

REPORT

Dominance in certain markets and the provision of Access services

Dominance in certain markets and the provision of Access services for the purposes of Section 57(e) of the Telecommunications Law

A Report issued by the Telecommunications Regulatory Authority on the Consultation

13 February 2005

Purpose: Report on Consultation regarding dominance in certain markets and the provision of Access services for the purposes of Section 57(e) of the Telecommunications Law.

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1 Introduction

1.1 Background

The regulation of Access is addressed in section 57 (e) of the Telecommunications Law (“Law”). The relevant parts of this section are as follows:

“A licensed operator in a dominant position shall offer Access to its telecommunications network and telecommunications facilities on fair and reasonable terms to any licensed operator on request...”

“The Authority may publish regulations in connection with access, including, regulations regarding a reference access offer similar to a reference interconnection offer.

If the Authority considers the tariffs and terms on which access is offered by a licensed operator in a dominant position are unreasonable, it may determine such tariffs and terms as it considers reasonable, and the provisions of paragraph ((b)) of this section shall apply in this respect.”

The TRA commenced addressing Access through its consultation paper which was published last year entitled “Dominance in certain markets and the provision of Access services for the purposes of Section 57(e) of the Telecommunications Law” (“Consultation Paper”).

The purpose of the Consultation Paper was to gather the views of interested parties on issues relating to:

- The telecommunications markets where the application of the access provisions of the Law could be relevant;
- The types of service where these provisions may be relevant; and
- The appropriate regulatory treatment in the light of current and anticipated market conditions in Bahrain.

The Consultation Paper set out a number of possible measures that the TRA was at the early stages of considering in relation to these questions.

1.2 This document

This report (“Report”) follows the Consultation Paper and discusses the responses received and sets out the TRA’s current views on the issues raised as a result of the input received. It also sets out a potential way forward that addresses any conflicting views received from the respondents.

This Report needs to be considered in parallel with the report on the consultation on “Local loop and related facilities and services” (ERU/CN/018, 1 June 2004) that was conducted within the same timeframe as the Access consultation. The Local loop consultation addressed Access to facilities and services specifically related to potential unbundling of the local loop. There are issues raised in each of these consultations and

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the responses received from interested parties that are of common relevance to the ongoing considerations.

Accompanying this Report is a draft Access Regulation pursuant to section 57 (e) of the Law, document reference ERU/0205/025. This sets out the TRA's approach to market definition in access markets and obligations applicable to dominant licensees. It is anticipated that this Report and the draft Access Regulation will be followed by a TRA declaration addressing whether any current licensees are considered to be dominant in relevant access markets.

1.3 Scope

As a Report, this document has no status other than as a means of disseminating information.

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2 Comments received

The consultation invited comments at a general level on the proposals and also asked specific questions in relation to certain services and issues. The comments received were mixed with some covering general issues and some answering the specific questions.

The TRA received four responses in total to the Consultation Paper published on 26 May 2004. Responses were received from (in alphabetical order):

- Batelco;
- Ministry of Finance and National Economy;
- Ministry of Transportation; and
- MTC Vodafone (Bahrain).

2.1 General comments

The comments received from respondents represented a range of opinions. All respondents provided comments at a general level, while three of the respondents provided detailed arguments. At a general level, three respondents supported the overall approach that the TRA put forward for consideration in the consultation. The fourth respondent, however, put forward a view that was opposed to the approach and argued that all the measures considered in the consultation were unnecessary and in some cases unlawful.

One respondent argued that access to the incumbent's infrastructure is a fundamental enabler of viable competition in the Bahraini telecommunications market. Bahrain is a small telecommunications market, and any new entrant will likely require access to large segments of Batelco's infrastructure and services in the near term, and possibly in the long term. In principle this implied that Batelco should be required to provide access to all of its infrastructure and services. In practice, the respondent argued, it is more likely that only a subset of Access will be required, but at this stage there was a lack of clarity on what exactly would be needed. The respondent's general position may be summarised in 5 points:

- **Access to incumbent infrastructure should be broad.** The types of access that will be required to create sustainable business models that will bring the benefits of competition to end users are not yet clear. It argued that in a small market like Bahrain, new entrants may not be able to economically justify large infrastructure investments. Therefore, the TRA should err on the side of requiring access to more services, rather than less, because the TRA will not know *a priori* what is required.
- **Wherever possible, pricing should be cost-based.** Citing the dependency on Batelco for Access, and the small size of the Bahraini market, the respondent argued that cost-based pricing is critical to ensure that the right signals are sent to the market so that non-distortionary entry can take place.
- **Access and Reference Access Offer ("RAO") pricing should be available to all players on a non-discriminatory basis.** The respondent suggested that the

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TRA should explore options for ensuring that all types of licensees have the option of pursuing the best pricing and terms available in the market.

