



هيئة تنظيم الاتصالات
Telecommunications Regulatory Authority

The Regulation of Wholesale Inbound Services

Consultation

26 January 2012

Ref: MCD/01/12/006

Request for comments:

The Telecommunications Regulatory Authority invites comments on this consultation document from all interested parties. Comments should be submitted before **4pm on 23 February 2012**.

Responses should be sent to the Authority preferably by e-mail (or by fax or post) to the attention of:

Director, Market and Competition Department

inbound@tra.org.bh

Telecommunications Regulatory Authority

P.O. Box 10353, Manama, Kingdom of Bahrain

Fax: +973 1753 2125

Purpose: To set the Authority's position on the regulation of international wholesale inbound services and appropriate legal instrument for the regulation of international wholesale inbound services.

Instructions for submitting a response

1. The Telecommunications Regulatory Authority ('the Authority') invites comments on this consultation document from all interested parties.

2. The Authority specifically invites comments upon:

- a. its proposal to issue a Regulation on Wholesale Inbound Services which establishes a price floor for specific tariffs that can be charged by Licensed Operators for Wholesale Inbound Services (as defined in the draft Regulation); and
- b. the accompanying Explanatory Note.

3. Comments should be submitted by **4pm on 23 February 2012**.

4. Responses should be sent to the Authority preferably by email (or by fax or post) to the attention of:

Director, Market and Competition Department
inbound@tra.org.bh
Telecommunications Regulatory Authority
P.O. Box 10353, Manama, Kingdom of Bahrain
Fax: +973 1753 2125

5. Responses should include:

- a. the name of the company/institution/association etc.;
- b. the name of the principal contact person;
- c. full contact details (physical address, telephone number, fax number and e-mail address); and
- d. in the case of responses from individual consumers, name and contact details.

6. The Authority expects the responses to follow the same structure as set in this consultation document. The Authority also invites respondents to substantiate their responses to the questions raised, wherever possible by providing factual evidence to support the responses.

7. In the interest of transparency, the Authority intends to make all submissions received available to the public. The Authority will evaluate a request for confidentiality in line with relevant legal provisions and the Authority's published guidance on the treatment of confidential and non-confidential information.¹

8. Respondents are required to mark clearly any information included in their submission that is considered confidential. Where such confidential information is included, respondents

¹ The Authority, "A Guidance Paper issued by the Telecommunications Regulatory Authority on its treatment of Confidential and Non-confidential Information", Guidance Paper No. 2 of 2007, 10 September 2007, at http://www.tra.bh/en/pdf/Confidentiality_Guidelines_Final.pdf

are required to provide both a confidential and a non-confidential version of their submission. If a part or a whole submission is marked confidential, reasons should be provided. The Authority may publish or refrain from publishing any document or submission at its sole discretion.

9. Once the Authority has received and considered responses to this consultative document, the Authority will issue a final document on the regulation of wholesale inbound services.



هيئة تنظيم الاتصالات
Telecommunications Regulatory Authority

Draft Regulation on Wholesale Inbound Services

A Draft Regulation issued by the Telecommunications Regulatory Authority on Wholesale
Inbound Services

26 January 2012

Purpose: To regulate wholesale inbound services.

Regulation

Article 1 – Definitions

- (a) For the purposes of this Regulation, any word or expression shall have the meaning given to it in the Telecommunications Law as promulgated by Legislative Decree No. 48 of 2002.
- (b) The following terms and expressions shall have the following meanings, unless the context otherwise requires:

“Fixed Subscriber” means a User on a fixed Telecommunications Network in the Kingdom of Bahrain to whom an international telephone call is made.

“Gulf Cooperation Council Country” means a country that is a member of the Charter of the Gulf Cooperation Council entered into on 25 April 1981.

“Gulf Cooperation Council Operator” means a telecommunications operator in a Gulf Cooperation Council Country outside the Kingdom of Bahrain that originates international telephone calls to a Fixed Subscriber or Mobile Subscriber in the Kingdom of Bahrain.

“Licensed Operator” means an operator holding an International Telecommunications Services Licence granted by the Telecommunications Regulatory Authority of the Kingdom of Bahrain who provides a Wholesale Inbound Service.

“Mobile Subscriber” means a User on a mobile Telecommunications Network in the Kingdom of Bahrain to whom an international telephone call is made.

“Wholesale Inbound Service” means an international conveyance and termination Telecommunications service provided by a Licensed Operator for the purpose of the conveyance and termination of an international telephone call originating from a country outside of the Kingdom of Bahrain to a Fixed Subscriber or Mobile Subscriber in the Kingdom of Bahrain.

Article 2 – Scope

This Regulation applies to all Licensed Operators providing Wholesale Inbound Services to Gulf Cooperation Council Operators.

Article 3 - Price Floor for Wholesale Inbound Services

- (a) All Licensed Operators providing Wholesale Inbound Services to Gulf Cooperation Council Operators are subject to a price floor established for Wholesale Inbound Services in article 3(b) of this Regulation.
- (b) The price floor for Wholesale Inbound Services supplied by Licensed Operators to Gulf Cooperation Council Operators is set at the following:
 - 1. 14 fils per minute for calls to Fixed Subscribers; and
 - 2. 21 fils per minute for calls to Mobile Subscribers.
- (c) The price floor may be subject to review and subsequent adjustment.

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Article 4 - Enforcement

Licensees that fail to comply with the provisions of this Regulation will be deemed in breach of their relevant Licence and the Telecommunications Law and will therefore be subject to enforcement action as per the Telecommunications Law.

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Explanatory Note

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List of acronyms and definitions

Batelco	Bahrain Telecommunications Company B.S.C
BD	Bahraini Dinar
cpm	cents per minute
CPP	Calling Party Pays
fpm	fiils per minute
GCC	Gulf Cooperation Council
LRIC	Long Run Incremental Cost
OLO	Other Licensed Operator
PSTN	Public Switched Telephone Network
RAO	Reference Access Offer
RIO	Reference Interconnection Offer
RO	Reference Offer
SDR	Special Drawing Right

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1 Introduction

10. The purpose of this Explanatory Note is to set out the Authority's consideration of the regulation of wholesale inbound services that underpins the Draft Regulation released for consultation. Upon receipt of responses to this consultation, the Authority will consider whether to issue the accompanying Draft Regulation amended as appropriate.
11. Wholesale inbound services are supplied by fixed and mobile network operators in Bahrain to foreign telecommunications operators to enable the completion of international calls that are made from subscribers in foreign countries to subscribers in Bahrain. Where a call is made by a subscriber of a foreign network to a subscriber of a network in Bahrain, the foreign network operator hands the call over to a Bahraini Licensed Operator, who then conveys the call into Bahrain using international facilities and links into Bahrain. The call is then terminated by the network operator (fixed or mobile) of the call recipient in Bahrain. In other words, call termination is used as an input into the supply of wholesale inbound services by Bahraini Licensed Operators to foreign operators.
12. Call termination is currently a regulated service in Bahrain, while the supply of wholesale inbound services is not currently regulated.
13. This Explanatory Note is structured as follows.
14. Section 2 summarises the relevant background on the supply of international inbound services to foreign operators, specifically describing the relevant services and the recent history of regulation applying to those services.
15. Section 3 sets out the relevant legal framework within which the regulation of wholesale inbound services must take place. This includes the relevant legal considerations that must be taken into account when comparing alternative regulatory options.
16. In Section 4, the Authority considers the regulation of international inbound services, including whether the termination rates for international inbound traffic should be increased and whether the wholesale inbound rates that are charged to foreign operators should be subject to a price floor. In considering whether to intervene in either of these ways, the Authority has placed significant weight on its duties to protect the interests of users of telecommunications services in Bahrain and to promote fair and effective competition.
17. Section 5 concludes with the Authority's preliminary decision on which of the options (in the form of a Draft Regulation) would best meet the considerations the Authority is required to have regard to when carrying out its duties under the Telecommunications Law as promulgated by Legislative Decree No. 48 of 2002 (the "Telecommunications Law").
18. A number of annexes are also provided to this consultation document. Annex A summarises the network elements involving in supplying international inbound services to foreign operators, illustrating the "vertical relationship" between the call termination elements that are used as an input into the provision of wholesale inbound services. Annex B provides a summary of the main arguments that have been made by various operators in respect of international inbound rates to date. Annex C summarises the position that has been taken in a number of other countries on the treatment of international calls terminating within those countries.

