Report of the Telecommunications Regulatory Authority (TRA) Development Review Panel (DRP)

Martin Cave

Robert Bruce

Ian Martin

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1 Introduction

In October 2005 the General Director of the Telecommunications Regulatory Authority (TRA) of the Kingdom of Bahrain commissioned an independent report into the effectiveness of the Authority's workings from a three-person review panel, comprising:

- Martin Cave (Chair), Professor at Warwick Business School, University of Warwick, UK – an economist with extensive experience of advising regulatory agencies and regulated firms,

- Robert Bruce, a Senior Research Fellow at the Center for Digital Strategies at the Tuck School of Business, Dartmouth USA, and formerly General Counsel of the Federal Communications Commission, the US communications regulator.

- Ian Martin, a telecommunications strategist and financial analyst at ABN AMRO in Australia, with substantial experience in a range of telecommunications regulatory issues.

The TRA Development Review Panel (the panel) visited Bahrain from 29 January to 5 February 2005 and met with a range of industry participants on 1 and 2 February.

The panel received comments and information from: the TRA, the Ministry of Transportation, the Bahrain Consumer Protection Society, Batelco, MTC Vodafone Ltd, and a range of other licensees. The panel is very grateful to those who spoke to it for giving their time and expressing their views in a helpful, forthright and insightful way.

On the last day of the visit to Bahrain a workshop on the review took place organised by the TRA, at which a number of stakeholders spoke, and at which the panel presented its initial findings. This was followed by a general discussion that canvassed a number of important issues in the development of competition in the telecommunications sector in Bahrain.

The panel is grateful to those who attended the workshop, including members of the TRA Board, including its Chairman Dr. Mohammed J. K. Alghatam.

The panel now presents it final report for 2006 which has drawn extensively from all the processes described above. The General Director of the TRA has undertaken to publish the report and to issue a response to it.

The report is structured in the following way:

- Section 2 provides a background to the work of the TRA.
- Section 3 outlines the guiding principle used by the panel which is drawn from the Telecommunications Law.
- Section 4 summarises the panel's recommendations.
- Section 5 summarises the findings of the previous panel one year ago.

- Section 6 highlights global developments in the telecommunications sector over the past year which create further commercial opportunities as well as risks for incumbents.

- Sections 7 and 8 outline the panels key recommendations

- Sections 9 to 13 outline the remainder of the panel's recommendations.

- Section 14 and 15 discuss some broader priorities.

2 The background to the TRA's work

The Government formulated its telecommunications policy in May 2002 and enacted the Telecommunications Law in October 2002. The new law fully liberalised the telecommunications markets in the Kingdom of Bahrain from July 2004, and created an independent agency, the TRA, to regulate the sector.

The Government also adopted a Telecommunications Plan to provide a policy framework within which the TRA would operate. This plan is due to be updated later this year.

The TRA took its first steps towards implementing the new regime in 2003 including initial licences and the licensing and start of operations of the second mobile operator, MTCVodafone Bahrain. In December 2003, a permanent staff was appointed to the TRA under the direction of a General Director.

In 2004 the TRA oversaw the entry of the second mobile operator and substantially increased the number of licensees. But the lack of entry by fixed service operators was a matter of concern for the 2005 TRA Development Review Panel.

This report focuses primarily on what has been achieved in 2005, where the regulatory environment now stands in its development and the issues that the review panel considers should be priorities in the year.

3 Guiding principle: long term interests of end users

The TRA has three main duties under the Law, (Chapter II, Section 3) which can be summarised as those of

- protecting consumers
- promoting competition
- ensuring the supply of public telecommunications services.

The panel relied on these objectives, which place benefits to consumers (households and businesses) at the heart of the regulatory regime. It has adopted these three objectives as the touchstone of its evaluation and summarised then under the general objective of promotion of the long term interests of end users.

4 The panel's recommendations- a preview

In its previous report in 2005, the panel noted the heavy burdens placed on a regulatory body at the outset of liberalisation. Key elements of this burden have now been completed including evaluations of the cost of capital and dominance criteria. However, several other key elements remain to be completed and should be considered priorities to support the sound and enduring establishment of competition in Bahrain.