- **Oversight should be put in place to ensure compliance with the RAO.** The respondent argued that the TRA should have oversight and enforcement power to make sure that new entrants receive reasonable access to Batelco's infrastructure and services in a timely manner, adhering to agreed-upon performance characteristics. It was suggested that in cases where Batelco is non-compliant, the TRA should have the authority to levy financial and other penalties.
- **Provisions should be made for market entry before the RAO is finalized.** The respondent suggested that since ISP and VAS licensees may need pricing information from Batelco to create market plans and that Physical Access may be required to begin testing, and potentially operations, before the RAO is finalized, the TRA should explore options for allowing new licensees to proceed with their business planning and rollout without being unreasonably delayed by Batelco's RAO negotiations. To ensure non-discrimination, the respondent requested, any provisional RAO terms should be automatically superseded by the final RAO.

The TRA accepts the intention of this set of comments in encouraging the widest possible access to the incumbent's facilities and services, but would not wish to extend, unless proven necessary, the regulatory requirements placed on any applicable licensee beyond those envisaged in the Law and would encourage licensees to exhaust the route of commercial negotiation before requesting or resorting to regulatory intervention. The respondent should also note that the Law already provides the TRA with adequate powers to ensure that operators with obligations in relation to access meet the requirements placed upon them.

The principal alternative view put forward by one respondent was that the approach set out in the consultation was unnecessary and overly stringent on the incumbent. It argued that the TRA had treated the concept of Access on an unjustifiably broad basis, had not provided sufficient market analysis, was actively discouraging facilities based competition and had proposed a regulation that was unnecessary. The respondent's comments suggest that it had not fully appreciated that much of the discussion in the Consultation Paper represented issues that were to be addressed over the relatively short term.

2.2 Alternative view

While the submission was, in general, a summary of trends in certain international markets, it ignored the legally mandated starting point to the access debate: the text of the Law. The unfortunate result of this disregard for the plain text of the Law was that its submission generally talked "past" the Consultation to which it was supposed to be responding. The main general points of the submission are discussed below.

2.2.1 Misunderstanding of Access

In general, one respondent's submission appears premised on an incorrect understanding of "access" as such term is defined in the Law.

The Law defines "access" as "*the making available of telecommunications facilities and/or telecommunications services to another licensed operator for the purpose of*

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providing telecommunications services, and [includes] the connection of equipment by wire or wireless means, access to physical infrastructure including buildings, ducts and masts, access to mobile networks and access to number translation or networks offering equivalent functionality". (emphasis added).

"Telecommunications facilities" are defined as "*any part of the infrastructure of a telecommunications network including any antenna, circuit, duct, equipment, fiber (whether partially or fully in service or not), line, mast, pole, tower or any other structure or any other thing used or intended for use in connection with a telecommunications network*". (emphasis added).

"Any part" of any licensee's network means any part. Accordingly, upon a finding of dominance in the relevant market, for example, Section 57(e) of the Law and the fixed service license require licensees to make available to any licensed operator upon request any part of its network infrastructure, including any circuit, duct, line or any other structure or thing used in connection with its network.

Section 3(c)(1) of the Law empowers the TRA to make such regulations, orders and determinations as may be necessary for the implementation of the provisions of this Law, including in particular regulations, orders and determinations in connection with access and Section 3(c)(13) of the Law empowers the TRA to encourage, regulate and facilitate adequate access.

Accordingly, where the respondent complains that "the TRA's list of access services is little more than a compilation of every conceivable access services used in any country", the complaint (even if correct) is silent on the fact that it is entirely within the power of the TRA to propose the list of access services found in the Consultation Paper. Whether or not it is a good policy choice to include more or fewer access services in the list at this stage of Bahrain telecommunications sector liberalization is a separate issue discussed elsewhere, but there can be little doubt that the legal position of the TRA in relation to access is sound.