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2 Background

19. In its Final Order in respect of Batelco's 2010 Reference Offer, the Authority noted that:²
- “the issue of international inbound traffic to fixed and mobile networks is an industry-wide issue and as such needs to be addressed in a separate regulatory proceeding. This is recognized by Batelco and certain other operators, who have approached in the past the Authority. The Authority intends to look at this issue in the first half of 2011.”
20. On 6 June 2011,³ the Authority wrote to a number of Licensed Operators (the Authority's “6 June 2011 letter”) requesting further clarification and explanation of how international inbound services are supplied and the nature of the concerns that have been raised by the mobile network operators. The Authority also sought views on the proposals to increase rates, and requested specific information on the volumes and rates of international inbound traffic into Bahrain. Responses were received from all of these Licensed Operators.
21. On 27 July 2011,⁴ the Authority informed all Licensed Operators of its intention to undertake a consultation with the wider industry on international inbound termination rates during the fourth quarter of 2011. In that letter, the Authority noted that it will set out its views on the nature of the issues relating to the supply of inbound services to foreign operators.
22. In this section, the Authority provides the background to the regulation of international inbound termination services. Specifically, this includes a description of the relevant services, and the relevant dominance determinations that apply to the termination of calls on fixed and mobile networks. The Authority then provides a summary of the recent history of determining regulated international inbound termination rates in Bahrain. The final subsection summarises the relevant decisions that have been taken at the Gulf Cooperation Council (“GCC”) level.

2.1 Description of the relevant services

23. International inbound termination services are supplied by fixed and mobile network operators in Bahrain to terminate calls that are made from subscribers in foreign countries to subscribers in Bahrain. The international inbound calls are originated on the foreign network, with the foreign network operator handing the call over to a Bahraini Licensed Operator, who then conveys the call into Bahrain using international facilities and links into Bahrain. The call is then terminated by the network operator (fixed or mobile) of the call recipient in Bahrain.

² The Authority “An Order issued by the Telecommunications Regulatory Authority (“TRA”) on the Reference Interconnection Offer and Reference Access Offer of the Bahrain Telecommunications Company B.S.C (“Batelco”)”, 25 January 2011, paragraph 622.

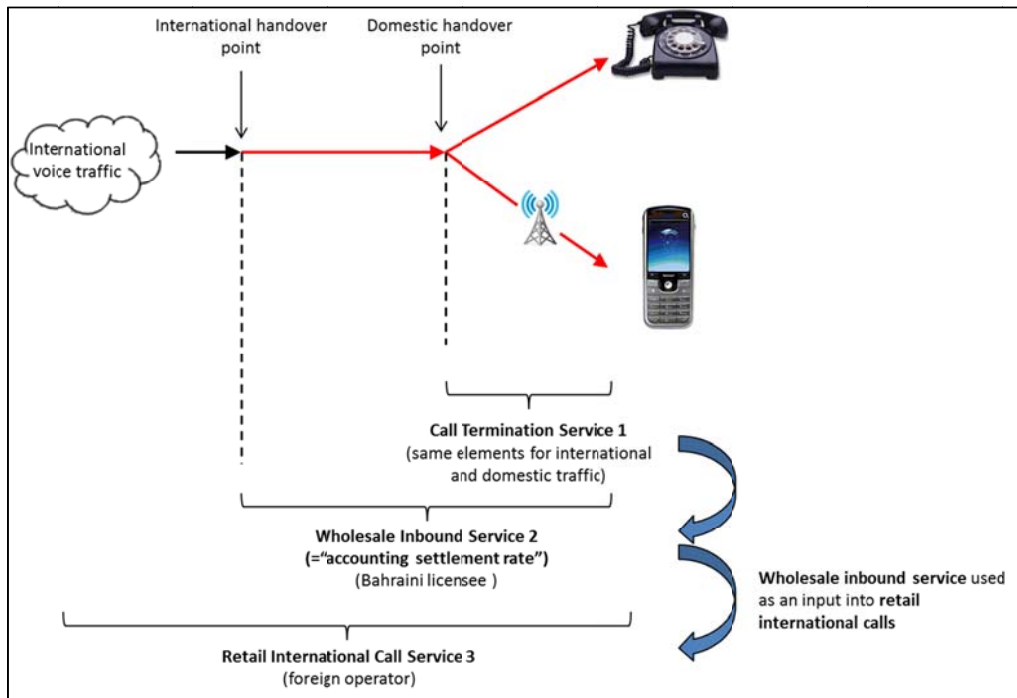
³ Letters from the Authority to each of Batelco, Zain, Viva, Menatelecom, Kalaam and Etisalcom, re International Inbound Termination Rates, 6 June 2011.

⁴ Letter from the Authority to all Licensed Operators, International Inbound Termination Rates, 27 July 2011 (Ref MCD/07/11/112).

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24. Figure 1 below is a generic representation of the supply of international inbound services and international termination services in respect of a call from a foreign operator to a fixed or mobile subscriber in Bahrain. The call is originated by the foreign operator, for example, BT in the United Kingdom. In order to provide the retail call service, BT purchases a wholesale international inbound service (“Wholesale Inbound Service 2” shown in Figure 1) from a Bahrain Licensed Operator, and hands the call over at an agreed international handover point.⁵ The Bahraini Licensed Operator carries the call into Bahrain, and terminates the call on the network to which the call recipient subscribes.
25. Where the operator supplying the Wholesale Inbound Service differs from the operator terminating the call, the former will purchase a Call Termination Service (Service 1 shown in Figure 1) from the latter.⁶

Figure 1: Supply of International Inbound Services



26. Having reviewed the operators’ responses to the Authority’s 6 June 2011 letter, the Authority considers that Figure 1 is a reasonable generic illustration of how these services are supplied. While the operators’ responses provided more detail of the facilities and links involved in supplying these services, Figure 1 above is consistent with those responses.
27. As can be seen from Figure 1, there is a vertical relationship between the supply of the Wholesale Inbound Service 2, and the supply of the Call Termination Service 1. The

⁵ The international handover point is often the notional mid-point of an international facility.

⁶ Where the operator supplying the Wholesale Inbound Service also terminates the call, a wholesale Call Termination Service is not explicitly involved, although the underlying network elements involved in terminating the call will be similar.

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termination service is an ‘upstream’ input that is used in the supply of the Wholesale Inbound Service.⁷ The network operators supplying the wholesale call termination input are also involved in supplying wholesale inbound services to foreign operators, and compete with non-integrated operators in supplying these inbound services.

2.2 Relevant Dominance Determinations

28. The relevant dominance determinations that relate to the termination of calls on fixed and mobile networks in Bahrain are the following:
- a. Dominance in Interconnection Markets 2003 (the “2003 Dominance Determination”);⁸ and
 - b. Dominance Designation for Termination Services on Individual Mobile Networks 2010 (the “2010 Dominance Determination”).⁹
29. In the 2003 Dominance Determination, the Authority found Batelco to be dominant in the market for call termination on public fixed networks, and the market for mobile call termination and retail services.¹⁰
30. In the 2010 Dominance Determination, which the Authority noted supersedes the 2003 Dominance Determination as far as it relates to mobile services,¹¹ the Authority concluded that the relevant markets are the wholesale market for termination services on Batelco’s mobile network, and the wholesale market for termination services on Zain’s mobile network. The Authority concluded that both Batelco and Zain are dominant in these respective markets.¹²
31. The Authority notes that the market power concerns that gave rise to the dominance findings in both the 2003 Dominance Determination and the 2010 Dominance Determination do not change according to whether the call originates within Bahrain or outside Bahrain. In particular, under the Calling Party Pays (“CPP”) principle which applies in Bahrain, a disconnection is created between the party that pays for the call (and hence pays for termination) and the party that chooses which network to subscribe to. As discussed in the 2010 Dominance Determination, consumers are unlikely to switch operators in response to an increase in termination rates, as consumers are typically unconcerned about the cost of incoming calls as they do not pay to receive calls under the CPP principle.

