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FIRST CONSULTATION ON SETTING THE CHARGES APPLICABLE TO WHOLESALE SERVICES FOR THE YEARS 2021, 2022 AND 2023

July 12, 2020

CRARAC 2020/07/12

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1 Background and Summary



1. On May 8, 2018, the CRA approved the Wholesale Charges applicable for the years 2018, 2019 and 2020 to the Products included in the Reference Interconnection Offers (“RIO”) of Ooredoo Q.S.C. (“Ooredoo”) and Vodafone Qatar Q.S.C. (“Vodafone”), in the Reference Transmission Offer (“RTO”) of Ooredoo and in the Reference Infrastructure Access Offer for Ducts of Ooredoo (“RIO”)¹.
2. On February 4, 2020², the CRA kicked off this proceeding aimed to set the Wholesale Charges applicable for the years 2021, 2022 and 2023 (“Wholesale Charges”).
3. On February 25, 2020, the CRA held an Industry Meeting with Ooredoo, Qnbn and Vodafone (“Service Providers” or “SPs”) to present the process of setting Wholesale Charges. In this meeting, the CRA presented the list of wholesale services subject to price control and described the methodological framework for setting such Wholesale Charges.
4. On March 12, 2020, the CRA sent to SPs a Data Request for costing the Wholesale Products, along with an illustrative example of the cost model developed by the CRA to perform forecasts and cost calculations.
5. On May 21, 2020, after granting a time extension to deliver the information, the CRA received SPs’ responses to the Data Request.
6. The CRA estimates that the regulated Wholesale Charges result in total domestic wholesale revenues of around QAR  million per year³.



Figure 1 National Wholesale Revenues – CRA’s estimate based on SPs’ data [SP data, CRA calculation]


7. As shown in the Figure above:
 - 7.1 Mobile Termination revenues account for more than  of the total National Wholesale Revenues;
 - 7.2 On the balance of wholesale payments between Ooredoo and Vodafone, Ooredoo is slightly receiving larger payoffs because of a higher amount of mobile minutes and

¹ CRARAC 2018/05/08: “Order to Ooredoo Q.P.S.C. and Vodafone Qatar Q.P.S.C on charges applicable to wholesale services for years 2018, 2019 and 2020”

² Ref, CRA Letter OB/RA/TC/012/2020

³ For the Interconnection Traffic Services and Interconnection and Transmission Links, revenues have been calculated as volume 2020 forecasted by Ooredoo and Vodafone times the current wholesale charges; for Ducts data have been sourced from Ooredoo’s RAS FY2018.

SMS terminated in its network; and

- 7.3 The regulated Wholesale Services represent around  of total industry revenues (around QAR 9.5 billion⁴).
8. Therefore, due to the small size of regulated wholesale services when comparing with total industry revenues, changes in Wholesale Charges are not expected to affect significantly the overall industry's income, profitability and its investment capacity.

⁴ According to financial statements of Ooredoo and Vodafone in FY2019.

2 Instructions for responding to this Consultation

2.1 Consultation Procedures

9. In keeping with open and transparent regulatory processes, the CRA herewith consults on the Setting of Wholesale Charges.
10. SPs are invited to provide their views and comments on the consultation questions.
11. To the extent possible, submissions must be supported by relevant evidence.
12. If a Service Provider is in disagreement with the CRA's findings, the Service Provider is requested to provide:
 - 12.1 The reasons for disagreement with the CRA's findings;
 - 12.2 Its alternative suggestion in a clear and concise manner;
 - 12.3 Wholesale Charges proposed according to its alternative methodology;
 - 12.4 The calculations, models or estimations which lead to such Wholesale Charges, in an editable format which allows the CRA to review and validate the formulas (such as Microsoft Excel); and
 - 12.5 The assumptions, relevant justifications and references of all data sources behind any alternative calculations.
13. Any submissions received in response to this Consultation Document ("CD") will be carefully considered by the CRA. Nothing included in this CD is final or binding. However, the CRA is under no obligation to adopt or implement any comments or proposals submitted.
14. Comments should be submitted by email to fmassone@cra.gov.qa, copying in pbystricky@cra.gov.qa, by the date stated on the front cover. The subject reference in the email should be stated as Consultation on "Setting Wholesale Charges".
15. It is not necessary to provide a hard copy in addition to the soft copy sent by email.
16. Deadline for SPs to submit their comment is indicated on the cover page.

2.2 Publication of comments

17. In the interests of transparency and public accountability, the CRA intends to publish the submissions to this consultation on its website at www.cra.qa.
18. All submissions will be processed and treated as non-confidential unless confidential treatment of all or parts of a response has been requested.
19. In order to claim confidentiality for information in submissions that stakeholders regard as business secrets or otherwise confidential, stakeholders must provide a non-

confidential version of such documents in which the information considered confidential is blacked out. This “blackened out” portion/s should be contained in square brackets. From the non-confidential version, it has to be clear where information has been deleted. To understand where redactions have been made, stakeholders must add indications such as “business secret”, “confidential” or “confidential information”.

20. A comprehensive justification must be provided for each and every part of the submission required to be treated as confidential. Furthermore, confidentiality cannot be claimed for the entire or whole sections of the document as it is normally possible to protect confidential information with limited redactions.
21. While the CRA will endeavor to respect the wishes of respondents, in all instances the decision to publish responses in full, in part or not at all remains at the sole discretion of the CRA.
22. By making submissions to the CRA in this consultation, respondents will be deemed to have waived all copyrights that may apply to intellectual property contained therein.
23. For more clarification concerning this consultation, please contact Francesco Massone (fmassone@cra.gov.qa).

3 Legal Basis

24. The following legal provisions, which are not exhaustive, provide the legal basis for the CRA to set the Wholesale Charges:

3.1 Emiri Decision No. (42) of 2014 Establishing the Communications Regulatory Authority

25. Article 4 of the Emiri Decision makes the CRA responsible for regulating the communications information technology and the post sector, as well as access to digital media, with the aim of providing advanced and reliable telecommunication services across the State.
26. Article 4(1) empowers the CRA to set Regulatory frameworks for the communications, information technology, the post sector, and access to digital media, in line with the general policies of the sector and to enable optimum performance.
27. Article 4(2) charges the CRA with actions finalized to encourage competition and prohibit or minimize anti-competitive practices, prevent misuse by any person or entity of its market dominance position, and take all necessary measures to achieve this.
28. Article 4(4) requires the CRA to protect the rights and interests of the public and Service Providers in the market, promote transparency and provide advanced, innovative and quality services at affordable prices to meet the needs of the public.
29. Article 4(6) make the CRA responsible for ensuring interconnection and access for all users by setting conditions for effective interconnection and access.
30. Article 15(2) empowers the CRA to develop appropriate Charge regulations, giving priority to the telecommunications market, or telecommunications services according to market requirements, and determine fees for retail and wholesale services.

3.2 Telecommunication Law 2006 (“Law”)

31. Article 25 provides that the CRA shall determine the rights and obligations of a Dominant Service Provider which include any requirements relating to the contents and publication of an interconnection reference offer and access agreements.
32. Article 28 states that Dominant Service Providers must submit to the CRA the offers for the Charges, prices and charges of the telecommunications services in the markets where they have been designated as dominant Service Providers and obtain the prior approval for them.
33. Article 29 provides that the Charge for telecommunications services provided by dominant Service Providers must be based on the cost of efficient service provision

and the Charge must not contain any excessive charges which result from the dominant position that the Service Provider enjoys. This Article also states that the CRA may issue decisions along with justifications to amend the Charges where it finds that they are not in line with the cost of the service provision, provided that such decision must prescribe the new Charge amount.

3.3 Executive By-Law for the Telecommunications Law 2009 (“By-Law”)

34. Article 6 empowers the CRA to issue legal instruments including Orders for the implementation of the provisions of the By-Law and the Law.
35. Article 50(1) provides that the CRA may require that interconnection or access charges of any Dominant Service Provider be subject to Article (29) of the Law and Articles 56, 57, 58 and 59 of this By-Law.
36. Article 54 of the By-Law prescribes that the CRA shall have the authority to review all Service Provider Charges, including wholesale and retail Charges, and to determine any requirements regarding Charges, their approval and publication, and the CRA may issue regulations or orders to regulate the Charges of Service Providers.
37. Article 56 requires that Charges that are subject to filing with and approval by the CRA shall enter into force only after they have been approved by a decision from the CRA.
38. In accord with Article 59 the CRA may require a Dominant Service Provider to prepare or participate in the development of a cost study of its telecommunications services if it determines that a cost study would be necessary in implementing any scheme of Charge or price regulation. Also, the CRA may require any Dominant Service Provider to prepare or participate in the development of a cost study for the purpose of determining the costs of providing different types of telecommunications services or the business activities of the Service Provider and the CRA shall decide on the cost categories, form, approach, procedures and timing of the cost study. The Service Provider shall comply with all requirements identified by the CRA; and shall file with the CRA the study. The CRA shall consult with the Service Provider required to file a cost study and any other interested parties before it makes an order requiring the study. The CRA may require a Dominant Service Provider to adopt identified cost accounting practices to facilitate cost studies or to achieve any other regulatory purpose under the Law or the By-Law, including the separation of accounts among different categories of business activities or services or as directed by the CRA.
39. Article 60 empowers the CRA to develop methods of price control and to consult Service Providers or any other interested parties. The CRA may issue orders or notices prescribing guidelines for the development of proposals for methods of price

control; or setting out directions for the further development of any proposal that has been filed with the CRA or any method of price control that is under development by the CRA. The CRA may also approve of a proposal or method of price control for implementation by one or more Service Providers. Following development and approval of any method of price control, the CRA may also issue regulations, rules, orders or notices required for its implementation.

3.4 Order on Charges applicable to Wholesale Services for years 2018, 2019 and 2020 (CRA 2018/05/08, dated May 08, 2018)

- 40. This Order set the Wholesale Charges for years 2018, 2019, 2020.
- 41. Costing and pricing principles defined in this Order are deemed valid for setting the Wholesale Charges for years 2021 onwards, if still applicable.

3.5 Wholesale Reference Offers approved by the CRA and privately agreed contracts

- 42. The Wholesale Charges are set for the Wholesale Products as defined in the:
 - 42.1 Reference Interconnection Offer ("RIO") of Ooredoo and Vodafone approved by the CRA on October 31, 2016 (CRA 2016/10/13);
 - 42.2 Reference Transmission Offer ("RTO") of Ooredoo approved by the CRA on October 31, 2016 (CRA 2016/10/13);
 - 42.3 Reference Infrastructure Access Offer for Duct of Ooredoo ("RIAO") approved by the CRA on June 22, 2016 (CRA 2016/06/22).
 - 42.4 Interconnection Agreement ("IA") between Ooredoo and Vodafone Qatar signed on March 15, 2009;
 - 42.5 Transmission Services Agreement ("TA") between Ooredoo and Vodafone Qatar signed on September 2, 2009;
 - 42.6 Infrastructure Access Agreement ("IAA") between Ooredoo and Qnbh signed on April 25, 2012.

3.6 Retail Tariff Instruction

- 43. Where applicable, the rules of the Retail Instruction ("RTI", ref. CRARAC 2018/11/15) are implemented to assess the relationship between the Wholesale and Retail Charges.

3.7 Cost of Capital

44. The Cost of Capital is set at 10.45% with the Decision and Order - Determination of the Cost of Capital for Service Providers (SPs) declared as having a Dominant Position, dated December 6, 2017 (ref. CRARAC 2017/12/06 A).
45. The Wholesale Charges proposed in this document and consulted on are based on this current Cost of Capital (10.45%).

4 Guiding Principles to set Wholesale Charges

46. The CRA points out that guiding principles to set Wholesale Charges applied in the previous process continue being applicable to the period 2021-2023. In the same line, the CRA reminds SPs that such principles have been already discussed and accepted by the industry during the meetings held in the past.
47. Therefore, following the legal requirements and previous proceedings, the CRA is of the view that Wholesale Charges:
 - 47.1 Must be Cost based;
 - 47.2 Must be Non-discriminatory;
 - 47.3 Must ensure Replicability.
48. All the three principles above must be respected. As example, setting Wholesale Charges purely Cost Based could lead to discriminatory charges (ref. Section 4.2) or to price/margin squeeze issues (ref. Section 4.3). In such cases the CRA needs to take a decision on the value to be set.
49. In taking its decisions, the CRA must comply with the applicable Legal Basis. Specifically, a very important reference is Article 19 of the Law, which requires the CRA, *“promoting appropriate, effective and low cost interconnection between telecommunications networks and promoting access to facilities of other Service Providers to ensure interoperability of telecommunications services that originate or terminate in the State and promoting the growth of competitive telecommunications services markets”*.
50. Other criteria taken into account by the CRA to set the Wholesale Charges consistent with the applicable Legal Basis are discussed in Section 5.

4.1 Cost based

51. Law’s Article 29 states that the Charge for telecommunications services provided by dominant Service Providers must be based on the cost of efficient service provision. Based on this statement, the CRA uses operators’ cost as reference for setting Wholesale Charges, applying adjustments when considered relevant.
52. For that purpose, the CRA uses a top-down model based on Historical Cost Accounting with Fully Distributed Costs (“HCA/FDC”), applying a forward-looking approach (i.e. projecting the HCA/FDC cost for three years). This ensures a full recovery of cost.
53. When starting the proceeding, in the Industry Meeting held on 25 February 2020, the CRA explained the main methodological principles for setting wholesale charges. One

of these aspects is the usage of costs extracted from top-down HCA/FDC cost models. After the meeting, SPs had the opportunity to provide comments regarding the methodology. In general, SPs expressed their acceptance of the proposed methodology.

54. The following sections describe the methodology applied for the calculation of services' provision cost for both recurring and one-time charges based on results obtained from the top-down cost model.

4.1.1 Recurring Wholesale Charges

55. Charges have to ensure that SPs recover both efficient Network and Wholesale Costs.
56. The CRA notes that the Law, in its Article 29 reads:

“The Charge for telecommunications services provided by dominant Service Providers must be based on the cost of efficient service provision and the Charge must not contain any excessive charges which result from the dominant position that the Service Provider enjoys”.

The CRA takes pure HCA/FDC costs extracted directly from cost model as preferred reference for calculating Network Costs. However, in some cases, the CRA has applied further adjustments in order to consider the efficient provision of services due to the employment of more advanced technologies.

4.1.1.1 Calculation of Network Costs

57. The CRA's cost forecast is based on HCA/FDC cost and volume as well as forecasts delivered by the SPs.
58. Costs and volumes have been projected to the period 2019-2021 based on RAS FY2013-FY2018, as follows:
 - 58.1 For network costs:
 - (a) The preferred approach is to base cost projections on CAGR 2013 – 2018⁵. This forecast has been compared with operators' forecast, adjusting it if considering appropriate.
 - (b) In some instances, trends might be influenced by specific factors (e.g. investments on new technologies or equipment, boom or expected decline of such products, etc.) occurred in such periods, leading to a change in the tendency. In such cases, the CRA uses the average growth rate from the previous two years (e.g. 2017 and 2018). The CRA deems this approach as

⁵ For some products, data is only available for the period 2015 – 2018. For example, this is the case for the duct access and duct facility hosting. In such circumstance, the CAGR 2015 – 2018 can be used to project the cost

reasonable, as it takes into account the impact on network costs of recent events.

(c) Where historical costs have no clear trend, the Network Costs are left stable.

58.2 For volumes, firstly a comparison between CRA's forecasts (done on the same principles explained above for network costs), and the volumes provided by operators have been performed. The preferred approach by default is to use operators' forecast if they are in line with the historical trend observed.

59. Afterwards, to estimate the Network Unit Cost for the years 2022 and 2023, in general cost trends have followed the same tendencies used by the period 2019-2021 for network costs and volumes.

4.1.1.2 Calculation of the Wholesale Costs

60. In latest reviews of top-down cost model, the CRA has indicated its lack of confidence in the Wholesale Cost included in the RAS of Ooredoo⁶. In fact, the CRA has initiated a process focused on the improvement of RAS FY2019⁷.

61. In this process, one of the main goals is to enhance the allocation of retail and wholesale specific costs throughout the model, by improving the identification of such costs in the relevant cost centers and making more transparent and clear their allocation to final services. This improvement is expected to be reflected in RAS FY 2019, whose final approval by CRA, after accomplishing the necessary audit and review activities, is expected to be completed at the beginning of the year 2021.

62. In light of the above, the CRA cannot use at this moment information from the RAS to determine wholesale specific costs. Hence, following the same approach than in the previous process, the CRA uses a mark-up of 10% "on top" of Network Costs to include this item in the Wholesale Charges.

4.1.2 One-Time Fees

63. These Fees refer to the RIAO of Ooredoo.

64. Due to the nature of one-time costs, "bottom-up" models have been used as main alternative for the calculation of Network Costs, provided that:

64.1 They represent accurately the set of activities carried out by Ooredoo in the provision of ancillary services.

64.2 Non-discrimination is guaranteed between Ooredoo's Retail and Wholesale Arms.

⁶ Outstanding issue from RAS Order CRARAC 2019/12/12 on December 12, 2019.

⁷ CRARAC 2018/12/06 on December 06, 2018.

4.2 Non-Discrimination⁸

65. In similar situations, a DSP must apply the same terms and conditions that it:
- 65.1 Provides to itself or any of its affiliates (i.e. between wholesale and retail arm). This means effectively that a DSP shall not ask the other SPs to pay for Wholesale Charges Fees not paid for by the DSP's Retail Customers; and
- 65.2 Provides to any of its wholesale customers (between wholesale customers)
66. In accordance with this principle, the CRA – where possible - has verified that the Network Cost transferred to the DSP's retail arm are consistent with the Network Cost included in the Wholesale Charges.
67. To this end, the CRA is using a Proportionality Test (“PT”), based on the following methodology.

4.2.1 Proportionality Test methodology

68. The implementation of the PT has been deeply discussed in previous processes for setting Wholesale Charges, being already examined and debated with SPs. The PT used in the process is following same methodology as in the setting of Wholesale Charges for the period 2018-2020.
69. The main purpose of PT is to ensure that Wholesale Charges are non-discriminatory in relation to the Network Cost of functionally similar products provided internally (to the retail arm of the SP).
70. For example, to perform the PT, the CRA compares the Wholesale Charges of the Mobile Termination Rate with half of the Network Cost of an end-to-end on-net mobile call.
71. In addition, the CRA is aware that the Network Cost of a termination service might be different from an on-net call due to different routings and Network Elements involved. Therefore, the CRA deems a maximum of 20% difference as reasonable to assess the relation.
72. The following table shows an illustrative example of the PT as implemented by the CRA.

⁸ Article 24 of the Telecommunication Law and Article 49 of the By-Law

Wholesale Network Cost			Retail Network Cost			Equivalent Retail Network Cost			Reasonable Difference 20%	
Service Name	Unit	Unitary Cost	Service Name	Unit	Unitary Cost	Service Name	Unit	Unitary Cost / 2	Proportionality Test Max Cost allowable	Pass test
Fixed Call Termination	QAR/min	1.00	Fixed Voice (on-net)	QAR/min	1.50	Fixed Voice (on-net)	QAR/min	0.75	0.90	NO
Mobile Call Termination	QAR/min	0.50	Mobile Voice (on-net)	QAR/min	0.80	Mobile Voice (on-net)	QAR/min	0.40	0.48	NO
SMS Termination	QAR/SMS	0.10	SMS (on-net)	QAR/SMS	0.20	SMS (on-net)	QAR/SMS	0.10	0.12	YES
MMS Termination	QAR/MMS	0.15	MMS (on-net)	QAR/MMS	0.30	MMS (on-net)	QAR/MMS	0.15	0.18	YES

Table 1 Illustrative example of the Proportionality Test as implemented by the Authority [CRA]

73. In the event that the PT is not passed by a determined service without proper justifications that support such fact, the CRA could set Wholesale Charges based on the value that ensures absence of discrimination, i.e. the maximum value possible to pass the PT.

4.3 Replicability

74. Law's Article 43 (9b) determines that reducing the margin of profit available to a competitor that requires wholesale telecommunications services from a DSP (commonly known as "Margin Squeeze" or "Price Squeeze") shall be considered as abuse of dominance.

75. In addition:

75.1 Article 4.1 of the RTI requires the absence of a Price Margin Squeeze ("PMS").

75.2 Section "3.5.2 Margin squeeze" of The Competition Policy, Explanatory Document, issued on October 21, 2015, also includes guidelines on how to verify the absence of Margin Squeeze.

76. The CRA has developed a specific test to verify the absence of margin squeeze issues, i.e. the OLO can replicate DSPs' Retail Offers renting the Wholesale Products⁹, as described in following section.

4.3.1 Price / Margin Squeeze Test methodology

77. Like the implementation of PT, the methodology of Price/Margin-Squeeze test ("PMST") has been broadly discussed and reviewed by SPs in previous process. In the setting of Wholesale Charges for 2021-2023, the CRA is making use of same test mechanism than in previous process.

⁹ The average Retail Mark Up as per RAS FY2018 is used in this exercise.

78. The PMST checks whether competing SPs can replicate the retail service with wholesale inputs. The CRA will consider the best available information in deciding the appropriate levels of prices.
79. The following table shows the generic form of the PMS Test.

Price margin Squeeze									
Retail Product	Retail Charge	CRA Proposed wholesale charge	Outpayment	Retail MU	CRF	Granularity	cost for provisioning	pass	
				40% fixed and mobile					
Product X	QAR/min	10.00	8.00	-	3.20	0.80	-3.60	8.40	yes
Product Y	QAR/min	15.00	13.00	2.00	6.00	1.50	-6.75	15.75	no

Table 2 Price margin Squeeze – generic example [CRA]

80. The test is passed, when
- $$\text{Retail Charge} \geq (\text{Wholesale Charge} + \text{Outpayments}) \times (1 + \text{Retail Markup}_{\%}) \times (1 + \text{CRF}_{\%}) \times (1 + \text{Granularity}_{\%})$$

Formula 1 PMS Test

Retail Charge: average unit revenue generated by Ooredoo for the equivalent retail service;

Wholesale Charge is the regulated fee paid by the alternative operator;

Outpayments are the interconnection charges paid for the service (e.g. in case of terminating the call abroad);

The retail mark-up: it includes all the costs other than network costs (i.e. overheads and retail costs such as marketing, advertising, billing, etc.). The Retail Mark-up is calculated using the latest approved RAS of Ooredoo;

CRF: this is the Compound Risk Factor, whose main objective is to mitigate the risk that the existing uncertainties may cause the offer to be below cost; and

Granularity: this expresses the difference between the actual call in exact seconds and the billed calls, always rounded up to the next full minute.

81. The application of different parameters has been already discussed in previous processes.
82. For the avoidance of doubt, this test could also be used for assessing ex-post competition cases.

4.4 Consultation Question

Question 1 Do stakeholders agree with the CRA's view and implementation of the Guiding Principles to set Wholesale Charges?

5 Mechanisms available for setting Wholesale Charges

84. The following sections describe how the CRA has set the Wholesale Charges, providing further detail regarding the applicable timeframe, overall methodological approach, use of benchmarks, application of glide paths and potential alternative approaches.

5.1 Applicable timeframe

85. The predictability of the Wholesale Charges over a certain period is valuable for both Regulators and Service Providers as this helps:

- 85.1 The DSPs to forecast their wholesale revenue;
- 85.2 The SPs to forecast their costs, facilitating the development of the business plans; and
- 85.3 The CRA to perform its own controls based on the Wholesale Charges (for example, the Proportionality Test or the Price Margin Squeeze Test).

86. Hence, the CRA confirms the multi-year period as method of Charges control. With this method, the Service Providers know in advance exactly the Wholesale Charges that will be in force during the period of control.

87. The CRA formed its position well acknowledging that this method may lead to wholesale Charges not exactly reflecting future costs because of inaccuracy in forecasting the wholesale Charges or because of events not predictable at the time of the forecast.

88. However, to mitigate this risk, the CRA:

- 88.1 Has applied prudent factors, which are rather overestimating forecasted costs;
- 88.2 Proposes a short period of control (three years);

89. Hence, the CRA confirms that Wholesale Charges cover the calendar years 2021, 2022 and 2023.

5.2 Overall methodological approach

90. As anticipated previously in this document, the CRA has, apart from currently applicable Wholesale Charges, three main references for setting new Wholesale Charges, namely:

- 90.1 Ooredoo's and/or Vodafone's cost information, to calculate cost-oriented wholesale charges;
- 90.2 Proportionality Test results, and
- 90.3 Price Margin Squeeze Test results.

91. In case the tests are passed, costs are translated directly in Wholesale Charges. If cost-oriented wholesale charges do not pass the tests, they are adjusted to pass the tests, so that they can be translated in Wholesale Charges.

5.3 Use of benchmarks

92. Benchmarks are commonly used for defining wholesale charges in those cases in which the regulator has little or no information.
93. The CRA has been mostly able to produce reasonable cost estimates from SPs cost information. In these cases, the CRA does not contemplate the option of defining Wholesale Charges directly based on benchmark information.
94. In cases for which no costing information is available or the information is considered inaccurate or unrepresentative, the CRA might rely on benchmark information to define Wholesale Charges.
95. In any case, the CRA believes benchmarks are useful to understand where Qatari operators' costs stand against other countries.

5.4 Application of glide paths

96. The glide path is a mechanism of successive adjustments over time from the current rates to a target value¹⁰.
97. The glide path is a very popular and useful mechanism, especially used if the charges have to be reduced to reach a cost-oriented level. This avoids a one-off shock if the current charges were significantly different from the cost-oriented charges. In addition, it promotes a greater predictability of charges thus reducing the regulatory risk.
98. This method is easy to implement and does not impose unfair administrative burden on both the CRA and the SPs.
99. Based on the above, the CRA has applied glide paths in those services with relevant differences between currently applicable charges and new available levels.
100. The application of glide paths for those services are based on equal yearly charge reductions from the currently applicable charges and the charge defined for the last year of the applicable timeframe defined in section 5.1.

5.5 Existence of alternative approaches

101. Apart from the traditional approaches described in previous sections, the CRA may

¹⁰European Regulatory Group, ERG (06) 33, p. 73

apply alternative solutions for charging wholesale services.

102. Specifically, the CRA has observed that some countries are applying the concept “zero rating” or “bill-and-keep” for interconnection payments. This solution is viable when the traffic exchanged among SPs is balanced, or when the costs associated to charging interconnection (e.g. billing costs) outbalance the charges that can be applied. Since the interconnection traffic (fixed and mobile) in Qatar is balanced among operators, Zero Rating reduces the administrative cost incurred by both the SPs and the CRA for managing the interconnection. A mechanism to charge unbalanced traffic exceeding – for example, 10% of the total traffic – is also considered appropriate.

5.6 Consultation Question

Question 2	Do stakeholders agree with the CRA’s view and implementation of Mechanisms available for setting Wholesale Charges?
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6 Wholesale Charges

6.1 Conveyance Services

- 103. Conveyance Services are offered by Ooredoo and VFQ and include:
 - 103.1 Call Termination Service to Numbers for fixed and mobile calls
 - 103.2 Call Termination Service to Toll-Free Numbers (reverse charge);
 - 103.3 Call Termination Services to Numbers for Inbound International calls;
 - 103.4 Termination Emergency Services;
 - 103.5 Messaging Termination Services;
 - 103.6 Outgoing international call conveyance.
- 104. Ooredoo and Vodafone are both DSPs in the Relevant Markets to which these services belong. Hence, the following Wholesale Charges are applicable to both the above SPs.
- 105. The following sections analyze each service in detail.
- 106. Unless differently specified, costs include Network Costs and a 10% wholesale mark-up.

6.1.1 Call Termination Service to Numbers for fixed and mobile calls

- 107. The CRA has observed a general trend in the industry towards the network convergence of fixed and mobile traffic over the same all-IP core network. In the recent years, the emergence of technologies such as VoIP or NGN networks provides operators technical solutions to deploy a common core network capable of handling fixed and mobile traffic without any differentiation.
- 108. This allows operators to achieve cost savings coming from efficiency gains as well as simplicity in the traffic management and O&M activities over their networks.
- 109. In Qatar, the CRA has noticed that SPs are also making further efforts in this direction. For instance, the CRA outlines that:
 - 109.1 SPs are making usage of same scheme for interconnecting fixed and mobile traffic. Currently, the interconnection between operators does not distinguish traffic from mobile and fixed networks, using same network elements in both cases.
 - 109.2 The deployment of a common core network to route and transport all the IP traffic. The CRA has observed that SPs have installed in the last years technologies which enable an overall and common network architecture (such as the IP-MPLS protocol in conjunction with the integration of the IMS network for voice services).
- 110. In the forthcoming years, the CRA expects that SPs complete the full migration of

traffic towards an all-IP core network. For that reason, no big differences are assumed in the future for conveying fixed or mobile voice traffic.

111. In this line, the CRA is of the view that setting a unique termination rate for fixed and mobile termination services is reasonable.

6.1.1.1 References available

6.1.1.1.1 Cost references

112. Cost references are available for Ooredoo and Vodafone.

Cost references for Ooredoo

113. The cost per unit has been calculated as the weighted average of fixed and mobile termination unit cost. The cost per unit for each service has been calculated as per the general methodology (cf. 4.1.1.1 and 4.1.1.2). Specific to both services:

- 113.1 Network costs. In line with explanations above, the CRA has observed the introduction of the IMS in Ooredoo's core network. In RAS FY2017, by the first time, Ooredoo created a network component to reflect the recent investment in the IMS network, focused on routing more efficiently voice traffic in the core network. As a result of this, voice traffic is being migrated in Ooredoo's core network from traditional voice switching platforms to this all-IP network. Two main aspects have been identified because of the introduction of IMS network:

- (a) Cost allocation of IMS network in RAS FY2017 and FY2018 is not considering that IMS network will route all the voice traffic in the forthcoming years (from 2019 onwards).

In particular, in RAS FY2018 Ooredoo was not using the IMS for all voice services i.e., mobile on-net services were not being conveyed through the IMS network.

However, as per RAS FY2019 information delivered on April 5, 2020¹¹, it can be observed that Ooredoo started using the IMS network for also conveying on-net mobile traffic in 2019. Thus, in line with the forward-looking principle of the methodology followed by the CRA, the allocation of the IMS network has already been adjusted in FY2018 to also distribute its cost to the mobile on-net service. For that purpose, the CRA has used the same routing factor as for mobile termination service since no differences in terms of usage could be expected

¹¹ Ooredoo letter OQ/Reg-6434/2020-04, "RAS Submission". Concretely, the file "Appendix - Network Components to services DRAFT for 1st Submission 05.04.20 v2.xlsx" shows the usage of the network component "IP Multimedia Subsystem" by mobile on-net services.

between both services. The allocation of the IMS network to the retail mobile on-net service has caused a decrease of the cost allocated to the rest of services, resulting in a decrease of ✂ of the cost of fixed and mobile termination services respectively.

(b) The future usage of legacy voice switching platforms will decrease in the upcoming years given that all the voice traffic is expected to be conveyed by the IMS network. The CRA has considered that the treatment of legacy voice platforms can differ between fixed and mobile traffic:

- (i) For fixed switching platforms, the CRA expects that traditional fixed voice switching network will be totally substituted by the IMS network, leading to the switch off of these platforms.
- (ii) In the case of mobile network, the CRA has observed that operators typically are not switching off legacy technologies (e.g. 2G and 3G) because they are expected to be still in use for certain functionalities.

In this context, and given that the proceeding of setting wholesale charges follows a forward-looking and efficient approach, the CRA is of the view that traditional network components from fixed network shall not be considered when calculating network costs in the future, since the traditional fixed voice switching network will be totally substituted by the IMS network.

In this line, the CRA has adjusted the network cost for RAS FY2018 by subtracting costs from traditional fixed voice switching platforms. In particular, the following elements have been subtracted:

- (iii) CN02b - Universal Media Gateway (UMG)
- (iv) CN02c - Softswitch (SS).

For RAS FY2018 network costs of mobile termination, no cost of legacy switching platforms has been removed.

114. Projections of network costs have been applied on an individual basis for each termination service:

114.1 The fixed termination has applied the average growth rate in 2017 and 2018, a more conservative scenario than the CAGR of historical period 2013-2018.

114.2 For the mobile termination, the CRA sees stability in the total network costs with a light increase of 1% per year, according to the CAGR of 2013-2018.

115. With regards to costs forecasts provided by Ooredoo:

115.1 In the case of fixed termination, it has not been used since Ooredoo has not taken into account the correction mentioned in the previous points (i.e. Ooredoo has not considered a full migration towards the IMS network in the future).

115.2 For mobile termination, Ooredoo's forecast has been discarded since Ooredoo has

maintained constant the network costs for the period 2020-2023, misaligned to the light increase observed in the last years.

116. The volume forecast has been based on the average of growth rate from last two years (FY2017 and FY2018), which is lower than the CAGR 2013-2018. With regards to Ooredoo's forecast:
- 116.1 For fixed termination, the CRA has decided not to use it, as Ooredoo has provided a very conservative approach in contrast to the historic trend observed of last years.
- 116.2 For mobile termination, Ooredoo has followed the same approach as for network costs which cannot be accepted (Ooredoo has presented the same value of minutes for the period 2020-2023).
117. The trend to establish the cost per unit for the years 2022 and 2023 is based on previous trends employed for the period 2019-2021. This trend is already considering the full migration of fixed voice traffic to the IMS network.
118. The following table shows the unit cost, weighted average of fixed and mobile termination services, according to the above assumptions.




Table 3 Call Termination Service to Numbers for fixed and mobile calls - costs (incl. 10% Wholesale Markup)
[CRA calculation]

Cost references for Vodafone



119. Vodafone has delivered a costing model oriented to the provision of mobile services in which no references to the costing of fixed services are found. Therefore, no cost references from Vodafone have been considered in the case of fixed termination service. Concerning the volume forecast for the fixed termination service, volume provided by Vodafone shows a trend inconsistent with historic data, presenting an unjustified traffic drop in 2020. For that reason, Vodafone's volume forecast has been discarded.
120. Vodafone provided a MTR for 2020 ranging from between  QAR/min to  QAR/min. The following table shows the range of unit cost presented by Vodafone under the different scenarios.



Table 4 Mobile Call and Video-Call Termination Service - cost [Vodafone]

121. However, Vodafone's cost model cannot be deemed as reliable due to the following reasons:

121.1 No supporting evidence has been delivered regarding the estimation of network costs and volumes.

121.2 Vodafone has presented this information as inputs, without providing any explanations nor supporting calculations which justify the representativeness of such values.

121.3 With the information provided, the CRA is incapable of verifying if network costs by different categories (e.g. network OPEX or depreciation of network assets) represent the reality of cost structure from Vodafone's network. According to Vodafone, the cost model is based on TD-HCA/FDC approach, but the CRA is not able to verify the conciliation between financial accounts and represented costs.

121.4 In addition, no proper explanation has been provided by Vodafone to clarify the percentage of cost excluded from fixed assets.

121.5 On the other hand, regarding volumes forecast, Vodafone has not provided any evidence which justifies the values delivered. In fact, two different information sources can be observed in the external links of volume information. This aspect seems to be the reason for the inconsistent trend between 2019 and 2020 for certain services.

121.6 Same allocation method for all the cost categories. Vodafone is allocating broad cost categories to services using always the same allocation criteria (e.g. traffic-based, revenue-based or usage-based). Even though the CRA does not expect a complex and sophisticated cost model, at least further cost disaggregation shall be provided.