2.2.2 Incorrect understanding of Access as a Resale Service

A respondent argues that resale should not be included as part of Access. This argument essentially turns on two points: (i) the TRA draws an incorrect line between wholesale and retail and (ii) the fact that Batelco's national fixed service license contains separate access and resale conditions means that the two concepts cannot be combined.

Regarding the first point, a version of the same argument has been made by the same respondent in relation to the recent Consultation on Unbundling the Local Loop ("ULL"). In this context the TRA has concluded that:

"The opinion that the TRA's "creation" of "resale DSL" is not consistent with the text of the Law is simply not correct. While the respondent is correct to state that the Law does not refer to "resale DSL" by name, there can be no doubt that "resale DSL" falls within the definition of "access". In fact, the plain meaning of the defined term "access" makes it clear that "unbundling", "wholesale DSL" and "resale DSL" are all forms or subsets of "access". Since Section 3(c)(1) and (13) of the Law empower the TRA to regulate "access", it follows that the TRA is entirely within its rights to regulate a subset of "access"."

The TRA takes a similar position in relation to Access.

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Regarding the second point, the TRA is of the view that nothing in Batelco's national fixed service license precludes the TRA from mandating if appropriate a resale offering as part of Batelco's access obligations. While the respondent is correct in pointing out that Condition 14.1 of Batelco's license and the license definition of "resale services" refer back to Section 58 of the Law and expressly carve *interconnection* services out from Batelco's resale obligations, it does not follow from this that the TRA cannot legally require Batelco to offer resale services as part of its *access* obligations. All that Condition 14.1 and the definition of resale service say (for current purposes) is (i) resale services are subject to the tariff control provisions of Section 58 of the Law and (ii) resale services exclude *interconnection services*, as opposed to (say) *access* services (on which Condition 14.1 and the definition of resale services are silent).

2.2.3 Selective Use of International Precedent

As indicated above, while this respondent's submission is, in general, an accurate summary of selective trends in certain international markets, it is mostly focused on markets in much further stages of liberalization than Bahrain. While the TRA is of course very interested in international best practice and indeed takes great care to learn from experience in other markets, the submission does not comment on experience in other markets *at the same point of liberalization as Bahrain* and whether the positions adopted by regulators at a comparable point of market liberalization should be followed or not.

As a relative newcomer to a liberalizing telecommunications environment, Bahrain has the opportunity to learn from the experience of other markets that went through the same process as Bahrain. While the TRA agrees, for instance, with much of what "the world's best regulators" have to say on market analysis, as put forward in the submission, the approach followed by these regulators when they were at an equivalent stage of market development as Bahrain differs significantly in many respects. In general, the verdict on the success of the access and LLU experiences in other markets is a mixed one. The TRA is particularly interested in understanding what approaches worked in other markets at similar stages in their liberalisation process, and wishes to avoid following mechanisms that may not have succeeded in other markets.

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3 Comments to specific questions

Comments in response to particular questions were received from three of the respondents. These are discussed in the order they appeared in the Consultation Paper.

3.1 Requirements for Access

The TRA sought the views of interested parties on the options and most practical approach for the publication of a separate Reference Access Offer (RAO) or a combined reference offer.

If required, the TRA would thereafter consider, consult on, and publish the appropriate regulations in relation to a separate Reference Access offer or combined reference offer.

One respondent supported the development of a RAO and noted that these were used in many other liberalized markets. It argued that the RAO should be a standalone document rather than a combined Reference Offer (“RO”) because, whilst the Reference Interconnection Offer (“RIO”) would be a stable document, the RAO was likely to be iterated several times in the near future and separate documents would simplify this process.

Another respondent put forward the view that to avoid complexities that may be related to the definitions of Interconnection Services and also accounting issues relating to those services, it would be better to provide the offers separately.

In contrast the third respondent considered that there was no identifiable need for a separate access offer for two reasons. First, there was no fundamental need for regulation in relation access services and second, that in any case access services should be included under a combined RO. It argued that a separate document would represent unnecessary duplication of effort and cost for the operator providing it.