The key recommendations of the panel are the need to:

- complete an effective Reference Access Offer (RAO) that ensures effective equivalence as soon as possible and no later than 30 June 2006

- issue wireless licences to support fixed wireless access and backbone operations on a fast track basis.

The panel also makes recommendations in respect of several other matters:

- it reiterates the importance of having a clearly articulated telecommunications and IT policy framework for Bahrain to help focus the priorities for the TRA and give greater support for regulatory activities. Such a policy, for instance, might gauge the relative importance of the development of broadband communications in Bahrain.

The level of discussion and insight by players on key issues has developed significantly since the previous panel review discussion one year ago. We consider the time is now right for a greater role for formal dialogue among users, service providers, regulator and relevant government officials.

The panel considers that formal and informal industry bodies may play a key role in resolving on a collaborative basis such subsidiary regulatory issues as interconnection SLAs, access approaches, customer churn protocols and so on. Often relevant expertise is held within key industry players and can be drawn out to public benefit with appropriate sponsorship by the regulator, saving time and resources.

Similarly the panel considers there is an important role for co-ordinating entities within Government for key policies to be developed and implemented perhaps including Broadband Bahrain, e-government initiatives and ICT-driven expansion.

In addition to its key recommendations and priorities, the panel has a number of additional recommendations for the TRA that are discussed in the report. As an over-arching recommendation relevant to these, the panel considers that the TRA should take a more strategic approach to regulation where possible including drawing on industry expertise and collaboration and avoiding micromanagement. The panel considers this strategic approach might best focus on current areas of market dominance and the likely impact of future IP related services.

Above all, the panel recommends the TRA keeps attention focused on the needs of users, in particular their long term needs. This objective should provide a touchstone for the TRA as it allocates it resources between regulatory tasks, perhaps reducing its role with respect to matters that might not lead to lasting benefits and increasing the priority of matters that go to the heart of the development and sustaining of effective competition.

5 What the panel said in 2005

The 2005 TRA Development Review Panel reviewed developments in 2004 and noted the introduction of a 2nd mobile operator and the issuing of a substantial number of licenses. However, it noted the lack of any fixed line competition and several remaining barriers to this, notably the lack of effective access.

The 2005 panel noted the first priority was the need to provide access to wholesale products that new entrants needed.

Unsurprisingly, the 2005 panel noted, licensing of new operators and retail price approvals have together taken up a significant proportion of the TRA's time and resources. It recommended as a second priority the streamlining of the retail price regime to reduce the TRA's workload in this area.

This middle set of priorities of the 2005 panel also included:

- separate accounting in order better to understand the dominant carrier's network cost base, and hence to establishing fair charging for customers and competitors alike. Several comments were received by that panel that accounting separation requirements are too onerous for new entrants as well as time consuming for the TRA despite some parties exemptions on detailed regulated accounts for some new entrants.

- provision of a suite of wholesale access and interconnect prices, where the TRA has had to make progress across a broad front on the very complex but necessary process of identifying the network components, and the appropriate pricing and regulatory approach, which are key aspects of system and customer access. One of the most widely discussed areas was whether the TRA should do more at a practical level on interconnection and access.

- the decision on whether there should be a third mobile operator, and decisions on rebalancing the tariff, the 2005 panel considered somewhat less pressing but still important. Rebalancing, in particular, was necessary so as to allow cost-oriented tariffs to be achieved for both retail and wholesale products and services.

The 2005 panel noted the common concerns of respondents in the sector over the TRA's level of resources and prioritisation of tasks. A widespread concern was that the lack of ready resolution of key market entry issues impacts the financial viability of new investment projects. Some participants suggested the need for a timetable and prioritisation list for key matters such as access to facilitate market entry, suggestions endorsed by the 2005 panel.

Other issues raised and recommended by the 2005 panel include the need for a comprehensive and consistent spectrum policy and a policy in support of Broadband Bahrain.

After going through its review processes in 2006, the current panel considers that much progress has been made but key challenges remain and, indeed, are increasing.

6 Future opportunities and key trends

In the year since the panel's last review several global industry developments have increased challenges facing telecommunications operators and regulators, including emerging mobile and broadband services and commercialisation of high speed services and IP-based technologies. Our discussions with operators in Bahrain show these developments are being felt in Bahrain and operators are keen to draw advantage from these.