121.7 Lack of reliability in the conversion factors.

Under the base case scenario of traffic-based allocation, Vodafone is using a set of conversion factors to obtain equivalent traffic for multiple services measured in minutes, i.e. taking voice as the referent service. The CRA has identified certain aspects which cannot be considered as adequate:

(a) No application of MB to minute conversion factor by mobile technology. It is worth noting that evolved technologies such as LTE are designed to increase the optimization of data traffic and hence, they present different conversion factors than other more legacy technologies such as GSM, dedicated mainly to

voice products. Vodafone obviates this fact, using a unique conversion factor regardless the technology. This can derive in big difference in terms of costs for those network elements whose use is shared between voice and data traffic.

- (b) No background for MB to minute conversion factor. This conversion factors typically make use of technical parameters needed to estimate the actual conversion between voice and data traffic (e.g. specific bit rate or payload sizes).
- (c) No proper explanations regarding the use of retail to wholesale voice conversion factor. Vodafone has not provided any justification which justifies a different usage of network components from retail and wholesale components.

121.8 Application of alternative allocation methods as revenues or “usage”¹².

The CRA is of the view that such approaches are not aligned with the cost-oriented principle. Costs from network assets shall be allocated to services in function of usage of network components for the services. This is in line with the common international practice in costing models and it is usually reflected by the definition of routing factors.

Other allocation methods based on revenues or “usage” cannot be deemed valid.

122. The CRA would be happy to engage VFQ in further discussions on its model.

6.1.1.1.2 Comments by the Service Providers provided in the Data Request¹³

123. Concerning the fixed termination service, Ooredoo has commented that the Fixed Number Portability process can have impact on this service, resulting in an increase of volume conveyed by this service.

124. On mobile termination services:

124.1 Ooredoo is of the view that no trend is observed for network costs and volumes. As such, Ooredoo proposes to use average value.

124.2 Vodafone reiterates the uncertainty of market due to exceptional Covid-19 situation, the new wave of investment in 5G and full migration to data traffic. Under these features, Vodafone requests a cautionary approach in the regulation of mobile termination charge.

6.1.1.1.3 Proportionality Test

125. The table below shows that the PT is passed.

¹² Under this option, Vodafone is assuming that main source of data traffic is video consumption and it is converting data consumed into minutes of video. This option has been discarded as valid as well, given that Vodafone is mixing minutes of video with voice minutes in addition to the lack of proper evidences regarding the conversion factors from MB to minutes of video (e.g. assumption of data traffic is from video, conversion factors regardless the codec or QoS used, etc).

¹³ The position of the Service Providers has been taken from their responses to the Data Request



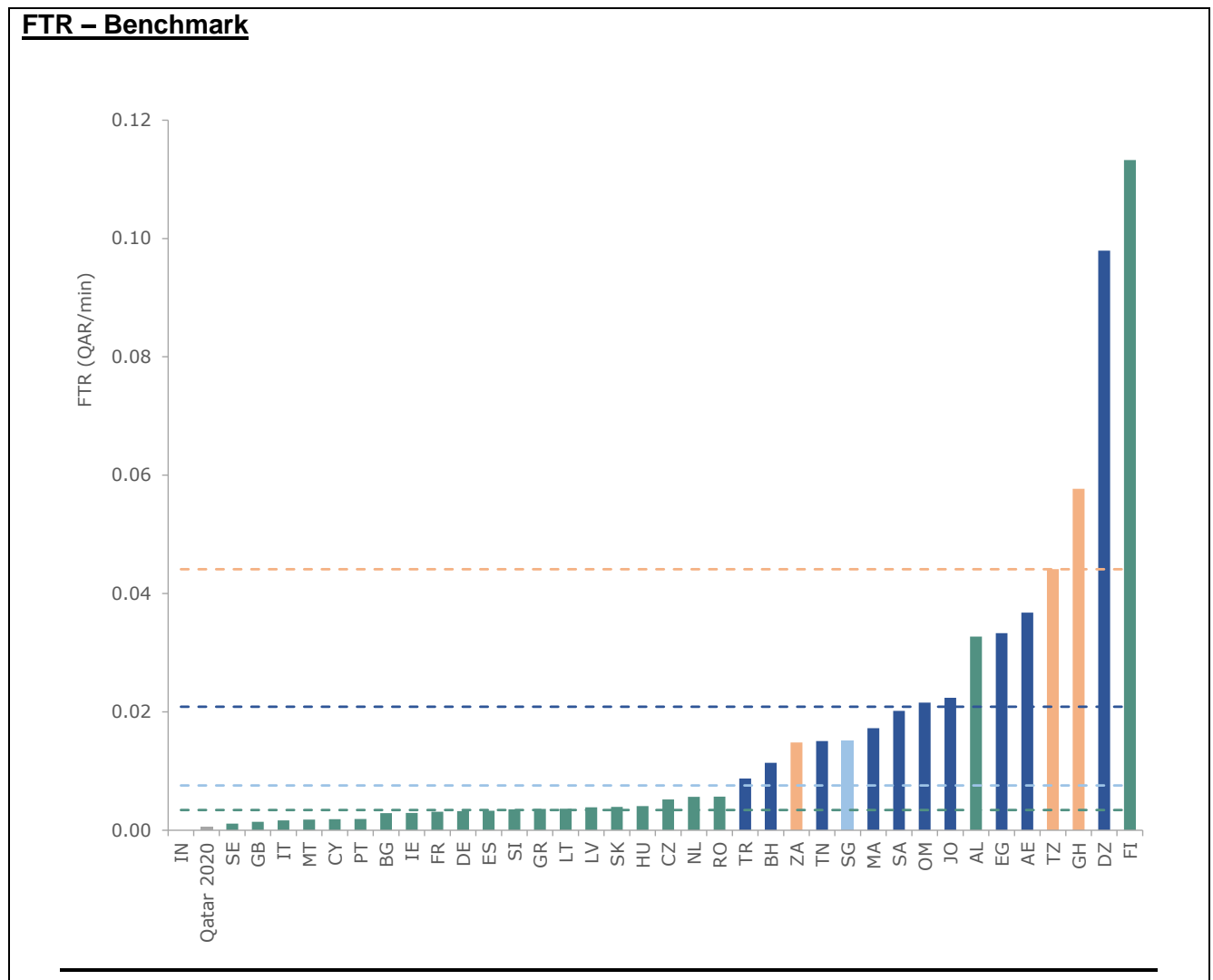
Table 5 Call Termination Service to Numbers for fixed and mobile calls – Proportionality Test [CRA calculation]

6.1.1.1.4 Price / Margin Squeeze Test

126. No PMS for the merged termination service was performed, as the retail national fixed-to-fixed calls are bundled with the line rental.

6.1.1.1.5 Benchmark

127. The graphs below show a benchmark on the FTR and MTR Charges currently applicable.



MTR – Benchmark

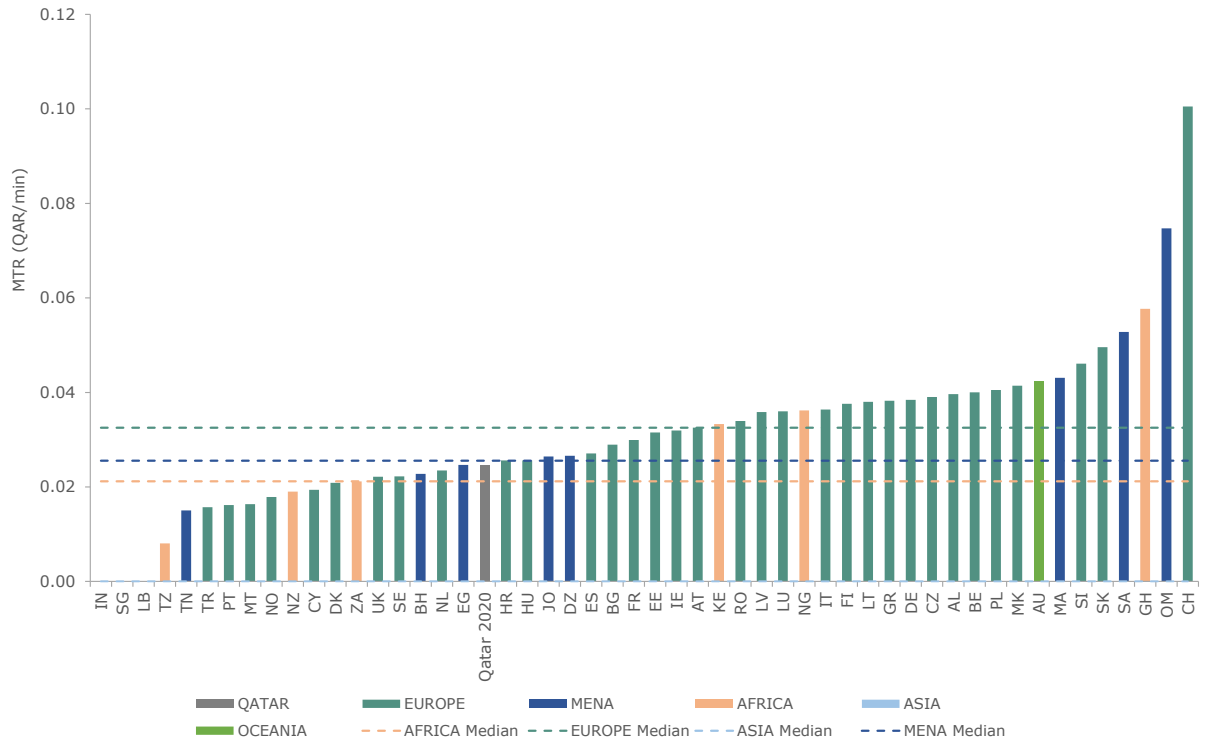


Figure 2 Call Termination Service to Numbers for fixed and mobile calls - Benchmark [CRA research, FTR in force in 2020]

128. Concerning benchmark on FTR:

128.1 Figure 2 shows that currently the FTR in Qatar is in the lowest range of those applied in the benchmarked countries, just only above the charge applied in India, which is currently using a Bill & Keep scheme.

128.2 Europe, which median FTR is currently 0.003423 QAR/min, presents generally the lowest FTRs because most of the European countries complied with the EC's recommendation and set the FTR following a pure LRIC approach. In addition, the EC is currently embarked on a process to set a common rate for all EU/EEA¹⁴ countries (i.e. Eurorate). Results from this process are likely to decrease the FTR currently applied in these countries¹⁵.

128.3 A continuous decreasing tendency for the FTR is usually observed all over the world. Countries with currently FTR approved for next years has presented a decreasing

¹⁴ European Union / European Economic Area

¹⁵ Results extracted from the model shows generally lower termination values than those currently applicable in each country: <https://ec.europa.eu/digital-single-market/en/news/finalisation-fixed-cost-model-delegated-act-single-eu-wide-fixed-voice-call-termination>

tendency in the regulated tariff (e.g. South Africa¹⁶, Oman¹⁷ or Tunisia¹⁸).

129. With regards to MTR:

129.1 The current MTR in Qatar is in the mid-lower range of the charges in the benchmarked countries. There are some aspects that need to be carefully analyzed when comparing countries:

129.2 The specific geographical characteristics of Qatar, including both the population density and the concentration of population contribute to a reduction of the operators' cost basis. In addition, the orography also plays a relevant role. With its highest point at an altitude of 103 meters, Qatar is a low-lying country which does not have any significant mountain or deep valleys. This feature commonly leads to lower costs for the provision of wireless telecommunication services, because of the lower interferences.

129.3 Like for the fixed termination rate, the EC is currently working on the settlement of a common MTR across the EU/EEA countries. By consulting the results from cost model, it is also likely to expect a lower unitary tariff than the current one presented in EU/EEA countries¹⁹.

129.4 A decreasing tendency of the MTR is also expected internationally in the coming years as a consequence of the continuous increase observed in mobile traffic volumes as well as the improved efficiencies of mobile networks. As a way of example, in countries with approved charges for the future years, a decreasing glide-path can be observed (e.g. South Africa²⁰, Oman²¹ or Tunisia²²).

6.1.1.2 Foreseen options

130. To set the Wholesale Charges for this service, the CRA is oriented to:

130.1 Fixed and Mobile Blended Wholesale Charges (with Glide Path).

This approach is aligned with the technological developments made by operators (introduction of IMS network) towards a network convergence for fixed and mobile voice services, also consistent with the current interconnection agreement scheme between Ooredoo and Vodafone.

¹⁶ Regulatory decision in <https://www.icasa.org.za/news/2018/icasa-to-publish-final-call-termination-regulations>

¹⁷ Omantel's reference offer: https://www.omantel.om/wcm/connect/db82e071-4189-4f28-a236-ffd7b5d360b2/Annex+M_Tariffs_20180805.pdf?MOD=AJPERES&CONVERT_TO=URL&CACHEID=ROOTWORKSPACE-db82e071-4189-4f28-a236-ffd7b5d360b2-mQ2huQF

¹⁸ Regulatory decision at <http://www.intt.tn/upload/txts/fr/d%C3%A9cision.pdf>

¹⁹ Results extracted from the model shows generally lower termination values than those currently applicable in each country: <https://ec.europa.eu/digital-single-market/en/news/finalisation-mobile-cost-model-roaming-and-delegated-act-single-eu-wide-mobile-voice-call>

²⁰ Regulatory decision in <https://www.icasa.org.za/news/2018/icasa-to-publish-final-call-termination-regulations>

²¹ Omantel's reference offer: https://www.omantel.om/wcm/connect/db82e071-4189-4f28-a236-ffd7b5d360b2/Annex+M_Tariffs_20180805.pdf?MOD=AJPERES&CONVERT_TO=URL&CACHEID=ROOTWORKSPACE-db82e071-4189-4f28-a236-ffd7b5d360b2-mQ2huQF

²² Regulatory decision at <http://www.intt.tn/upload/txts/fr/d%C3%A9cision.pdf>

This option leads to a wholesale cost-oriented charge, considering the expected uniformity of conveying voice traffic without distinction of fixed and mobile minutes.

131. The following table shows the wholesale charges corresponding to this option.

		Approved Charge	Charges for consultation		
		2020	2021	2022	2023
Call Termination Service to Numbers for fixed and mobile calls	QAR/min	0.0235*	0.0211	0.0186	0.0162
Change to previous year			-10%	-12%	-13%

Table 6 Call Termination Service to Numbers for fixed and mobile calls – Wholesale Charges [CRA calculation]

Note(*): Approved charge in 2020 has been calculated as the weighted average of approved tariff for FTR and MTR

132. The option is also shown in the graph below.

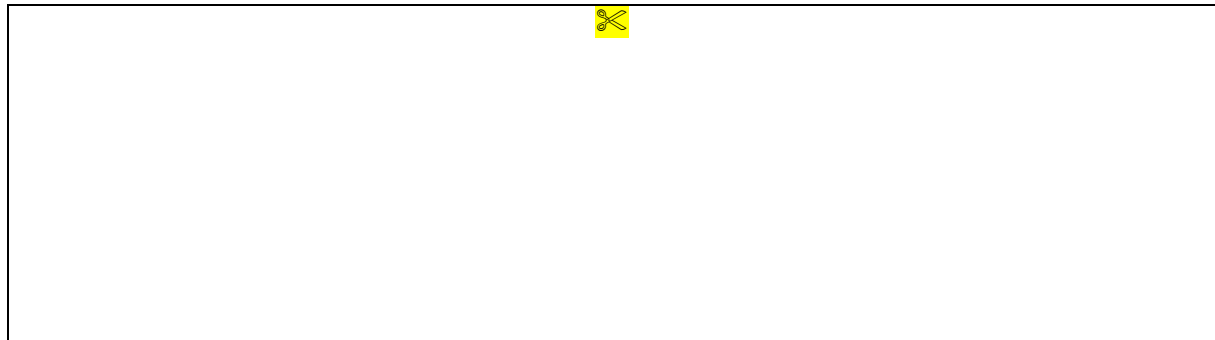


Figure 3 Call Termination Service to Numbers for fixed and mobile calls – Wholesale Charges [CRA calculation]

6.1.1.3 Consultation Question

Question 3 Do stakeholders agree with the CRA's proposed Wholesale Charge for the "Call Termination Service to Numbers for fixed and mobile calls"?

6.1.2 Call Termination Service to Toll-Free Numbers (reverse charge) for fixed and mobile calls

6.1.2.1 References available

6.1.2.1.1 Cost references

133. The cost of this service is comparable to those incurred for providing the Call Termination Service. Originated voice traffic is relatively balanced between fixed and mobile network (✂) in 2019 according to Ooredoo's information. This was also confirmed in the proceeding for setting the Wholesale Charges of this service for the years 2018-2020.

134. Ooredoo's RAS does not show additional cost of origination for this service compared to the Call Termination Service.

6.1.2.1.2 Comments by the Service Providers

135. None.

6.1.2.2 Foreseen options

136. The CRA suggests setting the charges for this service at the same level as the “Call Termination Service to Numbers for fixed and mobile calls” (cf. 6.1.1, Blended Option).

6.1.2.3 Consultation question



Question 4	Do stakeholders agree with the CRA’s proposed approach for setting the “Call Termination Service to Toll-Free Numbers (reverse charge) for fixed and mobile”?
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6.1.3 Call Termination Services to Numbers for Inbound International calls

6.1.3.1 Foreseen options

137. In its previous decisions, the CRA decided that this charge shall not be regulated (ref. Order CRARAC 2018/05/08).

138. The CRA has observed that a set of aspects shall be taken into account when analyzing this market:

138.1 Incoming international traffic is presenting a decreasing tendency in the last years as consequence of consolidation of OTT services as preferred solution by customers for international communications. For instance, Ooredoo has reported a decrease of  in the traffic of international calls from 2017 to 2019. On the other hand, Vodafone has presented a decrease of  for the incoming international traffic in the same period.

138.2 Revenues have registered a decrease accordingly, which has been also translated into a lower unitary revenue in the retail side.

139. Given that a continuous trend towards the use of OTT services for international communications can be expected, the CRA is of the view that current status seems logical to be kept. Therefore, the CRA does not expect to regulate international termination calls.

140. However, in the event that SPs restrict or discriminate the access to OTT services or perform other practices which lead to jeopardize customer welfare or market development, the CRA announces that it will review this position.

6.1.3.2 Consultation question

Question 5	Do stakeholders agree with the CRA’s proposed approach of keeping current approach (non-regulation) for “Call Termination Services to
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Numbers for Inbound International calls”?

6.1.4 Termination Emergency Services



6.1.4.1 Foreseen options

141. The underlying cost are comparable to the call termination service.
142. Therefore, the CRA proposes to set the charge for the “Termination Emergency Services” at the same level of the service “Call Termination Service to Numbers for fixed and mobile calls” (cf. 6.1.1, Blended Option).

6.1.4.2 Consultation question

Question 6 Do stakeholders agree to set the charge for the “Termination Emergency Services” at the same level of the “Call Termination Service to Numbers for fixed and mobile calls”?

6.1.5 Messaging Termination Services (SMS and MMS)

143. After having carefully analyzed the information available on SMS and MMS services, the CRA notes that:
- 143.1 MMS services continues their declining trend in terms of usage by customers. According to SPs’ views, no MMS are expected to be provided in the future and a gradual switch off from core platforms will be carried out. As consequence, the CRA does not see the need of regulating this market on a standalone basis.
- 143.2 SMS termination services are expected to continue the increasing tendency observed in volumes during last years. In fact, in the case of Ooredoo, an annual growth of  during the period 2013-2018 has been observed. The same situation can be observed for Vodafone which has presented an increase of  between 2017 and 2019. Due to the materiality of this service in terms of usage, the CRA is of the view that regulation over SMS termination services shall remain.
144. Based on above points, the CRA believes that a common blended rate is appropriate for the regulation of messaging termination services.

6.1.5.1 References available

6.1.5.1.1 Cost references

145. In the case of this service, cost references are only available from Ooredoo.
146. The cost per unit of this service has been calculated as per the general methodology (cf. 4.1.1.1 and 4.1.1.2). Specific to this service, for the period 2019-2021 the CRA has

employed forecasts of Network Costs and volume provided by Ooredoo which follow similar tendencies than CRA's forecast. Concretely:

- 146.1 Ooredoo has forecasted a reduction of network costs by ✂ from 2018 to 2021 which is aligned to CRA's projection of -29.8%.
- 146.2 In terms of volume, Ooredoo has flattened the growth observed in the last years, forecasting an increase of ✂ in the number of messaging services from 2018 to 2021. This estimation is in line with CRA's trend.
147. These trends have been also employed in order to project the unitary cost in the period 2021-2023.
148. The following table shows the blended SMS / MMS cost per unit calculated according to the above assumptions.

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Table 7 Messaging Termination – SMS / MMS costs (incl. 10% Wholesale Markup) [CRA calculation]

149. As observed in the table, a significant drop in the cost per unit is forecasted due to the great increase of volume and the decreasing tendency of network costs.

6.1.5.1.2 Comments by the Service Providers

150. Ooredoo has indicated that the provision of MMS will be stopped near in the future.
151. Vodafone has pointed out that MMS represents immaterial traffic in its network.

6.1.5.1.3 Proportionality Test

152. The following table shows that the costs pass the Proportionality Test.

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Table 8 Messaging Termination – Proportionality Test [CRA calculation]

6.1.5.1.4 Price Margin Squeeze

153. The following table shows that the costs pass the PMS Test.



Table 9 Messaging Termination – PMS [CRA calculation]

6.1.5.2 Foreseen options

154. The following table shows the charges oriented to the above cost, with a Glide Path.

		Approved Charge	Charges for consultation		
		2020	2021	2022	2023
Messaging Termination	QAR/message	0.0020*	0.0014	0.0008	0.0002
Change to previous year			-31%	-44%	-79%

Table 10 Messaging Termination – Wholesale Charges for consultation [CRA calculation]

Note(*): Approved charge in 2020 has been calculated as the weighted average of approved tariff for messaging services

155. The option is also shown in the graph below.

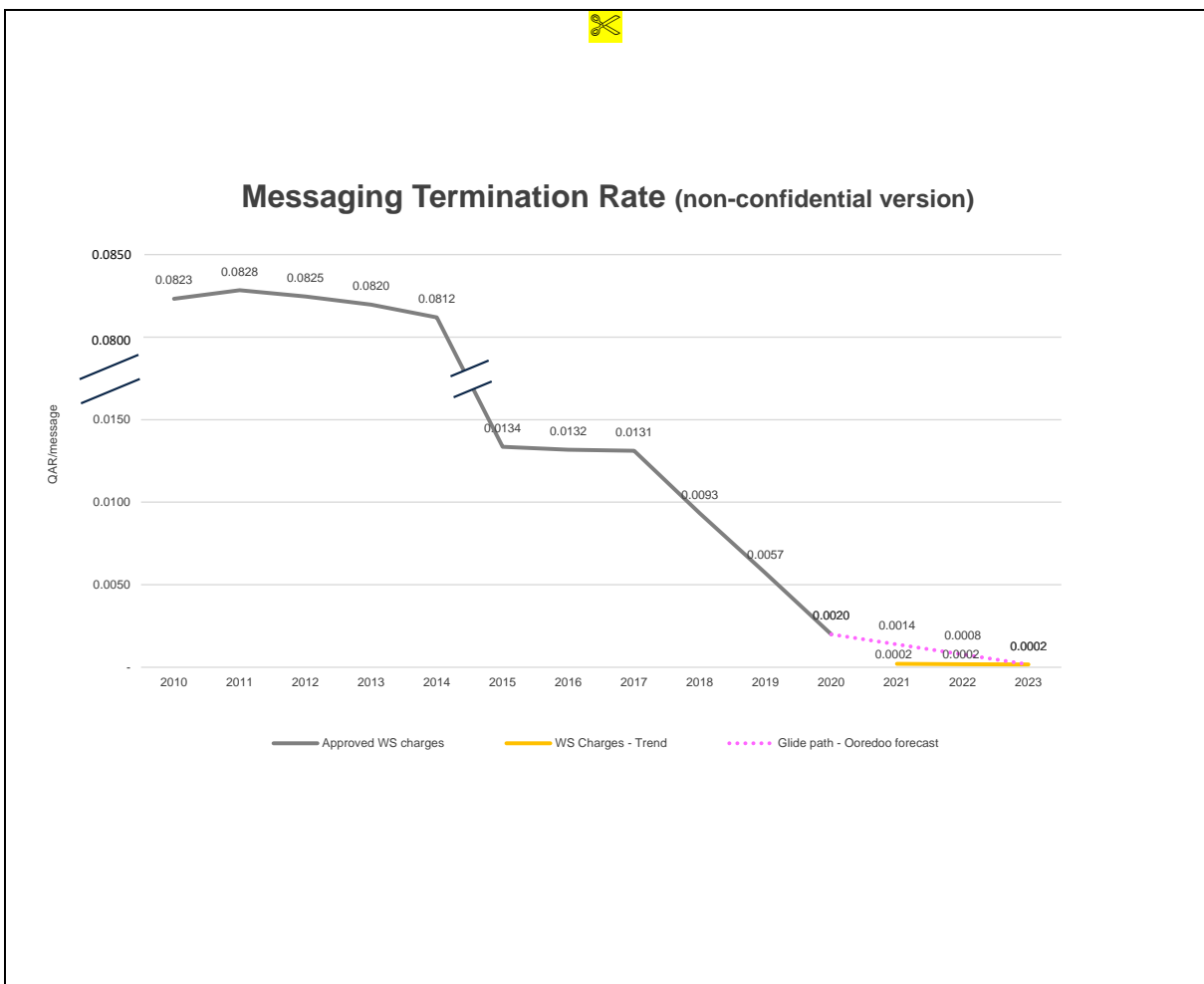


Figure 4 Messaging Termination – Wholesale Charges for consultation [CRA calculation]

6.1.5.3 Consultation question

Question 7 Do stakeholders agree with the CRA's proposed Wholesale Charge for the Messaging Termination services?

6.1.6 Outgoing International Call Conveyance

6.1.6.1 Foreseen options

- 156. The Outgoing International Call Conveyance is not used, since Ooredoo and Vodafone have their own network connections.
- 157. If this product will be used in future, the CRA expects the Access Provider and the Access Seeker to agree on the various charges as per country destination.
- 158. In case no agreement can be reached the Access Provider and/or the Access Seeker can bring the case in front of the CRA.

6.1.6.2 Consultation question

Question 8 Do stakeholders agree with the above Option for the Outgoing International Call Conveyance?

6.2 Interconnection Links

159. Ooredoo, as the DSP, is obliged to provide this service.
160. Ooredoo Interconnection Link Service means a service whereby Ooredoo provides fixed transmission capacity (and associated signaling) for the sole purpose of conveying traffic over an Interconnection Path between a location on Ooredoo Network and a location on the OLO's Network via a Point of Interconnection.
161. The charges for this service are:
- 161.1 Recurring Charges
- (a) E1 (distance independent), i.e. QAR/E1/month; and
 - (b) Km (distance dependent), i.e. QAR/km/E1/month.
- 161.2 Connection Fees
- (a) Connection Fee, i.e. QAR/connection; and
 - (b) Disconnection/reconfiguration Fee, i.e. QAR/disconnection or reconfiguration.

6.2.1 References available

6.2.1.1 Cost references

162. Given that Ooredoo is the DSP, cost references shall be based on information from Ooredoo. The following sections describe in detail how costs are estimated for distance independent and dependent costs.

6.2.1.1.1 Service E1 (capacity - distance independent) – recurring cost

163. The cost per unit of this service has been calculated as per the general methodology (cf. 4.1.1.1 and 4.1.1.2). Specific to this service:
- 163.1 The CRA has forecasted the total Network Costs for the years 2019-2021, assuming cost will decrease ✂ per year as per the average of the annual growths of the years 2017 and 2018. The CRA has decided to rely on this average instead of on the CAGR 2013-2018 of ✂ following a conservative approach to ensure cost recovery. The CRA also outlines that Ooredoo has not provided any forecast related to network cost in the upcoming years.
- 163.2 In terms of volume, both operators believe that no new interconnection links will be demanded in the landscape. As such, volume has been kept stable, reflecting the current interconnection links between Ooredoo and Vodafone.
164. The approach above rendered cost for 2023 (around 39 QAR/E1/month) very much aligned with the current charge (37 QAR/E1/month).

6.2.1.1.2 Service km (distance dependent) – recurring cost

165. The cost per unit of this service has been calculated as per the general methodology (cf. 4.1.1.1 and 4.1.1.2). Specific to this service:
- 165.1 Network costs are maintained constant in the forecasted period, using the most recent network costs from RAS FY2018. This is due to the fact that cost drivers have been significantly modified during the audit of RAS FY2018, making costs for this service not comparable with values from previous RAS. Additionally, the CRA notes that no relevant changes are expected in the coming years for this service.
- 165.2 Following same approach as for the distance independent component, volume has been kept stable, reflecting the current configuration of interconnection links between Ooredoo and Vodafone.

6.2.1.1.3 Conclusion on recurring costs

166. The table below shows the cost projected for three years, forecasted according to the assumptions summarized above²³. Given that the cost forecasted for the component E1 (distance independent) is very much aligned with the current charge, the CRA is of the view to confirm the current charge.




Table 11 Interconnection Links - recurring costs [CRA calculation]

6.2.1.1.4 Connection Fees

167. The volume of Interconnection Links sold to Vodafone has not changed in the period 2015-2018 since the same 6 interconnection links connecting same locations are still in use. Hence, cost reported in RAS cannot be seen as relevant in relation to cost the connection fees.
168. The CRA is not immediately concerned with the Connection Fees, given that both Vodafone and Ooredoo do not foresee changes in the Interconnection Links in the period 2021-2023.

²³ No RAS costs before 2018 are showed since they are not representative due to the several modifications performed in the allocation drivers related to SDH network.

169. Therefore, the CRA is intended to confirm the current Connection Fees.

6.2.1.2 Comments by the Service Providers provided in the Data Request

170. Both operators have expressed that they do not expect an increase in the capacity requirements in the future.

6.2.1.3 Proportionality Test results

171. There is no retail product comparable to the Interconnection Links. Hence the PT is not applicable.

172. However, the CRA has verified that the cost per unit per E1 and km attributed to the Retail Products of Ooredoo is not discriminatory.

6.2.1.4 Price Margin Squeeze Test results

173. There is no retail product comparable to the Interconnection Links. Hence PMS test is not applicable.

174. However, the CRA has verified that the cost per unit per E1 and km attributed to the Retail Products of Ooredoo is not discriminatory.

6.2.2 Foreseen options

175. The CRA is of the view that the capacity component can be left stable since the projected network unit costs in the period 2021-2023 are similar to the current approved charge.

176. For the distance component, the proposed charge is set oriented to the above cost, with a Glide Path.

177. The following table shows the charges for consultation:

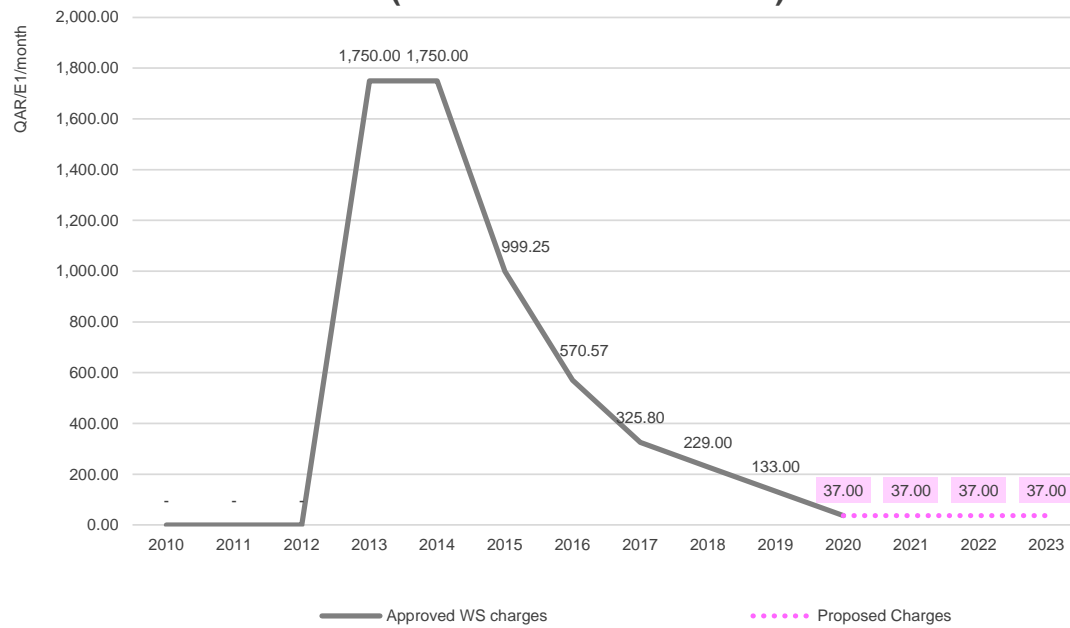
		Approved Charge	Charges for consultation		
		2020	2021	2022	2023
Option 1 - Wholesale charges oriented to 2023 projected cost per unit (with Glide Path)					
E1 (distance independent)	QAR/E1/month	37.00	37.00	37.00	37.00
Change to previous year			-	-	-
Km (distance dependent)	QAR/km/month	32.00	23.93	15.86	7.79
Change to previous year			-25%	-34%	-51%
Connection Fee	QAR/link	5,000.00	5,000.00	5,000.00	5,000.00
Change to previous year			-	-	-
Disconnection/Reconfiguration Fee	QAR/link	950.00	950.00	950.00	950.00
Change to previous year			-	-	-

Table 12 Interconnection Links – Wholesale Charges [CRA calculation]

178. This option is also shown in the graphs below.



Interconnection Link - capacity related E1 (non-confidential version)



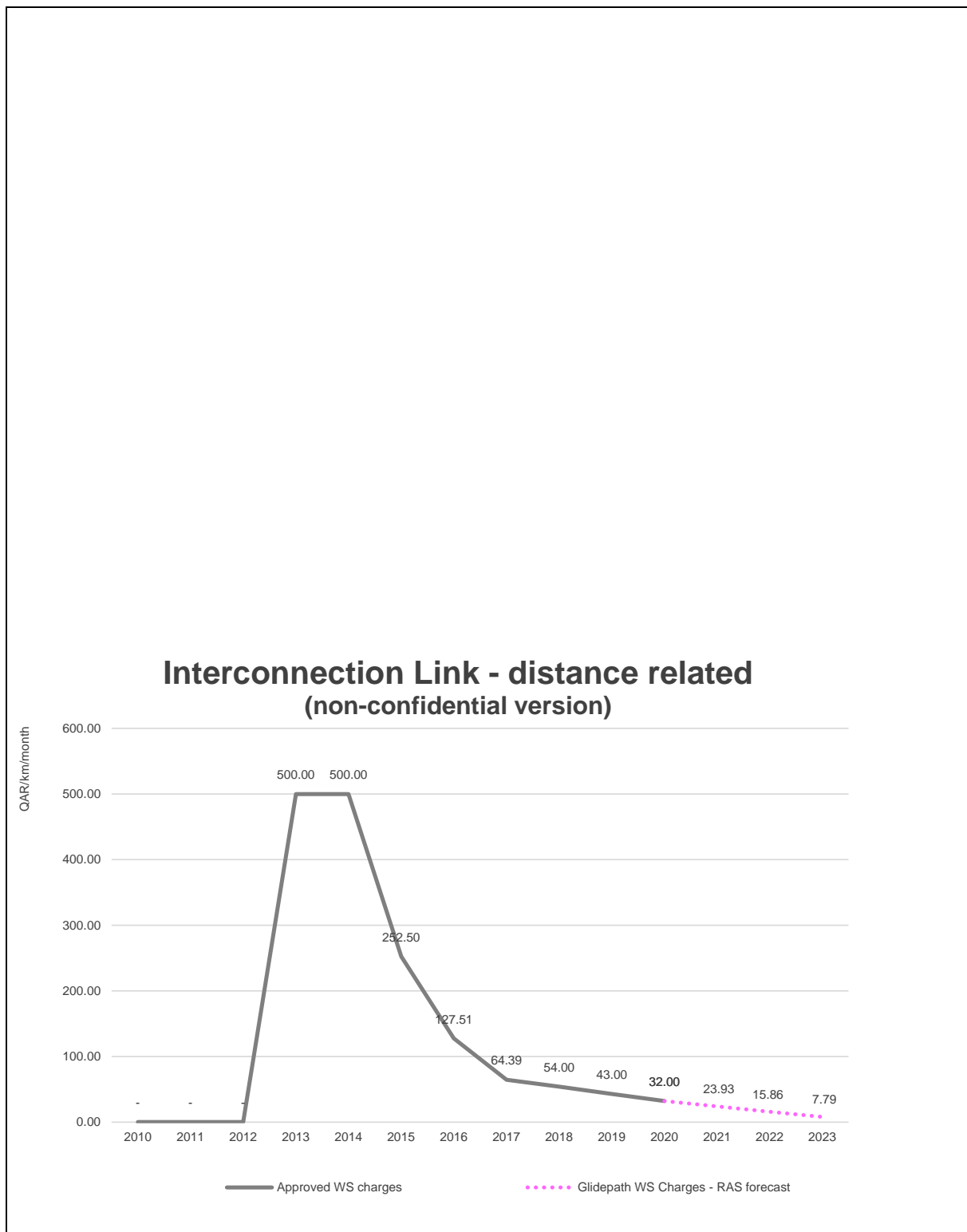


Figure 5 Interconnection Links – Wholesale Charges for consultation [CRA calculation]

6.2.3 Consultation Question

Question 9 Do stakeholders agree with the CRA's proposed Wholesale Charge for Interconnection Links?