The TRA has considered these contrasting views and has considered whether separating the existing RO was a practical and necessary step in order to achieve clarity between the terms and conditions of services offered under “Interconnection”, and other services offered under “Access”. Moreover, separating Interconnection and Access services into a RIO and RAO respectively, would not necessarily provide clear guidance to operators falling within the relevant provisions of the Law to provide access of how “Wholesale” services, which are freely offered by Batelco without referring to specific requirements within the Law, should be presented within the context of multiple Reference Offers.

The TRA’s current view is that two options for RO’s need to be considered by operators providing access:

- Complete separation into individual RO’s that cover Interconnection, Access and Wholesale services separately, so that the definitions and terms and conditions applicable to each type of service may not be confused;
- A Combined RO, but in which the differences in definition and terms and conditions are clearly discernable. This view holds as long as it can be clearly demonstrated that the terms and conditions applicable to Access services (and for that matter Wholesale services) are not made more stringent on other licensed operators (“OLOs”) by virtue of their being closely incorporated

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within schedules in a reference offer that also covers legally mandated Interconnection services.

3.2 Markets identified in prior determination

A number of relevant markets where access services may be required were identified in the prior determination on “Dominance in Interconnection Markets” ERU/DE/005 issued on 9 August 2003. These markets were included in this Consultation on the requirements for Access services in order to complete the regulatory treatment of these services.

The TRA wished to hear from interested parties regarding the proposals for DQ and related services.

One respondent expressed concern that Batelco would retain a *de facto* monopoly on customer information and recommended the TRA explores options for having a third party manage directory data. The respondent recommended a formal consultation process related to the treatment of directory enquiries (“DQ”) in Bahrain. The TRA has already expressed a view that the potential liberalization of DQ be the subject of a consultation.

Another respondent considered that the costs should be taken into consideration when Batelco is providing such services to other operators.

The remaining respondent set out the view no further regulation DQ services was necessary as Batelco already offers the services identified, i.e., DQ services to the subscribers of other networks, inclusion of all operators numbers in a unified Bahraini DQ database and the customer option of listing any mobile number with their fixed number in the unified DQ database. The respondent acknowledged that issues relating to tariff for these services, including the appropriate cost base for tariffs, remained to be finally resolved.

The TRA welcomes the fact that Batelco already provides these services, but re-iterates its view that the inclusion of these services in the consultation was for the purposes of completing the discussion of their regulatory treatment commenced in the prior determination on Dominance in Interconnection services. It remains the TRA’s intention to consult further on the issues related to the provision of liberalized DQ services in Bahrain.

3.3 Other services

The consultation paper set out a list of possible services that *might* be sought by other licensed operators and intended to seek views on whether or not these service should be regarded as access services.

Interested parties were invited to comment on the appropriateness of the list of services and suggest any other services that may be required.

One respondent agreed that all of the services on the list should be available as access services and identified three other services including dark fibre and .bh domain names. However, no rationale was provided as to why these services should be considered as access services. Access to dark fibre is addressed in section 40(6) of the Law and further through the recent consultation on Local Loops and related facilities. Regarding Domain names ending in .bh, as identified in the consultation paper this is the responsibility of the Ministry of Transportation.

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Another respondent considered that the list was inclusive but that there should be flexibility to amend the list whenever it was needed.

The other respondent asserted that the list of services was overly broad and contained services for which there was no relevant market or demand and thus for which no market failure could be demonstrated. It also contended that there were services where Batelco should not be considered dominant. The respondent's view was that the TRA should be making a "prospective competition" assessment in each of the markets considered and thereby not implementing any further regulation. The respondent went on to state that, in its view, the TRA had conducted insufficient market analysis in identifying the services to be considered.

The list of services put forward by the TRA was simply a list of possible services that might be considered by other licensed operators and on which the TRA sought views as to whether they should be considered under the banner of Access services. It did not carry any presumption of dominance or predisposition to regulatory treatment at that point concerning any current licensee. Discussion of relevant markets and the issues of potential dominance was provided in later sections of the consultation paper, for those services where the TRA viewed that might be market power issues to be addressed.

3.3.1 Leased lines

The TRA sought respondents' views on the definition of wholesale leased line markets and the proposals for inclusion of wholesale leased lines in Batelco's Reference Access Offer.