In the panel's assessment the current regulatory framework provides a solid fundamental platform to develop the telecommunications and ICT sector of Bahrain in a potentially competitive, market-oriented environment. In particular we consider the TRA is a transparent, independent and well-qualified regulatory institution and so is well placed to manage its responsibilities in a changing environment.

However, the emergence of actual new entry and the transition of Batelco from monopoly provider to major player in open competitive market is occurring at a slower rate than it could. To some extent this is a matter of resources and management of competing priorities, but also reflects an emphasis on process compared with outcomes. There is little value in having world-class processes if the end result is to constrain meaningful reform. The panel considers there are opportunities to better manage the regulatory process such that effective outcomes are achieved more readily, without compromising the integrity of the process.

Streamlining of some processes will become inevitable. Globally, old regulatory paradigms are being overtaken as new IP-technologies create new entry opportunities, accelerate broadband take up and extend its service range. Similarly, wireless and other disruptive technologies may create unforeseen entry opportunities, service options and accelerate change.

These paradigms, their impact on service and their potential to contribute to the wealth of Bahrain are better tested in a competitive market. At least regulation should not inhibit the potential opportunity. The Panel strongly believes that markets, not the regulator, should be allowed to sort out the welter of new entrants that is now emerging in Bahrain. Some, but not all, entrants will succeed. Many will find effective ways to collaborate together in arranging international Internet connectivity and/or backbone infrastructure even as they compete vigorously at the retail level for new customers. Even Batelco may find that it is advantageous and profitable to develop a wholesale line of business even as it competes with new entrants for end users.

All these developments may not quickly change the traditional regulatory challenges focussed on managing market dominance. Instead they may change the way dominance is reduced as competition evolves, creating new risks for Batelco as incumbent, particularly for its traditional fixed line revenue base. At the same time they create new opportunities, both for Batelco and new market entrants. So while regulation will continue to be needed, it is better that it be supportive of changes that occur in the market than support any particular outcomes.

The distinction may be subtle but it is important. Bahrain itself is a small geographic market with potential limits on scale of future market operation. Alone, it may sustain fewer players and less innovation in entry and development.

However, Bahrain is also in a unique position in an emerging dynamic regional market. As a progressive market in the Gulf region and with potential access to capital, the right model of competitive entry will help support regional business opportunities and potentially those on a larger international scale.

After carefully evaluating comments from a range of market participants the panel is concerned that an overly prescriptive process may inhibit the rate and form of competitive entry and industry development. A number of comments received by the panel and repeated in the workshop suggest that the TRA should limit entry now that initial licenses have been issued. Neither overly prescriptive regulation nor constraints on licensing or market entry would, in the view of the panel, well serve the long term interests of end users in Bahrain. To the extent operators in Bahrain are free to operate and find their position in the market in Bahrain and respond to market challenges, they will better serve end users in Bahrain and will in turn be better placed to operate and find their position in a Gulf regional market in Bahrain and respond to regional challenges.

7 Key recommendation: the need for effective access

In the panel's discussions with industry participants the most sustained comment and concern was the absence of an effective access regime, in particular an effective reference access offer (RAO). The panel consider this to be the most urgent matter at this time and recommends that the TRA commit to ensuring an effective RAO is in place as soon as possible and certainly no later than June 2006.

At a minimum relevant access services should include both customer access through wholesale line rental, line sharing and unbundling, duct and backhaul to certain points of presence.

The RAO should ensure effective equivalence in key elements. These should be itemised as service level agreements (SLAs). It may be appropriate that key players including Batelco and access seekers identify these through consultation to the extent this has not already occurred. In any case, if consultation risks delaying the RAO beyond June it may be appropriate for the TRA to arbitrate on some aspects of SLAs to ensure a workable RAO is in place in a timely way, but leave opportunity for some revision or refinement.

Circumstances inevitably arise that constrain effective equivalence whether through administrative constraints, carelessness or contrivance. Structural separation may be one way to deal with this but often has adverse consequences for end users that cause more pain than the problem it aims to solve. The panel is not in favour of a forced separation that constrains opportunities to compete effectively or that limit the incumbents ability to meet end users needs. However, there are several alternative options including reporting arrangements, ring fencing and operational separation that may improve equivalence without inhibiting the legitimate competitive performance of the incumbent operator.