6.3 Transmission Links

179. Ooredoo Transmission Link Service is a service for the carriage of signals from OLO network location to another network location in Qatar.
180. Ooredoo offers the following Transmission Links using SDH technology with the speeds of E1, E3, STM-1, STM-4, STM-16. The Transmission Links are also differentiated by ranges of link distance.
181. The charges for this service are:
 - 181.1 Recurring Charges, depending on speed and distance (e.g. QAR/month/link for STM-1 covering an air distance from 31-40 km) and
 - 181.2 Connection Charge (i.e. QAR/connection).

6.3.1 Recurring Charges – SDH

6.3.1.1 References available

6.3.1.1.1 Cost references

182. Cost references shall be based on information from Ooredoo. The following sections describe in detail how costs are estimated for distance independent and dependent costs.

6.3.1.1.1.1 Service E1 (capacity - distance independent) – recurring cost

183. Given that operators do not expect major changes to the number of SDH leased lines rented by Ooredoo to Vodafone in coming years, the CRA has decided to maintain stable network costs and volumes from RAS FY2018.

6.3.1.1.1.2 Service km (distance dependent) – recurring cost

184. Following same approach than for the capacity component, the CRA has kept same network costs and volumes from RAS FY2018 in the upcoming years.

6.3.1.1.1.3 Conclusion on recurring costs

185. The table below shows the cost projected for three years, forecasted according to the assumptions summarized above.




Table 13 Transmission Links - recurring costs [CRA calculation]

6.3.1.1.2 Comments by the Service Providers provided in the Data Request

186. Both operators have expressed that they do not expect an increase in the capacity requirements in the future.

6.3.1.1.3 Proportionality Test results

187. The CRA has verified non-discrimination. The cost per unit per E1 and per km attributed to the wholesale products is the equivalent as attribute to the retail products.

6.3.1.1.4 Price Margin Squeeze Test results

188. The CRA has verified that the proposed charges do not create a Margin Squeeze issue with the Retail Tariff B12-01 National Leased Lines (SDH).

6.3.1.2 Foreseen options

189. The CRA has translated the costs from different component (capacity or distance) into a unique regulated charge by a determined speed and range of distance.

190. For that purpose, the CRA has used the following formula:

$$\text{Cost [QAR/month/link]} = \text{Average distance [km]} \times \text{Cost per km per link [QAR/km/month]} + \text{Capacity [equivalent E1s]} \times \text{Cost per E1 [QAR/E1/month]}.$$

The application of such approach gives the following results.

Transmission Link SDH		Current wholesale charge (CY 2020) BM based	RAS ICL TL average cost		
1	Nominal Distance	Current Wholesale Charge	2021	2022	2023
2					
3	km	QAR/month	QAR/month	QAR/month	QAR/month
5	for E1 (no differentiation for SLAs)				
7	00-10	1,081	283	283	283
8	11-20	1,145	702	702	702
9	21-30	1,209	1,121	1,121	1,121
10	31-40	1,273	1,540	1,540	1,540
11	41-50	1,336	1,959	1,959	1,959
12	50 and above	1,560	3,425	3,425	3,425
13	for E3 (no differentiation for SLAs)				
15	00-10	6,177	1,394	1,394	1,394
16	11-20	6,241	1,813	1,813	1,813
17	21-30	6,305	2,231	2,231	2,231
18	31-40	6,369	2,650	2,650	2,650
19	41-50	6,433	3,069	3,069	3,069
20	50 and above	6,657	4,535	4,535	4,535
21	for STM1 (no differentiation for SLAs)				
23	00-10	9,406	4,872	4,872	4,872
24	11-20	9,470	5,291	5,291	5,291
25	21-30	9,534	5,710	5,710	5,710
26	31-40	9,598	6,129	6,129	6,129
27	41-50	9,662	6,548	6,548	6,548
28	50 and above	9,886	8,014	8,014	8,014
29	for STM4 (no differentiation for SLAs)				
31	00-10	15,607	18,861	18,861	18,861
32	11-20	15,671	19,280	19,280	19,280
33	21-30	15,735	19,699	19,699	19,699
34	31-40	15,799	20,118	20,118	20,118
35	41-50	15,863	20,537	20,537	20,537
36	50 and above	16,087	22,002	22,002	22,002
37	for STM16 (no differentiation for SLAs)				
39	00-10	27,874	74,816	74,816	74,816
40	11-20	27,938	75,235	75,235	75,235
41	21-30	28,002	75,654	75,654	75,654
42	31-40	28,066	76,073	76,073	76,073
43	41-50	28,130	76,492	76,492	76,492
44	50 and above	28,353	77,958	77,958	77,958

Table 14 SDH Transmission Links – Recurring Wholesale Charges [CRA calculation]

191. Comparing proposed charges with current approved charges, the CRA considers important to take into account that current approved charges were based on a benchmarking exercise, as in CRA's view, Ooredoo's RAS was not suitable for the setting of transmission links charges at the time of the previous proceeding. Due to the specific nature of these services and the variety of build-for-purpose solutions, costs from different operators can present certain variations depending on deployed configurations or specific network equipment installed in each network.

6.3.1.3 Consultation Question

Question 10 Do stakeholders agree with the CRA's proposed Wholesale Charge for recurrent charges of SDH Transmission Links?

6.3.2 Recurring Charges – Ethernet

6.3.2.1 References available

192. In previous process, the CRA introduced the regulation of Transmission Links based on Ethernet Technology. This action pretended to provide operators the regulatory framework to have full access to transmission links based on a more advanced technology than TDM.
193. Nevertheless, according to operators' information no links of this category has been sold under any domestic wholesale agreement or reference offer approved by the CRA.
194. As consequence, Ooredoo's RAS is not providing the cost for any wholesale transmission link over Ethernet technology. However, Ooredoo's RAS does provide cost for equivalent retail services using similar technology²⁴. Therefore, the CRA has used the retail costs to estimate the cost of an equivalent wholesale service.

6.3.2.1.1 Cost references

195. The service "DFNR01-Fixed National IP / MPLS VPN (Non-usage)" from RAS FY2018 has been taken as cost reference. Network costs and volume have been projected as follows:
 - 195.1 The CRA has decided to use the cost as reported in the RAS FY2018. Given that there is no current and expect demand of this wholesale product, following a conservative scenario, the CRA kept stable these cost for the period 2019-2023.
 - 195.2 With regards to the demand, Ooredoo's RAS does not provide current offered retail leased lines disaggregated by speed. In addition, no figures have provided in the response to the data request regarding the split of retail leased lines sold by speed. Due to the lack of this information, the CRA has decided to rely on the relation among speeds used by Ooredoo for the retail prices²⁵ in order to build the wholesale tariff per speed.

6.3.2.1.2 Comments by the Service Providers provided in the Data Request

196. No comments regarding wholesale leased lines over Ethernet technology have been provided by SPs.

6.3.2.1.3 Proportionality Test results

²⁴ Although Ooredoo's RAS does not provide results for the retail service equivalent to tariff "B15-01 Ethernet VPN", the CRA has considered that the current retail services similar to tariff "B14-01 National IP VPN" is comparable with leased lines over Ethernet and the service cost can be representative.

²⁵ Monthly rental for Gold subscription, available at: <https://www.ooredoo.qa/portal/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobheadname1=Content-Disposition&blobheadname2=MDT-Type&blobheadvalue1=inline%3B+filename%3DB15-01-Ethernet-VPN-19nov.pdf&blobheadvalue2=abinary%3B+charset%3DUTF-8&blobkey=id&blobtable=MungoBlobs&blobwhere=1451634144257&ssbinary=true>

197. Since cost is based on retail service, there is no discrimination between retail and wholesale products.

6.3.2.1.4 Price Margin Squeeze Test results

198. Since cost is based on retail service, there is no margin squeeze practices between retail and wholesale products.

6.3.2.2 Foreseen options

199. Based on above indications, the following table summarizes the proposed wholesale charges. The outcomes are preliminary and need to be further discussed with Ooredoo.

Transmission Link Ethernet		Current wholesale charge (CY 2020) BM based
speed	speed	Current Wholesale Charge
		QAR/month
speed		
256 KB	256	648
512 KB	512	799
1 MB	1,000	985
2 MB	2,000	1,136
4 MB	4,000	1,540
8 MB	8,000	1,937
16 MB	16,000	2,443
24 MB	24,000	2,802
32 MB	32,000	3,089
50 MB	50,000	3,893
100 MB	100,000	6,181
200 MB	200,000	7,064
500 MB	500,000	7,946
1 G	1,000,000	8,186

Proposed Wholesale Charges		
Monthly rental		
2021	2022	2023
QAR/month	QAR/month	QAR/month
3	3	3
4	4	4
6	6	6
7	7	7
8	8	8
10	10	10
12	12	12
14	14	14
16	16	16
20	20	20
26	26	26
30	30	30
43	43	43
54	54	54

Table 15 Ethernet Transmission Links– Recurring Wholesale Charges [Proposed wholesale charge by the CRA]

6.3.2.3 Consultation Question

Question 11 Do stakeholders agree with the CRA's proposed Wholesale Charge for recurrent charges of Ethernet Transmission Links?

6.3.3 Connection Fees - SDH and Ethernet

6.3.3.1 References available

6.3.3.1.1 Cost references

200. According to Ooredoo's RAS, no new connections of transmission links have been provided by Ooredoo in the period 2016-2018. Hence, cost reported in RAS cannot be seen as relevant in relation to cost the connection fees.

201. The CRA is not immediately concerned with the Connection Fees, given that both Vodafone and Ooredoo do not foresee changes in the Transmission Links in terms of new connections for the period 2021-2023.

6.3.3.2 Foreseen options

202. The CRA proposes to rely on currently applicable wholesale charges.

		Approved Charge	Charges for consultation		
		2020	2021	2022	2023
Connection, disconnection - For all speeds and distance	QAR/connection or disconnection	3,036	3,036	3,036	3,036
Change to previous year			-	-	-

Table 16 Transmission Links – One Time fees Charges for consultation [CRA calculation]

6.3.3.3 Consultation Question

Question 12 Do stakeholders agree with the CRA's proposed Wholesale Charge for the Transmission Links connection fees?

6.4 Duct Products

203. Under the Infrastructure Access Agreement (“IAA”), Ooredoo’ offers the following products:

- 203.1 Duct Access
- 203.2 Facility Hosting
- 203.3 Supervision
- 203.4 Field Feasibility Analysis
- 203.5 GIS update
- 203.6 Ad-hoc engineering support
- 203.7 Access Request
- 203.8 Successful and Unsuccessful Blockage Clearance
- 203.9 Transportation charge
- 203.10 Misc. expenses

204. Under the Reference Infrastructure Access Offer (“RIO”) approved by the CRA, the “Access Request” as per the IAA has been split in:

- 204.1 Access Area Request, and
- 204.2 Route Access Request.

6.4.1 Duct Access

6.4.1.1 References available

6.4.1.1.1 Cost references

- 205. In the case of this service, cost references are only available from Ooredoo.
- 206. The CRA has observed that network costs in RAS have not shown historically a clear tendency.
- 207. In addition, Ooredoo has forecasted the same unitary cost for the period 2019-2023, keeping always proportional network costs and volumes.
- 208. On basis of these points, the CRA has followed a conservative approach and has projected the network costs per unit stable over the period 2019-2023.
- 209. The table below shows the calculated costs, according to the assumptions summarized above.



Table 17 Duct Access - costs [CRA calculation]

6.4.1.1.2 Comments by the Service Providers

210. Ooredoo does not see any variation in the space billed to OLOs. In addition, it forecasts an increase of total volume ducts as result of greater deployment in the access network.
211. Vodafone states that duct access charges should be based on efficient processes in order not to create a barrier to fiber roll-out. In this line, the operator defends a right incentive to Ooredoo with the aim of avoiding penalization of access seekers due to the lack of accurate records/tools.
212. Qnbn has forecasted a reduction of ducts rented to other operators over the period as result of two factors. The first one is that Qnbn is rolling-out its own network in the deployment of fiber network. The second one is disputes between Ooredoo and Qnbn in the IAA which, according to Qnbn, impedes it to locate new cables inside Ooredoo's ducts.

6.4.1.1.3 Proportionality Test results

- 212.1 The cost allocation of duct assets throughout the different steps in the RAS ensures the non-discrimination between retail and wholesale arms.

6.4.1.1.4 Price Margin Squeeze Test results

213. PMS test has not been performed since duct products are not provided in a retail basis.

6.4.1.2 Foreseen options

214. The CRA does not expect significant changes in terms of unitary network costs in the future. Following a conservative approach, the CRA proposes to remain current wholesale charges in the period 2021-2023.
215. Based on the above, the following table shows the proposed wholesale charges by the CRA:

		Approved Charge	Charges for consultation		
		2020	2021	2022	2023
Duct Access	QAR/cm2/meter/month	0.1200	0.1200	0.1200	0.1200
Change to previous year			-	-	-

Table 18 Duct Access – Wholesale Charges for consultation [CRA calculation]

216. The proposed option is also shown in the graph below.

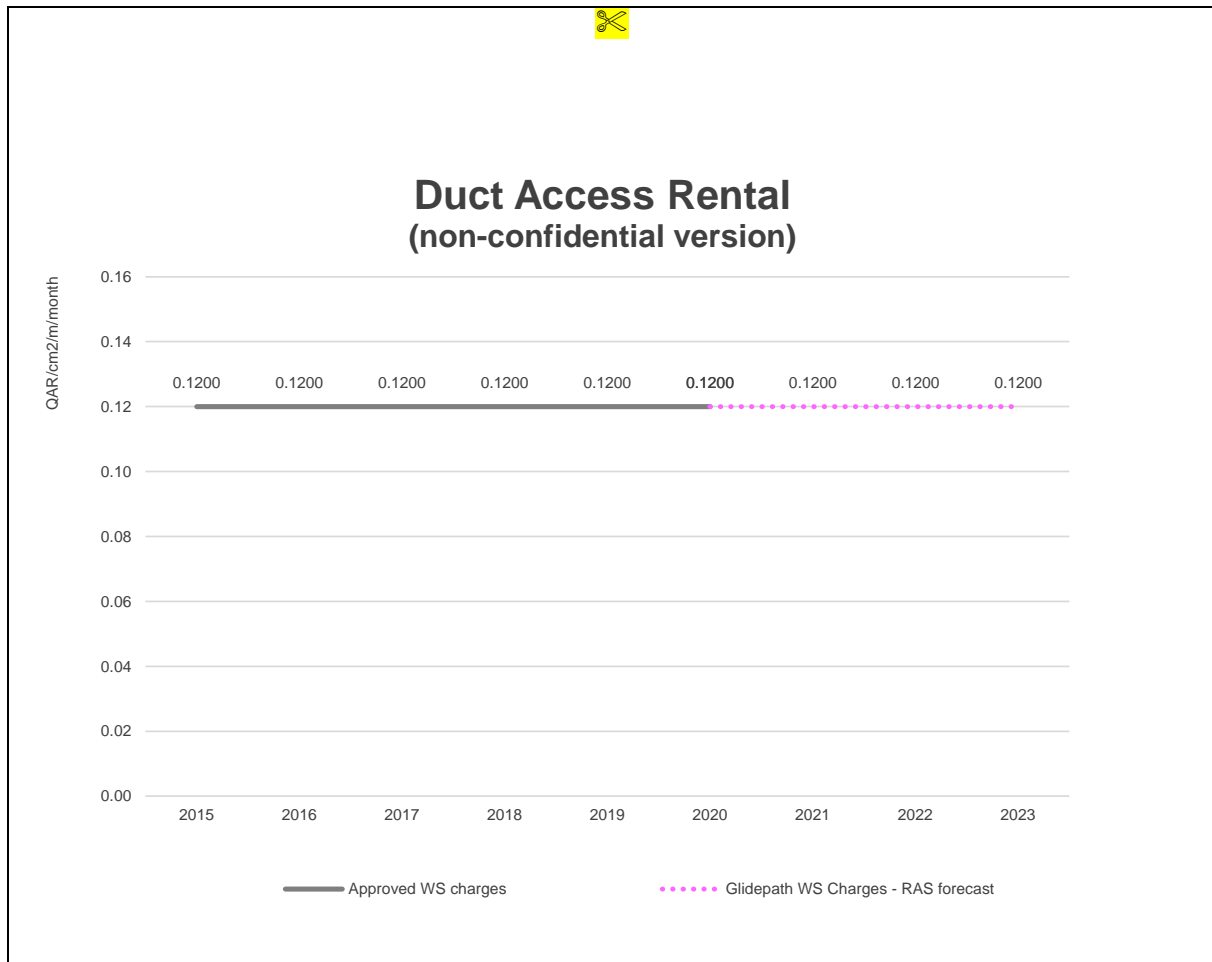


Figure 6 Duct Access Rental – Wholesale Charges for consultation [CRA calculation]

6.4.1.3 Consultation Question

Question 13 Do stakeholders agree with the CRA's proposed Wholesale Charge for the Duct Access product?

6.4.2 Facility Hosting

217. This service consists in the access from alternative operators to the facility hosting in Ooredoo's network (e.g. manholes, handholes, joint boxes, etc.). That said, the CRA considers that this service is in the same category that duct space rental since both services allow the access to passive infrastructure.
218. As such, the CRA is of the view that the abovementioned approach for duct access service is also applicable to facility hosting service. Therefore, in order to keep consistency with duct access, the CRA proposes also to remain current wholesale charges for the period 2021-2023.

6.4.2.1 Foreseen options

219. Based on the above, the CRA proposes to apply the following charges:

		Approved Charge	Charges for consultation		
Facility Hosting	n.b. First 20 Liters of facility space per linear kilometer of route distance: no charge	2020	2021	2022	2023
Duct Access	(QAR/Liter)	1.0000	1.0000	1.0000	1.0000
Change to previous year			-	-	-

Table 19 Facility Hosting – Wholesale Charges for consultation [CRA calculation]

6.4.2.2 Consultation Question

Question 14 Do stakeholders agree with the CRA's proposed Wholesale Charge for "Facility Hosting"?

6.4.3 Hourly Cost

220. This section discusses average Hourly Cost, used e.g. for Supervision, Field Feasibility Analysis, GIS update and Ad-hoc Engineering Support.

6.4.3.1 References available

6.4.3.1.1 Cost references

221. The CRA has identified the duct supervision costs as one of the outstanding issues to be addressed by Ooredoo within the implementation of the RAS FY2019²⁶. The reasons are:

221.1 Ooredoo has not been able to demonstrate that the unit cost for the supervision attributable to the OLO's wholesale services is equivalent to the costs attributed to Ooredoo's retail services.

221.2 Ooredoo has not provided any explanation which justifies the variation in volume of the service "OWNU03 – Wholesale Duct Supervision" from 1,000 hours in RAS FY2017 to 1,000 hours in RAS FY2018.

222. Due to this fact, the CRA cannot rely on RAS cost reference for setting the wholesale charges of this service. Instead of using RAS costs, the CRA believes more appropriate to estimate an average price per hour based on the information provided by SPs.

²⁶ CRARAC 2019/12/12

223. Concretely, the CRA has used the average per hour extracted from data request for AAR and RAR services. The CRA has obtained a value of 321 QAR/h.

6.4.3.1.2 Comments by the Service Providers

224. No specific comments about this service have provided by SPs.

6.4.3.1.3 Proportionality Test results

225. The CRA will address the cost allocation of this service within the RAS FY2019. In this sense, the CRA will analyze in detail the existence of discriminatory practices between retail and wholesale arms in the activity of ducts supervision.

6.4.3.1.4 Price Margin Squeeze Test results

226. PMS test has not been performed since duct products are not provided under retail bases.

6.4.3.2 Foreseen options

227. The CRA is of the view that 321 QAR per hour is an appropriate value.

		Approved Charge	Charges for consultation		
		2020	2021	2022	2023
Cost per Hour applicable to Supervision, Field Feasibility Analysis, GIS update, and Ad-hoc engineering support products	QAR/hour	375	321	321	321
Change to previous year			-14%	-	-

Table 20 Cost per hour – Wholesale Charges for consultation [CRA calculation]

228. This charge is applicable to the Supervision, Field Feasibility Analysis, GIS Update and Ad-Hoc Engineering Support that are charged based on the cost per hour.

6.4.3.3 Consultation Question

Question 15 Do stakeholders agree with the CRA's proposed cost per hour applicable to "Supervision, Field Feasibility Analysis, GIS update, and Ad-hoc engineering support products?"

6.4.4 Access Request ("AR"), Access Area Request ("AAR") and Route Access Request ("RAR")

229. Ooredoo includes in the RIAO a set of one-time fee ancillary services which aim at gathering information on ducts, availability of a determined routes via ducts and other network elements within a specific area. Concretely, three services are defined within this group:

- 229.1 Access Area Request (“AAR” as per the RIAO). This is discussed in section 6.4.4.1.
- 229.2 Route Access Request (“RAR” as per the RIAO). This is discussed in section 6.4.4.2.
- 229.3 Access Request (“AR” as per the IAA). This is discussed in section 6.4.4.3.
230. In the previous proceeding of setting wholesale charges for the period 2018-2020, the CRA decided to set the wholesale charges of these services based on a unique fee of 15,000 QAR to cover both AAR and RAR services²⁷.
231. The CRA notes that several comments have been provided by the access seekers regarding these services:
- 231.1 Vodafone’s comments can be summarized as follows:
- (a) Inaccuracy of the information provided by Ooredoo with regards to route requests has caused numerous changes in its deployment strategy, making the process inefficient, longer and more costly.
 - (b) The no existence of an automatic online IT tool with up-to-date information which allows operators to get information on duct location and availability is becoming a barrier to entry for duct access.
 - (c) The implementation of an online software platform enables the deployment of NGN networks by alternative operators as well as cost savings on Ooredoo’s side.
- 231.2 Qnbn states that the renting of Ooredoo’s duct is currently stopped because Ooredoo is rejecting all proposals to resolve the IAA issues.

6.4.4.1 Area Access Request (“AAR”)

232. The Area Access Request is submitted by the OLO to Ooredoo for gathering information on ducts and other network element deployed within a specific area.
233. Ooredoo’s RAS does not include detailed information for the costing of this product. Hence the CRA has asked the SPs to provide a bottom-up model to show the cost incurred in providing the service.

6.4.4.1.1 References available

234. The CRA notes that the three SPs have submitted bottom-up calculations for estimating this service cost:
- 234.1 Ooredoo has presented the same activities for the provision of the service as in the costing exercise performed in the proceeding of setting charges for 2018-2021, reporting the same duration and probabilities of tasks as well. The unitary price per

²⁷ The charge only applies to Route Area Requests related to Areas for which an Area Access Request has been already submitted by the OLO and approved by Ooredoo.

hour in each cost center have been updated according to information extracted from RAS FY2018.

- 234.2 Vodafone has declared that the cost should be based on the salary of a designer to carry out a set of activities which sum a total of 120 minutes.
- 234.3 Qnbn has reported a costing exercise defining a set of activities performed by either a wholesale officer or a design engineer, indicating the duration of such activities and the hour unit cost of each resource.
235. The following tables show SP's submissions in detail:



Table 21 Area Access Request Costing – Ooredoo, Vodafone and Qnbn [SPs' responses to data request]

Summary

236. The following table summarizes the submissions of SPs.

Costing of Area Access Request			
	Total cost	Total hours	Cost per hour
Ooredoo	1,310	3.35	390
Vodafone	Non specified	2.00	Non specified
QNB	1,155	4.50	257

Table 22 Access Area Request - Costing Summary [CRA calculation]

237. Although Vodafone has disclosed the set of tasks necessary to carry out the service in conjunction with the expected overall time, no cost references have been provided in relation to the cost per hour. Hence, the CRA cannot use Vodafone's information as cost reference for setting the wholesale charges of this service.
238. Concerning Ooredoo and Qnbn, the CRA acknowledges that both operators are providing the same range of costs and sees that the main difference between them is the cost per hour used.
239. In this regard, as in the case of Ooredoo cost per hour are directly coming from RAS FY2018, which has been audited and reviewed in the past, the CRA believes that Ooredoo's option represents more accurately the cost incurred by the operator.

6.4.4.2 Route Access Request ("RAR")

240. Subject to submitting an AAR, a Route Access Request(s) is submitted by the OLO to Ooredoo for a specific route with defined start (Point A) and end (Point B). For clarity, although the RAR has two end points A and B, branching of the route between both ends is allowed with as many branching levels (connected to each other within the route) as may be needed to enable the rollout of the OLO network.
241. Ooredoo's RAS does not include detailed information for the costing of this product.
242. Hence the CRA has asked the SPs to provide a bottom-up model to show the cost incurred in providing the service.

6.4.4.2.1 References available

243. Similar to AAR service, the three SPs have also submitted bottom-up calculations for this service cost:
- 243.1 Ooredoo has also presented the same activities for the provision of the service when comparing with last process, reporting the same duration and probabilities of tasks as

well as the update of unitary prices per hour from RAS FY2018.

Although Ooredoo has not provided any indications, the CRA understands that Ooredoo is proposing same tariff scheme as in last process, defending a combination of fixed charge independent of number of duct segments and an incremental cost for each duct segment included in the RAR.

243.2 Vodafone defends the same approach as in the case of AAR, a service cost based on the salary of a designer to carry out a set of activities for a total of 720 minutes.

243.3 QNBN has also presented a similar exercise as for AAR service, including a list of activities and respective duration as well as the unitary price per hour.

On the other side, Qnbn has not provided any specific indication regarding the tariff scheme preferred. As such, a unique fixed charge is considered from QBNB.

244. The following tables show SPs' submissions in detail:



Table 23 Route Access Request Costing – Ooredoo, Vodafone and Qnbn [SPs' responses to data request]

Summary

245. The following table summarizes the submissions of SPs.

Costing of Route Access Request				
		Total cost	Total hours	Cost per hour
Ooredoo	Fixed charge independent of the number of duct segments	703	1.98	354
	Incremental cost for each duct segment	8	0.03	284
Vodafone	Fixed charge independent of the number of duct segments	Non specified	12.00	Non specified
Qnbn	Fixed charge independent of the number of duct segments	1,290	5.50	235

Table 24 Access Area Request - Costing Summary [CRA calculation]

246. Similar to AAR service, no cost reference has been disclosed by Vodafone and hence, its information cannot be considered in the setting of wholesale charges.
247. With regards to Ooredoo and Qnbn, given that tariff schemes differ between each other, no direct comparison can be performed.
248. As indicated in the previous process for setting wholesale charges in the period 2018-2020, the CRA understands that some of the activities for the provision of RAR service could be variable with the number of the duct segments.
249. For that reason, the CRA considers reasonable to set the wholesale charges on basis of a combination of fixed plus incremental tariff. In this line, in order to keep consistency with AAR service, the CRA is of the view that Ooredoo's information is more suitable for the setting of wholesale charges since it is coming from the audited and reviewed RAS.

6.4.4.3 Access Request ("AR")

250. The Access Request Fee has been agreed by Ooredoo and Qnbn within the IAA.
251. The Access Request is submitted by Qnbn for gathering information on ducts and other network element deployed within a specific area. It could also include a Request(s) for a specific route with defined start (Point A) and end (Point B.)
252. The CRA believes that this service shall be costed as the sum of costs from AAR and RAR costs.

6.4.4.4 Foreseen options

253. The CRA needs to verify the information submitted by the SPs. In the meantime, the

CRA suggests to keep unchanged these fees.

Access Area Request	Charge in QAR for an Area Access Request as defined in Annex 1 of the RIAO. For avoidance of doubts, the charge covers all the activities required in processing the Area Access Request included in Annex 1 performed by Ooredoo following an Area Access Request, with the exclusion of the activities for which charges are explicitly defined in this table. Note: this fee is not refundable.	15,000
Route Access Request	Charge in QAR for a Route Access Request. For avoidance of doubts, the charge covers all the activities required in processing the Route Access Request. This applies only to Route Area Requests related to Areas for which an Area Access Request has been already submitted by OLO and approved by Ooredoo. The parties may negotiate charges for an Ad Hoc Request according to the specific requirements of the OLO.	0 N.B. The costs for managing a RAR are already covered by the AAR Fee.

Table 25 AAR, RAR and AR services – Wholesale Charges for consultation [CRA calculation]

6.4.4.5 Consultation Question

Question 16 Do stakeholders agree with the CRA's proposed Wholesale Charges for AAR, RAR and AR services?

6.4.5 Successful and Unsuccessful Blockage Clearance

254. These products are currently charged “at documented cost incurred by Ooredoo”.
255. Unless justified concerns of the respondents, the above approach “time and material” shall be confirmed as charging mechanism for the years 2021, 2022 and 2022.

6.4.5.1 Consultation Question

Question 17 Do stakeholders agree with the CRA's proposed approach for the Successful and Unsuccessful Blockage Clearance products?

6.4.6 Transportation charge

256. This product is currently charged at 150 QAR/vehicle/day or part thereof.
257. Unless justified concerns of the respondents, the above charge shall be confirmed for the years 2021, 2022 and 2023.

6.4.6.1 Consultation Question

Question 18 Do stakeholders agree with the CRA's proposed approach for Transportation charge product?

6.4.7 Miscellaneous Expenses

258. These products are currently charged “at documented cost incurred by Ooredoo”.
259. Unless justified concerns of the respondents, the above approach “time and material” shall be confirmed as charging mechanism for the years 2021, 2022 and 2023.

6.4.7.1 Consultation Question

Question 19 Do stakeholders agree with the CRA's proposed approach for the

Miscellaneous Expenses product?

7 Review of the Wholesale Charges

260. The CRA is minded to include in the Order approving the Wholesale Charges a review clause. This clause would allow SPs to request for a review of the Wholesale Charges subject to a material change in e.g. costs.

261. The CRA defines the following clause:

“Ooredoo, Vodafone or both may request for a review of the Wholesale Charges subject to a material change in network costs in relation to the relevant services which shall be no earlier than 12 months from the implementation date of this Order²⁸. Such a request shall be supported by an objective justification and relevant cost data. For clarification, principles which have been defined upon during the consultations stages will not be subject to review, for example, wholesale mark up, retail mark up, cost of capital etc.”

Question 20 Do stakeholders agree with the CRA's proposed review clause?

²⁸ This refers to the Final Order including the finally approved Wholesale Charges (not the current Order associated to the First Consultation on Wholesale Charges).