⁷ The table shown in Annex A also illustrates this relationship by summarizing the network elements involved in supplying wholesale inbound services to foreign operators. The Annex A table is based on Batelco’s Routing Factor Table (2009), using the example of Batelco’s ‘International – Terminating (InPay)’ service, and is consistent with the information supplied by other operators in responses to the Authority’s 6 June 2011 letter.

⁸ “Dominance in Interconnection Markets: A Determination by the Telecommunications Regulatory Authority”, 9 August 2003, available at http://www.tra.org.bh/en/pdf/Dominance_in_Interconnection_Markets_ERU_DE_005_v1.0_PDF.pdf

⁹ “Dominance designation for termination services on individual mobile networks”, 1 February 2010, available at <http://www.tra.org.bh/en/pdf/FinalDominanceDesignationMTRsPublic.pdf>

¹⁰ 2003 Dominance Determination, Section 4.3.

¹¹ 2010 Dominance Determination, paragraph 8.

¹² *ibid*, paragraph 90.

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32. The resulting termination ‘bottleneck’ allows a network operator to increase call termination rates without risking the loss of subscribers from its network. This applies equally to the termination of calls that are made by subscribers of other domestic network operators (i.e. domestic off-net calls), and the termination of calls that are made by foreign subscribers (i.e. international inbound calls).
33. The Authority also notes that the markets in which both Batelco and Zain were found to be dominant relate to the supply of wholesale termination services on their respective mobile networks. No distinction is made between calls that originate within or outside of Bahrain.
34. As a result of the above determinations, international inbound termination services are currently regulated services in Bahrain. International inbound termination services are included in Batelco’s Reference Offer (“RO”).¹³ Zain has yet to publish its RO.
35. In summary, the 2003 Dominance Determination continues to apply in respect of the termination of calls on Batelco’s fixed network, while the 2010 Dominance Determination applies in respect of the termination services on each of Batelco’s and Zain’s mobile networks.¹⁴ The Authority considers that there has been no significant changes that would warrant a change in the dominance findings of the 2003 and 2010 Dominance Determinations.

2.3 Recent history of regulated international inbound termination rates in Bahrain

36. Prior to 2006, the termination rates applying to internationally originated traffic exceeded the termination rates for domestically originated traffic in Bahrain. In Batelco’s 2006 Reference Interconnection Offer (“RIO”), Batelco proposed maintaining these differentials between international and domestic termination rates. The Authority disagreed, and in its 2006 RIO Final Order, the Authority determined termination rates for international inbound traffic that reflected the costs of supplying such termination services.¹⁵ The termination rates for international traffic in the 2006 RIO Final Order represented a significant reduction from previous levels.¹⁶
37. The 2006 RIO Final Order went to arbitration, during which the arbitration panel referred to the possible use of a glide-path to remove the differential between termination rates

¹³ Service 2-7 and Service 2-8, Schedule 1, Batelco Reference Offer, available at http://www.batelco.com.bh/portal/Wholesale/wholesale_reference_offer.asp

¹⁴ On 17 August 2011, the Authority informed all Licensed Operators that a review of the wholesale market for mobile termination services is appropriate in light of Viva’s entry and to ensure that regulation is applied consistently. Letter from the Authority to Licensed Operators, Market Reviews, 17 August 2011 (Ref MCD/08/17/128).

¹⁵ The Authority, Order No. 3 of 2006 Reference Interconnection Offer Order, 6 August 2006. See Section 4.4(i) for International Inbound Call charges – Fixed, and Section 4.4(j) for International Inbound Call charges – Mobile. In both cases, the Authority noted that the network charge calculated from the 2004 accounts differed from Batelco’s proposed charge, and that the difference could not be accounted for. The charges determined by the Authority as being fair and reasonable were based on the network costs of the underlying network components of each service, plus an allowance for the cost of interconnection-specific services..

¹⁶ *ibid*, page 43. Batelco had proposed maintaining the International PSTN Call Termination charge at the prevailing 9.95 fils per minute, while the charge determined by the Authority was 2.91 fils per minute. For International Mobile Call Termination, Batelco’s proposed charge was the prevailing 18.40 fils per minute, while the charge determined by the Authority was 8.33 fils per minute.

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applying to international and domestic traffic. The Authority considered and accepted a proposal by Batelco to use such a glide-path to gradually reduce and eliminate the differential,¹⁷ with the agreed “buffer” level (i.e. the margin above cost) in this glide-path reducing to zero by 1 July 2010 at the latest.

38. Since 1 July 2010, the termination rates for international calls to Batelco’s fixed and mobile networks have been set equal to the applicable domestic termination rates.

2.4 GCC statements

39. In addition to the Authority’s determination of international inbound termination rates through the RO process, it is also relevant to note that the issue of international inbound termination rates has been considered by the GCC Council. The following is a brief history of the GCC Council’s consideration of this issue:
- a. The GCC Council first considered the issue in response to a request from Etisalat (UAE) in the 10th meeting of the Ministerial Committee held in Qatar on 28 May 1997. During this meeting, the Ministers agreed to set a cap of 1.5 gold francs¹⁸ per minute, with the option available for operators to agree on lower rates bilaterally;
 - b. In 1999, the Ministerial Committee reduced the rate to 1 gold franc per minute to apply from 1 July 1999, and requested the Operations and Tariff Committee of the GCC Council to further study the appropriate mechanism to regulate such rates;
 - c. In 2001, the rates were further reviewed and reduced to 0.24 SDR¹⁹ (or approximately 13.8 US cents). The Ministerial Committee noted that this agreement did not overrule any existing bilateral agreements which were lower than the rates set as per the Ministerial Committee meeting. Although not explicitly stated as such, this clearly indicates that the rates set by the Ministerial Committee are caps;
 - d. In 2004, the rates were further reduced to 0.15 SDR (approximately 8.7 US cents), with the meeting minutes of the Ministerial Committee clearly indicating that such rates are caps for termination of traffic between the GCC member states. In this same meeting, the Ministerial Committee recommended that the Operations and Tariff Committee study the possibility of having separate rates for fixed and mobile services;
 - e. In 2005, the Ministerial Committee acknowledged the initiative undertaken by Batelco (Bahrain), Etisalat (UAE) and Qtel (Qatar) in implementing new rates of 8 US cents for calls to fixed and 10 US cents for calls to mobile. The meeting minutes clearly indicate that the Ministerial Committee was setting caps for

¹⁷ The Authority “Reference Interconnection 8 November 2006: Notice on Approved Charges”, 7 February 2007, page 12.

¹⁸ The Gold Franc was the unit used for International Settlements up until April 1, 2003, when it was replaced with the Special Drawing Right.

¹⁹ At this point, the SDR was used as a standard exchange rate between operators.

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termination services. The same rates were implemented across all GCC member states in 2006;

- f. In 2008, the Ministerial Committee indicated that it was aware that some termination rates for Arab countries had been lowered, and that in some cases such rates were similar to or lower than the existing implemented GCC rates. It therefore required the Operations and Tariff Committee to investigate lowering the existing rates to a proposed 7 US cents for fixed and 9 US cents for mobile. The Ministerial Committee indicated that it encourages lower bilateral agreements between the operators;
- g. The situation did not change in 2009, where the operators continued to implement rates of 8 US cents for calls to fixed and 10 US cents for calls to mobile. The Ministerial Committee meeting minutes say that bilateral rates can be agreed below the caps. Batelco had proposed 5 US cents for calls to fixed but this was refused by the other GCC member states;
- h. In both 2010 and 2011, the Ministerial Committee did not discuss in detail the termination rates for GCC member states.