In principle Batelco should be free to exploit its relative economic advantages including scope and scale, as ultimately end users may benefit from this. But Batelco should be constrained from exploiting these advantages to inhibit competitors, including through reducing their access to essential services.

The panel recommends that Batelco's wholesale operations be run as a separate division, have its own employees (separated from retail activities) and with separate performance objectives. It should report its performance including provision of access services both to Batelco's own retail operations and access seekers.

The consultation process we outline in section 10 may identify key performance metrics but at a minimum these should include provisioning data, timeliness and service quality measures.

8 Key recommendation: issue wireless licences on a fast track basis

An equally pressing matter raised in the panel's discussions with industry participants was the frustration that wireless spectrum was not readily available to support network provisioning, both for customer access as well as backhaul. The evidence from other liberalised markets is that radio frequency (wireless) spectrum supports relatively rapid market entry opportunities that may subsequently be supported with fixed line infrastructure.

The panel recommends that a “fast track” procedure be established to deal with allocation and assignment of wireless spectrum for network access and backhaul. Our discussions with industry operators and government officials suggest that 3.5 Ghz spectrum might be made quickly available to support fixed wireless access (FWA). Similarly the panel recommends that a “light license” regime be established quickly to support “WiFi” services.

Ordinarily an auction of available spectrum would allow operators with strong commercial prospects the best opportunity to enter the market. Indeed this may be the case for Bahrain also. Alternatively, if a “beauty contest” approach is used, the panel recommends that the selection process be transparent and that the selection criteria focus on quickly establishing competition in the fixed line market rather than focus on the maximisation of revenue.

Whether FWA spectrum assignment occurs through auction or beauty contest, as it is intended to support fixed line competition, the panel considers that Batelco should not be awarded an initial spectrum licence for FWA. Where there is a strong commercial reason for Batelco to hold such an FWA license, this should only be awarded at some period after the commencement of several alternative operators.

The Panel believes that it would be very constructive to remove the current distinction between “indoor” and “outdoor” usage of WiFi-based facilities. The rapid development of such wireless LAN facilities in public places is likely to give additional impetus to the important process of providing an alternative to

Batelco's current dominance in the local access market. Mesh networking of WiFi facilities holds significant promise for the rapid deployment of high speed Internet services in urban areas. There are significant examples now emerging of urban-based high speed networks in the United States and other countries. Regulatory and spectrum policy should not be an impediment to innovation and to lessening Batelco's current market power.

The panel also recommends that the RAO separately delineate connectivity for WiFi nodes including backhaul whether by DSL or alternative technology

9 Clarification of policy objectives

The panel notes that the government is due to issue the next national telecommunications plan during 2006. It notes the importance of having a clearly articulated telecommunications and IT policy framework for Bahrain as this highlights priorities, improves the focus for the TRA and gives greater support for its regulatory activities.

The panel has already noted the need for the TRA to set priorities in order to be more effective in support of competition and the needs of end users. However it is difficult to set regulatory priorities where key elements of policy are not clearly established. In particular, given technology developments summarised in section 6, the panel considers it important that the government clearly articulate policy with respect to broadband deployment in Bahrain.

10 A collaborative approach

The level of discussion and insight by players on key issues has developed significantly since the previous panel review discussion one year ago. We consider the time is now right for a greater role for formal dialogue among users, service providers, regulator and relevant government officials.

The panel considers that formal and informal industry bodies could play a key role in resolving on a collaborative basis subsidiary regulatory issues such as interconnection SLAs, access approaches, customer churn protocols and so on.

The panel recommends that:

- the TRA establish and oversee industry workshops to discus and refine the most critical elements of the RAO offering

- similar arrangements be used to develop common grounds and consensus relating to regulatory objectives and implementation measures.

- the TRA consider where and how such workshops may develop into an ongoing consultation process, possibly with a view to moving some regulatory matters in time to industry self-regulation.

- the TRA establish a consumer panel with participation by established licensees and increase the “user voice” (consumer and business) in regulatory decision-making, particularly over service standards and consumer issues.

- the TRA continue to develop framework for GCC consultation and cooperation among GCC country regulators.

- develop and improve private dispute resolution.