Annex I Current applicable Wholesale Charges - Summary

The following table shows the currently (2018-2020) valid Wholesale Charges

Termination Services

Charges to be applied by Ooredoo and Vodafone

Termination Services		2018	2019	2020
Fixed Call Termination Service to Geographic Numbers	QAR/min	0.0119	0.0063	0.0006
Mobile Call and Video-Call Termination Service	QAR/min	0.0590	0.0419	0.0247
Call Termination Service to Toll-Free Numbers (reverse charge) for fixed and mobile	QAR/min	-0.0590	-0.0419	-0.0247
Call Termination Services to Numbers for Inbound International calls	QAR/min	Commercially Agreed		
Termination Emergency Services	QAR/min	0.0119	0.0063	0.0006

Mobile Messaging Termination Services

SMS Termination	QAR/SMS	0.0093	0.0057	0.0020
MMS Termination for picture and video	QAR/MMS	0.2936	0.1572	0.0208

Outgoing International Call Conveyance

As and when arises	
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Interconnection Links

Charges to be applied by Ooredoo

Interconnection Link Services		2018	2019	2020
Recurring Charges				
E1 (distance independent)	QAR/E1/month	229	133	37
Km (distance dependent)	QAR/km/E1/month	54	43	32
One off fees				
Connection Fee	QAR	5,000	5,000	5,000
Disconnection/reconfiguration Fee	QAR	950	950	950

Transmission Links

Charges to be applied by Ooredoo

Transmission Link Services - SDH

speed/length for E1 (no differentiation for SLAs)	Connection fee	Recurring Charges		
	2018, 2019, 2020	2018	2019	2020
	QAR	QAR/month	QAR/month	QAR/month
00-10	3,036	1,240	1,158	1,081
11-20	3,036	1,314	1,226	1,145
21-30	3,036	1,387	1,295	1,209
31-40	3,036	1,460	1,363	1,273
41-50	3,036	1,534	1,432	1,336
50 and above	3,036	1,790	1,671	1,580
for E3 (no differentiation for SLAs)				
00-10	3,036	7,089	6,617	6,177
11-20	3,036	7,162	6,686	6,241
21-30	3,036	7,235	6,754	6,305
31-40	3,036	7,309	6,823	6,369
41-50	3,036	7,382	6,891	6,433
50 and above	3,036	7,639	7,131	6,657
for STM1 (no differentiation for SLAs)				
00-10	3,036	10,794	10,076	9,406
11-20	3,036	10,867	10,145	9,470
21-30	3,036	10,941	10,213	9,534
31-40	3,036	11,014	10,282	9,598
41-50	3,036	11,087	10,350	9,662
50 and above	3,036	11,344	10,590	9,886
for STM4 (no differentiation for SLAs)				
00-10	3,036	17,910	16,719	15,607
11-20	3,036	17,984	16,788	15,671
21-30	3,036	18,057	16,856	15,735
31-40	3,036	18,130	16,925	15,799
41-50	3,036	18,204	16,993	15,863
50 and above	3,036	18,460	17,233	16,087
for STM16 (no differentiation for SLAs)				
00-10	3,036	31,987	29,860	27,874
11-20	3,036	32,060	29,928	27,938
21-30	3,036	32,134	29,997	28,002
31-40	3,036	32,207	30,065	28,066
41-50	3,036	32,280	30,134	28,130
50 and above	3,036	32,537	30,373	28,353

Duct Services		
Charges to be applied by Ooredoo		
Duct Products		
Duct Access	QAR/m/cm2/month	0.1200
Facility Hosting	QAR/liter. First 20 liters of facility space per linear kilometer of route distance is provided without charge	1.0000
Supervision	QAR 375 per hour or part thereof of supervision, regardless the number of supervisors. Chargeable for all activities which are explicitly listed in Annex 3 Clause 4 of the RIAQ. The total Supervision Charge is capped to 375,000 QAR per quarter.	375
Access Area Request	Charge in QAR for an Area Access Request as defined in Annex 1 of the RIAQ. For avoidance of doubts, the charge covers all the activities required in processing the Area Access Request included in Annex 1 performed by Ooredoo following an Area Access Request, with the exclusion of the activities for which charges are explicitly defined in this table. Note: this fee is not refundable.	15,000
Route Access Request	Charge in QAR for a Route Access Request. For avoidance of doubts, the charge covers all the activities required in processing the Route Access Request. This applies only to Route Area Requests related to Areas for which an Area Access Request has been already submitted by OLO and approved by Ooredoo. The parties may negotiate charges for an Ad Hoc Request according to the specific requirements of the OLO.	0 N.B. The costs for managing a RAR are already covered by the AAR Fee
Field Feasibility Analysis	QAR/man-hour or part thereof (transportation and misc. expenses not included)	375
GIS update	QAR/man-hour or part thereof to update the GIS system in conformance with As-built drawings provided by OLO	375
Ad-hoc engineering support	QAR/man-hour or part thereof for expert support provided by Ooredoo at OLO request (transportation and misc. expenses not included)	375
Transportation charge	One day per vehicle	150
Misc. expenses	per actual effort (time and material)	time and material

Table 26 Currently Valid Wholesale Charges

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December 3, 2020

CRARAC 2020/12/03-A

Response document to comments raised by Service Providers to CRA's First Consultation on Setting the Charges applicable to Wholesale Services for the years 2021, 2022 and 2023

 Confidential to Ooredoo

 Confidential to Qnbn

 Confidential to Vodafone

Key responses	Respondent	CRA's response
Question # 1 Do stakeholders agree with the CRA's view and implementation of the Guiding Principles to set Wholesale Charges?		
Concerning the proposed reduction of wholesale rates, the CRA has provided no rationale (in terms of market failure it aims to address and net benefit this regulation will yield in terms of improved market outcome either in short or long term) that would support further reduction of the wholesale charges and as a consequence Ooredoo cannot support such reductions. Significant investments related to 5G network coverage obligations and FIFA world cup coupled with economic uncertainty imposed by the COVID-19 pandemic puts the large margin of error on the CRA estimated of the future unit costs.	Ooredoo	The Article 19 (1) of the Telecommunication Law requires the CRA " <i>promoting appropriate, effective and low cost interconnection between telecommunications networks</i> " which typically lead to lower retail tariffs and higher demand levels, favoring the customers and the development of the Qatari economy. In addition, Article 29 of the Telecommunication Law provides that charges for communications services offered by Dominant Service Providers must be based on the cost of efficient service provision and the charge must not contain any excessive charges which result from the dominant position that the Service

Key responses	Respondent	CRA's response
Moreover, the further retail price reductions that the CRA seeks to motivate by the continued wholesale rate decline are at odds with other CRA's objectives to provide top class service quality and coverage as well as government expectations to meet demanding network performance related FIFA requirements.		<p>Provider enjoys. The CRA's current proceeding is basically aimed at setting the wholesale charges for the years 2021, 2022 and 2023, following the provisions of the Qatari applicable legislation, whose most relevant references are mentioned above.</p> <p>The CRA remarks that future wholesale charges have been estimated relying on a cost-oriented approach, based on the cost information submitted by Qatari service providers. This cost information, in general, shows continuous decreasing trends of unit costs incurred for the provision of wholesale services. This trend is also in line with the situations observed in many other jurisdictions, where similar alignments of the wholesale charges to costs have been done and lower wholesale charges have been established.</p> <p>Moreover, in order to smooth the potential impact of the reduction of wholesale rates, a mechanism of glidepath has been proposed.</p> <p>Regarding other regulatory objectives, the CRA has a broad mandate and multiple objectives to reach. It is also evident that the interests of the service providers (i.e. high revenues and profit with low investments and costs) are often different from the interests of the public (i.e. innovation, low prices, high quality). In taking its decisions, the CRA has to balance the overarching goal of economic diversification, the interests of the service providers and those of the customers. To balance all the various objectives, the CRA:</p> <ul style="list-style-type: none"> • Has relied on objective data and information (e.g. the Audited RAS of Ooredoo and other information provided by the SPs); • Has been very conservative when forecasting costs; • Has allowed a proper return on investments by applying a Cost of Capital which was set at the highest possible level of the calculated range.

Key responses	Respondent	CRA's response
		<p>The impact on the revenues of the reduction of the FTR and MTR is not significant (i.e. around 5% of impact is estimated in Ooredoo's revenues for the years 2021-2023). Also, the impact on the margins of the service providers is negligible, given that the traffic is almost balanced between Ooredoo (50%) and Vodafone (50%).</p> <p>In conclusion, the CRA is convinced that the wholesale charges proposed for the calendar years 2021, 2022 and 2023 strike a balanced solution among the various conflicting goals.</p>
Concerning the Margin Squeeze Test Methodology, with reference to section 4.3.1 of Consultation Document on Price / Margin Squeeze test Ooredoo has following comment. NBE Access seeker may have lower retail costs (in comparison to its network costs) as it may provide only limited scope of retail services, its retail operation may be more cost efficient than that of incumbent (e.g. access seeker may employ lower number of retail stores and rely more on lower costs retail channels in comparison with access provider) etc. In case that the access seeker introduces the retail tariff with rates below level set by MST (that is based on RMU of the access provider) the access provider should not be restricted from matching retail prices of access seeker.	Ooredoo	<p>In CRA's view, it is curious that Ooredoo recognizes that alternative service providers could have retail operations that are more cost-efficient, as this somehow recognizes inefficiencies from Ooredoo's side.</p> <p>In any case, the CRA does not share Ooredoo's view that access seekers should present lower retail costs. On the contrary, many of retail costs (such as advertising) often incurred by service providers are relatively fixed, what implies that Ooredoo, being the dominant service provider in Qatar, should benefit from higher economies of scales, thus leading to lower retail costs per customer.</p> <p>In addition to this, the CRA notes that Ooredoo's proposal is not realistic because the service provider is basically suggesting that the CRA should allow Ooredoo the possibility of selling below cost, what is considered an anticompetitive practice.</p>
With respect to any future wholesale services (e.g. related to the international connectivity services) we need to again stress the need to avoid cost based rate setting and instead adopt the approach that will provide SP's with incentives to continue to invest in the related network infrastructure.	Ooredoo	<p>The CRA notes that the imposition of regulatory remedies, including obligations of cost-orientation for future wholesale services, is not part of this proceeding but of the MDDD process.</p>

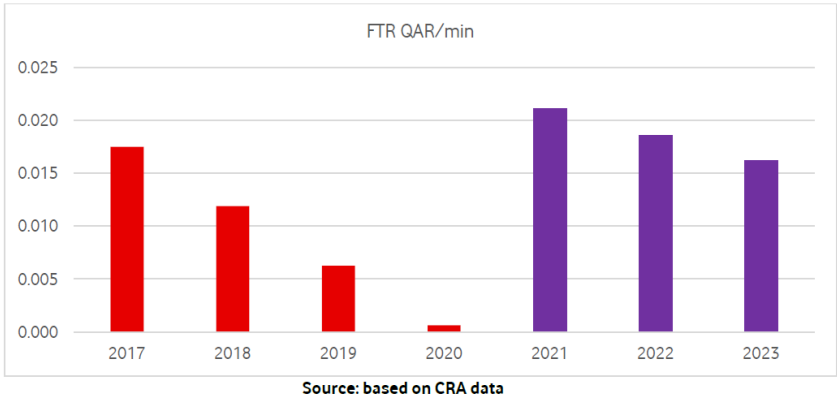
Key responses	Respondent	CRA's response
<p>Vodafone Qatar submits that the CRA must recognize and take into account the overarching objectives placed on it in the Telecommunications Law as amended by Law No17 of 2017 (the “Telecommunications Law”) and the Emiri Resolution No 42 of 2014 establishing the CRA (“Emiri Resolution”) in setting wholesale charges. The CRA is not required to mechanically set them at cost. Article 2 of the Telecommunications Law says that the regulation of the sector shall achieve the following objectives:</p> <ul style="list-style-type: none"> ‘1. promoting the telecommunications sector in order to consolidate national, social and economic development; 2. enhancing the telecommunications sector’s performance in the State of Qatar through encouraging competition and fostering use of telecommunications services; 3. encouraging the introduction of advanced and innovative information and telecommunications technologies to meet the needs of customers and the public; 4. increasing customers’ benefits and safeguarding their interests; 5. encouraging sustainable investment in the telecommunications sector’. <p>Further, Article 4 of the Emiri Resolution requires the CRA to:</p> <ul style="list-style-type: none"> ‘2. Provide the legal, transparent, organizational and fair environment to construct a competitive, innovative and investment attractive sector. 3. Encourage competition, prevent or limit non-competitive practices, prevent the misuse of any person or entity to his sovereign status in the market and take the necessary procedures in this regard. 4. Protect the rights and interests of the public and service providers in the market, enhance the transparency and work to render advanced 	Vodafone	<p>The CRA refers Vodafone to the responses given above to Ooredoo concerning CRA’s strategy followed for balancing all its various regulatory objectives when setting the wholesale charges.</p>

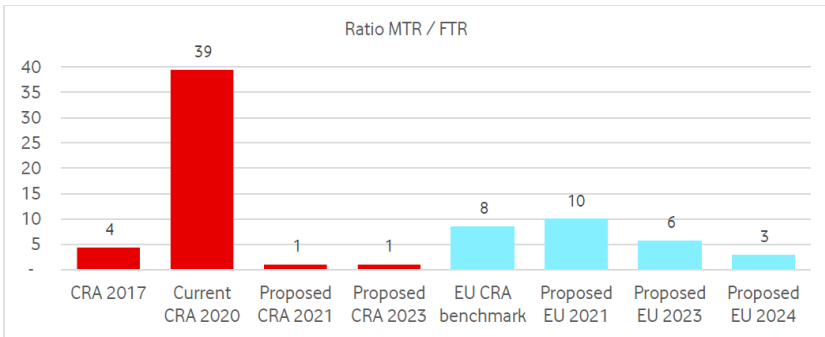
Key responses	Respondent	CRA's response
<p>and innovated services having high quality and for reasonable prices to meet the requirements of the public.'</p> <p>Vodafone Qatar recognizes that there is some tension between these objectives and hence that there is a margin of appreciation when setting wholesale charges. We submit the CRA should take into account the following considerations when applying its judgement on wholesale charges:</p> <ul style="list-style-type: none"> • expected consumer benefits; • impact on competition; and • impact on investment and innovation. 		
<p>Qnbn believes in the top down approach as it covers all cost components, specifically given the small data set and the difficulty in obtaining the wholesale pricing information that the operators might be hesitant to share in the first place. Therefore, we at Qnbn believe that the top down approach is better in Qatar's telecom market dynamics.</p>	Qnbn	The CRA acknowledges Qnbn's support for CRA's proposal and appreciates its comments.
Question # 2 Do stakeholders agree with the CRA's view and implementation of Mechanisms available for setting Wholesale Charges?		
<p>In principle Ooredoo does agree with the CRA proposals in chapter 4 and with the use of the glide path for termination services. However, given the economic uncertainty, upward pressure on SP's costs, and large margin of error of CRA future unit cost estimates, Ooredoo recommends to keep the glide path flat, i.e. to maintain the current termination rates level.</p>	Ooredoo	<p>The CRA notices that Ooredoo's proposal of maintaining the current termination rates level is not substantiated i.e. Ooredoo has provided no quantitative evidence to support its position.</p> <p>In addition to this, the CRA notes that the Law, in its Article 29 reads: <i>"The Charge for telecommunications services provided by dominant Service Providers must be based on the cost of efficient service provision".</i></p>

Key responses	Respondent	CRA's response
		Reductions in the form of glidepath proposed by CRA are a merely reflection of the evolution of costs incurred by service providers in Qatar. The CRA also recognizes the uncertainty surrounding the process of estimating future costs for regulated wholesale services. However, in order to reduce the associated risks, the CRA has been prudent in calculating the cost trends to ensure cost recovery. Additionally, in the hypothetical case that the evolution observed in the future leads to wholesale charges set below costs, the CRA would be pleased to modify the applicable wholesale charges by making use of the review clause proposed in the section 7 of the First Consultation Document.
<u>Applicable timeframe</u> : due to the inherent uncertainty with forecast, market and technological evolution, it is important that the CRA takes a conservative and prudent views regarding the evolution of cost and traffic as well as charges to avoid rate shock (similar to what CRA is proposing for FTR in this consultation).	Vodafone	It is worth noting that the CRA, when estimating future unit costs for regulated services, has opted for the utilization of prudent trends for both costs and volumes, already following a conservative approach. This is described in the First Consultation Document. Regarding the treatment of the fixed termination service, please refer to the specific question for CRA's position (Question #3).
<u>Use of benchmarks</u> : Vodafone Qatar supports the use of relevant benchmarks as a cross-check. This is important to ensure that charges remain within reasonable bounds. Benchmark can also be used where information is not reliable or available.	Vodafone	The CRA acknowledges Vodafone's support for CRA's proposal.
<u>Application of glide paths</u> : Vodafone Qatar supports CRA's view that glide paths are appropriate to bring wholesale charges to the desired level and to avoid one-off shock when the current wholesale price differs materially from the desired level.	Vodafone	The CRA acknowledges Vodafone's support for CRA's proposal.

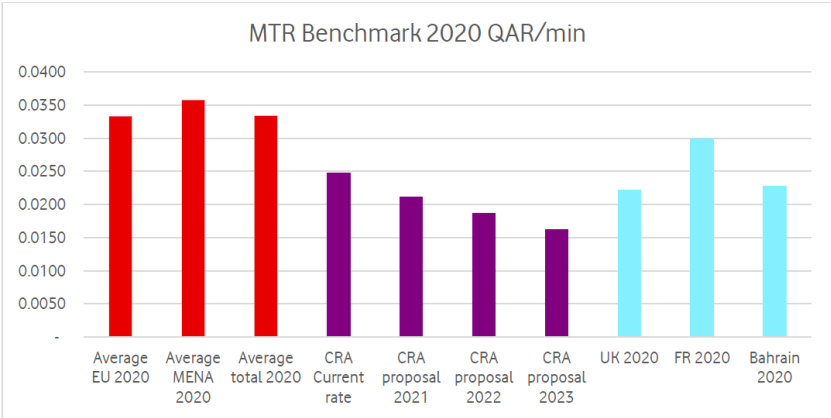
Key responses	Respondent	CRA's response
Question # 3 Do stakeholders agree with the CRA's proposed Wholesale Charge for the "Call Termination Service to Numbers for fixed and mobile calls"?		
<p>Ooredoo cannot agree with the CRA positions articulated in the section 113.1 of Consultation Document:</p> <p><i>"In this line, the CRA has adjusted the network cost for RAS FY2018 by subtracting costs from traditional fixed voice switching platforms. In particular, the following elements have been subtracted:</i></p> <p><i>(iii) CN02b - Universal Media Gateway (UMG)</i></p> <p><i>(iv) CN02c - Softswitch (SS).</i></p> <p><i>For RAS FY2018 network costs of mobile termination, no cost of legacy switching platforms has been removed."</i></p> <p>Note that if the fixed network did not use these shared network elements to route the fixed voice service it would need its own dedicated network elements to perform voice service routing. Such network topology would increase costs of this service even further. Hence, we insist that these components costs are fully accounted for in the calculation of the fixed voice call termination service.</p>	Ooredoo	<p>The CRA is of the view that the two network elements removed are exclusively related to the provision of fixed services. This is confirmed by the approach used by Ooredoo in the RAS: these network components are not employed in the provision of mobile services (for instance, they are not necessary when handling a mobile off-net or termination call). In other words, based on the RAS information, they do not belong to the "shared" network.</p> <p>Therefore, the CRA confirms its position, as expressed in the First Consultation Document, not to account for these costs, as <i>"the proceeding of setting wholesale charges follows a forward-looking and efficient approach, the CRA is of the view that traditional network components from fixed network shall not be considered when calculating network costs in the future, since the traditional fixed voice switching network will be totally substituted by the IMS network"</i>.</p>
<p>Moreover, Ooredoo cannot agree with the CRA's simplified view that convergence in core network technologies for termination of fixed and mobile voice service leads to the convergence of the overall costs of these two services. While the costs related to the termination of the fixed voice service only include the costs of core network components the costs related to mobile call termination also includes the costs of radio (access) part of the mobile network. Hence the costs of these two services differ dramatically and that</p>	Ooredoo	<p>After assessing the Qatari services providers' comments regarding CRA's proposal of setting a fixed and mobile blended termination rate:</p> <ul style="list-style-type: none"> • The CRA understands that its proposal is justified from a core network point of view. The latest developments in the industry show a clear tendency towards the network convergence of fixed and mobile traffic over the same all-IP core network, allowing service providers to deploy a common core network capable of handling fixed and mobile traffic without any differentiation.

Key responses	Respondent	CRA's response
<p>difference should be reflected in respective levels of the termination rates set for these two services.</p>		<ul style="list-style-type: none"> The CRA also recognizes that, as expressed by Qatari service providers, when paying attention to the access network, the same situation may not be applicable. More specifically, in the provision of fixed services, in Qatar, and following the international practice, the cost of the access network (cabling connecting the customer premise and the service provider's exchange) is not recovered by means of the fixed termination service. On the contrary, in the provision of mobile services, the cost of the access network (base stations) significantly contributes to the cost of the termination service, for instance, representing 10% of its cost in the year 2018, based on data extracted from Ooredoo's RAS. <p>Consequently, taking into account Qatari service providers' contributions, and with the objective of reflecting the relevance of the access network related to the provision of mobile termination services, the CRA has opted for proposing separated fixed and mobile termination wholesale charges in the Second Consultation Document.</p>
<p>FTR</p> <p>The sudden change in direction of the CRA regarding FTR is very concerning and highlights the need for caution when setting termination rates. In fact, in the Order to Ooredoo and Vodafone Qatar on charges applicable to wholesale services for 2018, 2019, 2020 (the "2018 Order"), the CRA mandated a 90% decline in FTR over a three year period despite concerns by the SPs (including concerns that the rate was becoming out of step with benchmarks and that the ratio of MTR to FTR would increase significantly as a result). Unfortunately and without providing a rationale, the CRA ignored those warnings and comments. Three years later the CRA is now proposing to</p>	Vodafone	<p>The CRA notes that such increase of the FTR is only due to the proposal of blending FTR and MTR. Therefore, the CRA does not share Vodafone's view that this situation brings considerable regulatory uncertainty. The reason is that the weight of fixed termination services has presented in the past a very low weight on the revenues/costs of Qatari service providers, and the same situation is expected for the upcoming years. In the case of Vodafone, the weight of the outpayment costs estimated for period 2021-2023 related to fixed termination call services in other operators' networks represents less than of 10% over Vodafone's total revenues.</p>

Key responses	Respondent	CRA's response
<p>reverse this trend and increase the FTR by 3,265% in one step without a glide path. It is our view that this brings about considerable regulatory uncertainty. The graph below sets out the evolution of FTR since 2017 and the proposals of the CRA.</p>  <p>Source: based on CRA data</p>		
<p>Vodafone Qatar does not agree with CRA's proposal to set a common rate for fixed and mobile termination rate for the following reasons: (Each reason is treated below in a separate row)</p>	Vodafone	Based on the comments provided by the respondents, the CRA agrees to differentiate the rates. Also refer to lines below for CRA's position on each specific point.
<p><u>Fixed and mobile termination costs are different and the CRA's proposal is not in line with benchmarks.</u> Different costs translate into higher termination rates for mobile than for fixed. This is confirmed by the CRA's review of cost and the CRA's benchmarks which shows that the EU average for MTRs is about 8 times greater than the EU average for FTRs. More recently, the EU has developed cost models of the efficient costs of termination. The target forward-looking ratio of MTR to FTR is about three in 2024 compared to one proposed by the CRA for next year. The below graph shows how the approach of the</p>	Vodafone	<p>The CRA was fully aware of the approach implemented in other jurisdictions. However, as explained in the First Consultation Document, the CRA's proposal was based on the latest market developments observed in the country (i.e. fixed – mobile convergence).</p> <p>Comments provided by the SPs have merits. Therefore, the CRA has opted for proposing separated fixed and mobile termination rates in the Second Consultation Document.</p>

Key responses	Respondent	CRA's response																		
<p>CRA regarding setting a single rate is out of steps with the practice of regulators throughout the world. Further, the proposed blended charge will under-compensate operators for terminating traffic on mobile and over-compensate operators for terminating traffic on fixed networks.</p> <div><p>Ratio MTR / FTR</p><table><thead><tr><th>Scenario</th><th>Ratio</th></tr></thead><tbody><tr><td>CRA 2017</td><td>4</td></tr><tr><td>Current CRA 2020</td><td>39</td></tr><tr><td>Proposed CRA 2021</td><td>1</td></tr><tr><td>Proposed CRA 2023</td><td>1</td></tr><tr><td>EU CRA benchmark</td><td>8</td></tr><tr><td>Proposed EU 2021</td><td>10</td></tr><tr><td>Proposed EU 2023</td><td>6</td></tr><tr><td>Proposed EU 2024</td><td>3</td></tr></tbody></table><p>Source: based on CRA data and EC Proposals</p></div>	Scenario	Ratio	CRA 2017	4	Current CRA 2020	39	Proposed CRA 2021	1	Proposed CRA 2023	1	EU CRA benchmark	8	Proposed EU 2021	10	Proposed EU 2023	6	Proposed EU 2024	3		
Scenario	Ratio																			
CRA 2017	4																			
Current CRA 2020	39																			
Proposed CRA 2021	1																			
Proposed CRA 2023	1																			
EU CRA benchmark	8																			
Proposed EU 2021	10																			
Proposed EU 2023	6																			
Proposed EU 2024	3																			
<p><u>The proposal is contrary to the CRA's objective to promote competition in fixed.</u> It is our view that this proposal will strengthen Ooredoo's dominant position in fixed and will negatively impact Vodafone Qatar's competitive position as a challenger in the relevant fixed market with less than 5% market share. We are indeed a net-payer for fixed termination and will therefore be disproportionately impacted. Should the termination rate be increased, we may seek to pass on the increase to customers by increasing our retail price to fixed numbers and/or seek approval from the CRA to have different prices for fixed on-net and off-net calls. However, in order to remain competitive, we</p>	Vodafone	<p>The CRA notes that the proposal of a blended charge was initially considered a valid option given the specificities of the Qatari telecom market, where both Ooredoo and Vodafone (the two main players) provide mobile and fixed services.</p> <p>The CRA also outlines that, as reflected in the First Consultation Document, the different weights of calls terminated in fixed and mobile networks had been considered during the definition of the blended rate. That is, the CRA had been prudent when estimating the blended charge, to ensure that the cost-orientation</p>																		

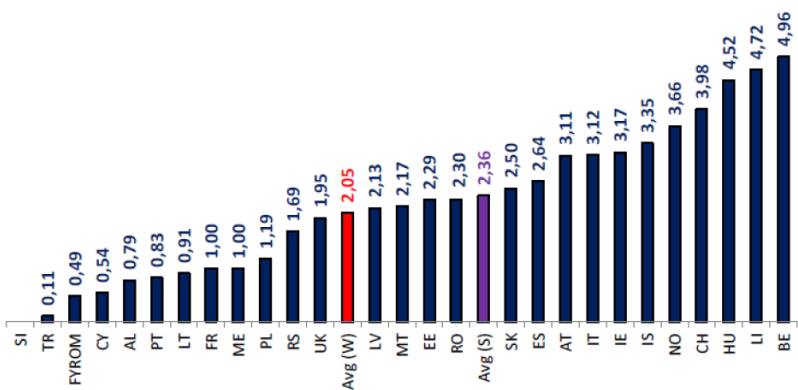
Key responses	Respondent	CRA's response
most likely will have to absorb the increase in cost which will translate in lower margin for us whereas the DSP will continue to enjoy higher margins and will not be impacted.		principle was respected, avoiding a negative economic impact on the business of Qatari players. However, comments provided by the SPs have merits. Therefore, the CRA has opted for proposing separated fixed and mobile termination rates in the Second Consultation Document.
The CRA's approach is inconsistent with the <u>application of the principle of cost orientation</u> as FTR and MTR have different underlying costs.	Vodafone	Please refer to previous comments.
We also note that termination on mobile and termination on fixed are in <u>different economic markets</u> . For those reasons, Vodafone Qatar considers that it is more appropriate to keep the pricing for services in these markets distinct.	Vodafone	The CRA agrees with Vodafone's concern and, in the Second Consultation Document, it will assess the fixed and mobile termination charges separately.
Finally the proposal of the CRA to make a 3,265% adjustment in one step is inconsistent with the <u>CRAs' position on glide path</u> . At paragraph 99 of CD#1 the CRA says: <i>"Based on the above, the CRA has applied glide paths in those services with relevant differences between currently applicable charges and new available levels."</i>	Vodafone	The CRA points out that such increase is only apparent and due to the blended rate.
For the above reasons, Vodafone Qatar invites the CRA to reconsider its proposal taking into account the impact it will have on competition in fixed retail market. We recommend that the FTR be held constant for at least the coming price control period during which Vodafone Qatar is expected to become a stronger competitive force in fixed.	Vodafone	The CRA appreciates Vodafone's insights and refers the service provider to previous comments, where the CRA has commented on each of Vodafone's responses.

Key responses	Respondent	CRA's response
<p>MTR</p> <p>It is useful to look at how the current and proposed charges compare to other countries. As can be observed from the below graph, the current MTR in Qatar is below the EU and MENA averages. With the CRA's proposal to drop MTR by a further 34% by 2023, the MTR in Qatar is likely to remain well below the EU and MENA averages while Qatar based operators have far advanced network and a much higher 4G and 5G coverage.</p>  <p>Vodafone Qatar does not dispute the proposition that reductions in MTR when taking place from a very high level, could have a positive effect on consumer surplus in terms of driving higher demand and lower retail prices. However the question is now what could be the incremental benefits going forward given the already low retail prices and demand characteristics.</p>	Vodafone	<p>The CRA's primary obligation is to set wholesale charges in Qatar following the principle of cost orientation, as required by the Qatari Telecommunication's Law in its Article 29.</p> <p>In this regard, the level of proposed rates has been consistent with the information available from the Qatari service providers about costs incurred to provide the wholesale services.</p> <p>In this context, it is important to highlight that the level of incurred costs in the provision of termination services depends on a set of characteristics that generally lead to different costs among countries. This position was already expressed and motivated by the CRA in the First Consultation Document: <i>"The specific geographical characteristics of Qatar, including both the population density and the concentration of population contribute to a reduction of the operators' cost basis. In addition, the orography also plays a relevant role. With its highest point at an altitude of 103 meters, Qatar is a low-lying country which does not have any significant mountain or deep valleys. This feature commonly leads to lower costs for the provision of wireless telecommunication services, because of the lower interferences."</i></p> <p>Therefore, the fact that the Qatari termination rates are lower than those set in other countries is expected and due to the country specifics.</p>

Key responses	Respondent	CRA's response
Question # 4 Do stakeholders agree with the CRA's proposed approach for setting the "Call Termination Service to Toll-Free Numbers (reverse charge) for fixed and mobile"?		
Ooredoo agrees with the CRA proposal that the reverse charge for toll free calls shall correspond to the charges set for termination services. However, we maintain that the rates should not decline from current levels and the differential between fixed and mobile service termination rate should be maintained.	Ooredoo	The CRA acknowledges Ooredoo's support for CRA's proposed approach. On Ooredoo's comment about fixed and mobile termination rates, please refer to the specific question for CRA's positions (Question #3). Therefore, this topic will not be consulted on again in the Second Consultation Document.
Vodafone Qatar agrees with the CRA's proposed approach to set the call termination service for toll-free numbers for fixed and mobile based on the FTR and MTR. However as explained in our response to Question 3 we do not agree with setting a blended rate.	Vodafone	The CRA acknowledges Vodafone's support for CRA's proposed approach. On Vodafone's comment about fixed and mobile termination rates, please refer to the specific question for CRA's positions (Question #3). Therefore, this topic will not be consulted on again in the Second Consultation Document.
Question # 5 Do stakeholders agree with the CRA's proposed approach of keeping current approach (non-regulation) for "Call Termination Services to Numbers for Inbound International calls"?		
Ooredoo agrees with the CRA proposal as it reflects Ooredoo's position articulated in the 2018 consultation process.	Ooredoo	The CRA acknowledges Ooredoo's support for CRA's proposed approach. Therefore, this topic will not be consulted on again in the Second Consultation Document.
Vodafone Qatar agrees with the CRA's proposed approach to maintain the status-quo for international inbound. This is the right decision to support the national interest as it avoids value transfer from domestic operators to foreign	Vodafone	The CRA acknowledges Vodafone's support for CRA's proposed approach. Therefore, this topic will not be consulted on again in the Second Consultation Document.

Key responses	Respondent	CRA's response
operators with no benefits to consumers in Qatar while we compete with OTTs.		
Question # 6 Do stakeholders agree to set the charge for the “Termination Emergency Services” at the same level of the “Call Termination Service to Numbers for fixed and mobile calls”?		
Ooredoo agrees with the CRA proposal. However, we maintain that the rates should not decline from current levels and the differential between fixed and mobile service termination rate should be maintained.	Ooredoo	The CRA acknowledges Ooredoo's support for CRA's proposed approach. On Ooredoo's comment about fixed and mobile termination rates, please refer to the specific question for CRA's positions (Question #3). Therefore, this topic will not be consulted on again in the Second Consultation Document.
See our response to question 4 above.	Vodafone	Please refer to Question #4 for CRA's position. Therefore, this topic will not be consulted on again in the Second Consultation Document.
Question # 7 Do stakeholders agree with the CRA's proposed Wholesale Charge for the Messaging Termination services?		
Ooredoo does not agree with the regulation of wholesale charges for SMS services. In fact, none of the EU countries included in the CRA benchmark sample regulates SMS termination rates. As per Figure 20 of the BEREC Annual Reports 2018 ¹ , the average (commercially negotiated) SMS termination rate in EU stood in 2018 at 0.0236 Euro cents (i.e. 0.09 QAR)	Ooredoo	On the regulation of messaging termination services, the CRA indicates that, in the 2016 MDDD Review process, both Ooredoo and Vodafone were designated as DSP (Dominant Service Provider) in the market “M14 - Wholesale termination on individual mobile networks”.

¹ Report available at https://berec.europa.eu/eng/document_register/subject_matter/berec/download/0/8598-berec-annual-reports-for-2018_0.pdf

Key responses	Respondent	CRA's response
<p>compared to the current SMS termination rate in Qatar of 0.002 QAR. To maintain consistency with the CRA benchmark approach, the CRA should refrain from regulating SMS termination charges. Furthermore, considering Qatar's SMS termination rate is already lower than EU counterparts, what problem is the CRA fixing through its proposal to regulate such rates?</p> <p><i>Figure 20: SMS TRs by country, July 2018 (eurocents per message)</i></p>  <p><i>Source: BEREC, Termination rates at European level July 2018</i></p>		<p>In relation to the SMS/MMS termination as relevant markets, the CRA notes that, in the regulatory document CRA 2015/05/12/NC², issued by the CRA in 2015, it was clearly specified that the market “M14 - Wholesale termination on individual mobile networks” includes (but not limited to) voice calls, SMS, MMS and video calls.</p> <p>In this regard, the CRA notes that the wholesale regulation of messaging termination services, being a remedy imposed as a result of the MDDD process, shall not be subject to further discussions.</p> <p>On the level of proposed rates, the CRA indicates that the cost orientation is an obligation imposed by the Qatari Telecommunication's Law in its Article 29. While the CRA is also aware that the level of proposed rates is not aligned with those currently applied in other countries, the regulator considers that such level of proposed rates is consistent with the information available from the Qatari service providers (including Ooredoo's RAS) and it does not carry any risk of distorting the market because of the following reasons:</p> <ul style="list-style-type: none"> • Messaging termination services presents a low weight on revenues of Qatari operators (e.g. in the case of Ooredoo, this weight is around 0.002, based on information available from the RAS). • Additionally, as already recognized by Ooredoo (see its following response to this same question), messaging services are being substituted by OTT

² “Market Definition and Dominance Designation in Qatar. Public Consultation”. Available at: <https://www.cra.gov.qa/-/media/System/9/6/C/F/96CF748563FF5AACB52FF96364E052C6/2015-05-12-MDDD-2016-Consultations-Responses-and-Orders-2015--2016-EN.ashx>.

Key responses	Respondent	CRA's response
		services, indicating that the relevance of these services will further decrease in the coming years.
The past steep decrease in SMS termination rates imposed by the CRA has brought only limited benefit to consumers as they have largely substituted such services with new platforms. The use of the person to person (P2P) SMS service has been long on decline being replaced by the OTT messaging communication via WhatsApp, Messenger etc. and it has continued to decline even after the CRA reduced the SMS termination by more 80% and subsequently by more than 90% in 2015 and 2018, respectively. Given the retail price of mobile data, the newer OTT applications offer customers the possibility to send the messages at a fraction of the costs they incur when sending SMS and provide enhanced service versatility. Thus it is clear that this CRA's SMS termination rate regulation does not benefit consumers.	Ooredoo	<p>The CRA recognises that customers are substituting traditional messaging services by OTT services and, hence, it is not evident that a reduction in wholesale charges of messaging services will bring a benefit for consumers. At the same time, the evolving dynamics of these services imply a higher degree of uncertainty surrounding the process of estimating future costs for regulated messaging services.</p> <p>For the above reasons, the CRA has decided to keep the current applicable charge in 2020, by value of 0.0020³ QAR/message, for the regulation of messaging services also in the future period 2021-2023.</p>
Ooredoo however finds that this CRA rate regulation does benefit fraudsters. The reduction of the SMS termination rate imposed by the CRA has had two negative effects in this respect—it supports criminal activity and harms consumers. The reduction in the retail price for bulk SMS has facilitated the business growth of scammers and fraudsters based inside and outside of Qatar by bringing down their primary operational cost facilitated by lower SMS termination rates. In fact scamming schemes, utilizing the bulk SMS, used for Application to Person (A2P) messaging as the reduction in the SMS price, have proliferated in Qatar thanks to this CRA regulation which in turn has harmed consumers. The graph below demonstrates how the volume of the	Ooredoo	<p>In the first place, the CRA observes that Ooredoo recognizes that past reductions of the SMS termination rate have been fundamental in the reduction of retail prices of bulk SMS used for Application to Person (A2P) messaging services. Ooredoo also suggests that this reduction of retail prices has provoked the business growth of scammers and fraudsters, ultimately harming consumers, due to the higher number of bulk SMS received from these applications.</p> <p>In this context, the CRA notes that this regulation does not impose any obligation to Ooredoo that implies a reduction of their retail prices for bulk SMS services. In other words, it is evident that this reduction of retail prices keeps</p>

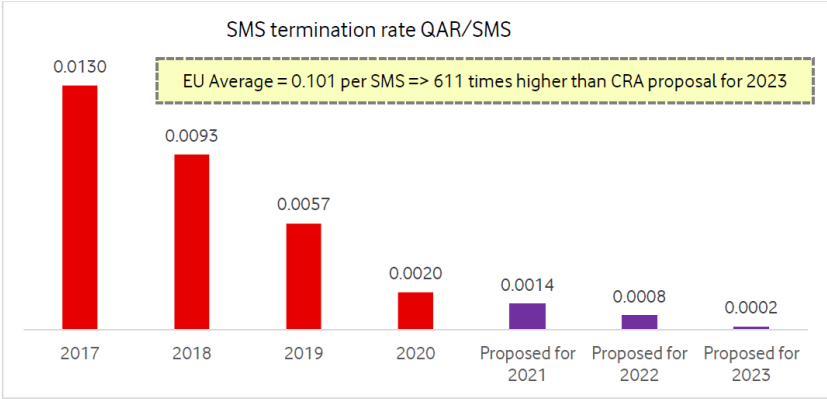
³ The approved charge in 2020 has been calculated as the weighted average of approved tariffs for messaging services (SMS and MMS).