3 Legal framework

40. Article 3(b) of the Telecommunications Law places the following general duty on the Authority:

“The Authority undertakes in carrying out its duties relating to Telecommunications services in the manner best calculated to:

- 1. *protect the interests of Subscribers and Users in respect of:*
 - *the tariffs charged for services.*
 - *availability and provision of service.*
 - *quality of services.*
 - *protection of personal particulars and privacy of services.*
- 2. *promote effective and fair competition among new and existing Licensed Operators.”*

41. The legal framework relating specifically to Interconnection and Access is set out in Article 57 of the Telecommunications Law. Article 57 (b) relates specifically to Interconnection and states that:

*“A Public Telecommunications Operator determined by the Authority to have a **Dominant Position** in a particular Telecommunications market shall, within three months of such determination and every six months thereafter, publicise a reference Interconnection offer after obtaining the Authority’s approval to such offer.” (emphasis added).*

42. Article 57(b) goes on to state that:

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*“Such terms and conditions and tariffs shall be **fair, reasonable and non-discriminatory and the tariffs shall be based on forward-looking incremental costs or by benchmarking such tariffs against tariffs in comparable Telecommunications markets.**” (emphasis added).*

43. Article 57(e) relates specifically to Access and states:

*“A Public Telecommunications Operator in a **Dominant Position** shall offer upon request Access to its Telecommunications Network on fair and reasonable terms to any Licensed Operator.” (emphasis added)*

“The Authority may publish regulations with regards to Access, including a regulation concerning the reference Access offer similar to a reference interconnection offer.

If the Authority considers the tariffs and the terms and conditions on which Access is offered by an operator in a Dominant Position are unreasonable, it may determine such tariffs and terms and conditions as it considers appropriate, and the provision of paragraph (b) of this Article shall apply in this respect.”

44. Therefore, it follows that if during its assessment of Reference Offer Access and Interconnection products the Authority does not consider that the terms and conditions are reasonable, the Authority can determine the tariffs and in doing so shall have regard to the provisions in both Article 57(b) and Article 57(e). When the Authority is determining the prices for both Interconnection and Access services, it must be satisfied that the resulting tariffs are fair, reasonable and non-discriminatory and based on forward looking costs or benchmarking.
45. As discussed in Section 2.2 above, Batelco’s fixed and mobile international inbound termination services are currently regulated services in Bahrain. This is on the basis of the Authority’s 2003 Dominance Determination, in which the Authority found Batelco to be dominant in the market for call termination on public fixed networks; and the 2010 Dominance Determination, in which the Authority found that each of Batelco and Zain are dominant in the markets for call termination on their respective mobile networks. For the reasons set out in Section 2.2 above, these dominance findings apply irrespective of whether the call originates within or outside of Bahrain.
46. The Authority notes that Article 57 of the Telecommunications Law draws a distinction between Interconnection and Access. Interconnection is defined in Article 1 of the Telecommunications Law as:

“The physical and logical linking of Telecommunications networks used by the same or a different operator in order to allow the Subscribers of one operator to communicate with Subscribers of the same or another operator, or to receive services provided by another operator.”

47. Article 1 defines Access as:

“the making available of telecommunications facilities and/or telecommunications services to another Licensed Operator for the purpose of providing telecommunications services, and including the connection of equipment by wire or wireless means, access to physical infrastructure including buildings, ducts, cable

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and masts, access to mobile networks and access to number translation or networks offering equivalent functionality.”

48. In accordance with the 2010 Dominance Determination, the Authority considers that termination services are properly characterised as interconnection services.²⁰ As discussed in Section 2.2 above, the 2010 Dominance Determination applies to the termination of international inbound traffic as well as domestic traffic.
49. In any event, the Authority notes that according to Article 57(e), if the Authority considers the tariffs and terms and conditions on which Access is offered by a dominant operator are unreasonable, the Authority may determine such tariffs and terms and conditions as it considers appropriate, and that Article 57(b) shall apply. In other words, the same pricing principle will apply where the Authority is determining prices for Access and Interconnection.

4 Regulation of international inbound services

50. In deciding whether to consider the regulation of international inbound services at the request of some operators, including Batelco, Viva and Zain, either in the form of increasing international inbound termination rates or setting a price floor for the wholesale inbound rates that are charged to foreign operators, the Authority has based its consideration on its legislative duties to promote fair and effective competition and to protect the interests of users of telecommunications services in Bahrain.
51. These duties, together with the pricing principles set out in Article 57 of the Telecommunications Law, are generally mutually consistent. Under an orthodox regulatory decision-making framework, upon which the Telecommunications Law is based, markets are identified in which there is significant market power or dominance, and appropriate regulatory remedies are applied to ensure that the prices of key access and interconnection services are cost-based. Such cost-based prices should facilitate competition in the relevant downstream markets, which in turn will protect the interests of end users. Competitive markets deliver better outcomes for consumers than markets characterised by market power, in the form of lower prices, greater choice and quality, and more innovative services.
52. The need for a regulatory review in relation to international inbound services has therefore been evaluated in light of the duties of the Authority to promote effective and fair competition and to protect the interests of end users in Bahrain.

4.1 Promoting effective and fair competition

53. As noted earlier, international inbound call termination is a bottleneck input that is supplied by a network operator to other operators that compete in the supply of downstream wholesale inbound services to foreign operators. Such competitors rely on the call termination service in order to be able to complete incoming calls, and combine call

²⁰ 2010 Dominance Determination, page 2 paragraph 2.

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termination with the international facilities across which such calls are delivered into Bahrain.

54. In July 2010, the regulated rates for international inbound call termination on Batelco's fixed and mobile networks were set at the same level as Batelco's domestic termination rates. This reflects the fact that the international inbound termination service is the same as the domestic call termination service, with the same network elements involved.²¹ Put differently, the termination of international calls is no different than the termination of domestically originated calls.
55. As a result of the glide-path that was introduced in early 2007, international inbound termination rates have dropped significantly in Bahrain. Competing providers of international inbound services have been able to acquire wholesale call termination services at rates that have been moving towards cost as the buffer has gradually reduced between 2007 and 2010. By acquiring cost-based call termination from Batelco, competitors can use their own international facilities (or lease such capacity from others, including Batelco), and undercut Batelco's prices for wholesale inbound services. Batelco has had to respond by lowering its wholesale inbound rates in order to retain international inbound traffic on its network. As a consequence, the profit margins that have been earned by Batelco and other Bahraini Licensed Operators in supplying wholesale inbound services to foreign operators have been gradually eroded. These rate reductions and margin erosion on wholesale inbound services is an expected consequence of increasing competition in the supply of wholesale inbound services. The arbitration panel in 2006 also referred to the pro-competitive effect of the Authority's 2006 decision to remove the buffer, noting Batelco's submission that:²²
- “... the effect of the TRA's decision will be to largely eliminate the inpayment surplus. The reason for this effect is that lowering the termination rates that Batelco is entitled to charge other licensed operators will allow those licensed operators to, in turn, offer lower inpayment rates to international operators. Through the process of competition, the inpayment rate will steadily begin to approach the cost of providing the service – as Batelco puts it, the inpayment surplus will be “competed away”.”
56. As the provision of wholesale inbound services has become more competitive, it appears that the reductions in the termination rate applying to international inbound traffic since 2007 (as a result of the glide-path) have been passed through into the wholesale inbound rates charged to foreign operators. This indicates that the Authority's decision to set cost-based termination rates in respect of international inbound traffic has been and has had an effect consistent with the Authority's duty to promote fair and effective competition between existing and new Licensed Operators in Bahrain.

²¹ See Annex A for the example of international and domestic calls terminating on Batelco's fixed network.

²² “Decision of the RIO Arbitration Panel on Batelco's Application for a Stay of Part of the RIO Order made by the TRA on 6 August 2006”, 13 December 2006, paragraph 5.8.