One respondent agreed with the TRA's definition of the markets for leased lines and the requirement to include a wholesale leased line offering in a RAO. It commented that a robust telecommunications sector will require leased line bandwidths higher than those offered currently (i.e. greater than 2 Mbit/s), and argued that there is a risk that new entrants may be prevented from effectively serving key industry sectors such as the public sector if they are limited to 2 Mbit/s connectivity.

Another respondent stated that in view of the opening of competition in Internet service provision and value added services it was necessary that wholesale leased lines be provided because of the need of these services to access facilities.

The remaining respondent set out at length its views on potential leased line markets, prefaced by the stance that many of the potential leased line uses discussed represented resale service and not access services and should not therefore be the subject of any regulatory action. It contended that the terms and prices of leased line use should be left to commercial negotiation between operators. In connection with this, the respondent raised the difficulty of distinguishing between leased lines used to provide connection to OLO's customers and those used for the OLO's "own use", which use was strictly a retail service.

The respondent considered that the TRA had undertaken insufficient market analysis on the potential leased line market in the light of potential competition that might arise now that the market was fully liberalised. It contended that the TRA should wait and see how the market developed before contemplating regulatory measures in addition to those already included in the Law. The respondent further argued that the TRA's proposals would discourage infrastructure investment by new operators because it tilted the build or buy decision for operators towards getting all their inputs from Batelco. It argued that entry barriers were very low for the provision of inter-exchange

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components of leased lines due to the compactness and flat terrain of the Kingdom and that competitors could easily set up these links. The respondent accepted that barriers to entry were stronger in the local access segments but proposed that this issue could now be addressed more effectively by operators considering Batelco's offering of a "Symmetrical Bitstream Access Service". The respondent's stance was that any consideration of Batelco's dominance should only be made outside of central business districts ("CBDs") since these were areas that were easily addressed by competitors' own infrastructure build and that these areas should be determined to be prospectively competitive. Finally, the respondent suggested that the TRA's proposals would devalue Batelco's existing network investments and reduce investment incentives since the regulatory proposals would not allow Batelco to recover investment in a manner commensurate with the risk.

The TRA notes the contrasting view taken by this respondent. However, despite the respondent's predictions on the development of competition, the fact that a market has been liberalised does not necessarily mean that vigorous competition will arise immediately. Even if this market were to be considered prospectively competitive (i.e. effective competition was imminently in prospect, which the TRA is not able to conclude at this stage), this would not negate the current position that by virtue of there being only one current supplier of these services, which ought to be considered dominant. As suggested by other respondents, in the near future, leased lines, provided by any technical configuration, are likely to be key components in the provision of services by OLOs.

3.3.2 Switched data services ("SDS")

The TRA sought respondent's views on the definition of the switched data services (SDS) market and the proposals for inclusion of these services in Batelco's Reference Access Offer.

The TRA also sought respondents' views on the extent to which specific individual switched data services should be separately identified and provided for within the Reference Access Offer.

One respondent agreed that managed data services should be considered as separate from leased lines and should be included in the RAO. Its view was that the SDS market consisted of distinct subsets of users with demand for different SDS products, e.g., MPLS, X.25, IP, ATM, but that given the small size of the Bahraini market a fine segmentation of this market was not necessary at this stage of development. It advocated that specific services should be separate line items with any RAO complete with separate terms.

The second respondent also considered that SDS should be included in the RAO.

The third respondent extended its arguments relating to leased lines and viewed SDS as downstream markets that utilised services or facilities, i.e. leased lines or "dumb pipes", from upstream markets. The respondent's position was that switched data services are a combination of raw connectivity and the provision of "intelligent edge devices". As such, it argued, provided the raw connectivity was available, either through a commercial agreement or access is provided through a RO, any operator could provide such a service by adding the appropriate edge devices. The downstream market, therefore, should require no regulation at all as any market failure should be addressed at the upstream market level.

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In many developed countries the provision of switched data services does not require a license, indicating that other regulatory regimes probably consider that the entry barriers are indeed low for this type of service and mandated requirements on an incumbent are not necessary. On the basis of the responses received, and considering the indication from other jurisdictions, the TRA's current view is that the provision of switched data services should be allowed to develop without mandating specific services identified as SDS within a reference offer. This view is on the understanding that appropriate connectivity in forms suitable for OLOs, which includes an appropriate range of dedicated capacity or leased lines, is available on reasonable terms through commercial arrangements or as access through a reference offer.