Key responses	Respondent	CRA's response
<p>A2P SMS volumes increased over time while P2P SMS volumes continued to decline. As a matter of fact the P2P SMS communication represents negligible portion of total SMS traffic traversing mobile networks nowadays. This can be easily verified by scrolling through the list of received SMS's on one's personal phone. Unless a person takes some specific blocking action the majority of the SMS's received / stored on personal mobile phone will be A2P type as opposed to P2P type.</p> <p>✂</p> <p>As a results customers have been lured at ever increasing scale to participate in scams of varying, and ever evolving nature, resulting in the financial personal loss to all participating customers.</p> <p>Thus, we question again what sector issue is the CRA correcting through the regulation of SMS termination rates considering that consumers have migrated to other messaging platforms and lower termination rates are facilitating criminal activity.</p>		<p>correspondence with the strategy followed by Ooredoo within the competitive landscape of the business of SMS bulk services.</p> <p>Ooredoo has opted for a strategy that consists in achieving the maximum benefit of SMS bulk services, by lowering their retail prices and hence increasing the associated demand, without paying attention to potential damages to their customers. In contrast, the service provider is now proposing a deregulation of SMS services, relying on the argument that this action should be beneficial for Qatari customers. The number of bulk SMS provided by Ooredoo on a retail basis for the period 2016-2018 is illustrated below, as extracted from the RAS:</p> <p>✂</p> <p>In CRA's view, there is no evidence that the deregulation of SMS may have a positive effect on customers, as there is no demonstration that there exists a causal link between the growth of A2P SMS services and the charges imposed for the SMS termination service. Among others, this increase in SMS could be due to an evolution of the current markets and their business models.</p> <p>Finally, the CRA observes that the fraudulent practices mentioned by Ooredoo associated to retail A2P SMS messaging are better addressed by customer protection regulations rather than by the prices of wholesale services.</p> <p>In light of the above, the CRA considers that Ooredoo's claims for the deregulation of SMS termination services are neither dully substantiated nor applicable due to the dominance of the SPs in the relevant market of the mobile termination.</p>
<p>The increase in scamming practices facilitated by lower SMS termination rate has also caused an increase in the costs to service providers (increased efforts and systems costs that Ooredoo has to put in place) and wider society</p>	Ooredoo	<p>Regarding the increase mentioned by Ooredoo in the costs to service providers, due to the higher efforts and systems costs put in place to combat fraudulent practices, while no specific figures are provided by Ooredoo in its response to</p>

Key responses	Respondent	CRA's response
<p>(i.e. increase in criminal prosecution cases that have to be dealt with by law enforcement entities in Qatar) in combatting these fraudulent practices.</p> <p>Financial scamming with the use of electronic communication means, including SMS, is nowadays flourishing global industry. Ooredoo proposes that an increase in the retail price for A2P SMS messaging (facilitated by higher SMS termination rate) provides a greater benefit to the sector as it will reduce the current economic incentives for scammers and thus protect consumers from the growing number of scamming schemes.</p>		<p>evaluate the impact, it is evident that, despite these additional incurred costs, Ooredoo has been able to afford a reduction of its retail prices, still allowing a safe economic margin to the service provider in the provision of SMS services.</p> <p>Additionally, the CRA notes that the fraudulent practices mentioned by Ooredoo associated to retail A2P SMS messaging are better addressed by customer protection regulations rather than by the prices of wholesale services.</p>
<p>In addition we consider how lower SMS termination rates affect business customer use of A2P messaging. For example, the reduction in the SMS retail price the CRA seeks to achieve effectively represents the transfer of the economic benefit from the telecommunications sector to other economic sectors as it lowers the operational costs of large corporates that use SMS to reach their customers while it reduces the potential revenues that can be earned by Service Providers. QNB, a one of the largest users of the national A2P messaging service, generated a profit eight times higher than Ooredoo in 2019 but the CRA still believes that it must lower SMS termination costs to help these corporates lower their costs of doing business and make even more money.</p>	Ooredoo	<p>The CRA notes that the use of SMS services is a legitimate practice of any Qatari customer. This includes not only residential customers but also business customers, such as public or private companies (e.g. QNB). The way non-telecom companies generate profits is out of the scope of CRA's regulatory matters, and hence, out of the scope of this public consultation.</p>
<p>These scamming messages originate both locally (facilitated by lower national retail price for bulk SMS services) as well as from international destinations</p>	Ooredoo	<p>Regarding the alleged transfer of economic value from service providers established in Qatar to business entities abroad, the CRA notes that no quantitative information has been provided, thus impeding the CRA to assess any potential impact of this scenario on Qatari telecom players. In addition, lower national termination rate reduces the incentive for the use of the international A2P SMS bypass channels.</p>

Key responses	Respondent	CRA's response
<p>where scammers benefit from arbitrage opportunities arising from the difference between national and international SMS termination rates⁴.</p> <p>Moreover the low SMS termination rates also result in transfer of economic value from SP's established in Qatar to business entities abroad. This transfer is enabled by the pressure that lower national SMS termination rate imposes on international SMS termination rate and via use of the international A2P SMS bypass channels as described in the above referenced GSMA document. The main beneficiaries in this case are OTT giants, such as Google (reporting net income for the twelve months ending June 30, 2020 of \$31,534B) and international SMS aggregators such as Twilio charging up to 0.061 USD/message sent from international destinations to Qatar (https://www.twilio.com/sms/pricing/qa). Ooredoo therefore believes that this CRA's rate regulation is misplaced and instead asks the CRA to focus its efforts on supporting its own stakeholders so that they can continue to invest and support the realization of national goals.</p>		
<p>Eliminating the SMS rate regulation supports the telecoms sector by making it more costly for fraudsters to reach consumers which in turn protects them from harm. It also allows Service Providers to grow revenues from legitimate uses of bulk SMS to continue to invest in the growth of the sector.</p>	Ooredoo	Concerning the elimination of the SMS rate regulation, please refer above for CRA's position in this respect.

⁴ For further details on issues related to SMS termination rates related arbitrage please refer to the attached GSMA Official Document FS 12 - A2P SMS Bypass – Motivations, Detection and Mitigation stating: **“3.2.4 SPAM and malicious content.** The use of low-cost A2P SMS bypass routes can result in that traffic avoiding the spam controls implemented in the network that are used to ensure a high level of subscriber experience from A2P messaging. This can result in unsolicited or malicious messages reaching subscribers which cannot be stopped by the operator.” **“3.3 Fraud Impact on Operators and Customers.** The A2P SMS bypass channels described in section 5 can be used to distribute SMS spam and malicious content that may directly or indirectly result in fraud losses for mobile operators and their subscribers. Bypass channels are attractive to spammers and grey route providers because they may avoid any controls from the mobile operators and interconnect providers. They are also often more easily accessible due to the low cost to deliver such messages.”

Key responses	Respondent	CRA's response
<p>The CRA proposes the glide path for SMS with an overall drop of 79% in three years after a 90% drop between 2017 and 2020.</p> <p>Vodafone Qatar does not support such a further drastic cut. These proposed rates would set Qatar further out of line with benchmarks.</p>  <p>Source BEREK, Termination rates at European level January 2019</p> <p>Vodafone Qatar's position is for termination rates for SMS to decline at a more reasonable pace for the next regulatory period.</p>	Vodafone	<p>Concerning the level of proposed rates and their alignment with the international practice, the CRA refers the service provider to previous comments.</p> <p>In summary, the CRA has decided to keep the current applicable charge in 2020, by value of 0.0020⁵ QAR/message, for the regulation of messaging services also in the future period 2021-2023.</p>
<p>Vodafone Qatar also notes that the legal instrument⁶ on which the regulation of SMS is based makes no mention of SMS or MMS services. In its definition of the relevant product markets and analysis of competition therein, the CRA</p>	Vodafone	<p>Concerning the regulation of the messaging termination services, the CRA notes that Vodafone's statement is equivalent to that raised by Ooredoo when</p>

⁵ The approved charge in 2020 has been calculated as the weighted average of approved tariffs for messaging services (SMS and MMS).

⁶ See Notice and Orders, Designation of Ooredoo Q.S.C. and Vodafone Qatar Q.S.C. as Dominant Services Provided in Specified Relevant Markets, 9 May 2016. Please also refer to accompanying Economic Analysis and Response Document.

Key responses	Respondent	CRA's response
has not included any reference to SMS and MMS services. It has not specified that SMS and MMS are parts of any relevant markets and has not analysed competitive conditions.		answering to this same question. Thus, please refer above for CRA's position in this regard.
Question # 8 Do stakeholders agree with the above Option for the Outgoing International Call Conveyance?		
Ooredoo agrees with the CRA proposal in this respect.	Ooredoo	The CRA acknowledges Ooredoo's support for CRA's proposed approach. Therefore, this topic will not be consulted on again in the Second Consultation Document.
This service is not currently used.	Vodafone	The CRA acknowledges Vodafone's comment. Even if this service is not currently used, in case of introduction of a third service provider, the CRA notes that current SPs will have the obligation to provide this service to the new entrant.
Question # 9 Do stakeholders agree with the CRA's proposed Wholesale Charge for Interconnection Links?		
Ooredoo agrees with the CRA proposal for this service.	Ooredoo	The CRA acknowledges Ooredoo's support for CRA's proposal. Therefore, this topic will not be consulted on again in the Second Consultation Document.
Vodafone Qatar supports the proposals of the CRA for this product for which there is limited scope for competitive pressures at this stage and which is a direct input cost for competitors to Ooredoo.	Vodafone	The CRA acknowledges Vodafone's support for CRA's proposal. Therefore, this topic will not be consulted on again in the Second Consultation Document.
We note that one-off charges do not appear to bear any relation with underlying cost: for an STM1 the connection charge amount to QAR 315,000.	Vodafone	The CRA notes that the one-off charge has not been modified with respect to the previous applicable charge.

Key responses	Respondent	CRA's response
Whilst we do not anticipate that new links will be required, we do not agree with those one-off charges. No details have been provided regarding the activities and associated costs to justify the QAR 315,00 charge.		In addition, the CRA outlines that the connection fee is defined per link, what means that the connection of a STM1 link is also QAR 5,000, equivalent to that of a E1 link, as the charge is not capacity dependent (i.e. the cost of the STM1 does not need to be multiplied by 63 E1).
As Vodafone Qatar and Ooredoo move away from legacy technologies for interconnection links the charging model will need to be revised.	Vodafone	The CRA outlines that the future scenario raised by Vodafone will be assessed in due course upon request to include additional services in the relevant reference wholesale offers
Question # 10 Do stakeholders agree with the CRA's proposed Wholesale Charge for recurrent charges of SDH Transmission Links?		
Ooredoo agrees with the CRA proposal for this service.	Ooredoo	The CRA acknowledges Ooredoo's support for CRA's proposal. Therefore, this topic will not be consulted on again in the Second Consultation Document.
For the next price control review, the CRA is proposing one-off price decreases for links up to STM1 capacity (between -74% to -7%) and substantial increases (between +21% to +175%) for higher speed links. While Vodafone Qatar does expect major changes to the number of SDH leased lines we procure from Ooredoo in the coming years, we are concerned by the (apparent) lack of coherence with the price changes (with both substantial increases and decreases) proposed. We therefore kindly request some further clarity regarding the CRA proposals.	Vodafone	As explained by the CRA in the First Consultation Document, the main reason behind the variations mentioned by Vodafone has been the change in the source of data employed for the estimation of the wholesale charges of transmission links, from the benchmarking exercise used in the previous proceeding, to Ooredoo's RAS used in the current proceeding. Also, the benchmark used in the past is now outdated and cannot be considered anymore as valid reference to compare the cost-oriented prices set by the CRA. Considering also the fact that no major opposition has been observed from Vodafone, this topic will not be consulted on again in the Second Consultation Document.

Key responses	Respondent	CRA's response
Question # 11 Do stakeholders agree with the CRA's proposed Wholesale Charge for recurrent charges of Ethernet Transmission Links?		
<p>We cannot agree with the approach chosen by the CRA in this section to determine the wholesale charges for Ethernet Transmission links. According to the CRA's MDDD 2016 Order and Decision this service must be split to tail end and trunk components. The wholesale charges must be set accordingly to reflect the definition and relevant network components used by these services. The CRA has completely ignored this principle in their proposal of the wholesale charges for this service. We also note that Table 15 values must be a result of a typo as they are unrealistically low. However, in the light of the above comment this table and the section as such should be dismissed.</p>	Ooredoo	<p>When looking at the situation in Qatar, it is true that no alternative service provider has shown interest in wholesale Ethernet Transmission Links in the past years, and based on Vodafone's responses (see point below), the same situation is expected to continue in the upcoming period.</p> <p>Taking this into account as well as the difficulty when trying to set a cost-oriented price based on RAS data for a non-existing service (as explained in the First Consultation Document), the CRA has alternatively opted in the Second Consultation Document for keeping stable the current rates for the next 3 years.</p>
<p>The CRA proposed charges for Ethernet transmission links are manifestly incorrect. For instance the monthly charge for a 1 Gbps is set at QAR 54 which must be below the relevant cost.</p> <p>Vodafone Qatar, as an investor in fixed line infrastructure who is deploying fibre, does not anticipate to make use of such wholesale services. Hence, we do not see the merit in setting a wholesale price for a service which does not exist and for which there is no demand.</p> <p>However, we are concerned that the CRA is not able to price a wholesale service based on the retail equivalent service using the regulatory accounts while at the same time being actively engaged in approving retail price changes on the basis of information from the regulatory accounts. This paradox contributes to calling into question the reliability and veracity of the</p>	Vodafone	<p>Regarding the wholesale charges proposed for Ethernet Transmission Links, the CRA refers Vodafone to the responses given in the previous line to Ooredoo about this same subject.</p> <p>In summary, the CRA has opted in the Second Consultation Document for keeping stable the current rates for the next 3 years.</p> <p>On the comments on the reliability and veracity of Ooredoo's RAS and assessments made by the CRA, the CRA notes that, as also explained in the First Consultation Document, this service does not exist in the RAS as it was not been provided on a wholesale basis, what implies an added difficulty when trying to set a cost-oriented price for a non-existing service.</p>

Key responses	Respondent	CRA's response
regulatory accounts of Ooredoo and by extension the CRA's approval of retail price changes made on this basis.		
Question # 12 Do stakeholders agree with the CRA's proposed Wholesale Charge for the Transmission Links connection fees?		
Ooredoo agrees with the CRA proposal for this service as it maintains current rates for next 3 years.	Ooredoo	The CRA acknowledges Ooredoo's support for CRA's proposal. Therefore, this topic will not be consulted on again in the Second Consultation Document.
The CRA is proposing to maintain the connection charge at its current level for the coming three years. This charge is immaterial to Vodafone Qatar as we do not anticipate the provisioning of any new link in the coming three years.	Vodafone	The CRA acknowledges Vodafone's comments. Therefore, this topic will not be consulted on again in the Second Consultation Document.
Question # 13 Do stakeholders agree with the CRA's proposed Wholesale Charge for the Duct Access product?		
Ooredoo agrees with the CRA proposal for this service as it maintains current rates for next 3 years.	Ooredoo	The CRA acknowledges Ooredoo's support for CRA's proposal. Therefore, this topic will not be consulted on again in the Second Consultation Document.
The CRA is proposing to maintain the current monthly rental charge for duct at QAR 0.12 per cm2/meter for the period 2021 to 2023. This charge has not changed since 2017. We note that the pricing proposal of this economic bottleneck to unlock competition in fixed is very conservative given that the underlying cost must have declined since 2017 and can be expected to continue to decline. Indeed, the capital employed and return on capital should decrease year-on-year through the normal depreciation process. In turn, this should lead to a	Vodafone	The CRA notes that Vodafone is not opposed to keep these charges stable. Therefore, this topic will not be consulted on again in the Second Consultation Document. On Vodafone's comments, the CRA outlines that the trend of unit network costs in the RAS is not so clear to justify a reduction. While, a normal depreciation is observed, operating costs surge, due to continuous works on the ducts (e.g. diversions).

Key responses	Respondent	CRA's response
reduction in the annual cost as any additions year-on-year should be small relative to the asset base.		
Qnbn is Ok with the direction	Qnbn	The CRA acknowledges Qnbn's support for CRA's proposal. Therefore, this topic will not be consulted on again in the Second Consultation Document.
Question # 14 Do stakeholders agree with the CRA's proposed Wholesale Charge for "Facility Hosting"?		
Ooredoo agrees with the CRA proposal for this service as it maintains current rates for next 3 years.	Ooredoo	The CRA acknowledges Ooredoo's support for CRA's proposal. Therefore, this topic will not be consulted on again in the Second Consultation Document.
Regarding the charge for facility hosting, the CRA is proposing to maintain it at the current level of (1) for the next three years in line with the pricing of duct rental. This charge has also not changed since 2017. Please refer to our comments in response to Question 13 regarding the duct charge.	Vodafone	The CRA notes that Vodafone is not opposed to keep these charges stable. Therefore, this topic will not be consulted on again in the Second Consultation Document. On Vodafone's comments, please refer to CRA's comments in Question #13.
Qnbn is Ok with the direction	Qnbn	The CRA acknowledges Qnbn's support for CRA's proposal. Therefore, this topic will not be consulted on again in the Second Consultation Document.
Question # 15 Do stakeholders agree with the CRA's proposed cost per hour applicable to "Supervision, Field Feasibility Analysis, GIS update, and Ad-hoc engineering support products?"		
Ooredoo agrees with the CRA proposal for this service as it maintains current rates for next 3 years.	Ooredoo	The CRA notes that, contrary to Ooredoo's statement, CRA's proposal does not consist in maintaining the current rates for the next 3 years but to decrease the current rate from 375 to 321 QAR/hour, based on the average cost per hour

Key responses	Respondent	CRA's response
		extracted from data request for AAR and RAR services, as explained in the First Consultation Document.
<p>The CRA's proposal is to lower the hourly rate from QAR 375 down to QAR 321 (-14%).</p> <p>This is a significant expenditure for Vodafone Qatar given Ooredoo's requirement for supervision of all our network deployment under the Reference Infrastructure Access Offer ("RIAO"). Indeed, between April 2018 and December 2019, we have paid QAR 100 of supervision fees to Ooredoo, this represents 10 working days of site supervision. We support the CRA's proposal of reducing and capping this charge.</p>	Vodafone	The CRA acknowledges Vodafone's support for CRA's proposal.
Qnbn is OK with the direction, however, reserves the right to make changes to the charges in case any of the parameters change in the market.	Qnbn	<p>The CRA acknowledges Qnbn's support for CRA's proposal.</p> <p>Qnbn (or other Access Providers) can set a different charge for its own Standard Access Offer, upon approval from the CRA.</p>
Question # 16 Do stakeholders agree with the CRA's proposed Wholesale Charges for AAR, RAR and AR services?		
<p>Ooredoo agrees with the CRA proposal.</p> <p>However, we see a need to comment on the statements raised by VFQ and QNBN with respect to the duct access services provided by Ooredoo that the CRA included in the chapter 6.4 of Consultation Document.</p> <p>Regarding the VFQ comments in paragraph 231.1 we have following observations.</p> <p>- <u>For point (a)</u>: Ooredoo can only provide the information which is available in the GIS system. It is VFQ's responsibility to perform a site survey to validate the accuracy of the information prior to planning their fiber rollout implementation.</p>	Ooredoo	<p>The CRA acknowledges Ooredoo's support for CRA's proposal.</p> <p>On the comments raised by Ooredoo related to the statements made by Vodafone and QNBN, the CRA notes that these comments are out of the scope of this proceeding, which is focused on the setting of wholesale charges for the period 2021, 2022 and 2023.</p> <p>Therefore, this topic will not be consulted on again in the Second Consultation Document.</p>

Key responses	Respondent	CRA's response
<p>- <u>For point (b) and (c)</u>: The automatic online IT tool proposed by VFQ will not help mitigate the data inconsistency as the information available in the system will still not reflect the very latest situation in the field. It is the nature of infrastructure rollout that there will always be a gap between the records in the system and the deployed elements in the field, especially in the country like Qatar, which infrastructure is undergoing rapid development. This can only be mitigated by site survey. This issue was raised early on and it was mitigated by agreeing with VFQ that a site survey following the receipt of the GIS records is essential to clear any inconsistency.</p> <p>Regarding the QNBN claim stated in the paragraph 231.2 '...that the renting of Ooredoo's duct is currently stopped because Ooredoo is rejecting all proposals to resolve the IAA issues' Ooredoo has the following comment. The actual situation is to the contrary of the QNBN claim. Ooredoo and QNBN with the CRA direction have discussed the matter of resolving the IAA issue. However, QNBN has not shown their willingness to sort out the outstanding IAA issues as agreed, which are preventing the execution of a RIAO based agreement.</p>		
<p>Vodafone Qatar agrees with the CRA and submits that the AAR, RAR and AR charges should remain the same for the next three years. Since signing the Passive Infrastructure Access Agreement with Ooredoo in April 2018, Vodafone Qatar has rolled out fibre on the basis of Ooredoo's RIAO on a significant scale. We believe that the structure and level of the charges for AAR, RAR and AR remain appropriate for the coming price control period during which Vodafone Qatar's roll out is expected to continue.</p>	Vodafone	<p>The CRA acknowledges Vodafone's support for CRA's proposal.</p> <p>Therefore, this topic will not be consulted on again in the Second Consultation Document.</p>

Key responses	Respondent	CRA's response
Qnbn would like CRA to reduce these charges and we have also provided our cost model in this respect, however, CRA has kept the charges unchanged. We request CRA to review and reduce these charges.	Qnbn	<p>The CRA has reviewed both the cost model submitted by Qnbn and the one delivered by Ooredoo. Inputs used by Qnbn and Ooredoo differ significantly in terms of minutes, cost per hour and tasks to be performed. However, the charges proposed by Qnbn are not very far from those proposed by Ooredoo (12% on average). While the CRA reserves the right to further investigate the matter in the future (e.g. audit of Ooredoo's processes), the difference is acceptable given the high number of parameter forecasted / estimated by the SPs. Therefore, the CRA confirms its position to keep the one-off charge unchanged.</p> <p>Therefore, this topic will not be consulted on again in the Second Consultation Document.</p>
Question # 17 Do stakeholders agree with the CRA's proposed approach for the Successful and Unsuccessful Blockage Clearance products?		
Ooredoo agrees with the CRA proposal for this service as it maintains current rates for next 3 years.	Ooredoo	<p>The CRA acknowledges Ooredoo's support for CRA's proposal.</p> <p>Therefore, this topic will not be consulted on again in the Second Consultation Document.</p>
Vodafone Qatar has no objection to continue with the time and material approach for the successful and unsuccessful blockage clearance products with documented costs, although we note that the cost may not be reflective of an efficient operation.	Vodafone	<p>The CRA acknowledges Vodafone's support for CRA's proposal.</p> <p>On the comment about the potential inefficiency of the cost, Vodafone has not provided any supporting information that reinforces this fact.</p> <p>Therefore, this topic will not be consulted on again in the Second Consultation Document.</p>
The Access Seeker's cost model becomes economically unattractive in cases where the Access Provider claims that they have worked on a blockage but remains blocked. Qnbn would like CRA to only apply charges if the blockage is	Qnbn	<p>The CRA is not aware of any significant issues on this matter. Also, Qnbn did not provide information to substantiate the significance of its claim.</p>

Key responses	Respondent	CRA's response
cleared. Unsuccessful blockages should not be charged as the Access Seeker will not get any benefit if the blockage clearance is unsuccessful.		Therefore, this topic will not be consulted on again in the Second Consultation Document.
Question # 18 Do stakeholders agree with the CRA's proposed approach for Transportation charge product?		
Ooredoo agrees with the CRA proposal.	Ooredoo	The CRA acknowledges Ooredoo's support for CRA's proposal. Therefore, this topic will not be consulted on again in the Second Consultation Document.
Vodafone Qatar does not have a strong objection with this charge, set at QAR 150 / vehicle / day since 2017.	Vodafone	The CRA acknowledges Vodafone's support for CRA's proposal. Therefore, this topic will not be consulted on again in the Second Consultation Document.
Qnbn is Ok with the direction.	Qnbn	The CRA acknowledges Qnbn's support for CRA's proposal. Therefore, this topic will not be consulted on again in the Second Consultation Document.
Question # 19 Do stakeholders agree with the CRA's proposed approach for the Miscellaneous Expenses product?		
Ooredoo agrees with the CRA proposal.	Ooredoo	The CRA acknowledges Ooredoo's support for CRA's proposal. Therefore, this topic will not be consulted on again in the Second Consultation Document.
Vodafone Qatar has no objection to continue with the time and material approach for miscellaneous expenses with documented costs, although we note that the cost may not be reflective of an efficient operation.	Vodafone	The CRA acknowledges Vodafone's support for CRA's proposal. On the comment about the potential inefficiency of the cost, Vodafone has not provided any supporting information that reinforces this fact. Therefore, this topic will not be consulted on again in the Second Consultation Document.
Qnbn is Ok with the direction.	Qnbn	The CRA acknowledges Qnbn's support for CRA's proposal.

Key responses	Respondent	CRA's response
		Therefore, this topic will not be consulted on again in the Second Consultation Document.
Question # 20 Do stakeholders agree with the CRA's proposed review clause?		
Ooredoo agrees with the CRA proposal.	Ooredoo	The CRA acknowledges Ooredoo's support for CRA's proposal. Therefore, this topic will not be consulted on again in the Second Consultation Document.
For the avoidance of doubt, in the event that a review of wholesale charges is approved by the CRA, any changes should be subject to consultation with the SPs.	Vodafone	The CRA appreciates Vodafone's comment and confirms that a wholesale charge will not be modified without prior consultation with affected service providers. Therefore, this topic will not be consulted on again in the Second Consultation Document.
Qnbn does NOT agree with it, as this clause is discriminatory and ONLY provides Ooredoo and VFQ the right to request changes to wholesale charges subject to a material change in network costs in relation to the relevant services. Qnbn now commands a sizeable network and should have the same rights as that of other service providers. We WILL NOT BE ABLE to accept this clause. Please add Qnbn to this clause as a party that has the right to request changes to the wholesale charges subject to material changes in the network costs in relation to the relevant services.	Qnbn	The RIAO includes specific clauses allowing the Access Seeker to trigger a review process of all terms i.e. economic and non-economic terms. In case the parties are not able to reach an agreement, the CRA will intervene and set the dispute. For this reason, there is no need to include Qnbn to this review clause. Therefore, this topic will not be consulted on again in the Second Consultation Document.
Other general comments		

Key responses	Respondent	CRA's response
While cost based approach for setting wholesale charges have been widely adopted globally, we note that regulatory agencies now recognize a need for moving away from this principle in order to provide incentives to SP's to invest into new network infrastructure ⁷ . We recommend that the CRA also abstain from cost based wholesale rates setting unless they can be supported by a robust net benefit assessment, which demonstrates the long term viability of sustainable investment and innovation in Qatar's telecom sector.	Ooredoo	The CRA indicates that the cost orientation is an obligation imposed by the Qatari Telecommunication's Law in its Article 29 and hence it is not subject to discussion in this consultation process. Also, as noted above, the cost of capital has been set at the highest possible level to incentivize the investments.
Telecommunication market revenues in Qatar have declined since 2016 while the requirement for investment intensity has increased over time as demonstrated by the CRA Qatar Telecommunication Market report no. 1/2020. The regulation of the wholesale rates has also contributed to the total market revenue drop despite the fact that the CRA tends to marginalize the revenue impact of this regulation ⁸ . It is incongruous of the CRA claim that wholesale revenues represent small part of overall SP's revenues ⁹ as of 2019 after the CRA has effectively slashed the key wholesale rates by more than 90% since 2015. The economic situation, domestic and international, and outlook remains gloomy and puts SP's in Qatar under the pressure of further declining revenues, increasing costs and uncertainty of the future returns on	Ooredoo	The CRA has a broad mandate and multiple objectives to reach. In taking its decisions, the CRA has to balance the overarching goal of economic diversification, the interests of the service providers and those of the customers. It is quite clear that the interests of the service providers (i.e. high revenues and profit with low investments and costs) are often different from the interests of the public (i.e. innovation, low prices, high quality). Article 19 (1) of the Telecommunication Law requires the CRA to set low Interconnection and Access Charges, which typically lead to lower retail tariffs and higher demand levels, favoring the customers and the development of the Qatari economy. However, other CRA's objectives – such as favoring the investments in infrastructures in Qatar - would suggest the CRA to set higher wholesale charges.

⁷ See e.g. OFCOM's document "Promoting competition and investment in fiber networks: Wholesale Fixed Telecoms Market Review 2021-26" available at https://www.ofcom.org.uk/data/assets/pdf_file/0030/188814/wfmr-volume-4-pricing-remedies.pdf

⁸ See e.g. Vodafone Qatar press release dated 8 November 2016 "Total revenue for the quarter was QAR 499m flat QoQ and down 5.4% from last year primarily due to conscious decision to move way from low margin business and reduction in regulated telecom rates." <https://www.vodafone.qa/en/investor-relations/media/document/vqpressreleaseq2hy17results-english-finalpdf2.pdf>




⁹ Paragraph 8 of the Consultation Document.

Key responses	Respondent	CRA's response
<p>investments. Both COVID-19 pandemic and related drop in prices of nonrenewable energy leads to shrinking of Qatar's economy and hence sources of income for telecom SP's.</p> <p>[...]</p> <p>In addition to these sector destroying CRA regulatory requirements, SP's in Qatar face significant infrastructure investment costs given the FIFA requirements for the quality of mobile service to be delivered by SP's during the FIFA World Cup in 2022. Given COVID-19 pandemic related restrictions on organization of mass events and cautious attitude of general public toward international travel and attendance of such events, SP's in Qatar face significant uncertainty with respect to the recovery of the costs incurred in connection to catering for this unique event to showcase Qatar.</p> <p>[...]</p> <p>This situation is further aggravated by the uncertainty of future investment cost recovery linked to 2020 FIFA World Cup. Ooredoo therefore urges the CRA to realign its wholesale charges regulation with the objectives articulated in the Article 4(4) of Telecommunication Law that require the CRA to "...provide advanced, innovative and quality services at affordable prices to meet the needs of the public".</p>		<p>To balance all the various objectives, the CRA:</p> <ul style="list-style-type: none"> • Has relied on objective data and information (e.g. the Audited RAS of Ooredoo and other information submitted by the SPs); • Has been very conservative when forecasting costs; • Has allowed a proper return on investments by applying a Cost of Capital which was set at the highest possible level of the calculated range. <p>The CRA is aware that significant reductions are proposed for some services. Therefore, in order to smooth the potential impact of the new wholesale rates, a mechanism of glidepath has been proposed, being the approach generally adopted in the international practice when current applicable charges are significantly different from the new cost-oriented charges.</p> <p>Finally, even if the CRA is perfectly aware of some of the situations currently affecting the Qatari telecom environment (Covid-19, 2022 FIFA World Cup, decline of telecom revenues, etc.), the CRA reiterates its position that the impact on revenues of the reductions of FTR and MTR is not significant (i.e. around ✂ of impact is estimated in Ooredoo's revenues for the years 2021-2023).</p> <p>Also, the impact on the margins of the service providers is negligible. This is explained because, when looking at the mobile termination service, which represent the vast majority of the Qatari service providers' wholesale revenues (more than ✂✂), being this a two-way interconnection service, wholesale costs incurred by the industry are netted. Given that the traffic for mobile calls is relatively balanced between Ooredoo (✂✂) and Vodafone (✂✂), the reduction in revenues would equally be reflected in the incurred costs, without substantial impact on the profit.</p> <p>In light of the above, the CRA is of the view that this reduction is not likely to introduce any damage on the operator's performance.</p>

Key responses	Respondent	CRA's response
		Regarding Ooredoo's statement about the fact that it is incongruous that the CRA claims that wholesale revenues represent a small part of overall service providers' revenues after the CRA has effectively slashed the key wholesale rates in the last years, the CRA notes that the weight of wholesale revenues in Qatari service providers was already reduced before the CRA's intervention. Thus, the CRA will set the Wholesale Charges for the calendar years 2021, 2022 and 2023 striking a balanced solution among the various conflicting goals.
The CRA's proposals on wholesale charges will have a significant impact on the telecommunications sector. One of the key challenges facing the telecommunications sector that the CRA should take into account is revenue, profitability and investment going forward. The CRA should also bear in mind the effect of the on-going COVID-19 pandemic, investment and operational efforts required for the 2022 World Cup, and macro-economic uncertainty after the 2022 World Cup, which calls for caution when the CRA set charges. Sector revenues have declined in the past few years (-4.2% in 2019) with limited options to grow in the telecommunications space while there are extremely high expectations in terms of quality of service ,network innovation and investment (e.g. nationwide coverage of 5G by 2020 and widespread FTTH networks). This requires a significant level of investment (Vodafone Qatar has invested 23% and 30% of its revenues in 2018 and 2019 respectively) and Vodafone Qatar also has to balance the needs of local shareholders to be able to make a reasonable return while ensuring that consumers and businesses benefit from the advanced capabilities of networks.	Vodafone	The CRA refers Vodafone to the responses given in the previous line to Ooredoo in this same subject. Recent financial statements published by Vodafone show that the SP is coping well with the pandemic.

Key responses	Respondent	CRA's response
<p>For planning purposes, Vodafone Qatar requests the CRA to allow a period of 1 to 2 months from the date of issuance of the final decision before the new wholesale rates become applicable.</p> <p>To remove uncertainty, Vodafone Qatar requests that the CRA clarify in its final decision that regulated charges for the last year shall remain in place beyond the three-year time period in the event that rates are not set before the end of the three-year period</p>	Vodafone	The CRA agrees with Vodafone's suggestion and will include a statement in this regard in the final decision.