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4.2 Protecting the interests of users in Bahrain

57. As noted earlier, the Authority has an overall duty to protect the interests of users of telecommunications services in Bahrain.
58. In considering how end users in Bahrain might have benefited from reductions in termination rates applying to international inbound calls, it is important to note that the wholesale inbound services are purchased by foreign operators. Any benefit to users in Bahrain will therefore depend on the response of these foreign operators to the reduction in wholesale inbound rates, and in particular the response of the GCC operators as most calls to Bahrain originate from the GCC countries.²³
59. To the extent that such reductions have resulted in lower prices for making calls to Bahrain, users in Bahrain (i.e. the recipients of such calls) are likely to have received a benefit in the form of receiving a higher volume of calls than would otherwise have occurred. The provision of cheaper calls into Bahrain may be an important consideration in terms of Bahrain’s attractiveness as a regional business centre
60. However, in the case of international inbound services, the beneficiaries of the greater competition and lower wholesale inbound rates appear to have been principally the foreign operators themselves. There is little evidence to suggest that the foreign operators, particularly those in other GCC countries, have passed the lower wholesale inbound rates through into their retail call prices. Absent such pass-through, users in Bahrain are unlikely to be benefiting from the increased competition in the supply of wholesale inbound services.
61. According to Batelco, the foreign operators that purchase wholesale inbound services have not passed the rate reductions on to their subscribers making the calls, but have instead retained the reductions in the form of higher margins earned on such calls. For example, in its response to the Authority’s letter of 6 June 2011, Batelco stated the following in relation to the retail rates offered in other countries²⁴:

“We also consider that the cost savings are not in practice passed onto the far end customer by the far end operator. For example, please see the following retail rates offered to Bahrain compared with Qatar from around December 2010:

Calls Charges from:	To Bahrain BD	To Qatar BD
Etisalat	0.218	0.218
Du	0.141	0.141
Wataniya	0.196	0.196
Viva – Kuwait	0.131	0.111
STC	0.131	0.131
Mobily	0.131	0.131

²³ According to the market statistics collected by the Authority, the significant majority of international inbound traffic terminating on Batelco’s networks in Q1 and Q2 2010 was from GCC countries.

²⁴ Batelco response, Q7.

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Calls Charges from:	To Bahrain BD	To Qatar BD
Zain – Saudi	0.131	0.131
Omantel	0.166	0.166
Nawras	0.165	0.165
Vodafone – UK	0.149	0.149
Europe (T-Mobile)	0.752	1.017
Telekom Indonesia	0.213	0.213

Despite the termination rates into Bahrain being 70% lower than in Qatar, the retail rates for the far end customers remain unchanged. We believe a similar situation applies in KSA, UAE, Oman, and Kuwait.”

62. In responding to the Authority’s 6 June 2011 letter²⁵, Zain provided similar information on the retail call prices being offered by foreign operators. Of the 11 foreign operators listed in Zain’s response, 9 operators offered uniform retail prices for calls to Bahrain, KSA, UAE, and Qatar, despite the international inbound termination rates being lower in Bahrain. This information is summarised in Table 1.

Table 1: International calls retail prices offered by foreign operators

Country	Operator	Calls to:			
		Bahrain	KSA	UAE	Qatar
Qatar	Vodafone Qatar	\$0.18	\$0.18	\$0.18	-
KSA	Mobily	\$0.35		\$0.35	\$0.35
Kuwait	Al-Wataniya	\$0.55	\$0.55	\$0.55	\$0.55
Kuwait	VIVA	\$0.53	\$0.53	\$0.53	\$0.53
Oman	Oman Tel	\$0.41	\$0.41	\$0.41	\$0.41
Jordan	Zain Jordan	\$0.45	\$0.45	\$0.45	\$0.45
Jordan	Orange	\$0.28	\$0.28	\$0.28	\$0.28
Egypt	Vodafone Egypt	\$0.59	\$0.59	\$0.59	\$0.59
Lebanon	MTC Touch	\$0.40	\$0.40	\$0.40	\$0.40
Pakistan	Telenor	\$0.12	\$0.15	\$0.15	\$0.19
USA	AT&T	\$0.15	\$0.23	\$0.29	\$0.32

Source: Zain

²⁵ Letter from Zain to the Authority “Re: International Inbound termination Rates” (Zain Ref: RI/11/06/017), 20 June 2011, table headed “International calls retail prices offered by foreign operators”.

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63. A number of major operators supplying calls to Bahrain apply a uniform retail price for calls across the GCC region. For example, STC’s international calling rates do not differentiate between calls to different GCC countries, with calls to all GCC countries costing 1.1/1.3 Saudi Riyals per minute for peak/off-peak calls.²⁶
64. BT’s and AT&T’s international calling rates do show some differentiation between GCC countries, with BT offering uniform standard calling rates for calls to Bahrain, Oman, Kuwait, and Qatar, and lower calling rates for calls to Saudi Arabia and UAE.²⁷ AT&T offers lower prices for calls to Bahrain than for calls to KSA, UAE, and Qatar.
65. There are other examples where there is significant differentiation in retail prices offered by non-GCC operators for calls throughout the GCC region. Table 2 summarises some examples of such differentiation in retail prices for calls to Bahrain and Qatar.

Table 2: Retail prices for calls to Bahrain and Qatar

Operator	Calling from	To Bahrain		To Qatar	
		fixed	mobile	fixed	mobile
T-Mobile (cpm)	US	34	37	96	98
Callbacktoday.com (cpm)	India	7.3	11.3	23.9	30.7
Briing.com (ppm)	UK	1.5	4.0	10.0	13.0
Skype (ppm)	UK	14.5	14.5	22.0	22.0
Free (eurocpm)	France	free*	27.0	49.0	49.0

* Free includes calls to Bahrain fixed numbers as part of its Freebox bundle.

66. The extent to which foreign operators have lowered their retail rates for international calls to Bahrain in response to lower termination rates will be influenced by the competitiveness of the foreign market. For example, in countries where there are a limited number of licensed operators (such as the UAE), the incumbent operators may be able to retain the margins from lower wholesale call costs, without the threat of being undercut by competitors or potential new entrants.
67. In more liberalized markets, competition will force operators to set retail prices that reflect the cost of supplying the service. Any attempt by an incumbent operator to retain the higher margins arising from lower termination rates would attract competitors into the international calling market in the foreign country, undercutting the incumbent suppliers of such calls. This would put downward pressure on the retail price of calls to Bahrain, in effect forcing the incumbents to pass at least some of their cost reductions through into lower retail prices. This is likely to explain some of the pricing differentiation evident above in respect of more competitive markets such as the US, the UK, and France. The

²⁶ see <http://www.stc.com.sa/cws/portal/en/individual/ind-aljawal/ind-alj-start/stc-Ind-srvdir/stc-Ind-tariffs-int-call-chrgs> (accessed 23 January 2012).

²⁷ see <http://www.productsandservices.bt.com/consumerProducts/displayTopic.do?topicId=25500> (accessed 23 January 2012).

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Authority also notes that for outbound international calls from Bahrain, where there are a large number of suppliers (both network operators and prepaid calling card operators), there is a significant degree of pricing differentiation between destinations (and in some cases, for calls to a particular network within a destination).

68. In summary, while the reductions in termination rates applying to international inbound calls into Bahrain have increased competition in respect of wholesale inbound services, there is little evidence to indicate that users in Bahrain have benefited from such increased competition. The incumbent operators in the GCC countries have not reflected such reductions in wholesale rates in their retail prices, indicating that those operators have retained the wholesale rate reductions in the form of higher margins earned on calls to Bahrain.