3.3.3 Services required by ISPs to access customers

The TRA sought respondents' views on the definition of Internet access markets, in particular whether narrowband access and broadband access are separate relevant product markets in Bahrain, and the proposals for inclusion of broadband (wholesale DSL) in Batelco's Reference Access Offer.

One respondent agreed with the TRA's position that irrespective of whether or not narrowband and broadband are separate product markets, Batelco has a dominant position in both. It recognized that the facilities needed for broadband are very different from those needed for dial-up, but considered that, in both cases, Batelco would be the main, if not the only, supplier of required infrastructure. The respondent put forward the view that Batelco's RAO should be constructed to assist ISPs in connecting to Batelco infrastructure to collect dial-up calls. Further, it argued that a wholesale DSL product should be supplied whether it was included in a RAO or treated separately, as has occurred in other markets.

Another respondent noted that given Batelco provides services across the whole Kingdom of Bahrain; it should be required to provide a wholesale DSL service.

The other respondent commented that Batelco already offered what it considered a "wholesale DSL" product in its RO and there was no further need for the TRA to require it since it was already in the Law. The view was re-stated that the TRA should be encouraging infrastructure-based competition. The respondent stated the view that wholesale DSL should be priced based on a "retail minus" approach.

The provision of Internet services in Bahrain, be they narrowband dial-up or broadband based on DSL, will be profoundly affected by the current debate relating to the potential unbundling of the local loop. The TRA has consulted on the local loop and related facilities recently and is considering responses and plans to consult further on these issues. The TRA welcomes the provision of DSL services within Batelco's current RO.

It would appear that Batelco is currently *de facto* dominant in the provision of narrowband dial up access to the internet through its 100% ownership and control of the local loop infrastructure in Bahrain. The TRA is not yet able to assess the level of demand that may arise for narrowband access by OLO's to dial-up Internet traffic or whether this will be superseded by demand for access based on broadband services, but would not wish to preclude this opportunity.

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3.3.4 Internet connectivity

Internet connectivity was considered under two headings: National and International, with different approaches considered for each.

The TRA sought respondents' views on the definition of the relevant markets for both national and international Internet connectivity and the appropriateness of the regulatory measures proposed for the interim period.

Regarding National connectivity one respondent foresaw an interim period when the BIX might not be fully operational and that Batelco might retain a dominant position for internet connectivity. The respondent recommended that the TRA monitor Batelco in this period to ensure its market power is not abused.

The other respondents did not make particular comments with regard to national connectivity except for noting that Batelco had already developed an Internet connectivity service targeted at the BIX and ISPs and this had been included in the existing RO.

The TRA is aware the potential for Batelco to capitalise on its market power until the BIX is fully operational, however, at this stage, given the imminence of an operational BIX, the TRA remains of the view that no specific measures should be put in place

Regarding international connectivity one respondent believed that ISPs should be allowed to bypass both Batelco and the BIX for connectivity, permitting redundancy in their service provision and substitutes if the offerings from Batelco or the BIX do not meet appropriate pricing or service quality levels. If ISPs did secure international access from a provider besides the BIX or Batelco, Batelco would need to provide "Border Gateway Protocol" (BGP)¹ routing to allow access to .bh domains and to enable local traffic routing between the ISP, Batelco, and the BIX. The respondent recommended that Batelco be required to provide BGP routing to all ISPs to enable their Internet connectivity, regardless of the means by which these ISPs secure international connectivity.

Another respondent concurred with the TRA's view that Batelco should provide the BIX with access to international connectivity for a preferential tariff and access to international leased lines. It noted that, in addition, the BIX retained the right to make agreements with Batelco's competitors whenever this was needed.

The other respondent stated that the TRA should be focussing on alternative access options available to OLOs through other technologies such as satellite and cable, rather than seeking to regulate Batelco's offer that has already been made. It did not specifically address the issue of international connectivity apart from putting forward its view that there would be other players capable of providing international connectivity. The respondent noted that Batelco's approach to the provision of services at "retail minus" conforms to cost-orientation in that Batelco's tariffs are developed with its costs in mind.