11 Development of a strategic approach to regulation

In the longer term as industry bodies are established which may aid the regulatory process and help resolve procedural and operational matters, this may free the TRA to focus on more significant matters and develop a more strategic approach to regulation. Even now, as competition in the telecommunications market is beginning to be established, it makes sense for the TRA to reset its priorities on areas where it its particular strengths may be used to most advantage.

The panel recommends that the TRA:

- develop a strategic approach to the future regulation of Batelco, recognizing both its current dominance and the likelihood that new IP-related developments to quickly reduce this dominance in some telecommunications markets;

- develop a "roadmap" addressing Batelco's current market position as well as potential changes as competitive challenges emerge, as a guide to how the TRA may best direct its efforts over time;

- develop this new strategic framework through consultative discussions with all industry participants and interested bodies, indeed this may occur in concert with pending consultations relating to spectrum issues, RAO, broadband deployment and pricing issues.

12 Effective regulation of Batelco

The key to the performance of the TRA over the next year and more is its regulation of Batelco. Effective regulation would ensure timely and appropriate provision by Batelco of necessary access services while constraining it from using its market power to inhibit competitors operations. At the same time, recognising Batelco is likely to remain the main supplier of essential telecommunications services in Bahrain indefinitely, Batelco should not be constrained from pursuing legitimate commercial operations. Effective competition supported by good regulation should encourage a strong competitive response from Batelco.

How should the TRA best achieve this balance of interests? Ideally, Batelco should achieve better performance by responding commercially in the retail market rather than focussing its efforts and resources on regulatory matters. To this end the panel recommends that the TRA:

- prioritise the implementation within Batelco of a wholesale business unit—consistent with good practice in competitive markets—with adequate staff and commitments to provide regular reports on agreed performance indicators

- refine and finalise the RAO service offerings to be effective not later than 30 June 2006 and that these services are responsive to actual and "immediate" business requirements of current entrants.

- develop arrangements including reporting arrangements to strictly ensure and enforce equivalence of wholesale inputs to Batelco and new entrants

- establish appropriate ratios of retail and wholesale prices

Batelco will require significant retail price flexibility in order to respond to emerging developments such as fixed mobile convergence, broadband and IP-based services. The panel considers Batelco should be provided with increased retail price flexibility along with other players in the market. Such flexibility should be part of "strategic package" or "regulatory settlement" dependent on demonstrated provision of fully equivalent wholesale services.

Subject to the provision of effective equivalent wholesale services, the panel recommends the TRA:

- provide Batelco with increased retail price flexibility, focusing first on flexibility in the mobile market.

- simplify the retail price review process and reduce it to a disclosure obligation for services when and as wholesale equivalence is achieved on a verifiable basis.

- encourage Batelco to develop a proposal to restructure and gradually rebalance fixed line prices in light of fixed and mobile convergence and VOIP developments.

- work with Batelco to develop service packages suitable for low income users, and offer these for consultation with appropriate bodies.

- where necessary utilise strong enforcement policies as an incentive to change Batelco's "modus operandi" to one that is more collaborative and less confrontational on all sides.

During the week that the panel was engaged in consultative discussions in Bahrain, Batelco proposed to offer a 256 kb/sec DSL service for 10BD representing a significant reduction of the existing price for such an offering. The panel considered that approval of such an offer, could lock up many users to contracts prior to imminent entry by new fixed line operators, which itself depended on the pace of release of spectrum for wireless access as well as on the implementation of an effective RAO framework.

On that footing the panel recommended that regulatory approval of the offer be withheld on competition grounds pending:

- fixed service entry possibly through completion of FWA 3.5 Ghz fast track procedure (see section 8), and

- implementation by Batelco of wholesale business unit reform outlined above with demonstrated provision of effective equivalent wholesale services.

13 Other recommendations

The panel also recommends that the TRA:

- investigate and take steps to open up additional sources of domestic and international connectivity for BIX and any other future internet exchanges;
- ensure there are no conflict of interests in procedures to provide duct access, including the removal of Batelco personnel from public sector provisioning bodies;
- proceed with the decision to award a third mobile license but give it less priority than other market opening initiatives.