4.3 The Authority's preliminary view on regulation

69. In light of the above, the Authority considers that the following actions will best satisfy the duties to promote effective and fair competition and protect the interests of end users in Bahrain:
- a. cost-based termination rates; and
 - b. an above-cost price floor applying to all Bahraini Licenced Operators for wholesale inbound services.
70. The setting of cost-based termination rates for dominant operators for calls that originate in foreign countries will ensure that all operators supplying wholesale inbound services can access the essential termination input at prices that reflect the cost of supplying the termination input. This is consistent with Article 57 of the Telecommunications Law and reflects the fact that the termination service for calls originating overseas is the same as the termination service when the call is originated domestically. This will continue to provide a level playing field for the network operators who provide the termination service and for their competitors who purchase call termination and compete in the downstream market for wholesale inbound services. This will also ensure that network operators supplying termination services are compensated for their efficiently-incurred costs of supplying such services.
71. Cost-based termination rates will also close any opportunities for arbitrage that would otherwise arise where there is an artificial differential in termination rates for domestic and international traffic, when the underlying termination service is identical.
72. The introduction of a price floor for wholesale inbound services will ensure that some economic surplus on supplying these wholesale services will be retained within Bahrain. Cost-based termination rates will allow Bahraini Licensed Operators to compete for such surpluses from a levelled cost basis insofar as the essential termination input is concerned.
73. The Authority considers that such a price floor is at present appropriate, given the lack of evidence that reductions in wholesale rates in recent years have been passed on by foreign operators into lower retail prices for calls to Bahrain.
74. The Authority also notes that the wholesale rates paid by Bahraini Licensed Operators for outbound calls to other GCC countries are significantly higher than the wholesale rates

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charged for calls into Bahrain. In other GCC countries, the wholesale rates charged by the incumbents are typically close to the rates that have been endorsed by the GCC Ministerial Committee (US 8 cpm for calls to fixed, and US 10 cpm for calls to mobile, as per section 2.4 above). Until such time as these rates are reduced throughout the GCC region, which would directly benefit users in Bahrain in the form of lower costs of calling other GCC countries, the Authority considers that a price floor is appropriate.

75. The Authority considers that the introduction of a price floor is justified as the pricing evidence summarised above indicates that the benefits of the competition that has occurred in recent years have largely been enjoyed by the foreign operators netting a gain they would otherwise not receive, with little benefit received by users in Bahrain. In this specific context, the Authority considers that a price floor is appropriate.

4.4 The Authority’s preliminary view on an appropriate price floor for wholesale inbound services

76. In considering the appropriate level at which to set a price floor for wholesale inbound services, the Authority has had regard to the information provided by operators in response to the Authority’s 6 June 2011 letter, relating to wholesale rates and the cost of supplying wholesale inbound services. Specifically, in determining an appropriate price floor for wholesale inbound services, the Authority has taken the average of the 2010 rates submitted to the Authority. This results in a wholesale inbound rate for calls to fixed subscribers in Bahrain of 14 fils per minute, and a wholesale inbound rate for calls to mobile subscribers in Bahrain of 21 fils per minute. The Authority considers that at this level the price floors strike the right balance between two opposing considerations:
- a. If the price floor is set at a low level, it will have less effect in terms of constraining competition and retaining profits in Bahrain. Competition could continue to drive down wholesale rates before the price floor is reached, and if those lower prices are not passed on to foreign callers in such a way as to encourage more calls to be made to Bahrain then, then competition between Bahraini Licensed Operators will continue to have the perverse effect of delivering benefits to foreign operators without commensurate benefits to users in Bahrain; and
 - b. If however the price floor is set at a high level, this creates a risk that foreign operators would increase calling prices to Bahrain in order to try and maintain the margins previously earned on such calls. A high wholesale rate would also undermine efforts at the GCC level to reduce these rates across the region, deferring the benefits of such reductions for end users in Bahrain (in the form of lower outbound call costs).
77. In light of the evidence that GCC operators have not passed previous reductions through into lower calling rates to Bahrain, the Authority intends to establish a price floor for wholesale inbound services supplied to GCC operators only. The price floor would not apply to calls from non-GCC countries. As explained above (at paragraphs 65 to 67), non-GCC operators have introduced some price differentiation for calls to GCC countries, with lower calling rates typically applying for calls to Bahrain where termination rates are lower. This has benefited end users in Bahrain.

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78. The Authority is therefore currently of the view that the following price floors should be established for wholesale inbound services supplied by Bahraini Licensed Operators to GCC operators in respect of calls to Bahrain:
- a. for calls to fixed subscribers in Bahrain, the minimum wholesale rate is 14 fils per minute;
 - b. for calls to mobile subscribers in Bahrain, the minimum wholesale rate is 21 fils per minute.

5 Conclusions

79. The Authority considers that the termination rates applying to international inbound traffic should be cost-based and consistent with the termination rates that apply to domestic traffic. Cost-based termination rates are consistent with the Authority's duties outlined in the Telecommunications Law. They will promote fair and effective competition in the supply of services that use termination services, which in the current case include wholesale inbound services supplied to foreign operators.
80. Following a request by some operators for regulatory review, the Authority considers that in these specific circumstances, it is appropriate to introduce a price floor applied to wholesale inbound services supplied to GCC operators in order to retain economic profit within Bahrain. There is little evidence to indicate that users in Bahrain have benefited from the reductions in wholesale inbound rates that have occurred in recent years as termination rates applying to international inbound traffic have decreased.
81. In light of the above, the Authority concludes that the following will best satisfy the duties to promote effective and fair competition and protect the interests of end users in Bahrain:
- a. cost-based termination rates for international inbound traffic;
 - b. above-cost price floors applying to all Bahraini Licenced Operators for wholesale inbound services:
 - 14 fils per minute for calls to fixed subscribers in Bahrain; and
 - 21 fils per minute for calls to mobile subscribers in Bahrain.
 - c. The prices floors apply only for calls originated in GCC countries.
82. As outlined throughout this Explanatory Note, the Authority's general duties are to promote fair and effective competition and to protect the interests of users of telecommunications services in Bahrain. This is generally done by ensuring that constraints on efficient competition are removed as far as possible and through fostering a regulatory and economic environment that will encourage tariffs to tend toward costs. However, in this specific context, where the relevant service is being supplied to GCC operators, the Authority has observed that the reduction in wholesale tariffs has had limited effect in terms of benefitting the users of telecommunications services in Bahrain. This is because while the reductions in termination rates applying to international inbound calls into Bahrain have resulted in lower wholesale inbound rates paid by foreign operators, these reductions have not been passed on to foreign callers in such a way as to encourage an increase in call volumes to Bahrain telecommunications users. The Authority notes that

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operators in some competitive markets do appear to have passed on the lower prices to their consumers (e.g. AT&T), however across the GCC region operators have uniformly elected to retain the benefit of these lower wholesale prices by not reducing the retail tariffs they charge their consumers for calls to Bahrain. It is due to these very unique set of circumstances that the Authority considers that the public interest will be better met by introducing a price floor for the specific wholesale inbound service described in this paper.²⁸

83. In the event that market conditions change, the Authority may consider reviewing its position on wholesale inbound services as appropriate.

²⁸ Whole Inbound Service 2 shown in Figure 1.

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Annex A: International inbound services and call termination

85. This Annex sets out the network elements involved in the supply of international inbound services and call termination using Batelco as an illustrative example. A number of observations are also provided.
86. Table 3 summarises the network elements that are involved in bringing international traffic into Bahrain and terminating the traffic on Batelco’s fixed network. Specifically, Table 3 shows Batelco’s “International – Terminating (InPay)” service (referred to in Batelco’s product mapping list and 2009 Routing Factor table as product code 100c). Under this service, Batelco conveys the incoming call over its international network and terminates the call on its fixed network. In other words, in terms of Figure 1, Batelco’s “International – Terminating (InPay)” service is Batelco’s Wholesale Inbound Service 2.
87. In addition, Table 3 includes Batelco’s international inbound fixed termination service (product code 951o), and Batelco’s domestic fixed termination service (product code 951c).