NON-CONFIDENTIAL VERSION

 Confidential to Ooredoo
 Confidential to Qnbn
 Confidential to Vodafone

SECOND CONSULTATION ON SETTING THE CHARGES APPLICABLE TO WHOLESALE SERVICES FOR THE YEARS 2021, 2022 AND 2023

December 3, 2020


CRARAC 2020/12/03-B

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1 Background and Summary

1. On May 8, 2018, the CRA approved the Wholesale Charges applicable for the years 2018, 2019 and 2020 to the Products included in the Reference Interconnection Offers (“RIO”) of Ooredoo Q.S.C. (“Ooredoo”) and Vodafone Qatar Q.S.C. (“Vodafone”), in the Reference Transmission Offer (“RTO”) of Ooredoo and in the Reference Infrastructure Access Offer for Ducts of Ooredoo (“RIO”)¹.
2. On February 4, 2020², the CRA kicked off this proceeding aimed to set the Wholesale Charges applicable for the years 2021, 2022 and 2023 (“Wholesale Charges”).
3. On February 25, 2020, the CRA held an Industry Meeting with Ooredoo, Qnbn and Vodafone (“Service Providers” or “SPs”) to present the process of setting Wholesale Charges. In this meeting, the CRA presented the list of wholesale services subject to price control and described the methodological framework for setting such Wholesale Charges.
4. On March 12, 2020, the CRA sent to SPs a Data Request for costing the Wholesale Products, along with an illustrative example of the cost model developed by the CRA to perform forecasts and cost calculations.
5. On May 21, 2020, after granting a time extension to deliver the information, the CRA received SPs’ responses to the Data Request.
6. On July 12, 2020, CRA issued the First Consultation Document (“First CD”) consulting Qatari SPs about Wholesale Charges proposed for years 2021, 2022 and 2023.
7. Qatari SPs responded to the First CD by September 30, 2020, expressing their positions in relation to the Wholesale Charges proposed by the CRA. The list of comments received from Qatari SPs as well as CRA’s response for each of them are summarized in a separate document “Response document to comments raised by Service Providers to CRA’s First Consultation” (“RD”).
8. After having assessed the responses provided by the Qatari SPs to the First CD, the CRA consults again about the Wholesale Charges proposed for years 2021, 2022 and 2023 in this Second Consultation Document (“Second CD”).
9. The CRA estimates that the regulated Wholesale Charges result in total domestic wholesale revenues of around QAR  million per year³.



 and 

¹ CRARAC 2018/05/08: “Order to Ooredoo Q.P.S.C. and Vodafone Qatar Q.P.S.C on charges applicable to wholesale services for years 2018, 2019 and 2020”

² Ref, CRA Letter OB/RA/TC/012/2020

³ For the Interconnection Traffic Services and Interconnection and Transmission Links, revenues have been calculated as volume 2020 forecasted by Ooredoo and Vodafone times the current wholesale charges; for Ducts data have been sourced from Ooredoo’s RAS FY2018.

Figure 1 National Wholesale Revenues – CRA's estimate based on SPs' data [SP data, CRA calculation]

10. As shown in the Figure above:
- 10.1 Mobile Termination revenues account for more than  of the total National Wholesale Revenues;
- 10.2 On the balance of wholesale payments between Ooredoo and Vodafone, Ooredoo is slightly receiving larger payoffs because of a higher amount of mobile minutes and SMS terminated in its network; and
- 10.3 The regulated Wholesale Services represent around  of total industry revenues (around QAR 9.5 billion⁴).

Therefore, due to the small size of regulated wholesale services when comparing with total industry revenues, changes in Wholesale Charges are not expected to affect significantly the overall industry's income, profitability and its investment capacity.

⁴ According to financial statements of Ooredoo and Vodafone in FY2019.

2 Instructions for responding to this Consultation

2.1 Consultation Procedures

11. In keeping with open and transparent regulatory processes, the CRA herewith consults on the Setting of Wholesale Charges.
12. SPs are invited to provide their views and comments on the consultation questions.
13. To the extent possible, submissions must be supported by relevant evidence.
14. If a Service Provider is in disagreement with the CRA's findings, the Service Provider is requested to provide:
 - 14.1 The reasons for disagreement with the CRA's findings;
 - 14.2 Its alternative suggestion in a clear and concise manner;
 - 14.3 Wholesale Charges proposed according to its alternative methodology;
 - 14.4 The calculations, models or estimations which lead to such Wholesale Charges, in an editable format which allows the CRA to review and validate the formulas (such as Microsoft Excel); and
 - 14.5 The assumptions, relevant justifications and references of all data sources behind any alternative calculations.
15. Any submissions received in response to this Consultation Document ("CD") will be carefully considered by the CRA. Nothing included in this CD is final or binding. However, the CRA is under no obligation to adopt or implement any comments or proposals submitted.
16. Comments should be submitted by email to fmassone@cra.gov.qa, copying in pbystricky@cra.gov.qa, by the date stated on the front cover. The subject reference in the email should be stated as Consultation on "Setting Wholesale Charges".
17. It is not necessary to provide a hard copy in addition to the soft copy sent by email.
18. Deadline for SPs to submit their comment is indicated on the cover page.

2.2 Publication of comments

19. In the interests of transparency and public accountability, the CRA intends to publish the submissions to this consultation on its website at www.cra.qa.
20. All submissions will be processed and treated as non-confidential unless confidential treatment of all or parts of a response has been requested.
21. In order to claim confidentiality for information in submissions that stakeholders regard as business secrets or otherwise confidential, stakeholders must provide a non-

confidential version of such documents in which the information considered confidential is blacked out. This “blackened out” portion/s should be contained in square brackets. From the non-confidential version, it has to be clear where information has been deleted. To understand where redactions have been made, stakeholders must add indications such as “business secret”, “confidential” or “confidential information”.

22. A comprehensive justification must be provided for each and every part of the submission required to be treated as confidential. Furthermore, confidentiality cannot be claimed for the entire or whole sections of the document as it is normally possible to protect confidential information with limited redactions.
23. While the CRA will endeavor to respect the wishes of respondents, in all instances the decision to publish responses in full, in part or not at all remains at the sole discretion of the CRA.
24. By making submissions to the CRA in this consultation, respondents will be deemed to have waived all copyrights that may apply to intellectual property contained therein.
25. For more clarification concerning this consultation, please contact Francesco Massone (fmassone@cra.gov.qa).

3 Legal Basis

26. The following legal provisions, which are not exhaustive, provide the legal basis for the CRA to set the Wholesale Charges:

3.1 Emiri Decision No. (42) of 2014 Establishing the Communications Regulatory Authority

27. Article 4 of the Emiri Decision makes the CRA responsible for regulating the communications information technology and the post sector, as well as access to digital media, with the aim of providing advanced and reliable telecommunication services across the State.
28. Article 4(1) empowers the CRA to set Regulatory frameworks for the communications, information technology, the post sector, and access to digital media, in line with the general policies of the sector and to enable optimum performance.
29. Article 4(2) charges the CRA with actions finalized to encourage competition and prohibit or minimize anti-competitive practices, prevent misuse by any person or entity of its market dominance position, and take all necessary measures to achieve this.
30. Article 4(4) requires the CRA to protect the rights and interests of the public and Service Providers in the market, promote transparency and provide advanced, innovative and quality services at affordable prices to meet the needs of the public.
31. Article 4(6) make the CRA responsible for ensuring interconnection and access for all users by setting conditions for effective interconnection and access.
32. Article 15(2) empowers the CRA to develop appropriate Charge regulations, giving priority to the telecommunications market, or telecommunications services according to market requirements, and determine fees for retail and wholesale services.

3.2 Telecommunication Law 2006 (“Law”)

33. Article 25 provides that the CRA shall determine the rights and obligations of a Dominant Service Provider which include any requirements relating to the contents and publication of an interconnection reference offer and access agreements.
34. Article 28 states that Dominant Service Providers must submit to the CRA the offers for the Charges, prices and charges of the telecommunications services in the markets where they have been designated as dominant Service Providers and obtain the prior approval for them.
35. Article 29 provides that the Charge for telecommunications services provided by dominant Service Providers must be based on the cost of efficient service provision

and the Charge must not contain any excessive charges which result from the dominant position that the Service Provider enjoys. This Article also states that the CRA may issue decisions along with justifications to amend the Charges where it finds that they are not in line with the cost of the service provision, provided that such decision must prescribe the new Charge amount.

3.3 Executive By-Law for the Telecommunications Law 2009 (“By-Law”)

36. Article 6 empowers the CRA to issue legal instruments including Orders for the implementation of the provisions of the By-Law and the Law.
37. Article 50(1) provides that the CRA may require that interconnection or access charges of any Dominant Service Provider be subject to Article (29) of the Law and Articles 56, 57, 58 and 59 of this By-Law.
38. Article 54 of the By-Law prescribes that the CRA shall have the authority to review all Service Provider Charges, including wholesale and retail Charges, and to determine any requirements regarding Charges, their approval and publication, and the CRA may issue regulations or orders to regulate the Charges of Service Providers.
39. Article 56 requires that Charges that are subject to filing with and approval by the CRA shall enter into force only after they have been approved by a decision from the CRA.
40. In accord with Article 59 the CRA may require a Dominant Service Provider to prepare or participate in the development of a cost study of its telecommunications services if it determines that a cost study would be necessary in implementing any scheme of Charge or price regulation. Also, the CRA may require any Dominant Service Provider to prepare or participate in the development of a cost study for the purpose of determining the costs of providing different types of telecommunications services or the business activities of the Service Provider and the CRA shall decide on the cost categories, form, approach, procedures and timing of the cost study. The Service Provider shall comply with all requirements identified by the CRA; and shall file with the CRA the study. The CRA shall consult with the Service Provider required to file a cost study and any other interested parties before it makes an order requiring the study. The CRA may require a Dominant Service Provider to adopt identified cost accounting practices to facilitate cost studies or to achieve any other regulatory purpose under the Law or the By-Law, including the separation of accounts among different categories of business activities or services or as directed by the CRA.
41. Article 60 empowers the CRA to develop methods of price control and to consult Service Providers or any other interested parties. The CRA may issue orders or notices prescribing guidelines for the development of proposals for methods of price

control; or setting out directions for the further development of any proposal that has been filed with the CRA or any method of price control that is under development by the CRA. The CRA may also approve of a proposal or method of price control for implementation by one or more Service Providers. Following development and approval of any method of price control, the CRA may also issue regulations, rules, orders or notices required for its implementation.

3.4 Order on Charges applicable to Wholesale Services for years 2018, 2019 and 2020 (CRA 2018/05/08, dated May 08, 2018)

- 42. This Order set the Wholesale Charges for years 2018, 2019, 2020.
- 43. Costing and pricing principles defined in this Order are deemed valid for setting the Wholesale Charges for years 2021 onwards, if still applicable.

3.5 Wholesale Reference Offers approved by the CRA and privately agreed contracts

- 44. The Wholesale Charges are set for the Wholesale Products as defined in the:
 - 44.1 Reference Interconnection Offer ("RIO") of Ooredoo and Vodafone approved by the CRA on October 31, 2016 (CRA 2016/10/13);
 - 44.2 Reference Transmission Offer ("RTO") of Ooredoo approved by the CRA on October 31, 2016 (CRA 2016/10/13);
 - 44.3 Reference Infrastructure Access Offer for Duct of Ooredoo ("RIAO") approved by the CRA on June 22, 2016 (CRA 2016/06/22).
 - 44.4 Interconnection Agreement ("IA") between Ooredoo and Vodafone Qatar signed on March 15, 2009;
 - 44.5 Transmission Services Agreement ("TA") between Ooredoo and Vodafone Qatar signed on September 2, 2009;
 - 44.6 Infrastructure Access Agreement ("IAA") between Ooredoo and Qnbh signed on April 25, 2012.

3.6 Retail Tariff Instruction

- 45. Where applicable, the rules of the Retail Instruction ("RTI", ref. CRARAC 2018/11/15) are implemented to assess the relationship between the Wholesale and Retail Charges.

3.7 Cost of Capital

46. The Cost of Capital is set at 10.45% with the Decision and Order - Determination of the Cost of Capital for Service Providers (SPs) declared as having a Dominant Position, dated December 6, 2017 (ref. CRARAC 2017/12/06 A).
47. The Wholesale Charges proposed in this document and consulted on are based on this current Cost of Capital (10.45%).

4 Guiding Principles to set Wholesale Charges

48. SPs' responses to the First CD have generally supported CRA's proposal.
49. Therefore, the CRA confirms the guiding principles to set Wholesale Charges as expressed in the First CD and does not further consult on this topic. In summary, the Wholesale Charges:
 - 49.1 Must be Cost based;
 - 49.2 Must be Non-discriminatory;
 - 49.3 Must ensure Replicability.

5 Mechanisms available for setting Wholesale Charges

50. SPs' responses to the First CD have generally supported CRA's proposal.
51. Therefore, the CRA confirms that the Wholesale Charges will be set using the glide-path mechanism and does not further consult on this topic.

6 Wholesale Charges

6.1 Conveyance Services

52. Conveyance Services are offered by Ooredoo and VFQ and include:
 - 52.1 Fixed Call Termination Service to Geographic Numbers
 - 52.2 Mobile Call and Video-Call Termination Service
 - 52.3 Call Termination Service to Toll-Free Numbers (reverse charge);
 - 52.4 Call Termination Services to Numbers for Inbound International calls;
 - 52.5 Termination Emergency Services;
 - 52.6 Messaging Termination Services;
 - 52.7 Outgoing international call conveyance.
53. Ooredoo and Vodafone are both DSPs in the Relevant Markets to which these services belong. Hence, the following Wholesale Charges are applicable to both the above SPs.
54. The following sections analyze each service in detail.
55. Unless differently specified, costs include Network Costs and a 10% wholesale mark-up.

6.1.1 Fixed Call Termination Service to Geographic Numbers

56. In the First CD, the CRA proposed the setting of a unique termination rate for fixed and mobile termination services.
57. However, after having assessed the responses provided by the Qatari SPs to the First CD, the CRA has opted for proposing separated fixed and mobile termination wholesale charges in this Second CD. Detailed reasoning for this position is included in the RD.
58. This section presents CRA's new proposed wholesale charges for this service.

6.1.1.1 References available

6.1.1.1.1 Cost references

59. Cost references for this service are only available for Ooredoo.

Cost references for Ooredoo

60. The cost per unit has been calculated as per the general methodology (ref. section 4.1.1. of the First CD):
- 60.1 Network costs. As already expressed in the First CD, the CRA had observed the introduction of the IMS in Ooredoo's core network, used for the provision of both fixed and mobile voice traffic. In RAS FY2017, by the first time, Ooredoo created a network component to reflect the recent investment in the IMS network, focused on routing the voice traffic in the core network more efficiently. Due to the introduction of the IMS, the voice traffic is being migrated in Ooredoo's core network from traditional voice switching platforms to this all-IP network. The introduction of the IMS network has the following impacts:
 - (a) Cost allocation of IMS network in RAS FY2017 and FY2018 is not considering that IMS network will route all the voice traffic in the forthcoming years (from 2019 onwards).
In particular, in RAS FY2018, mobile on-net services were not being conveyed through the IMS network.
However, as per RAS FY2019, whose review process is currently on-going, Ooredoo started using the IMS network for also conveying on-net retail mobile traffic in 2019. Thus, in line with the forward-looking principle of the methodology followed by the CRA, the allocation of the IMS network has been adjusted to distribute its RAS FY2018 cost also to the retail mobile on-net service. For that purpose, the CRA has used the routing factor calculated for the mobile termination service since no differences in terms of usage could be expected

between both services. The allocation of the IMS network to the retail mobile on-net service has caused a decrease of the cost allocated to the rest of services, resulting in a decrease of ✂ of the cost of fixed and mobile termination services respectively.

- (b) The future usage of legacy voice switching platforms will decrease in the upcoming years given that all the voice traffic is expected to be conveyed by the IMS network. The CRA has considered that the treatment of legacy voice platforms used for fixed traffic should reflect this future evolution of the network. In particular, for fixed switching platforms, the CRA expects that traditional fixed voice switching network will be totally substituted by the IMS network, leading to the switch off of these platforms. In this context and given that the proceeding of setting wholesale charges follows a forward-looking and efficient approach, the CRA is of the view that traditional network components from fixed network shall not be considered when costing the wholesale fixed termination service. Therefore, the CRA has adjusted the network cost from RAS FY2018 by subtracting costs of traditional fixed voice switching platforms. In particular, the following elements have been subtracted:

- (i) CN02b - Universal Media Gateway (UMG)
- (ii) CN02c - Softswitch (SS).

- 60.2 Projections of network costs. The CRA has applied the average growth rate in 2017 and 2018, being a more conservative scenario than the CAGR of historical period 2013-2018.
- 60.3 With regards to costs forecast provided by Ooredoo, it has not been used since Ooredoo has not taken into account the correction mentioned in the previous points (i.e. Ooredoo has not considered a full migration towards the IMS network in the future).
- 60.4 In terms of volumes, the volume forecast has been based on the average of growth rate from last two years (FY2017 and FY2018), which is lower than the CAGR 2013-2018. With regards to Ooredoo's forecast, the CRA has decided not to use it, as Ooredoo has provided a very conservative approach in contrast to the historic trend observed in last years.
- 60.5 The trend to establish the cost per unit for the years 2022 and 2023 is based on previous trends employed for the period 2019-2021. This trend is already considering the full migration of fixed voice traffic to the IMS network.
61. The following table shows the unit cost of the fixed termination service, according to the above assumptions.

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Table 1 Fixed Call Termination Service to Geographic Numbers - costs (incl. 10% Wholesale Markup) [CRA calculation]

6.1.1.1.2 Proportionality Test

62. The table below shows that the PT is not passed.

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Table 2 Fixed Call Termination Service to Geographic Numbers – Proportionality Test [CRA calculation]

63. This means that the Network Cost for the retail product is lower than the equivalent wholesale product. The main reason for this is the current interconnection scheme established between Ooredoo and Vodafone through the mobile network. This interconnection scheme employs mobile network elements (e.g. mobile softswitch MSS) for the routing of fixed termination calls which are not being used by the retail fixed calls.

6.1.1.1.3 Price / Margin Squeeze Test

64. The PMS was not performed, as the retail national fixed-to-fixed calls are bundled with the line rental.

6.1.1.1.4 Benchmark

65. The graph below shows a benchmark on the FTR Charges currently applicable.

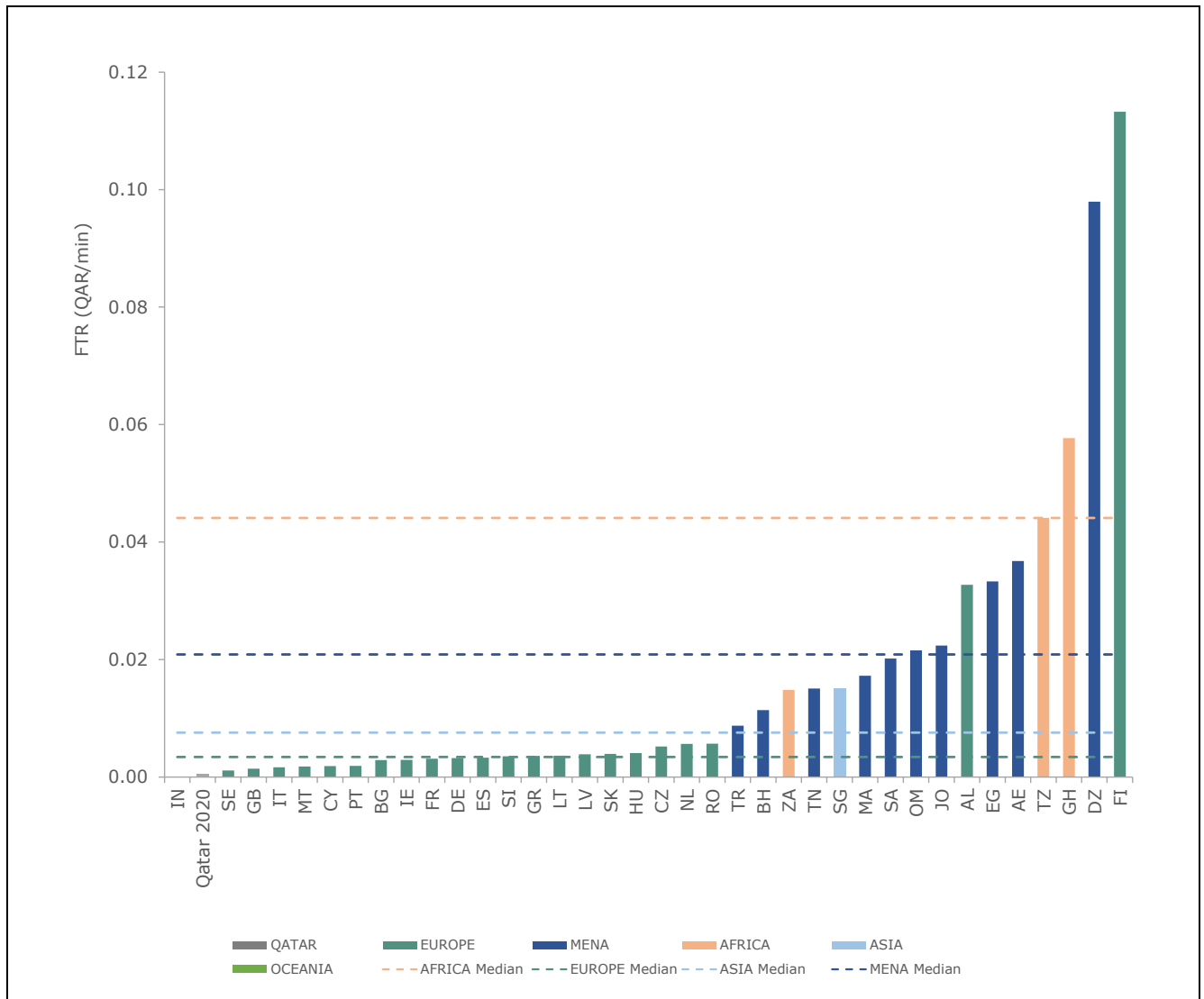


Figure 2 Fixed Call Termination Service to Geographic Numbers - Benchmark [CRA research]

66. Figure 2 shows that currently the FTR in Qatar is in the lowest range of those applied in the benchmarked countries, just only above the charge applied in India, which is currently using a Bill & Keep scheme.
67. Europe, which median FTR is currently 0.003423 QAR/min, presents generally the lowest FTRs because most of the European countries complied with the EC's recommendation and set the FTR following a pure LRIC approach. In addition, the EC is currently embarked on a process to set a common rate for all EU/EEA⁵ countries (i.e. Eurorate). Results from this process are likely to decrease the FTR currently applied in these countries⁶.
68. A continuous decreasing tendency for the FTR is usually observed all over the world. Countries with currently FTR approved for next years have presented a decreasing

⁵ European Union / European Economic Area

⁶ Draft delegated regulation of the EC: <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/1958-Voice-call-termination-rates-in-the-EU-Eurorates->

tendency in the regulated tariff (e.g. South Africa⁷, Oman⁸ or Tunisia⁹).

6.1.1.2 Foreseen options

69. The CRA acknowledges the uncertainties associated in the medium term to the forecast of the fixed termination service unit costs, especially considering the changing environment from legacy to all-IP network solutions.
70. The CRA also observes that the Qatari FTR in place in 2020 is already one of the lowest FTRs observed worldwide.
71. In light of the above, the CRA has decided to propose the following option for the regulation of the FTR service:

71.1 Kept stable the current FTR in 2020 for the years 2021-2023

This approach is aligned with the principle of non-discrimination and with CRA's scope to create a fair competitive field, permitting the OLOs to compete with Ooredoo.

The direct application of the result of the PT test for the determination of the FTR charge in the period 2021-2023 would imply a reduction of the FTR, from the current value of 0.0006 QAR/min in 2020 to 0.0003 QAR/min over the period 2021-2023.

However, the CRA has opted for a conservative approach, keeping the charge stable along the period 2021-2023, recognizing all uncertainties related to this wholesale proceeding.

The CRA also notes that this approach is consistent with the solution employed for Setting the Wholesale Charges of this service for periods 2015-2017 and 2018-2020, where the unit cost of the fixed termination service was not directly transposed into the FTR as this would imply a breach of the principle of non-discrimination.

72. The following table shows the wholesale charges corresponding to this option.

		Approved Charge	Charges for consultation		
		2020	2021	2022	2023
Fixed Call Termination Service to Geographic Numbers	QAR/min	0.0006	0.0006	0.0006	0.0006
Change to previous year			-	-	-

Table 3 Fixed Call Termination Service to Geographic Numbers – Wholesale Charges [CRA calculation]

73. The option is also shown in the graph below.

⁷ Regulatory decision in <https://www.icasa.org.qa/news/2018/icasa-to-publish-final-call-termination-regulations>

⁸ Omantel's reference offer: [https://www.omantel.om/wcm/connect/db82e071-4189-4f28-a236-ffd7b5d360b2-Annex+M_Tariffs_20180805.pdf?MOD=AJPERES&CONVERT_TO=URL&CACHEID=ROOTWORKSPACE-db82e071-4189-4f28-a236-ffd7b5d360b2-mQ2huQF](https://www.omantel.om/wcm/connect/db82e071-4189-4f28-a236-ffd7b5d360b2/Annex+M_Tariffs_20180805.pdf?MOD=AJPERES&CONVERT_TO=URL&CACHEID=ROOTWORKSPACE-db82e071-4189-4f28-a236-ffd7b5d360b2-mQ2huQF)

⁹ Regulatory decision at <http://www.intt.tn/upload/txts/fr/d%C3%A9cision.pdf>

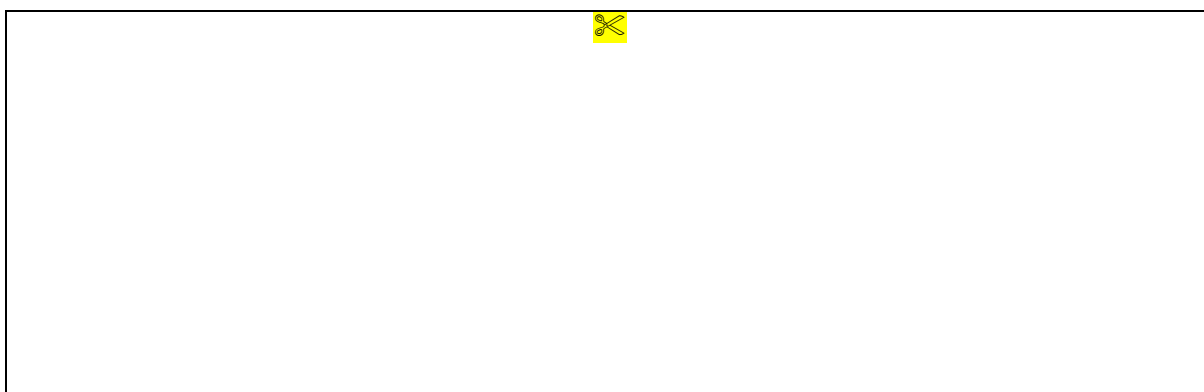


Figure 3 Fixed Call Termination Service to Geographic Numbers – Wholesale Charges [CRA calculation]

6.1.1.3 Consultation Question

Question 1 Do stakeholders agree with the CRA's proposed Wholesale Charge for the "Fixed Call Termination Service to Geographic Numbers"?

6.1.2 Mobile Call and Video-Call Termination Service

74. In the First CD, the CRA proposed the setting of a unique termination rate for fixed and mobile termination services.
75. However, after having assessed the responses provided by the Qatari SPs to the First CD, the CRA has opted for proposing separated fixed and mobile termination wholesale charges in this Second CD. In this regard, please refer to the RD for further details about SPs' comments and CRA's position.
76. This section presents CRA's new proposed wholesale charges for this service.


6.1.2.1 References available

6.1.2.1.1 Cost references

77. Cost references are available for Ooredoo and Vodafone.

Cost references for Ooredoo

78. The cost per unit has been calculated as per the general methodology (ref. section 4.1.1. of the First CD):
 - 78.1 Network costs. In a similar manner to the fixed termination service (ref. 6.1.1.1.1), the introduction of the IMS in Ooredoo's core network is also relevant for the mobile termination service. In particular, two main aspects of relevance have been identified because of the introduction of the IMS network:
 - (a) Cost allocation of IMS network in RAS FY2017 and FY2018 is not considering that IMS network will route all the voice traffic in the forthcoming years (from

2019 onwards). Please refer to the adjustment introduced by the CRA in this regard, explained in section 6.1.1.1.1 of this Second CD, which affects simultaneously both termination of fixed and mobile services. In summary, the adjustment introduced by the CRA to reflect the proper allocation of the IMS network to the retail mobile on-net service has caused a decrease of the cost allocated to the rest of services, resulting in a decrease of  of the cost of the mobile termination service.



- (b) The future usage of legacy voice switching platforms will decrease in the upcoming years given that the voice traffic is expected to be conveyed by the IMS network. The CRA has considered that the treatment of legacy voice platforms can differ between fixed and mobile traffic. More specifically, and contrary to the fixed termination service (ref. 6.1.1.1.1), no costs from the legacy mobile voice switching platforms have been removed (e.g. mobile media gateway or mobile softswitch). The reason behind is that the CRA has observed that operators typically are not switching off legacy mobile technologies (e.g. 2G and 3G), which make use of these platforms, because they are expected to be still in use for certain functionalities.

- 78.2 Projections of network costs. The CRA sees stability in the total network costs with a light increase of 1% per year, according to the CAGR of 2013-2018.
- 78.3 With regards to costs forecasts provided by Ooredoo, Ooredoo's forecast has been discarded since Ooredoo has maintained the network costs constant for the period 2020-2023, which is not consistent with the small increase observed in the last years.
- 78.4 In terms of volumes, the volume forecast has been based on the average of growth rate from last two years (FY2017 and FY2018), which is lower than the CAGR 2013-2018. With regards to Ooredoo's forecast, Ooredoo has followed the same approach as for network costs which cannot be accepted (Ooredoo has presented the same value of minutes for the period 2020-2023).
- 78.5 The trend to establish the cost per unit for the years 2022 and 2023 is based on previous trends employed for the period 2019-2021.
79. The following table shows the unit cost calculated according to the above assumptions.



Table 4 Mobile Call and Video-Call Termination Service - costs (incl. 10% Wholesale Markup) [CRA calculation]

Cost references for Vodafone

80. Vodafone had delivered a costing model oriented to the provision of mobile services where Vodafone provided an MTR for 2020 ranging from  QAR/min to  QAR/min.
81. As explained in the First CD, the CRA is of the view that Vodafone's cost model needs refinements to be deemed as reliable. Nevertheless, in many scenarios proposed by Vodafone, the MTR proposed by the CRA would allow Vodafone to recover its costs.

6.1.2.1.2 Proportionality Test

82. The table below shows that the PT is passed.




Table 5 Mobile Call and Video-Call Termination Service – Proportionality Test [CRA calculation]

6.1.2.1.3 Price / Margin Squeeze Test

83. The following table shows that the costs pass the PMS Test.




Table 6 Mobile Call and Video-Call Termination Service – PMS [CRA calculation]

6.1.2.1.4 Benchmark

84. The graph below shows a benchmark on the MTR Charges currently applicable.

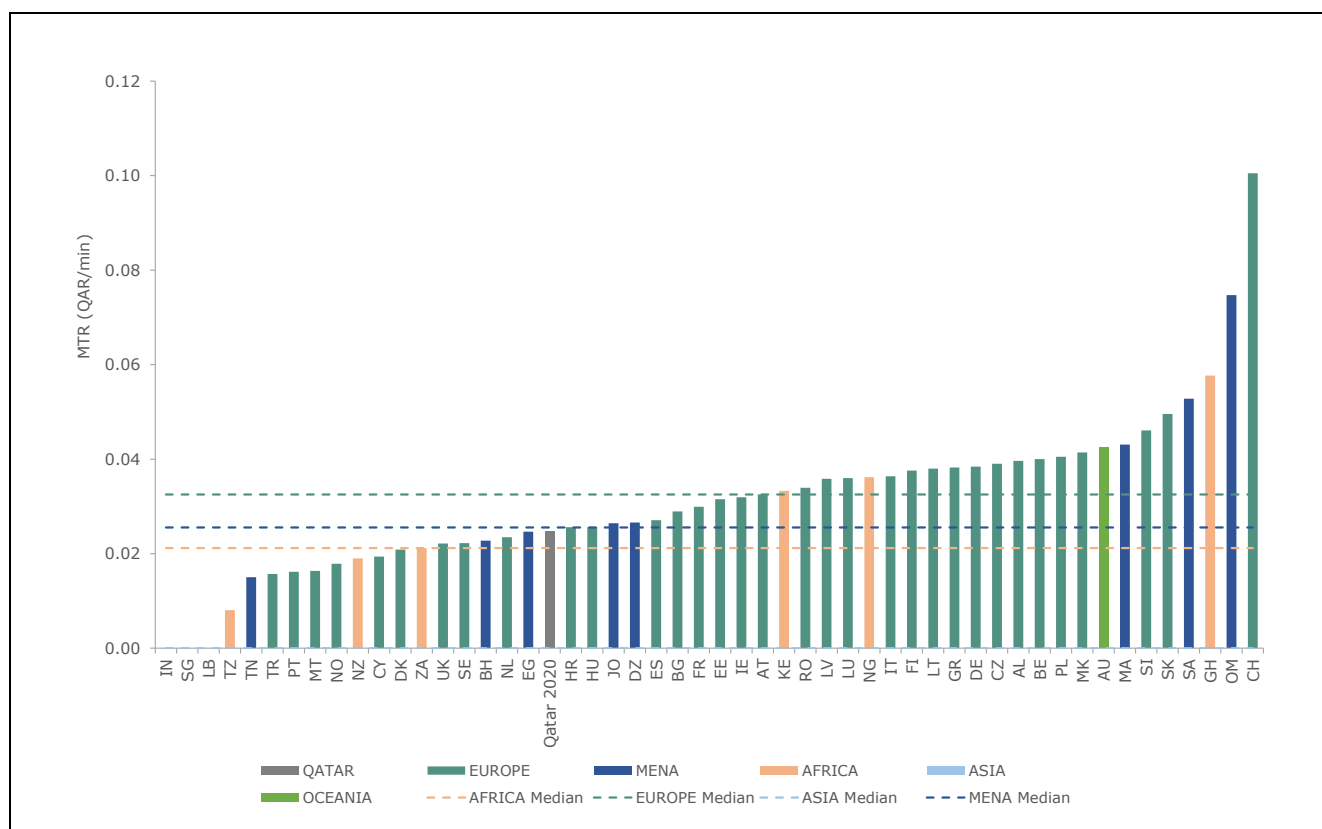


Figure 4 Mobile Call and Video-Call Termination Service – Benchmark [CRA research]

85. The current MTR in Qatar is in the mid-lower range of the charges in the benchmarked countries. There are some aspects that need to be carefully analyzed when comparing countries:
- 85.1 The specific geographical characteristics of Qatar, including both the population density and the concentration of population contribute to a reduction of the operators' cost basis. In addition, the orography also plays a relevant role. With its highest point at an altitude of 103 meters, Qatar is a low-lying country which does not have any significant mountain or deep valleys. This feature commonly leads to lower costs for the provision of wireless telecommunication services, because of the lower interferences.
- 85.2 Like for the fixed termination rate, the EC is currently working on the settlement of a common MTR across the EU/EEA countries. Results from this process are likely to decrease the MTR currently applied in these countries¹⁰.
- 85.3 A decreasing tendency of the MTR is also expected internationally in the coming years as a consequence of the continuous increase observed in mobile traffic volumes as well as the improved efficiencies of mobile networks. As a way of example, in countries with approved charges for the future years, a decreasing glide-path can be observed

¹⁰ Draft delegated regulation of the EC: <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/1958-Voice-call-termination-rates-in-the-EU-Eurorates->

(e.g. South Africa¹¹, Oman¹² or Tunisia¹³).