¹ BGP (Border Gateway Protocol) is an exterior gateway routing protocol that enables groups of routers (called autonomous systems) to share routing information so that efficient, loop-free routes can be established. BGP is commonly used within and between Internet Service Providers (ISPs). BGP is often the protocol used between gateway hosts on the Internet. Hosts using BGP communicate using the Transmission Control Protocol (TCP).

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The TRA certainly looks forward to the alternative and competitive provision of international capacity, for internet connectivity or other forms of traffic, to the Kingdom of Bahrain; however, it is not aware that such capacity will be available in the immediate future. As such, Batelco remains the only provider of such capacity.

3.3.5 Co-location

The TRA sought respondents' views on the TRA's intention to consult on issues related to co-location and access to unbundled network elements under a separate consultation.

Each of the three respondents agreed that the issues raised merited a further, more detailed consultation.

The TRA published a separate consultation paper on local loop and related facilities during the consultation period of the paper under discussion here. A significant range of arguments have been put forward in relation to that consultation and are the subject of ongoing discussions between the TRA and the industry.

3.3.6 Facilitating services and facilities

From 1 July 2004, where it is found to have significant market power in relevant markets, Batelco has an obligation under section 40 (6) of the Law to provide access to certain telecommunications facilities, (including, DSL co-location, fibre that is not in service or only partially in service and, where the TRA so determines, ducts).

Under the same section of the Law, Batelco had one immediate obligation that relates to its facilities:

- Access to ducts by each mobile operator, from the date of the grant of the mobile telecommunications license.

The TRA requires the reflection of this obligation within the RAO.

The TRA sought respondents' views on the requirement to include terms for Access to facilitating services and specific facilities within the RAO.

One respondent noted a lack of clarity on what might be required, or what the main bottlenecks will be. It went on to note that it considered the current access terms in the RO to be unsatisfactory. In particular, pricing for ducts appeared to be high. The respondent suggested the TRA investigate appropriate pricing levels for ducts and other key infrastructure services to ensure that cost-based pricing is offered.

The second respondent contended that all currently relevant and appropriate services and facilities are already available in Batelco's RO and further consultation was unnecessary in the absence of demonstrated market need.

No respondent specifically identified a service or facility that was in demand and not supplied at this stage. Hence, on the basis of replies, the TRA's view is that, except in the case of ducts, no specific measures in relation to facilitating services and facilities should be made at this time. However, the TRA intends to monitor closely the products and services offered in any RO by Batelco, and would welcome submissions from interested parties as to potential failures in offerings or their terms and conditions. The issue of access to ducts is being considered in conjunction with the consultation on local loop and related facilities and further consultation on this matter is intended.

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3.3.7 Domain name services

One respondent raised the question of whether Batelco's continued management of .bh domain names might confer on it some advantage in the market and urged the TRA to seek the Ministry of Transportation's active management of names or the transfer of responsibility to the BIX. Another respondent concurred with the TRA that all issues related to domain name services should be presented to the Ministry of Transportation for evaluation.

The Consultation Paper pointed out that domain name services are the responsibility of the Ministry of Transportation. It also put the view that the management of domain names should, ideally, be the responsibility of an independent body within the country.

3.3.8 Hosting services

The TRA sought respondents' views on the TRA's view that Batelco does not have market power in Hosting services.

One respondent put forward a view based on overseas experience. Hosting markets in the US and Europe suggest that most hosting companies provide hosting at or below cost, and make their financial returns on other services, including transmission. The respondent argued that Batelco may be the only operator that can credibly provide ancillary services such as transmission in the near term, and potentially in the medium to long term. Further, as the incumbent fixed line operator, Batelco will likely be the only operator with scale for some time, implying that its costs for transmission will be lower than for other operators. As such, Batelco may maintain a *de facto* monopoly in hosting services. In this light, the respondent requested the TRA revisit this issue as the market evolves.

In contrast, another respondent agreed with the TRA's view that there are low barriers to entry in the provision of hosting services and that Batelco does not have market power in this market. It is also worth noting that, given the global nature of Internet business, hosting services are relatively easily supplied across borders and competitive hosting services for Bahrain can be obtained, for example, from the US or Europe. This reinforces the view that the hosting market is already fully competitive.