Table 3: Network elements involved in supplying Incoming International Calls to Batelco Fixed, and PSTN Termination Services

	Incoming International Calls to Batelco Fixed	PSTN Termination: International Inbound Calls	PSTN Termination: Domestic Calls
Network Elements	Product 100c	Product 951o	Product 951c
IN01 International Switches	✓		
IN06 International cable – Voice	✓		
IN11 International satellite – Voice	✓		
CN13 Transit switch – international switch	✓		
CN26 UMG – International Switches	✓		
CN01 Remote line units	✓	✓	✓
CN02 Local switches	✓	✓	✓
CN03 Transit switches	✓	✓	✓
CN04 Soft switch (inc MRS)	✓	✓	✓
CN05 MSAN Traffic Sensitive	✓	✓	✓
CN06 Universal Media Gateway (UMG)	✓	✓	✓
CN11 Remote line unit – Local switch	✓	✓	✓
CN12 Local switch – Transit switch	✓	✓	✓
CN20 Distribution – Core Link (Voice)	✓	✓	✓
CN22 Aggregation-Distribution Link (Voice)	✓	✓	✓
CN24 MSAN – Aggregation Link (Voice)	✓	✓	✓
CN25 UMG – Transit Switches	✓	✓	✓
CN39 MPLS Core Voice	✓	✓	✓

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	Incoming International Calls to Batelco Fixed	PSTN Termination: International Inbound Calls	PSTN Termination: Domestic Calls
Network Elements	Product 100c	Product 951o	Product 951c
CN41 MPLS Aggregation (Voice)	✓	✓	✓
CN57 MPLS – Distribution Routers (Voice)	✓	✓	✓
CN90 Interconnect Specific	✓	✓	✓

Source: The Authority based on Batelco's Routing Factor Table (2009)

88. Batelco's Wholesale Inbound Service (product 100c) brings the call into Bahrain and terminates it on Batelco's fixed network. The network elements of this service that are shaded in Table 3 relate to the termination of the call, and correspond to the network elements that appear in the wholesale PSTN termination services (product 951o in the case of international-originated calls, and product 951c in the case of domestic-originated calls). The additional network elements in the Wholesale Inbound Service (i.e. those that are not shaded) relate to the international links and facilities across which the call is brought into Bahrain.
89. A number of observations are evident from Table 3. First, as noted earlier, the Call Termination Service (951o) is an important input that is used to deliver Wholesale Inbound Services (such as Batelco's product 100c). The operator that supplies the Wholesale Inbound Service requires PSTN termination²⁹, and adds its own international elements in order to supply the inbound service to the foreign operator. This highlights the vertical relationship implicit in Table 3, between the Call Termination Service and the Wholesale Inbound Service, where call termination is an 'upstream' input that is used by both Batelco and other operators to supply Wholesale Inbound Services to foreign operators.
90. While the termination service on a specific network is a bottleneck in respect of calls to subscribers on that network (as per the 2003 and 2010 Dominance Determinations), there is a degree of competition emerging in respect of international facilities that can be used to convey calls into Bahrain.
91. Second, the network elements that are used in terminating domestically-originated traffic on Batelco's fixed PSTN (see product 951c) are identical to the network elements used to terminate international inbound traffic (product 951o). *Whether a call originates inside or outside of Bahrain has no bearing on the costs of terminating that call on Batelco's fixed network.* Once the call has been handed over to Batelco, the termination of an international inbound call will be no different from the termination of a domestic call.

A similar situation exists in the case of incoming international calls that terminate on a mobile network within Bahrain. The network elements that are used in Batelco's wholesale inbound service for calls terminating on Batelco's mobile network (products 300c and

²⁹ Or mobile termination in the case of a call to a mobile subscriber in Bahrain.

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301b³⁰), again corresponding to the mobile termination service plus additional elements relating to international links and switches.

³⁰ Product 300c relates to incoming international calls made to GSM postpaid, and product 301b relates to incoming international calls made to GSM prepaid. According to the 2009 Routing Factor table, both these international inbound services are identical in terms of the network elements used.

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Annex B: Summary of operator arguments

92. A number of Licensed Operators have provided their views on the need for regulatory intervention in relation to international inbound termination services.
93. Within the context of the review of its RO, Batelco has submitted that international inbound termination rates should be increased, or alternatively that a price floor should be established for international inbound rates charged to foreign operators.
94. In addition, the Authority requested information and views from a number of Licensed Operators in its 6 June 2011 letter. The Authority received responses from Batelco, Zain, Viva, Etisacom, Kalaam, and Menatelecom.
95. The following is a summary of the views received from these operators.

Batelco's position

96. In recent years Batelco has been arguing for an increase in the termination rate that applies to international inbound traffic. Batelco has argued that such an increase is justified for a number of reasons, including the need to contribute to the funding of an "access deficit"; to minimize arbitrage opportunities; to prevent value-transfer to foreign operators; and to ensure that Batelco is adequately compensated for its investment risk.
97. In its 2010 RO submission, Batelco also put forward an alternative to a buffer on termination rates, specifically that a price floor be set for all international inbound rates charged to foreign operators.³¹
98. The arguments raised by Batelco are summarised and discussed below.

Access deficit

99. Batelco has argued that international inbound termination rates should be increased above cost, so that the resulting surplus earned on terminating international calls can be used to fund an 'access deficit'.³² This amounts to foreign operators and subscribers cross-subsidising the provision of below-cost access to Bahrain consumers.

Arbitrage

100. Batelco has complained about the glide-path by which the buffer between international inbound termination rates and domestic termination rates was gradually eliminated between 2007 and 2010. Specifically, according to Batelco, the glide-path created an arbitrage opportunity for OLOs, whereby the OLOs can undercut the rates offered by Batelco to foreign operators for its Wholesale Inbound Service.³³ The OLOs could offer lower wholesale inbound rates, as the termination charge component that the OLO pays

³¹ Batelco 2010 RO submission, Annex G "International Inbound Rates – Summary Rationale for a Buffer", page 3.

³² Batelco submission on 2006 Draft RIO Order, 10 July 2006, paragraph 70.

³³ Batelco RAO submission, 4 December 2008, "Annex H.Buffer rationale overview".

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Batelco for call termination is the domestic termination rate plus the glide-path-determined buffer.

Value transfer and potential benefits

101. According to Batelco, the foreign operators that purchase wholesale inbound services have not passed the rate reductions on to their subscribers making the calls, but have instead retained the reductions in the form of higher margins earned on such calls. It argues that this is evident in the retail pricing of foreign operators for calls throughout the GCC region. For example, in its response to the Authority's 6 June 2011 letter, Batelco notes that incumbent operators in the GCC countries offer calls to Bahrain at the same rate as calls to Qatar, despite termination rates in Bahrain being substantially lower than in Qatar.
102. Batelco has submitted that the foreign operators supplying retail calls to Bahrain have benefited from the reduction in international inbound termination rates in Bahrain, earning higher margins on calls into Bahrain rather than offering lower retail prices for such calls. Batelco has referred to this as a value transfer to the foreign operators which is not being passed on to end users in the form of lower retail prices for calls to Bahrain. As a result, the volume of international inbound traffic into Bahrain has not increased (as would have been expected if the retail price of calls to Bahrain had fallen), which implies that end users in Bahrain are not enjoying higher welfare from receiving more international calls.³⁴

Batelco's investment Risk

103. According to Batelco,³⁵ the reductions in the level of international termination rates are not reflective of Batelco's substantial investment risk and are therefore inefficient. According to Batelco, service quality is jeopardised, and Batelco's incentives to commit to further investment are undermined.

Position of other operators

104. The option of increasing the termination rate applying to international inbound traffic was not supported by Menatelecom, Kalaam, and Etisalcom. According to these operators, the arbitrage concerns raised by Batelco do not justify the reintroduction of a buffer for international inbound termination rates.
105. The introduction of a price floor for international inbound services was supported by Viva, Zain and Etisalcom, on the basis that this option would be most effective in terms of addressing arbitrage concerns and ensuring that benefits are retained within Bahrain.

³⁴ Batelco RAO submission, 4 December 2008, "Annex H.Buffer rationale overview". See also Batelco submission on 2010 Draft RO Order, 7 November 2010, from paragraph 205.

³⁵ Batelco RAO submission, 4 December 2008, "Annex H Buffer rationale overview".