6.1.2.2 Foreseen options

86. To set the Wholesale Charges for this service, the CRA foresees the following option:

86.1 Wholesale Charges oriented towards 2023 projected cost per unit (with Glide Path).

87. The following table shows the wholesale charges corresponding to this option.

		Approved Charge	Charges for consultation		
		2020	2021	2022	2023
Mobile Call and Video-Call Termination Service	QAR/min	0.0247	0.0221	0.0195	0.0169
Change to previous year			-11%	-12%	-13%

Table 7 Mobile Call and Video-Call Termination Service – Wholesale Charges [CRA calculation]

88. The option is also shown in the graph below.



Figure 5 Mobile Call and Video-Call Termination Service – Wholesale Charges [CRA calculation]

6.1.2.3 Consultation Question

Question 2 Do stakeholders agree with the CRA's proposed Wholesale Charge for the "Mobile Call and Video-Call Termination Service"?

6.1.3 Call Termination Service to Toll-Free Numbers (reverse charge) for fixed and mobile calls

89. In their responses to the First CD, the SPs agreed to set this charge equal to the MTR. Therefore, the CRA does not further consult on this topic.

90. Please refer to Annex II for the charge proposed by the CRA for this service.

6.1.4 Call Termination Services to Numbers for Inbound International calls

91. In their responses to the First CD, the SPs asked for not setting charges for this service. The CRA agrees with the SPs. CRA's reasoning is detailed in the RD.

92. Therefore, the CRA does not further consult on this topic.

6.1.5 Termination Emergency Services

¹¹ Regulatory decision in <https://www.icasa.org.za/news/2018/icasa-to-publish-final-call-termination-regulations>

¹² Omantel's reference offer: https://www.omantel.om/wcm/connect/db82e071-4189-4f28-a236-ffd7b5d360b2/Annex+M_Tariffs_20180805.pdf?MOD=AJPERES&CONVERT_TO=URL&CACHEID=ROOTWORKSPACE-db82e071-4189-4f28-a236-ffd7b5d360b2-mQ2huQF

¹³ Regulatory decision at <http://www.intt.tn/upload/txts/fr/d/C3%A9cision.pdf>

93. In their responses to the First CD, the SPs agreed to set this charge equal to the FTR. Therefore, the CRA does not further consult on this topic.
94. Please refer to Annex II for the charge proposed by the CRA for this service.

6.1.6 Messaging Termination Services (SMS and MMS)

95. In the First CD, the CRA proposed the setting of a blended termination rate for the regulation of messaging termination services (SMS and MMS).
96. The wholesales charges proposed were oriented based on the weighted average (between SMS and MMS) of the expected unit costs for the year 2023 and applying a glidepath from the currently applicable charges.
97. After having assessed SPs' responses to the First CD, the CRA has opted for maintaining the option of a blended rate for messaging termination services (SMS and MMS).
98. However, the CRA shares the SPs' views that the reduction proposed by the CRA for these messaging services over the period 2021-2023 is not expected to bring benefits for Qatari consumers. At the same time, the evolving dynamics of these services imply a higher degree of uncertainty surrounding the process of estimating future costs for regulated messaging services.
99. Therefore, the CRA has opted for keeping the 2020 applicable charge (0.0020¹⁴ QAR/message) stable for the period 2021-2023. Further details on this topic and CRA's reasoning are available in the RD.
100. The following table shows the wholesale charges now proposed by the CRA.

		Approved Charge	Charges for consultation		
		2020	2021	2022	2023
Messaging Termination	QAR/message	0.0020	0.0020	0.0020	0.0020
Change to previous year			-	-	-

Table 8 Messaging Termination Services (SMS and MMS) – Wholesale Charges [CRA calculation]

6.1.6.1 Consultation question

Question 3 Do stakeholders agree with the CRA's proposed Wholesale Charge for the "Messaging Termination services"?

6.1.7 Outgoing International Call Conveyance

¹⁴ The approved charge in 2020 has been calculated as the weighted average of approved tariffs for messaging services (SMS and MMS).

101. In their responses to the First CD, the SPs asked for not setting charges for this service. The CRA agrees with the SPs. CRA's reasoning and position are further detailed in the RD.
102. Therefore, the CRA does not further consult on this topic.

6.2 Interconnection Links

103. In their responses to the First CD, the SPs agreed with the charges proposed by the CRA.
104. Therefore, the CRA confirms the charges as set in the First CD. Please refer to Annex II, for the wholesale charges proposed by the CRA.

6.3 Transmission Links

105. In their responses to the First CD, the SPs agreed with the charges proposed by the CRA for the traditional (TDM) Transmission Links. Therefore, the CRA confirms the charges as set in the First CD and does not further consult on this topic. Please refer to Annex II, for the wholesale charges proposed by the CRA.
106. With reference to Ethernet links, in the First CD, the CRA proposed the reduction of the wholesale charges for this service, relying on data extracted from Ooredoo's RAS.
107. However, after having assessed SPs' responses to the First CD, and considering the difficulty when trying to set a cost-oriented price based on RAS data for a non-existing service (i.e. this service is not provided), the CRA has alternatively opted in this Second CD for keeping stable the 2020 applicable charges for the period 2021-2023. In this regard, please refer to the RD for further details about SPs' comments and CRA's position.
108. The following table shows the wholesale charges now proposed by the CRA.

Transmission Link Ethernet		Current wholesale charge (CY 2020) BM based	Proposed Wholesale Charges		
speed	speed	Current Wholesale Charge	Monthly rental		
			2021	2022	2023
		QAR/month	QAR/month	QAR/month	QAR/month
speed					
256 KB	256	648	648	648	648
512 KB	512	799	799	799	799
1 MB	1,000	985	985	985	985
2 MB	2,000	1,136	1,136	1,136	1,136
4 MB	4,000	1,540	1,540	1,540	1,540
8 MB	8,000	1,937	1,937	1,937	1,937
16 MB	16,000	2,443	2,443	2,443	2,443
24 MB	24,000	2,802	2,802	2,802	2,802
32 MB	32,000	3,089	3,089	3,089	3,089
50 MB	50,000	3,893	3,893	3,893	3,893
100 MB	100,000	6,181	6,181	6,181	6,181
200 MB	200,000	7,064	7,064	7,064	7,064
500 MB	500,000	7,946	7,946	7,946	7,946
1 G	1,000,000	8,186	8,186	8,186	8,186

Table 9 Ethernet Transmission Links– Recurring Wholesale Charges [Proposed wholesale charge by the CRA]

6.3.1.1 Consultation question

Question 4 Do stakeholders agree with the CRA's proposed Wholesale Charge for recurrent charges of Ethernet Transmission Links?

6.4 Duct Products

109. Under the Infrastructure Access Agreement ("IAA"), Ooredoo' offers the following products:

109.1 Duct Access

109.2 Facility Hosting

109.3 Supervision

109.4 Field Feasibility Analysis

109.5 GIS update

109.6 Ad-hoc engineering support

109.7 Access Request

109.8 Successful and Unsuccessful Blockage Clearance

109.9 Transportation charge

109.10 Misc. expenses

110. Under the Reference Infrastructure Access Offer ("RIAO") approved by the CRA, the

“Access Request” as per the IAA has been split in:

110.1 Access Area Request, and

110.2 Route Access Request.

6.4.1 Duct Access

111. In their responses to the First CD, the SPs generally agreed with the charges proposed by the CRA. Therefore, the CRA confirms the charges as set in the First CD and does not further consult on this topic. Please refer to Annex II, for the wholesale charges proposed by the CRA.

6.4.2 Facility Hosting

112. In their responses to the First CD, the SPs generally agreed with the charges proposed by the CRA. Therefore, the CRA confirms the charges as set in the First CD and does not further consult on this topic. Please refer to Annex II, for the wholesale charges proposed by the CRA.

6.4.3 Hourly Cost

113. This section discusses average Hourly Cost, used e.g. for Supervision, Field Feasibility Analysis, GIS update and Ad-hoc Engineering Support.

114. As described in the First CD, the CRA had used the average cost per hour extracted from data request for AAR and RAR services for setting the wholesale charges of this service. The CRA had obtained a value of 321 QAR/h, considered an appropriate value for regulating this service:

		Approved Charge	Charges for consultation		
		2020	2021	2022	2023
Cost per Hour applicable to Supervision, Field Feasibility Analysis, GIS update, and Ad-hoc engineering support products	QAR/hour	375	321	321	321
Change to previous year			-14%	-	-

Table 10 Cost per hour – Wholesale Charges for consultation [CRA calculation]

115. However, Ooredoo, in its responses to the First CD has indicated the following: *“Ooredoo agrees with the CRA proposal for this service as it maintains current rates for next 3 years”*.

116. In this regard, the CRA notes that, contrary to Ooredoo’s statement, CRA’s proposal in the First CD did not consist in maintaining the current rates for the next 3 years but in decreasing the current rate from 375 to 321 QAR/hour, based on the average cost per hour extracted from data request for AAR and RAR services, as it can be observed in the previous table.

6.4.3.1 Consultation Question

Question 5 Do stakeholders agree with the CRA's proposed cost per hour applicable to "Supervision, Field Feasibility Analysis, GIS update, and Ad-hoc engineering support products?"

6.4.4 Access Request ("AR"), Access Area Request ("AAR") and Route Access Request ("RAR")

117. In their responses to the First CD, Ooredoo and VFQ generally agreed with the charges proposed by the CRA.
118. QNBN asked the CRA to review this charge based on the cost model provided by QNBN. After the review of QNBN cost model, the CRA confirms the charge proposed in the First CD. Further details on CRA's reasoning are available in the RD.
119. Therefore, the CRA confirms the charges as set in the First CD and does not further consult on this topic. Please refer to Annex II for the wholesale charges proposed by the CRA.

6.4.5 Successful and Unsuccessful Blockage Clearance

120. In their responses to the First CD, the SPs generally agreed with the charges proposed by the CRA. Therefore, the CRA confirms the charges as set in the First CD and does not further consult on this topic. Please refer to Annex II, for the wholesale charges proposed by the CRA.

6.4.6 Transportation charge

121. In their responses to the First CD, the SPs generally agreed with the charges proposed by the CRA. Therefore, the CRA confirms the charges as set in the First CD and does not further consult on this topic. Please refer to Annex II, for the wholesale charges proposed by the CRA.

6.4.7 Miscellaneous Expenses

122. In their responses to the First CD, the SPs generally agreed with the charges proposed by the CRA. Therefore, the CRA confirms the charges as set in the First CD and does not further consult on this topic. Please refer to Annex II, for the wholesale charges proposed by the CRA.

7 Review of the Wholesale Charges

123. In their responses to the First CD, Ooredoo and VFQ generally agreed with the review clause proposed by the CRA.
124. QNBN asked for the clause to allow the Access Seekers calling for a review. The CRA notes that Access Seekers signatories of wholesale reference offers can call for a review. Therefore, there is no need to change the clause. Further details are available in the RD.
125. Therefore, the CRA confirms the clause as proposed in the First CD and does not further consult on this topic.

Annex I Current applicable Wholesale Charges - Summary

The following table shows the currently (2018-2020) valid Wholesale Charges

Termination Services

Charges to be applied by Ooredoo and Vodafone

Termination Services		2018	2019	2020
Fixed Call Termination Service to Geographic Numbers	QAR/min	0.0119	0.0063	0.0006
Mobile Call and Video-Call Termination Service	QAR/min	0.0590	0.0419	0.0247
Call Termination Service to Toll-Free Numbers (reverse charge) for fixed and mobile	QAR/min	-0.0590	-0.0419	-0.0247
Call Termination Services to Numbers for Inbound International calls	QAR/min	Commercially Agreed		
Termination Emergency Services	QAR/min	0.0119	0.0063	0.0006

Mobile Messaging Termination Services

SMS Termination	QAR/SMS	0.0093	0.0057	0.0020
MMS Termination for picture and video	QAR/MMS	0.2936	0.1572	0.0208

Outgoing International Call Conveyance

As and when arises	
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Interconnection Links

Charges to be applied by Ooredoo

Interconnection Link Services		2018	2019	2020
Recurring Charges				
E1 (distance independent)	QAR/E1/month	229	133	37
Km (distance dependent)	QAR/km/E1/month	54	43	32
One off fees				
Connection Fee	QAR	5,000	5,000	5,000
Disconnection/reconfiguration Fee	QAR	950	950	950

Transmission Links

Charges to be applied by Ooredoo

Transmission Link Services - SDH

speed/length	Connection fee	Recurring Charges		
	2018, 2019, 2020	2018	2019	2020
	QAR	QAR/month	QAR/month	QAR/month
for E1 (no differentiation for SLAs)				
00-10	3,036	1,240	1,158	1,081
11-20	3,036	1,314	1,226	1,145
21-30	3,036	1,387	1,295	1,209
31-40	3,036	1,460	1,363	1,273
41-50	3,036	1,534	1,432	1,336
50 and above	3,036	1,790	1,671	1,580
for E3 (no differentiation for SLAs)				
00-10	3,036	7,089	6,617	6,177
11-20	3,036	7,162	6,686	6,241
21-30	3,036	7,235	6,754	6,305
31-40	3,036	7,309	6,823	6,369
41-50	3,036	7,382	6,891	6,433
50 and above	3,036	7,639	7,131	6,657
for STM1 (no differentiation for SLAs)				
00-10	3,036	10,794	10,076	9,406
11-20	3,036	10,867	10,145	9,470
21-30	3,036	10,941	10,213	9,534
31-40	3,036	11,014	10,282	9,598
41-50	3,036	11,087	10,350	9,662
50 and above	3,036	11,344	10,590	9,886
for STM4 (no differentiation for SLAs)				
00-10	3,036	17,910	16,719	15,607
11-20	3,036	17,984	16,788	15,671
21-30	3,036	18,057	16,856	15,735
31-40	3,036	18,130	16,925	15,799
41-50	3,036	18,204	16,993	15,863
50 and above	3,036	18,460	17,233	16,087
for STM16 (no differentiation for SLAs)				
00-10	3,036	31,987	29,860	27,874
11-20	3,036	32,060	29,928	27,938
21-30	3,036	32,134	29,997	28,002
31-40	3,036	32,207	30,065	28,066
41-50	3,036	32,280	30,134	28,130
50 and above	3,036	32,537	30,373	28,353

Duct Services		
Charges to be applied by Ooredoo		
Duct Products		
Duct Access	QAR/m/cm2/month	0.1200
Facility Hosting	QAR/liter. First 20 liters of facility space per linear kilometer of route distance is provided without charge	1.0000
Supervision	QAR 375 per hour or part thereof of supervision, regardless the number of supervisors. Chargeable for all activities which are explicitly listed in Annex 3 Clause 4 of the RAO. The total Supervision Charge is capped to 375,000 QAR per quarter.	375
Access Area Request	Charge in QAR for an Area Access Request as defined in Annex 1 of the RAO. For avoidance of doubts, the charge covers all the activities required in processing the Area Access Request included in Annex 1 performed by Ooredoo following an Area Access Request, with the exclusion of the activities for which charges are explicitly defined in this table. Note: this fee is not refundable.	15,000
Route Access Request	Charge in QAR for a Route Access Request. For avoidance of doubts, the charge covers all the activities required in processing the Route Access Request. This applies only to Route Area Requests related to Areas for which an Area Access Request has been already submitted by OLO and approved by Ooredoo. The parties may negotiate charges for an Ad Hoc Request according to the specific requirements of the OLO.	0 N.B. The costs for managing a RAR are already covered by the AAR Fee.
Field Feasibility Analysis	QAR/man-hour or part thereof (transportation and misc. expenses not included)	375
GIS update	QAR/man-hour or part thereof to update the GIS system in conformance with As-built drawings provided by OLO	375
Ad-hoc engineering support	QAR/man-hour or part thereof for expert support provided by Ooredoo at OLO request (transportation and misc. expenses not included)	375
Transportation charge	One day per vehicle	150
Misc. expenses	per actual effort (time and material)	time and material

Table 11 Currently Valid Wholesale Charges

Annex II Proposed Wholesale Charges for 2021-2023 – Summary

The following table shows the summary of wholesale charges proposed in this Second CD for 2021-2023.

Termination Services

Charges to be applied by Ooredoo and Vodafone

Termination Services

		2021	2022	2023
Fixed Call Termination Service to Geographic Numbers	QAR/min	0.0006	0.0006	0.0006
Mobile Call and Video-Call Termination Service	QAR/min	0.0221	0.0195	0.0169
Call Termination Service to Toll-Free Numbers (reverse charge) for fixed a	QAR/min	-0.0221	-0.0195	-0.0169
Call Termination Services to Numbers for Inbound International calls	QAR/min	Commercially Agreed		
Termination Emergency Services	QAR/min	0.0006	0.0006	0.0006

Mobile Messaging Termination Services

Messaging Termination (SMS and MMS)	QAR/Message	0.0020	0.0020	0.0020
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Outgoing International Call Conveyance

As and when arises

Interconnection Links

Charges to be applied by Ooredoo

Interconnection Link Services

		2021	2022	2023
Recurring Charges				
E1 (distance independent)	QAR/E1/month	37.00	37.00	37.00
Km (distance dependent)	QAR/km/month	23.93	15.86	7.79
One off fees				
Connection Fee	QAR/link	5,000.00	5,000.00	5,000.00
Disconnection/reconfiguration Fee	QAR/link	950.00	950.00	950.00

Transmission Links

Charges to be applied by Ooredoo

Transmission Link Services - SDH

	Connection fee	Recurring Charges			
		2021, 2022, 2023	2021	2022	2023
speed/length	QAR		QAR/month	QAR/month	QAR/month
for E1 (no differentiation for SLAs)					
00-10		3,036	283	283	283
11-20		3,036	702	702	702
21-30		3,036	1,121	1,121	1,121
31-40		3,036	1,540	1,540	1,540
41-50		3,036	1,959	1,959	1,959
50 and above		3,036	3,425	3,425	3,425
for E3 (no differentiation for SLAs)					
00-10		3,036	1,394	1,394	1,394
11-20		3,036	1,813	1,813	1,813
21-30		3,036	2,231	2,231	2,231
31-40		3,036	2,650	2,650	2,650
41-50		3,036	3,069	3,069	3,069
50 and above		3,036	4,535	4,535	4,535
for STM1 (no differentiation for SLAs)					
00-10		3,036	4,872	4,872	4,872
11-20		3,036	5,291	5,291	5,291
21-30		3,036	5,710	5,710	5,710
31-40		3,036	6,129	6,129	6,129
41-50		3,036	6,548	6,548	6,548
50 and above		3,036	8,014	8,014	8,014
for STM4 (no differentiation for SLAs)					
00-10		3,036	18,861	18,861	18,861
11-20		3,036	19,280	19,280	19,280
21-30		3,036	19,699	19,699	19,699
31-40		3,036	20,118	20,118	20,118
41-50		3,036	20,537	20,537	20,537
50 and above		3,036	22,002	22,002	22,002
for STM16 (no differentiation for SLAs)					
00-10		3,036	74,816	74,816	74,816
11-20		3,036	75,235	75,235	75,235
21-30		3,036	75,654	75,654	75,654
31-40		3,036	76,073	76,073	76,073
41-50		3,036	76,492	76,492	76,492
50 and above		3,036	77,958	77,958	77,958

Transmission Link Services - Ethernet

speed	Connection fee	Recurring Charges			
		2021, 2022, 2023	2021	2022	2023
	QAR	QAR/month	QAR/month	QAR/month	QAR/month
256 KB		3,036	648	648	648
512 KB		3,036	799	799	799
1 MB		3,036	985	985	985
2 MB		3,036	1,136	1,136	1,136
4 MB		3,036	1,540	1,540	1,540
8 MB		3,036	1,937	1,937	1,937
16 MB		3,036	2,443	2,443	2,443
24 MB		3,036	2,802	2,802	2,802
32 MB		3,036	3,089	3,089	3,089
50 MB		3,036	3,893	3,893	3,893
100 MB		3,036	6,181	6,181	6,181
200 MB		3,036	7,064	7,064	7,064
500 MB		3,036	7,946	7,946	7,946
1 G		3,036	8,186	8,186	8,186

Duct Services

Charges to be applied by Ooredoo

Duct Products

Duct Access	QAR/cm2/meter/month	0.1200
Facility Hosting	QAR/liter. First 20 liters of facility space per linear kilometer of route distance is provided without charge	1.0000
Supervision	QAR 321 per hour or part thereof of supervision, regardless the number of supervisors. Chargeable for all activities which are explicitly listed in Annex 3 Clause 4 of the RIAO. The total Supervision Charge is capped to 321,000 QAR per quarter.	321
Access Area Request	Charge in QAR for an Area Access Request as defined in Annex 1 of the RIAO. For avoidance of doubts, the charge covers all the activities required in processing the Area Access Request included in Annex 1 performed by Ooredoo following an Area Access Request, with the exclusion of the activities for which charges are explicitly defined in this table. Note: this fee is not refundable.	15,000
Route Access Request	Charge in QAR for a Route Access Request. For avoidance of doubts, the charge covers all the activities required in processing the Route Access Request. This applies only to Route Area Requests related to Areas for which an Area Access Request has been already submitted by OLO and approved by Ooredoo. The parties may negotiate charges for an Ad Hoc Request according to the specific requirements of the OLO.	0 N.B. The costs for managing a RAR are already covered by the AAR Fee.
Field Feasibility Analysis	QAR/man-hour or part thereof (transportation and misc. expenses not included)	321
GIS update	QAR/man-hour or part thereof to update the GIS system in conformance with As-built drawings provided by OLO	321
Ad-hoc engineering support	QAR/man-hour or part thereof for expert support provided by Ooredoo at OLO request (transportation and misc. expenses not included)	321
Transportation charge	One day per vehicle	150
Misc. expenses	per actual effort (time and material)	time and material

Table 12 Proposed Wholesale Charges




Annex III Consultation Questions

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Question 4	Do stakeholders agree with the CRA's proposed Wholesale Charge for recurrent charges of Ethernet Transmission Links?	25
Question 5	Do stakeholders agree with the CRA's proposed cost per hour applicable to "Supervision, Field Feasibility Analysis, GIS update, and Ad-hoc engineering support products?"	27

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NON-CONFIDENTIAL VERSION

 Confidential to Ooredoo
 Confidential to Qnbn
 Confidential to Vodafone

RESPONSE DOCUMENT TO COMMENTS RAISED BY SERVICE PROVIDERS TO CRA'S SECOND CONSULTATION ON SETTING THE CHARGES APPLICABLE TO WHOLESALE SERVICES FOR THE YEARS 2021, 2022 AND 2023

March 29, 2021

CRARAC 2021/03/29-B

Key responses	Respondent	CRA's response
Question # 1 Do stakeholders agree with the CRA's proposed Wholesale Charge for the "Fixed Call Termination Service to Geographic Numbers"?		
In the light of the uncertainty of the future unit costs forecasts Ooredoo agrees with the CRA position articulated in the section 6.1.1.2 of Consultation Document to keep the current 2020 FTR value stable for the years 2021-2023.	Ooredoo	The CRA acknowledges Ooredoo's support for CRA's proposal.
We welcome CRA's proposal to revert back to setting separate termination rates for mobile and for fixed. This is the correct approach from a legal, economic, technical and commercial perspective. We also agree with the proposal to hold constant the FTR for 2021, 2022 and 2023.	Vodafone	The CRA acknowledges Vodafone's support for CRA's proposal.
However, we submit that contrary to the CRA's thinking the fact that payments for termination for a particular service such as fixed or SMS may be small when compared to overall revenues does not mean that such changes to termination rates do not affect market dynamics and commercial offers. This indicator is too broad to draw any conclusion. A more refined analysis is required to look at what could be the effect of changes in termination rate to retail pricing and market trends.	Vodafone	<p>The CRA reiterates its previous position with reference to the application of cost-oriented charges. In this proceeding aimed at setting wholesale charges for the years 2021, 2022 and 2023, the CRA is basically complying with its obligations derived from the Article 29 of the Telecommunication Law, which establishes that charges for communications services offered by Dominant Service Providers must be based on the cost of efficient service provision. Based on the data submitted by Qatari Service Providers, the cost information shows, in general, continuous decreasing trends of unit costs incurred for the provision of wholesale services, which has been reflected in the wholesale charges proposed by the CRA for the years 2021, 2022 and 2023.</p> <p>This trend is also in line with the situations observed in many other jurisdictions, where similar alignments of wholesale charges to costs have been done and lower wholesale charges have been established.</p> <p>The CRA also reiterates its position about the fact that it is convinced that the wholesale charges proposed for the calendar years 2021, 2022 and 2023 strike a balanced solution among the various regulatory conflicting goals, as already previously reflected in the "First Consultation Document" and the "Response document to comments raised by Service Providers to CRA's First Consultation". In this context, regarding Vodafone's point about the effect of</p>

Key responses	Respondent	CRA's response
		termination rates in retail pricing and market trends, if Vodafone considered that the wholesale charges proposed by the CRA could have a detrimental effect in this regard, it was Vodafone's chance to have presented documentation and/or evidences allowing the CRA to evaluate this point, as indicated by the CRA in the instructions for responding to the consultation. However, no information in this respect has been presented by Vodafone.

CRA's final decision regarding the "Fixed Call Termination Service to Geographic Numbers"

Taking into account the agreement of Qatari Service Providers, the CRA has decided to set the wholesale charges for the "Fixed Call Termination Service to Geographic Numbers" following the approach proposed in the Second Consultation Document, which consists of **keeping stable the current wholesale charge in 2020 for the years 2021-2023:**

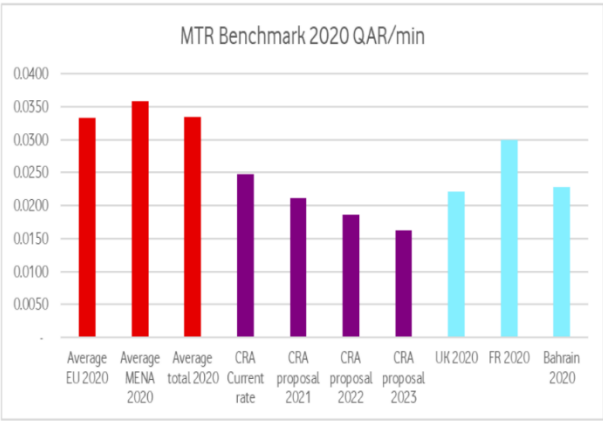
		Approved Charge	New Charges		
		2020	2021	2022	2023
Fixed Call Termination Service to Geographic Numbers	QAR/min	0.0006	0.0006	0.0006	0.0006
Change to previous year			-	-	-

Question # 2 Do stakeholders agree with the CRA's proposed Wholesale Charge for the "Mobile Call and Video-Call Termination Service"?

Ooredoo agrees with the CRA's line of argument that the introduction of new technologies both in core (IMS) and access part of the mobile networks (5G) is bound to further enhance efficiency of these networks and hence ultimately lead to reduction in the unit costs of the Mobile Call and Video-Call Termination Service. However, increased efficiency effects stemming from the introduction of next mobile network generation(s) are never immediate. Any introduction of new telecommunication technology typically represents first significant upfront costs and its benefits materialize only gradually with the increase in the utilization of the new technology. The same pattern can be expected in connection with the introduction of the 5G mobile networks, which full deployment represent major change in current mobile network infrastructure and hence major investment commitment by SPs.	Ooredoo	<p>Regarding Ooredoo's arguments about investments in new technologies and efficiencies derived from them, the CRA outlines that these aspects have already been considered in the definition of the regulated wholesale charges. For this purpose, the CRA:</p> <ul style="list-style-type: none"> • Has adopted a balanced approach when forecasting costs; • Has allowed a proper return on investments by applying a Cost of Capital which was set at the highest possible level of the calculated range, in order to incentivize the investments. • Has applied mechanisms of glidepath in order to smooth the potential impact of the new wholesale rates. <p>Finally, even if the CRA is perfectly aware of some of the situations currently affecting the Qatari telecom environment (Covid-19, 2022 FIFA World Cup, decline of telecom revenues, etc.), the CRA reiterates its position that</p>
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Key responses	Respondent	CRA's response																				
<p>The risk of return on 5G investment is further exacerbated in the case of Qatar by the uncertainty of the future population growth and related revenue market potential. In the course of 2020 Qatar population declined by more than 100 thousand. Finalization of the infrastructure projects leading to 2022 FIFA World Cup represents major structural change to Qatar economy and tangible risk for telecommunication company's business plans.</p>		<p>the impact on revenues of the reductions of FTR and MTR is not significant (i.e. around 5% of impact is estimated in Ooredoo's revenues for the years 2021-2023).</p> <p>Besides, the impact on the margins of the Qatari Service Providers is negligible. This is explained because, when looking at the mobile termination service, which represents the vast majority of the Qatari Service Providers' wholesale revenues (more than 50%), being this a two-way interconnection service, wholesale costs incurred by the industry are netted. Given that the traffic for mobile calls is relatively balanced between Ooredoo (50%) and Vodafone (50%), the reduction in revenues would equally be reflected in the incurred costs, without substantial impact on the profit.</p> <p>In light of the above, the CRA is of the view that this reduction is not likely to introduce any damage on the operator's performance and related investments in new technologies.</p>																				
<p>Thus, we simply cannot agree with the proposed CRA declining glide path of the mobile voice termination rates (MTR's). We propose an alternative that is more mindful of the time delay between incurrence of the 5G network roll-out costs and the time when 5G will reach its effective utilization levels. Our proposal is also in line with the latest European Commission (EC) regulation setting the glide path for the maximum uniform MTR's for all EU member states¹. The table below provides the three profiles of the MTR's glide paths for the time period 2021-2023: 1) glide path proposed by the CRA, 2) glide path stipulated by the EC for EU member states and 3) glide path proposed by Ooredoo for SP's in Qatar.</p> <table><tr><th></th><th>2020</th><th>2021</th><th>2022</th><th>2023</th></tr><tr><td>EU MTR glide path [QAR]</td><td></td><td>0.0308</td><td>0.0242</td><td>0.0176</td></tr><tr><td>CRA MTR glide path [QAR]</td><td>0.0247</td><td>0.0221</td><td>0.0195</td><td>0.0169</td></tr><tr><td>Ooredoo proposed glide path [QAR]</td><td></td><td>0.0247</td><td>0.0242</td><td>0.0176</td></tr></table> <p>The MTR glide path proposed by Ooredoo reflects the natural delayed timing of the decline in the unit costs</p>		2020	2021	2022	2023	EU MTR glide path [QAR]		0.0308	0.0242	0.0176	CRA MTR glide path [QAR]	0.0247	0.0221	0.0195	0.0169	Ooredoo proposed glide path [QAR]		0.0247	0.0242	0.0176	Ooredoo	<p>The CRA considers that Ooredoo's proposal is not acceptable for the following reasons:</p> <ul style="list-style-type: none">• The CRA remarks that its primary obligation is to set wholesale charges in Qatar following the principle of cost orientation, as required by the Qatari Telecommunication's Law in its Article 29. In this regard, Ooredoo's proposal of relying on the European Commission's MTR, calculated based on data extracted from the EU Member States, instead of making use of the information available about the cost of efficient service provision incurred by Qatari Service Providers would be contrary to the Article 29 of the Qatari Telecommunication's Law.• Characteristics of EU Member States are different to those of Qatar. In this regard, the CRA refers to the First and Second Consultation Documents, where it was highlighted, among others, the importance of the geography and orography of any country in the calculation of the costs of service provision.
	2020	2021	2022	2023																		
EU MTR glide path [QAR]		0.0308	0.0242	0.0176																		
CRA MTR glide path [QAR]	0.0247	0.0221	0.0195	0.0169																		
Ooredoo proposed glide path [QAR]		0.0247	0.0242	0.0176																		

¹ Source: COMMISSION DELEGATED REGULATION (EU) .../... of 18.12.2020 supplementing Directive (EU) 2018/1972 of the European Parliament and of the Council by setting a single maximum Union-wide mobile voice termination rate and a single maximum Union-wide fixed voice termination rate. Available at: https://eur-lex.europa.eu/resource.html?uri=cellar:54e4cc97-414d-11eb-b27b-01aa75ed71a1.0018.02/DOC_1&format=PDF

Key responses	Respondent	CRA's response
brought about by the efficiency benefits associated with the utilization of the 5G network. Ooredoo's proposal is also consistent with the EC regulation by setting MTRs at or below the maximum uniform MTR levels set by EC for the years 2021-2023. For 2021, we propose to keep the MTR at its 2020 level. For years 2022 and 2023, we propose to set the MTRs at the maximum levels as stipulated by the EC glide path.		<ul style="list-style-type: none"> Ooredoo's proposal of keeping stable the MTR of the year 2020 for the year 2021 is not substantiated and the CRA refers to the arguments provided in the previous point about investments. In addition to that, the CRA notes that the emergence of 5G networks is unlikely to directly impact the wholesale charges in the period 2021-2023, as during the first years of 5G networks, these networks are expected to be focused on handling broadband traffic, while voice traffic is not expected to be conveyed through this technology in its initial stages. This means that the impact in terms of cost would be very limited for the wholesale charges.
<p>The CRA proposes to reduce MTR from QAR/min 0.0247 to 0.0169 between 2021 and 2023, i.e. by -32%, this follows a decline of 68% between 2017 and 2020. As a consequence, the MTR in Qatar will most likely remain well below the EU and MENA averages in the forthcoming regulatory period as shown by our benchmark included in our response to CD#1 reproduced below. However, the CRA has not articulated what incremental consumer benefits can be expected from those additional reductions.</p>  <p>Further, we note that when considering benchmarks and the low MTR in Qatar relative to other countries, the CRA says the following in its Response Document (page 12): <i>"The specific geographical characteristics of Qatar, including both the population density and the</i></p>	Vodafone	<p>The CRA reiterates its position, as expressed in First and Second Consultation Documents, that the level of incurred costs in the provision of termination services highly depends on a set of characteristics that generally lead to different costs among countries.</p> <p>What is more, in the particular case of Qatar, any network characteristic related to Qatari Service Providers and their associated costs (e.g. coverage, quality of service, etc.) has already been taken into account when setting wholesale charges since, as required by the Qatari Telecommunication's Law in its Article 29, the level of proposed rates has been consistent with the information available from the Qatari Service Providers about costs incurred to provide the wholesale services.</p> <p>On the other hand, it is also important to outline that a decreasing tendency of the MTR is also expected internationally in the coming years as a consequence of the continuous increase observed in mobile traffic volumes as well as the improved efficiencies of mobile networks. This entails that the MTR proposed by the CRA for 2023 is not comparable with MTRs applicable in other countries in the year 2020, as rates in other countries are also likely to decrease from 2020 to 2023. As a way of example, the European Commission (EC) has recently proposed new rates for EU countries², setting maximum MTRs of 0.0178</p>

² Source: EC Commission, Commission adopted Delegated regulation on EU-wide voice-call termination rates, 21 December 2020, <https://ec.europa.eu/digital-single-market/en/news/commission-adopted-delegated-regulation-eu-wide-voice-call-termination-rates>

Key responses	Respondent	CRA's response
<p>concentration of population contribute to a reduction of the operators' cost basis. In addition, the orography also plays a relevant role. With its highest point at an altitude of 103 meters, Qatar is a low-lying country which does not have any significant mountain or deep valleys. This feature commonly leads to lower costs for the provision of wireless telecommunication services, because of the lower interferences."</p> <p>Vodafone Qatar submits that this is a gross simplification which does not take into account differences in network deployment and coverage of advanced networks and quality of services across countries. Qatar certainly has very advanced mobile networks (4G and 5G) widely available including in remote areas with high quality of service compared to other countries. This requires significant CAPEX.</p>		<p>and 0.0089 QAR/min for the years 2023 and 2024 respectively. This shows that the MTR proposed by the CRA for the year 2023, by value of 0.0169 QAR/min is well aligned with that proposed by the EC for the same year.</p> <p>Finally, answering Vodafone's question about what consumer benefits can be expected from MTR reductions, the CRA considers that MTR reductions are fundamental to guarantee consumers' benefits such as the reduction of retail prices.</p>

CRA's final decision regarding the "Mobile Call and Video-Call Termination Service"

The CRA has decided to set the wholesale charges for the "Mobile Call and Video-Call Termination Service" following the approach proposed in the Second Consultation Document, which consists of wholesale charges **oriented towards 2023 projected cost per unit (with Glide Path)**:

		Approved Charge	New Charges		
		2020	2021	2022	2023
Mobile Call and Video-Call Termination Service	QAR/min	0.0247	0.0221	0.0195	0.0169
Change to previous year			-11%	-12%	-13%

Question # 3 Do stakeholders agree with the CRA's proposed Wholesale Charge for the "Messaging Termination services"?