The TRA remains of the view that no specific measures are required in relation to hosting services at this stage, but will consider reviewing the market should market circumstances warrant it.

3.4 Proposed action by the TRA

The TRA sought respondents' views on the proposals and timescales for the preparation of a Reference Access Offer from Batelco.

One respondent indicated that timescales proposed appeared to be reasonable. It raised the question that after the 60 days, additional time would be needed for the TRA to review the RAO and make its determination, and then let Batelco and other operators appeal. The respondent re-iterated the importance of having provisional terms in place quickly to allow new entrants to prepare their business plans and go-to-market strategies, and to gain physical access for testing and potentially operational launch purposes.

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The second respondent considered that a more flexible period should be proposed to allow Batelco the chance to re-engineer technical and administrative procedures.

The remaining respondent re-iterated its view that the proposed actions by the TRA are unwarranted, unnecessary and did not conform to international regulatory practice.

3.5 Review

The TRA sought respondents' views on the proposals for review of the relevant markets in relation to the provision of Access services.

One respondent indicated that it believed the proposals to review any RAO in the beginning of 2005 appeared reasonable given the lack of clarity on several issues and the resulting need to review the situation frequently.

Another respondent considered that it was useful to review relevant markets to evaluate the position of access periodically given the major changes occurring in the Telecommunications sector nationally and internationally.

The other respondent re-iterated its view that regulatory intervention was not necessary in the circumstances as set out by the TRA in the consultation. As a result, its view was that any findings of dominance made under the approach proposed by the TRA were likely to be flawed and based on outdated regulatory approaches and as such any finding should be subject to review on request.

The TRA notes the views of the respondents but considers that, from a regulatory perspective, undertaking reviews by the end of 2005 represents the imminent future and is less than a year after any measures being considered in this consultation might be implemented. The TRA, therefore views this an appropriate point in time to consider reviews, as the fully liberalized market would be less than one year old, and the extent of initial competitive market entry, and its impact on particular service markets, may be more thoroughly assessed.

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4 Conclusions

4.1 Regulatory requirement for Access

The purpose of the TRA in considering dominance in certain markets and the provision of Access services that might come under regulation was

- to ensure the availability of access services considered to be key to the development of the market; and
- to consider any market power issues arising from the provision of those services.

The TRA's view is that the consultation has shown a significant range of views on what services should or should not be considered under the category of Access services.

The consideration of market power, and whether formal regulatory intervention is warranted, is relevant where access seekers may be disadvantaged in obtaining appropriate services from an incumbent that controls access to customers. The TRA notes one respondent's stance against any further formal regulatory measures on Access services. However, as competitive entry is expected to increase over the forthcoming months, the TRA can begin to assess whether OLOs are, in fact, disadvantaged in obtaining access to appropriate services.

A formal determination of dominance in relation relevant markets for Access services is required to review Access services in any RO under section 57(e) of the Law (outside of any *ex-post* review under other sections of the Law, such as the general provisions on tariffs in sections 3 (c) 14 and 58). This review of any Access service terms and conditions may be considered a useful review in terms of providing clarity in the market place.

As a consequence of this consultation, the TRA proposes to issue a regulation that addresses the requirements that would be placed on licensees that were found to be dominant in relevant markets in relation to section 57(e) of the Law. The regulation would set out the obligations on the dominant licensee in terms of the publication of reference offers containing the services needed in relation to the relevant market and the terms and conditions applicable.

4.2 Dominance in relevant markets

On the basis of its earlier views and the submissions of respondents, the TRA considers that the markets represented by national and international wholesale leased lines, international connectivity, wholesale DSL, unbundled local loop and narrowband dial-up access are the key relevant markets where, for the present, questions of potentially enduring market power may remain.

As far as the question of dominance of any current licensee arising this will be the subject of a separate exercise which may or may not lead to a formal finding of dominance with the consequent obligations that this may have.

In the case of narrowband dial up access, the TRA also intends to monitor closely the market to decide whether this service is in fact in demand and sought by ISPs or whether broadband services, addressed by the current ULL and wholesale DSL

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consultation, are the principal access requirements of OLOs to address the Internet access market.