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The Authority’s response

106. The arguments that have been advanced in support of an increase in international inbound termination rates or the setting of a price floor for inbound services relate to the need to finance an access deficit (Batelco), removing opportunities for arbitrage (Batelco), retaining benefits within Bahrain (Batelco, Viva, and Zain), and maintaining investment incentives (Batelco).
107. In relation to access deficit arguments, it is not clear that the arguments raised by Batelco still apply, considering in particular Batelco’s response to the Draft Statement on tariff rebalancing.³⁶ In addition, the Authority’s decision in 2011 to include a contribution to copper access network costs in a number of regulated access prices further diminishes the argument that there is an access deficit that needs to be funded by above-cost termination rates.³⁷
108. In the Authority’s view, there is no ‘arbitrage problem’ arising from the removal of the differential between termination rates for international and domestic traffic. The Authority notes that in this respect, Batelco’s submissions are inconsistent, stating on the one hand that arbitrage opportunities have been created for OLOs as a result of the buffer level³⁸, and then claiming that an increase in the buffer would minimise the opportunity for arbitrage³⁹ (despite such opportunities being created by the buffer in the first place).
109. Arbitrage occurs where there is an opportunity to exploit price differences, and is motivated by the ability to buy a product or service at a low price, and sell it at a high price. For example, as long as a differential or buffer was in place between international termination and domestic termination rates, there may have been an incentive to bring in international traffic and re-route it as domestic traffic in order to take advantage of the lower termination rates applying to domestic calls.⁴⁰ The removal of the differential between international inbound and domestic termination rates if anything appears to have removed the potential for this kind of arbitrage. It therefore appears that any difficulty that Batelco has been experiencing as a result of the removal of the buffer is not one of arbitrage.
110. The Authority agrees with Batelco, Viva, and Zain that the benefits from lower wholesale inbound rates charged to foreign operators appear to have been mostly retained by the foreign operators, especially those in other GCC countries. The lack of evidence of lower retail call prices to Bahrain indicates that those operators have retained the lower

³⁶ The Authority “Rebalancing for Fixed Services and Price Monitoring Draft Statement”, 31 May 2009, paragraph 52.

³⁷ The Authority “An Order issued by the Telecommunications Regulatory Authority (“TRA”) on the Reference Interconnection Offer and Reference Access Offer of the Bahrain Telecommunications Company B.S.C (“Batelco”)”, 25 January 2011 (Ref MCD/01/11/006), from paragraph 419.

³⁸ Batelco 2008 RAO submission, “Annex H Buffer rationale overview”, page 3.

³⁹ *ibid*, page 5.

⁴⁰ The service description of Batelco’s international inbound termination service (see Batelco Reference Offer, Service Description 2-7) requires that the Access Seeker do all that it can to provide Calling Line Identification information to enable Batelco to derive the full number of the calling party (clause 3.10). This would enable Batelco to identify whether the call was an international or domestic call, and to therefore apply the correct termination rate. However, such information may not always be available, such as where the call is a VOIP call, in which case the international call might be ‘disguised’ as a domestic call.

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wholesale charges in the form of higher profits on calls to Bahrain, and that users in Bahrain have not enjoyed benefits arising from lower costs of being called.

111. Regarding investment incentives, in 2006 the Authority determined termination rates for international inbound traffic that reflected the costs of supplying such termination services. These cost-based termination rates represented a significant reduction from the levels that were prevailing at the time. By setting rates that allowed Batelco to recover its costs of supplying the termination services, including a reasonable return on and return of capital, Batelco's incentives to continue to efficiently invest in its domestic network infrastructure were preserved.
112. The reduction in international inbound termination rates has led to a reduction in the rates for wholesale inbound services. While competitive pressures have resulted in Batelco responding by lowering its wholesale inbound rates, there is no evidence to suggest that Batelco has been forced to price its wholesale inbound services below cost and thereby undermine its incentives to invest. The fact that Batelco may now have to compete with other international facilities for international inbound (as well as international outbound) traffic is likely to be beneficial rather than detrimental, although as noted above, the beneficiaries of such increased competition have been the foreign operators who purchase the wholesale inbound services in order to complete calls into Bahrain.
113. In summary, of the arguments that have been put forward in support of regulatory intervention, the Authority accepts that there is little evidence to show that users in Bahrain have benefited from reductions in the cost of bringing calls into Bahrain and terminating them on fixed and mobile networks.

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Annex C: Precedents in other countries

114. In a number of its submissions since 2006, Batelco has argued that there are international precedents for the inclusion of a mark-up over domestic termination rates for the termination of international inbound traffic. For example, in its 2008 RO submission,⁴¹ Batelco cited four examples in support of its argument for such a mark-up:

- a. Saudi Arabia, where all international inbound traffic must go through the international gateways of the incumbent (STC);
- b. Bangladesh, where a mark-up of US 27 cpm is added to the incumbent's PSTN termination rates;
- c. Pakistan, where a mark-up of US 5 cpm has been introduced;
- d. UAE, where the termination rates of Du, the other licensed operator, is set at Etisalat's rate.

115. Batelco has additionally referred to the examples of Sudan and India, where the termination rates for international incoming traffic were increased in 2009.

116. In the 2009 Draft Order, the Authority responded by stating that:⁴²

“It is important to understand the policy decisions and considerations which underpin the decisions in each of these countries where they are known and in the public domain. For instance in Pakistan the US 5 cent uplift was added not to protect international revenues but to fund the rural development of the telecommunications infrastructure.”

117. While Batelco subsequently argued⁴³ that the Authority's response only addressed one of Batelco's examples, and that even that example (Pakistan) supported Batelco's position that international inbound rates have been set so as to contribute to the funding of local network infrastructure, the Authority notes that there are other examples in which a decision has been taken not to differentiate between termination rates applying to international and domestic traffic. Such jurisdictions include:

- a. *United Kingdom*: Batelco has acknowledged that termination rates in the UK are set at the same level for international and domestic traffic;⁴⁴
- b. *Europe*: more generally in Europe there is no differentiation in termination rates for international and domestic calls in so far as a differential treatment is considered discriminatory and contrary to the operation of the internal market;
- c. *Singapore*: Batelco has acknowledged that termination rates in Singapore are set at the same level for international and domestic traffic;⁴⁵
- d. *New Zealand*: in its recent determination on mobile termination rates, the Commerce Commission set the same rate for domestically- and internationally-originated voice calls and SMS;⁴⁶

⁴¹ Batelco Reference Offer submission, 4 December 2008, Annex H “Inbound International Termination Rates”, page 5.

⁴² Draft Order, 6 July 2009, paragraph 67.

⁴³ Batelco submission, 6 August 2009, paragraph 70.

⁴⁴ Batelco submission, 30 September 2006, paragraph 68.

⁴⁵ *ibid.*

⁴⁶ The “Description of service” for the mobile termination access service (MTAS) in the New Zealand Telecommunications Act states that “For the avoidance of doubt, these {MTAS} services include the termination of

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- e. *Australia*: the service description of the MTAS does not include a distinction as to where the call is originated.⁴⁷

118. This is consistent with what would be expected in a competitive market.
119. One further example of a jurisdiction where the regulator has recently considered the issue of wholesale inbound rates for incoming international traffic is Trinidad and Tobago. In February 2010, the Telecommunications Authority of Trinidad and Tobago (TATT) issued a final determination on the pricing rules and principles for the termination of international incoming traffic on domestic networks⁴⁸. According to TATT, operators that are licensed to supply international telecommunications services⁴⁹ must charge a rate for the termination of international incoming traffic that is no less than the sum of the *domestic termination rate* plus relevant costs *associated with operating an efficient international network*. The relevant costs of operating an international network include the domestic and international switches, international connectivity, and interconnection links with the domestic networks.
120. TATT has therefore set a price floor in respect of the wholesale inbound service (service 2 shown in Figure 1) into Trinidad and Tobago. The price floor set by TATT is based on efficiently incurred costs associated with bringing the traffic into Trinidad and Tobago and terminating the traffic on the domestic networks.

internationally originated voice calls and SMS, and voice-over-Internet-protocol-originated voice calls, where these are handed over at a mobile switching centre in New Zealand". See Commerce Commission MTAS Standard Terms Determination (Decision 724), 5 May 2011, paragraph 9.

⁴⁷ In its Mobile Services Review, the ACCC referred to Access Seekers as being either domestic or international. See ACCC, Mobile Services Review, June 2004, page 229.

⁴⁸ TATT "Determination 2010/01 Under Sections 29(3) and 29(4) of the Telecommunications Act 2001 – Termination of International Incoming Telecommunications Traffic on Domestic Networks in Trinidad and Tobago", 3 February 2010.

⁴⁹ Such operators are referred to in the TATT determination as 'cessionaires'.