<p>While Ooredoo welcomes the fact that the CRA has in its second proposal for SMS termination rates considered to some degree the views of SPs, we still cannot agree that the CRA should continue to regulate this market. The world's leading regulatory authorities have already made clear that this market does not pass the three criteria test and as such is not a relevant market susceptible to ex-ante regulation anymore. We ask the CRA to explain by what merit and/or evidence here that it cannot follow the example set by these best practice regulators. Especially we note a discrepancy in the CRA approach to the regulation of the wholesale termination rates, where in the case of e.g. mobile voice termination it aims to adhere to the benchmark sets by the EU regulation, but in case of</p>	Ooredoo	<p>Regarding the regulation of messaging termination services, the CRA reiterates its position as expressed in the "Response document to comments raised by Service Providers to CRA's First Consultation".</p> <p>In this regard, the CRA indicates that, in the 2016 MDDD Review process, both Ooredoo and Vodafone were designated as DSP (Dominant Service Provider) in the market "M14 - Wholesale termination on individual mobile networks".</p>
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Key responses	Respondent	CRA's response
<p>the SMS termination market it completely and for no articulated reason ignores the findings and conclusions reached by the EC and EU member states.</p> <p>SMS termination service is not regulated in EU countries. The EC and EU member states do recognize that fact that OTT messaging services by now provide effective substitute for the traditional SMS services and that as a consequence the SMS termination market is no longer a relevant market. In fact, the EC has not included the SMS termination market in the relevant markets list since 2014. However, consistent with its past practice EC did allow regulators at the national level to regulate wholesale SMS termination market where the three criteria test can be satisfied (a test used to find out whether a specific market is susceptible for ex-ante regulation that is also used by the CRA). EC requires regulators in the EU member states to consider implications on the substitutability of the traditional SMS with emails and plethora of other instant messaging services that are more and more available due to an increase in smart phones and broadband penetration, including (free) WiFi hotspots.</p> <p>Only Denmark and Poland regulated the SMS termination in Europe after 2014. However, Denmark deregulated the market in Jan 2016 and Poland in Feb 2017. The reason these countries opted for deregulation was because they found no barrier to entry to the market (three criteria test is not met), due the impact of over-the-top messaging applications. Has the CRA found any barriers to entry in this market?</p> <p>We also note that the most advanced regulatory agency in MENA, the TRA Bahrain, also stopped regulating mobile messaging termination services (SMS and MMS) in February 2019 based on the fact the vast majority of short messages are now made through OTT applications.³</p>		<p>In relation to the SMS/MMS termination as relevant markets, in the regulatory document CRA 2015/05/12/NC⁸, issued by the CRA in 2015, it was clearly specified that the market "M14 - Wholesale termination on individual mobile networks" includes (but not limited to) voice calls, SMS, MMS and video calls.</p> <p>In this regard, the CRA notes that the wholesale regulation of messaging termination services, being a remedy imposed as a result of the MDDD process, shall not be subject to further discussions.</p> <p>The possibility of deregulating this market will be assessed by the CRA in the next MDDD process.</p>

³ Refer to TRA Bahrain final determination of dominance in mobile market dated 7 February 2019 available at: <https://tra-website-prod-01.s3-me-south-1.amazonaws.com/Media/mediafiles/document/Final-Determinat-on-of-Dominance-in-the-Mobile-Termination-Markets-PV.pdf>

⁸ "Market Definition and Dominance Designation in Qatar. Public Consultation". Available at: <https://www.cra.gov.qa/-/media/System/9/6/C/F/96CF748563FF5AACB52FF96364E052C6/2015-05-12-MDDD-2016-Consultations-Responses-and-Orders-2015--2016-EN.ashx>.

Key responses	Respondent	CRA's response
<p>As demonstrated by the CRA Telecommunication Market Report No. 4/2020⁴, the mobile telephone and mobile broadband penetration in Qatar stands at 138% and 125% respectively and mobile data traffic has grown almost four times from Q4 2015 till Q3 2020. There is no reason to assume that mobile subscribers in Qatar are behind those in EU or Bahrain in terms of the use of OTT messages.</p> <p>The table below shows that the total volume of SMSs sent by Ooredoo customers have dropped by 8% from Q4 2012 to Q3 2020, despite a 12% increase in the total number of Ooredoo's mobile subscribers. This translates to an 8% decline in the number of SMS per mobile user during this time period; on average Ooredoo mobile subscribers now send only 1.2 SMSs per month⁵. We also observe that the number of SMSs sent by an average mobile user per month in Qatar is now on par with the value observed for mobile users in Bahrain⁶ at the time when TRA in Bahrain stopped regulating SMS termination rate.</p> <p>8%</p> <p>This is the consequence of the OTT messaging services taking over SMSs communication. As shown in the table below in Q3 2020 the total volume of the SMSs that originated on Ooredoo mobile network (i.e. 8% SMSs) represented only 8% of mobile data traffic, while messages generated by Ooredoo subscribers using 5 major messaging applications⁷ accounted for more than 8% of mobile data traffic generated on Ooredoo network. The data volume of messages generated by Ooredoo's mobile subscribers using OTT applications has thus in 2020 manifold exceeded the volumes of messages generated by the subscribers' use of SMS service.</p> <p>8%</p> <p>It is important to note that for the market to be competitive the usage and/or the share of initial service does not have</p>		

⁴ Report is available at: <https://cra.gov.qa/en/Market-Insights/Quarterly-report>

⁵ Source: quarterly MDDD reports submitted by Ooredoo to the CRA.

⁶ Refer to page 20 of the TRA Bahrain document referenced above.

⁷ These 5 messaging applications are: WhatsApp, SnapChat, Telegram Messenger, IMO, and Facebook Messenger. Maximum size of 160 bytes per SMS was used to translate number of SMSs to data volumes. Actual number of OTT messages generated on Ooredoo network is not available. The OTT messages accounted for the reported data volume include text, photo and video messages. Assuming e.g. that each OTT message was used to send one picture with the 2MB size, the 8% of OTT data volumes would correspond to 8% OTT messages. That is 8% times more than the number of SMSs sent in the same time period. OTT Data Source: Ooredoo network data.

Key responses	Respondent	CRA's response
to fall to zero. The mobile messaging market has grown exponentially over past 8 years driven by the increase in the use of the OTT messaging services. As of Q3 2020, the SMS service represented less than 1% of total mobile messaging market measured in the volume of data generated by these services. The fact that OTT has effectively overtaken SMSs communication in the course of the last 8 years is ample evidence that SMS termination market is no longer a relevant market susceptible to ex-ante regulation. Hence we request the CRA to reflect in its wholesale rate setting decisions not only the fact that new technologies facilitate the increase in network efficiency (and hence reduce unit costs for e.g. mobile voice termination service over time) but that they also enable the introduction of new services that disrupt traditional telecom markets (in this case the SMS termination market) and abstain from regulating SMS and MMS termination markets that is now subject to the competition from OTT messaging service providers. To conclude, there is simply no evidence whatsoever to support ex-ante regulation for this market.		
The CRA's proposal is for SMS termination to remain constant at 0.002 per SMS for 2021, 2022 and 2023. We do not have strong objections against this proposal. However, our comments regarding the legal instrument on which the regulation of SMS is based remain: the instrument does not mention SMS or MMS services. ⁹	Vodafone	<p>The CRA acknowledges Vodafone's support for CRA's proposal in relation to the proposed wholesale charges.</p> <p>Regarding the regulation of messaging termination services, the CRA reiterates its position as expressed in the "Response document to comments raised by Service Providers to CRA's First Consultation".</p> <p>In this regard, the CRA indicates that, in the 2016 MDDD Review process, both Ooredoo and Vodafone were designated as DSP (Dominant Service Provider) in the market "M14 - Wholesale termination on individual mobile networks".</p> <p>In relation to the SMS/MMS termination as relevant markets, in the regulatory document CRA 2015/05/12/NC¹⁰, issued by the CRA in 2015, it was clearly specified that the market "M14 - Wholesale termination on individual mobile</p>

⁹ See Notice and Orders, Designation of Ooredoo Q.S.C. and Vodafone Qatar Q.S.C. as Dominant Services Provided in Specified Relevant Markets, 9 May 2016. Please also refer to accompanying Economic Analysis and Response Document

¹⁰ "Market Definition and Dominance Designation in Qatar. Public Consultation". Available at:

<https://www.cra.gov.qa/-/media/System/9/6/C/F/96CF748563FF5AACB52FF96364E052C6/2015-05-12-MDDD-2016-Consultations-Responses-and-Orders-2015--2016-EN.ashx>.

Key responses	Respondent	CRA's response
		<p>networks" includes (but not limited to) voice calls, SMS, MMS and video calls.</p> <p>In this regard, the CRA notes that the wholesale regulation of messaging termination services, being a remedy imposed as a result of the MDDD process, shall not be subject to further discussions.</p> <p>The possibility of deregulating this market will be assessed by the CRA in the next MDDD process.</p>

CRA's final decision regarding the "Messaging Termination services"

The CRA has decided to set the wholesale charges for "Messaging Termination services" following the approach proposed in the Second Consultation Document, which consists of
keeping the 2020 applicable charge (0.0020¹¹ QAR/message) stable for the period 2021-2023:

		Approved Charge	New Charges		
		2020	2021	2022	2023
Messaging Termination	QAR/message	0.0020	0.0020	0.0020	0.0020
Change to previous year			-	-	-

Question # 4 Do stakeholders agree with the CRA's proposed Wholesale Charge for recurrent charges of Ethernet Transmission Links?

Ooredoo does not agree with the CRA proposal. No SP provides this service. No customer is requesting this service. Thus, there is no rationale for the CRA to set a rate for this service. Moreover, we note that the definition of this service as used in the current consultation document is not consistent with the CRA's 2016 MDDD Decision and Order, which clearly defines two distinct segments of the Ethernet leased lines – trunk and tail end. For these reasons Ooredoo requests CRA not to include this charge in its final decision.	Ooredoo	Regarding Ethernet Transmission Links, the CRA reiterates its position as expressed in the "Response document to comments raised by Service Providers to CRA's First Consultation". The CRA notes that the wholesale regulation of these services, being a remedy imposed as a result of the MDDD process (ref. markets 10 and 11), shall not be subject to further discussions.
Vodafone Qatar disagrees with the proposal of the CRA. Vodafone Qatar, as an investor in fixed line infrastructure who is deploying fibre, does not anticipate to make use of such wholesale services. Hence, we do not see the merit in setting a wholesale price for a service which does not exist and for which there is no demand.	Vodafone	Regarding Ethernet Transmission Links, the CRA reiterates its position as expressed in the "Response document to comments raised by Service Providers to CRA's First Consultation". The CRA notes that the wholesale regulation of these services, being a remedy imposed as a result of the MDDD process, shall not be subject to further discussions.

¹¹ The approved charge in 2020 has been calculated as the weighted average of approved tariffs for messaging services (SMS and MMS).

Key responses	Respondent	CRA's response
In addition, our concerns set out in our response to CD#1 regarding the costing of Ethernet transmission for retail services remain.	Vodafone	Regarding Vodafone's concerns about the costing of Ethernet transmission, please refer to CRA's responses provided in the "Response document to comments raised by Service Providers to CRA's First Consultation".

CRA's final decision regarding the recurrent charges of Ethernet Transmission Links

The CRA has decided to set the wholesale charges for "Ethernet Transmission Links" following the approach proposed in the Second Consultation Document, which consists of **keeping stable the 2020 applicable charges for the period 2021-2023**:

Transmission Link Ethernet		Current wholesale charge (CY 2020) BM based	New Wholesale Charges		
speed	speed	Current Wholesale Charge	Monthly rental		
			2021	2022	2023
		QAR/month	QAR/month	QAR/month	QAR/month
speed					
256 KB	256	648	648	648	648
512 KB	512	799	799	799	799
1 MB	1,000	985	985	985	985
2 MB	2,000	1,136	1,136	1,136	1,136
4 MB	4,000	1,540	1,540	1,540	1,540
8 MB	8,000	1,937	1,937	1,937	1,937
16 MB	16,000	2,443	2,443	2,443	2,443
24 MB	24,000	2,802	2,802	2,802	2,802
32 MB	32,000	3,089	3,089	3,089	3,089
50 MB	50,000	3,893	3,893	3,893	3,893
100 MB	100,000	6,181	6,181	6,181	6,181
200 MB	200,000	7,064	7,064	7,064	7,064
500 MB	500,000	7,946	7,946	7,946	7,946
1 G	1,000,000	8,186	8,186	8,186	8,186

Question # 5 Do stakeholders agree with the CRA's proposed cost per hour applicable to "Supervision, Field Feasibility Analysis, GIS update, and Ad-hoc engineering support products"?

Ooredoo agrees with the proposed hourly rate.	Ooredoo	The CRA acknowledges Ooredoo's support for CRA's proposal.
For the reasons set in our response to CD#1 we support the CRA's proposal of reducing and capping this charge.	Vodafone	The CRA acknowledges Vodafone's support for CRA's proposal.

CRA's final decision regarding the cost per hour applicable to "Supervision, Field Feasibility Analysis, GIS update, and Ad-hoc engineering support products"

Key responses	Respondent	CRA's response			
Taking into account the agreement of Qatari Service Providers, the CRA has decided to set the wholesale charges for “Supervision, Field Feasibility Analysis, GIS update, and Ad-hoc engineering support products” following the approach proposed in the Second Consultation Document, which consists of an hourly rate of 321 QAR/hour :					
		Approved Charge	New Charges		
		2020	2021	2022	2023
Cost per Hour applicable to Supervision, Field Feasibility Analysis, GIS update, and Ad-hoc engineering support products	QAR/hour	375	321	321	321
Change to previous year			-14%	-	-

Other general comments

<p>We note that similar to 2018 Wholesale Charges consultation, the CRA continues to downplay the importance of wholesale rate regulation and its impact on overall market revenues and investments. It is incongruous of the CRA to claim that wholesale revenues represented as of 2019 only small part of overall SP revenues¹² after the CRA has effectively slashed the key wholesale rates by more than 90% from year 2015 to years 2019 and 2020. Indeed, as a result of this wholesale rate regulation, the share of the national wholesale revenues in total telecom revenues has dropped from 10% in 2015 to 2% in 2019 (i.e. by 80%). Ooredoo expect that this share has dropped to 1% for 2020 caused by further reduction in wholesale rates as stipulated by the CRA's decision in 2018.</p> <p>As we demonstrate below the wholesale revenues, contrary to the CRA position, do play an important part in determining overall industry revenues and investment capacity. The telecommunications market in Qatar has long passed the phase of rapid growth and as demonstrated by the CRA Telecommunication Market Report No. 4/2020¹³, the total telecommunications market revenues in Qatar have stagnated and actually declined from 2015 to 2019. Further market revenues decline triggered by COVID19 is also expected in 2020. Under such market conditions wholesale revenues even though representing small share of total revenues still do count. Total revenues (inclusive of wholesale revenues)</p>	Ooredoo	<p>Regarding Ooredoo's statement about the fact that is incongruous that the CRA claims that wholesale revenues represent a small share of overall Service Providers' revenues after the CRA has reduced the key wholesale rates in the last years, the CRA reiterates that the weight of wholesale revenues of Qatari Service Providers was already reduced before CRA's intervention.</p> <p>As Ooredoo indicates in its response, in the year 2015, this share was 10% and it has been reduced to 2% in 2019. This evolution is in line with the continuous decreasing trends of unit costs observed for the provision of wholesale services by the Qatari Service Providers. Then, the evolution of wholesale charges arises as a result of the application by the CRA of the principle of cost orientation as required in the Qatari Telecommunication's Law in its Article 29.</p> <p>As also mentioned in the "Response document to comments raised by Service Providers to CRA's First Consultation", the CRA outlines that the impact on revenues of the proposed reductions of FTR and MTR is not expected to be significant (i.e. around 1% of impact is estimated in Ooredoo's revenues for the years 2021-2023). Besides, the impact on the margins of the Service Providers is negligible. This is explained because, when looking at the mobile termination service, which represents the vast majority of the Qatari Service Providers' wholesale revenues (more than 80%), being this a two-way interconnection service, wholesale costs incurred by the industry are netted. Given that the traffic for mobile calls is relatively balanced between</p>
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¹² Paragraph 8 of the First Consultation Document stating: "Therefore, due to the small size of regulated wholesale services when comparing with total industry revenues, changes in Wholesale Charges are not expected to affect significantly the overall industry's income, profitability and its investment capacity."

¹³ Report is available at: <https://cra.gov.qa/en/Market-Insights/Quarterly-report>

Key responses	Respondent	CRA's response
<p>represent important performance indicators closely followed by the investment analysts. It plays important role in determining the cost of SP's investments as it influences expected return on vehicles SPs use to raise funds.</p> <p>As shown in the table below Qatar's telecom market total revenues dropped between 2015 and 2019 by QAR 416 M while wholesale revenues part of these revenues dropped by QAR ٥٠٠. We note that the wholesale revenue decline has been primarily driven by the reduction in regulated wholesale rates since the volume of most wholesale services has either increased or stagnated over given time period. Hence the CRA's regulation of the wholesale charges has caused more than ٥٠ of total market revenue decline between years 2015 and 2019¹⁴. It is noteworthy that in the same time period, the share prices of both Ooredoo and Vodafone Qatar (VFQ) declined by 39% and 66% respectively, while QE index dropped only by 12.4%. We note that in the case of VFQ the wholesale revenues have declined even more than total revenues by QAR ٥٠٠, thus more than off-setting the increase in the retail revenues achieved by VFQ in given time period. Despite the fact that VFQ profit has actually increased from QAR -466 M to QAR 144M from 2015 to 2019 the average cost of borrowing has during the same time period increased for VFQ from 2.5% to 6.9%. The fact that total revenues decline resulted in increased cost of borrowing despite the fact that total profit has actually increased underscores the importance of wholesale revenue in determination of the SP's investment capacity. Higher cost of borrowing reduces the cash-flow available for investment initiatives and hence impacts negatively SP investment capacity.</p> <p>٥٠</p> <p>Given the facts summarized above we have to conclude that wholesale rate regulation has a non-negligible impact on total market revenue change and on a SP's cost of investment financing. We expect the CRA to give due</p>		<p>Ooredoo (٥٠ ٥٠) and Vodafone (٥٠ ٥٠), the reduction in revenues would equally be reflected in the incurred costs, without substantial impact on the profit. In light of the above, the CRA is of the view that this reduction is not likely to introduce any damage on the operator's performance.</p> <p>Finally, regarding Ooredoo's comment about the fact that the total revenue decline resulted in an increase of the cost of borrowing for Vodafone, thus impacting negatively its investment capacity, the CRA outlines that:</p> <ul style="list-style-type: none"> • The decline in Vodafone's wholesale revenues between the years 2015 and 2017, by value of ٥٠ QAR, barely represents a share of ٥٠ over Vodafone's total revenues. By contrast, Vodafone's borrowing rate between these years has increased by 176% (from 2.5% to 6.9%), thus showing an increase of almost three times. In light of this, the slight drop of Vodafone's wholesale revenues cannot be considered as the cause of the increase observed in the borrowing rate, which will depend on many other factors. The CRA also notes that there is no evidence in the information provided by Ooredoo that demonstrates an existing and direct link between the decline in Vodafone's wholesale revenues and such level of increase in the borrowing rate. • Even if total revenues, inclusive of wholesale revenues, may represent in certain cases a performance indicator for investment analysts, there exist many other performance indicators often evaluated. By way of example, the EBITDA Margin, calculated as EBITDA / Revenue, is also a relevant indicator for investment analysts. In this case, the scenario introduced by the reduction in wholesale revenues, as expressed previously, leading to lower revenues but without substantially impacting on the profit of Vodafone and Ooredoo implies a positive effect for this indicator.


¹⁴ Note that since the volume of the highest wholesale revenue service, mobile voice termination has increased over time, in the absence of the steep termination rates reduction the wholesale revenues would have actually increased and would thus partially off-set retail revenue drop in this time period.

Key responses	Respondent	CRA's response
consideration to these facts when making its wholesale rates decisions. Accordingly, we ask the CRA to reflect Ooredoo's comments raised below in the final CRA's decisions and Order setting the wholesale rates for period 2021-2023. The CRA's incorporation of our comments will lead to CRA decisions that reflect current market realities, are in line with best regulatory practices and will promote future investments in the telecoms sector.		
Treatment of Vodafone Qatar comments The CRA's response to Vodafone Qatar's comments often simply refer to the CRA's response to Ooredoo's comments (e.g. our responses to Q1 Guiding Principles to set Wholesale Charges, Q5 on SMS, Q11 on Ethernet Transmission, our comments on industry context and impact assessment of the CD#1). We submit that this is inappropriate as due process require the CRA's to review and respond to the comments and arguments of each Service Provider.	Vodafone	The CRA points out that each of the comments made by the Qatari Service Providers were reviewed and taken into consideration. However, with the objective of drafting a more readable and easily understandable document, the CRA tried as far as possible not to repeat responses, as arguments provided by both Ooredoo and Vodafone were in many cases equivalent. Despite this, and considering concerns put forward by Vodafone, the CRA has changed this approach in this new Response Document, replying to each of comments made by Service Providers individually.
Guiding principles to set wholesale charges At page 2 of the Response Document, in response to an Ooredoo comment the CRA says: <i>"It is also evident that the interests of the service providers (i.e. high revenues and profit with low investments and costs) are often different from the interests of the public (i.e. innovation, low prices, high quality)."</i> We disagree with such oversimplification. We submit that the CRA should take a closer look at what the industry is achieving in terms of market outcomes for the consumers and the country, including nationwide coverage of 4G, early and rapid launch of 5G networks and services in Qatar relative to other countries, very high quality of services, high CAPEX intensity but unfortunately low return on capital employed (well below the WACC set by the CRA for Vodafone Qatar since market entry in 2019).	Vodafone	The CRA outlines that it is already fully aware of the overall context related to the telecommunication sector in Qatar, including all aspects listed by Vodafone.
Our comments to CD#1 on the guiding principles to set wholesale charges stand. The CRA is not required to mechanically set charges at cost. In setting charges, the CRA must give best effect to the furthering of the overarching objectives placed on it by Article 2 of the Telecommunications Law as amended by Law No17 of 2017 (the "Telecommunications Law") and Article 4 of	Vodafone	The CRA reiterates its position as expressed in the "Response document to comments raised by Service Providers to CRA's First Consultation". The Article 19 (1) of the Telecommunication Law requires the CRA <i>"promoting appropriate, effective and low-cost interconnection between telecommunications networks"</i> which typically lead to lower retail tariffs and higher demand

Key responses	Respondent	CRA's response
<p>the Emiri Resolution No 42 of 2014 establishing the CRA ("Emiri Resolution"). In exercising its judgement, we submit that the CRA must strike the right balance between these objectives and consider:</p> <ul style="list-style-type: none"> • expected consumer benefits; • impact on competition, and • impact on investment and innovation. 		<p>levels, favoring the customers and the development of the Qatari economy. In addition, Article 29 of the Telecommunication Law provides that charges for communications services offered by Dominant Service Providers must be based on the cost of efficient service provision and the charge must not contain any excessive charges which result from the dominant position that the Service Provider enjoys. The CRA's current proceeding is basically aimed at setting the wholesale charges for the years 2021, 2022 and 2023, following the provisions of the Qatari applicable legislation, whose most relevant references are mentioned above.</p> <p>The CRA remarks that future wholesale charges have been estimated relying on a cost-oriented approach, based on the cost information submitted by Qatari Service Providers. This cost information, in general, shows continuous decreasing trends of unit costs incurred for the provision of wholesale services. This trend is also in line with the situations observed in many other jurisdictions, where similar alignments of the wholesale charges to costs have been done and lower wholesale charges have been established.</p> <p>Moreover, in order to smooth the potential impact of the reduction of wholesale rates, a mechanism of glidepath has been proposed.</p> <p>Regarding regulatory objectives, the CRA has a broad mandate and multiple objectives to reach. It is also evident that the interests of the Service Providers (i.e. high revenues and profit with low investments and costs) may be often different from the interests of the public (i.e. innovation, low prices, high quality). In taking its decisions, the CRA has to balance the overarching goal of economic diversification, the interests of the Service Providers and those of the customers. To balance all the various objectives, the CRA:</p> <ul style="list-style-type: none"> • Has relied on objective data and information (e.g. the Audited RAS of Ooredoo and other information provided by the SPs); • Has adopted a balanced approach when forecasting costs; • Has allowed a proper return on investments by applying a Cost of Capital which was set at the highest possible level of the calculated range.

Key responses	Respondent	CRA's response
		In conclusion, the CRA is convinced that the wholesale charges proposed for the calendar years 2021, 2022 and 2023 strike a balanced solution among the various policy goals.
Vodafone Qatar notes that CD#2 does not include any detailed text on the guiding principles to set wholesale charges and only make a reference to the CD#1. We invite the CRA to provide appropriate details in the Final Document.	Vodafone	The CRA notes that details about guiding principles to set wholesale charges were already exposed in the First Consultation Document. Based on the contributions received by Qatari Service Providers, the CRA did not consider necessary to consult on them again, which is the reason why they were not fully repeated in the Second Consultation Document.
Mechanisms available for setting wholesale charges Vodafone Qatar notes that CD#2 does not include any detailed text on the mechanisms available for setting wholesale charges and only make a reference to the CD#1. We invite the CRA to provide appropriate details in the Final Document.	Vodafone	The CRA notes that details about mechanisms available to set wholesale charges were already exposed in the First Consultation Document. Based on the contributions received by Qatari Service Providers, the CRA did not consider necessary to consult on them again, which is the reason why they were not fully repeated in the Second Consultation Document.
Review of wholesale charges For the avoidance of doubt, in the event that a review of wholesale charges is approved by the CRA, any changes should be subject to consultation with the SPs. The review clause should be amended accordingly.	Vodafone	The CRA appreciates Vodafone's comment and confirms that, as it was mentioned in the "Response document to comments raised by Service Providers to CRA's First Consultation", a wholesale charge will not be modified without prior consultation with affected Service Providers. Despite this, the CRA does not see the need of amending the review clause, as the purpose of this clause is to provide instructions to Service Providers for seeking a review of wholesale charges, which should be independent of any consultation process, as this falls under CRA's responsibility.
Duct Access – improvement of process For the record, we reproduce below our comments regarding duct access process dated 21 May 2020, which we believe were incorrectly summarised by the CRA in CD#1 preventing Ooredoo from fully understanding our position and proposal. <i>"One-offs charges constitute a significant barrier to entry for duct access which is magnified in the context of Ooredoo where there is no on-line system for access request with up-to-date information on duct locations and availability. The availability of such tool has proven to be a key driver for the uptake of duct access in Spain and</i>	Vodafone	The CRA notes that this comment from Vodafone was not included in the "Response document to comments raised by Service Providers to CRA's First Consultation" as the topic raised by the Service Provider was out of the scope of this proceeding, focused on the setting of wholesale charges.

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<p><i>Portugal. It enables the efficient and cost-effective deployment of fibre.</i></p> <p><i>A key proposal here would be that for all processing activities (e.g. preparation and sending GIS information, maps and network data including XML files and shape files), there should be a software management tool similar to the CRA web tool from Ericson to automate all back-office activities. This would be a win-win for all stakeholders:</i></p> <ul style="list-style-type: none"> <i>• For Ooredoo: an automated tool replacing the database and manual processes will lead to cost savings, efficient processes and secure accurate tracking for all of Ooredoo's assets and changes (e.g. utilised space, Vodafone Qatar / Ooredoo cables).</i> <i>• For access seekers: faster request processing and cost savings, enabling faster roll-out.</i> <i>• For the CRA: the tool will support CRA's objective to foster efficient investment and will provide full visibility on requests status. The tool could be used when/if conflicts arise between Ooredoo and access seekers."</i> 		
<p>Timeframe defined by the CRA</p> <p>For planning purposes, Vodafone Qatar requests the CRA to allow a period of 1 to 2 months from the date of issuance of the final decision before the new wholesale rates become applicable.</p>	Vodafone	The CRA appreciates Vodafone's comment and will clarify the date from when the approved wholesale charges will enter in force in the Final Order.
<p>To remove uncertainty, Vodafone Qatar requests that the CRA clarify in its final decision that regulated charges for the last year shall remain in place beyond the three-year time period in the event that rates are not set before the end of the three-year period.</p>	Vodafone	The CRA appreciates Vodafone's comment and will clarify the timeframe for the approved wholesale charges to remain in force in the Final Order.

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<p>Industry context and impact assessment</p> <p>In response to the CRA's comment that "recent financial statements published by Vodafone show that the SP is coping well with the pandemic", Vodafone Qatar would like to underline to the CRA that our profitability remains unfortunately and despite our efforts unsatisfactory. Our return on capital employed has been well below the WACC set by the CRA since our market entry in 2019. We submit that this should be a cause of serious concern to the CRA.</p> <p>The below diagram provides Vodafone Qatar historical return on capital employed and capital intensity.</p> 	Vodafone	<p>The CRA notes that the WACC was set at the highest possible level of the calculated range, in order to allow a proper return on investments accomplished by Qatari Service Providers as well as to incentivize future investments.</p> <p>Moreover, while the WACC factors in the return expected by the creditors, this is not accounted for in the ROCE calculation. Therefore, the CRA considers that these two variables do not pursue the same objective. Furthermore, according to public reports available, it understands that Vodafone Qatar's ROCE is actually above the average ROCE of Vodafone Group, pointing to the good performance of the company in Qatar compared to the other markets in which it operates.</p>																																												
<p>Summary table of Vodafone Qatar's position on the proposed wholesale charges</p> <p>The below table sets out Vodafone Qatar summary position on the CRA's proposed wholesale charges.</p> <table><tr><th>Charge</th><th>VQ position</th></tr><tr><td>Fixed Call Termination Service to Geographic Numbers</td><td>Agree with CRA proposal</td></tr><tr><td>Mobile Call and Video-Call Termination Service</td><td>Query the consumer benefits of reductions</td></tr><tr><td>Termination for international in-bound traffic</td><td>Agree with CRA proposal</td></tr><tr><td>Call Termination Service to Toll-Free Numbers for fixed and mobile</td><td>Agree with CRA proposal</td></tr><tr><td>Call Termination Services to Numbers for Inbound Int. calls</td><td>Agree with CRA proposal</td></tr><tr><td>Termination Emergency Services</td><td>Agree with CRA proposal</td></tr><tr><td>Messaging Termination (SMS and MMS)</td><td>No strong objection</td></tr><tr><td>Outgoing International Call Conveyance</td><td>Agree with CRA proposal</td></tr><tr><td>Interconnection Link Services</td><td>Agree with CRA proposal</td></tr><tr><td>Transmission Link Services - SDH</td><td>Agree with CRA proposal</td></tr><tr><td>Transmission Link Services - Ethernet</td><td>Disagree with CRA proposal</td></tr><tr><td>Duct Access</td><td>Agree with CRA proposal</td></tr><tr><td>Facility Hosting</td><td>Agree with CRA proposal</td></tr><tr><td>Supervision</td><td>Agree with CRA proposal</td></tr><tr><td>Access Area Request</td><td>Agree with CRA proposal</td></tr><tr><td>Route Access Request</td><td>Agree with CRA proposal</td></tr><tr><td>Field Feasibility Analysis</td><td>Agree with CRA proposal</td></tr><tr><td>GIS update</td><td>Agree with CRA proposal</td></tr><tr><td>Ad-hoc engineering support</td><td>Agree with CRA proposal</td></tr><tr><td>Transportation charge</td><td>Agree with CRA proposal</td></tr><tr><td>Misc. expenses</td><td>Agree with CRA proposal</td></tr></table>	Charge	VQ position	Fixed Call Termination Service to Geographic Numbers	Agree with CRA proposal	Mobile Call and Video-Call Termination Service	Query the consumer benefits of reductions	Termination for international in-bound traffic	Agree with CRA proposal	Call Termination Service to Toll-Free Numbers for fixed and mobile	Agree with CRA proposal	Call Termination Services to Numbers for Inbound Int. calls	Agree with CRA proposal	Termination Emergency Services	Agree with CRA proposal	Messaging Termination (SMS and MMS)	No strong objection	Outgoing International Call Conveyance	Agree with CRA proposal	Interconnection Link Services	Agree with CRA proposal	Transmission Link Services - SDH	Agree with CRA proposal	Transmission Link Services - Ethernet	Disagree with CRA proposal	Duct Access	Agree with CRA proposal	Facility Hosting	Agree with CRA proposal	Supervision	Agree with CRA proposal	Access Area Request	Agree with CRA proposal	Route Access Request	Agree with CRA proposal	Field Feasibility Analysis	Agree with CRA proposal	GIS update	Agree with CRA proposal	Ad-hoc engineering support	Agree with CRA proposal	Transportation charge	Agree with CRA proposal	Misc. expenses	Agree with CRA proposal	Vodafone	<p>The CRA appreciates Vodafone's summary and refers the Service Provider to CRA's position as expressed for each service in previous points.</p>
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<i>Regarding Qnbn, the CRA notes that the Service Provider has responded to CRA's Second Consultation Document with the same set of comments previously delivered when answering to CRA's First Consultation Document. These are not repeated in this document to avoid duplicity.</i>	Qnbn	Given that Qnbn's comments were already addressed by the CRA in the document "Response document to comments raised by Service Providers to CRA's First Consultation", the CRA reiterates its position as expressed in such document and refers the Service Provider to it.