14 Final reflections 1: broadband

The Panel's report in 2005, pointed out that experience in other countries has shown that key sectors of the economy – especially an expanding service-based economy – need broadband applications to enable those sectors to fulfil their full growth potential. The wide availability of these applications is likely to be a key to future prosperity and international competitiveness for the Kingdom in sectors such as financial services, tourism, small and medium-size enterprises, schools and government, as well as in the household sector.

Increasingly, both large and SME business users are comparing the price and speeds of broadband connections available to them with offerings to their competitors in other countries. The OECD has begun to collect such comparative statistics which highlight, for example, that broadband offerings in certain Asian economies are available at 10 times or more faster speeds at the same price as typical DSL and cable modem offerings in the United States. In turn, offerings in the U.S. in the range of 2-3 megabits per second are generally available to residential and SME customers at prices many times lower than prices charged for inferior broadband products in Bahrain-prices which put them out of the reach of most Bahraini households. These pricing disparities partly reflect as well significant differences in the price of international Internet connectivity in Bahrain and the Gulf region compared with other parts of the world, but this fails to account for the differences.

Such disparities in the pricing and availability of broadband offerings in Bahrain and its global trading partners are likely to have a significant negative impact on the pace of economic development in Bahrain. They could concede an important trading advantage to other countries in the region that are more nimble in stimulating growth in ICT-dependent segments of their economies.

15. Final Reflections 2: streamlining regulation

What is needed is a more active role by business sector stakeholders in influencing the pace and direction of telecommunications policy in Bahrain.

Telecommunications policy is not merely the narrow concern of Batelco, MTC-Vodafone, and the array of new entrants now emerging to provide a range of traditional telecommunications and Internet-related services. It fundamentally affects public and private sector businesses and institutions that are dependent on such services. Even though the Panel is aware of high level groups concerned with Bahrain's future economic development within the business community and the government, the Panel did not hear these voices during its meetings in Bahrain this year; nor did it last year.

Without an overall unifying focus on how telecommunications policy can contribute to Bahrain's future growth and competitiveness, debates often appear to be wrangling between an incumbent and newcomers keen to wrestle away revenues and market position. The stakes are in fact much higher. Increased competition can, and should, energize Batelco, making it more efficient, innovative, and responsive to customer needs. New IP-based services and wireless connectivity have the potential to provide a major and rapid acceleration of broadband availability in Bahrain. The risks and challenges which an incumbent such as Batelco faces from such new services will be very significant. But to shield it from such risks and challenges—rather than prepare it through a new and more flexible regulatory regime such as the one outlined above—would be a grave mistake.

Opening the telecommunications market in Bahrain is likely to result in a welter of new entrants. Some will be successful; others will not. New entrants are likely to compete aggressively with each other as well as with Batelco. Many new entrants are likely to see advantages in cooperating together as well as competing. Some new entrants with infrastructure facilities—fiber backbone or wireless networks—may find it productive and profitable to provide this capacity to companies focused on selling services to end users. Providers of WiFi facilities may see advantages in linking together their separate facilities with billing mechanisms that permit users to use their facilities in the same way that banking customers use their bank cards at the ATMs owned by different banks. All new entrants may benefit by securing joint access to lower cost international Internet connectivity.

Cooperation and competition can benefit new entrants. It can also be beneficial to Batelco's relationships with new entrants. The provision of facilities and services on a wholesale basis can become a profitable and important line of business for Batelco. The Panel believes that separating Batelco's wholesale and retail lines of business –into distinct business groups as recommended above—is not only good regulatory practice but good business policy as well.

The Panel believes that it is important for Bahrain that the TRA focus its approach to future regulatory policy at a more strategic level—to look at the risks and opportunities for the sector as well as for the economy as a whole. It is vital to develop a broad-based consensus on next steps and to cut through red-tape and unnecessary bureaucratic delays. There is need to place more focus on the "commercial clock" than the "administrative clock" in terms of resolving remaining key issues. The panel recognizes the practical difficulties facing the TRA and the sector as whole. Each step forward, however small, still has the potential to be contentious and time consuming. We are hopeful, however, that all stakeholders—in the telecommunications sector and beyond—will keep the big picture in focus and make concerted efforts to identify areas of mutual advantage as well as recognise and navigate around differences in approach.

The Panel is grateful for the opportunity to contribute to these vital debates.