are used to incorporate not only the financial differences between exchange rates, but also the differences in the state of the economies as seen through the purchasing power of the citizens in each country.
 - PPPs are based on an assessment of the price levels for a corresponding basket of goods and services in each country. i.e. how much the same basket costs in different countries.
 - PPPs are normally stated based on the US\$ or some other reference currency, e.g. Euro. This study uses the US\$ PPPs calculated by the World Bank.
- In order to update these values the Comparative Price Level (CPL) is used. CPL is the relationship between the PPP and the reference market exchange rate at the time the PPP was calculated.
 - CPL is used together with updated, i.e. current, exchange rates to produce an “updated” PPP value.
 - $CPL = \text{Rate}_{\text{PPP}} / \text{Rate}_{\text{Reference}}$
 - $\text{PPP}_{\text{Current}} = \text{Rate}_{\text{Market}} * CPL$
- The advantage of using PPPs is that the results reflect the price differences as seen by the end users in each country based on their income and other costs.



PPP BACKGROUND

- This benchmarking study relies on the PPP (Purchasing Power Parity) and CPL (Comparative Price Level) values produced by the OECD and the World Bank*. PPPs are used in international studies to provide a more even comparison between countries, adjusting the exchange rates to the purchasing power of the consumer in each country. CPL is used to calculate PPP values from current market exchange rates, in order to obtain the most up to date combination of PPP and market exchange rates.
- PPPs are usually expressed in US\$, referring to the US market. PPPs are produced comparing the cost of a basket of goods and services across countries
 - The World Bank defines PPP as: " ... the number of units of a country's currency required to buy the same amount of goods and services in the domestic market as a U.S. dollar would buy in the United States."
- The CPL is the ratio between PPP and Market Exchange Rate (XR) for a given country, as seen from a reference country (usually the USA).

$$\text{CPL} = \text{PPP}_{\text{US\$}} / \text{XR}_{\text{US\$}}$$

CPL<1 means goods are more expensive, CPL>1 means goods are cheaper, referring to the USA.

- The basket of goods and services is extensive, however, the PPP result will of course depend on the content of this basket. The OECD and the World Bank are working together to improve on the methodology to calculate the PPP.
- The World Bank implemented a new methodology for calculating the PPPs in 2011, improving the PPP results to show a more accurate ration between countries. The results of the implementation of this new methodology was seen in the previously published 2014
 - As the previous World Bank methodology was different to that used by the OECD, and the new World Bank methodology is now more aligned with the OECD methodology. The changes seen from the old to the new World Bank PPP values are smaller in OECD countries than in other countries of the world.

*** The World Bank uses the term "Price Level Ratio" for the CPL.**

Please note: Inverse values of PPP and CPL are also used, depending on application.



ACRONYMS USED IN THE CONTEXT OF THIS REPORT

- OECD: Organisation of Economic Co-operation and Development
- OECD countries: Australia, Austria, Belgium, Canada, Chile, Czech Rep., Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Rep., Slovenia, Spain, Sweden, Switzerland, Turkey, UK, USA
- AREGNET: Arab Regulators Network.
- AREGNET member countries: Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, UAE, Yemen
- VAT: Value Added Tax, a consumption tax system used in most European countries and some Arab countries.
- PPP: Purchasing Power Parity, exchange rates adjusted for the purchasing power of consumers in each country. Used in international comparisons to adjust for market differences.
- CPL: Comparative Price level. The relative factor between market exchange rates and PPP. Used to calculate the PPPs from current market exchange rates.
- Service: A telecommunications service
- Basket: A theoretical usage profile describing the usage volumes across different types of calls and/or different kinds of usage. The basket includes all important elements of the service, including fixed cost elements.
- Tariff: The description of all the end user prices related to a service
- Tariff element: The part of a tariff describing the price(s) for a single type of call or service component.
- Basket calculation: The process where the Basket is applied to the individual tariff in order to calculate the cost of the individual tariff elements and the overall cost.
- Basket result: The cost of using the service as described in the Basket.
- Re-balancing: The process through which the prices are changed so that individual Tariff elements will cover their own cost, and not subsidise other Tariff elements.