

Telecommunications Regulatory Authority of the Kingdom of Bahrain

Response to the 2008 GSR Consultation

Sharing Strategies to Promote Affordable Access for All

The concept of “sharing” in telecommunications could involve the sharing of: works; passive infrastructure; active networks; services; and scarce resources (such as rights of way and radio frequencies). Since different degrees of sharing yield different benefits as well as in some cases negative outcomes, it is of the utmost importance to carefully balance these when designing the most appropriate regulatory strategy.

Benefits of Sharing

The Telecommunications Regulatory Authority of the Kingdom of Bahrain (TRA Bahrain) considers that the encouragement of sharing in the telecommunications sector and the cooperation of market players in this regard is an important regulatory principle. Such sharing and cooperation could deliver specific benefits which include:

- 1) Substantial cost savings for the operators involved, potentially resulting in more extensive development of networks, provision of services at more affordable prices as well as increasing likelihood of investments in some costly but extremely important telecommunications projects, such as international (in particular, submarine) fibre optic cables;
- 2) Faster deployment of networks, in particular when elements of existing infrastructure are used for the deployment of new networks;
- 3) Positive environmental (including visual) impact, in particular by reducing the number of mobile masts and towers;
- 4) Reduced disturbance to normal use of roads (including reduced impact to road traffic and better ability to maintain quality of roads because of less frequent need to open them) and land of other use, in particular when ducts are shared;
- 5) Positive impact on town and country planning.

The deployment of new networks, in particular new fibre optic networks (requiring extensive duct infrastructure) as well as new wireless networks (requiring towers and masts), increases the need for appropriate commercial and regulatory strategies to be implemented that could help reduce network deployment costs, in particular construction and land use costs, which constitute a substantial proportion of total costs of network build.

Risks of Sharing

Sharing and cooperation of telecommunications operators could also have some negative outcomes, in particular by lessening competition. Sharing could:

- 1) Lead to converging cost structures for competing operators, therefore reducing the potential for differential competitive pricing policies;
- 2) Lead to less differentiation in service offerings (particularly in case of sharing of active networks and/or services);
- 3) Be conducive to collusion among competing operators;
- 4) Increase a likelihood of some risks related to the security of telecommunications networks and services.

The greater the extent of service provision that is performed independently (i.e. on a “not shared” basis), the less is the risk of possible negative impacts on competition. Consequently it could be argued that a strategy which fosters increased sharing of upstream elements (e.g. rights of way, ducts, masts etc) is less likely to lessen the degree of competition than cooperation and sharing in more downstream levels of service provision (e.g., sharing of active networks and services (including national roaming)). This therefore leads to a two tier strategy in which the sharing of works, rights of way and passive infrastructure (e.g., ducts, masts, towers) should be clearly encouraged by the regulatory policies whereas cooperation and sharing of other levels of service provision should be treated with caution and seen as conditioned transitional arrangements designed to achieve specific objectives.

Compulsory Sharing

In some cases sharing and cooperation between operators is inevitable for the provision of end-to-end services. This is particularly true when:

- 1) End-to-end connectivity to the end-users has to be ensured (e.g., in case of traffic termination to voice telephony users of individual networks);
- 2) Replication of infrastructure is unfeasible (e.g., in case of copper local loops or other elements of networks of major suppliers);
- 3) Cooperation is needed in order to provide cross-border services (e.g., in case of international mobile roaming). In such cases cooperating providers do not compete among themselves therefore their incentives to share the cost savings with their users are further reduced (in case of international mobile roaming, they are even more reduced by prevailing practices regarding inter-operator arrangements as well as market conditions).

It is important that regulatory policies draw special attention to the cases above to ensure that development of competition as well as user welfare are not hindered by the practices of various telecommunications operators.

Regulatory Policy that Encourages Sharing

The experience of TRA Bahrain indicates that specific elements of regulatory policy are essential for the sharing to be successful:

- 1) *Transparency*. In order for the sharing to be successful it is important that market players know, what is available for sharing and on what terms and conditions. Such instruments as notifications before commencement of infrastructure construction works, access to information on existing infrastructure and accuracy of network records, appropriate public reference offers are important in this regard;
- 2) *Reasonable terms and conditions*. It is important that implementation of sharing takes into account the necessity to protect existing infrastructures and services. However such an excuse should not act as an artificial barrier to share;
- 3) *Fair and reasonable pricing*. Pricing for shared facilities should provide the right economic signals to market players, assisting them in making reasonable and efficient commercial “build-or-buy” decisions (i.e., is it more commercially reasonable to self provision facilities or to lease existing ones). At the same time pricing should provide for the right incentives for investments in infrastructure (in a form of reasonable return on investment), but should not be used as an artificial barrier to entry for new market players. Commercially negotiated pricing should prevail, except where market power exists;
- 4) *No artificial barriers for installing competing facilities*. It is important to ensure that regulatory policy does not restrict competing market players installing their own independent facilities, including international gateways. This facilitates more equal and fair negotiations between owners of existing infrastructures and new market players as well as allows the market to establish the best equilibrium between the level of infrastructure and service competition;
- 5) *Free and effective downstream competition*. It is important to ensure that competitive market forces exercise sufficient pressure on undertakings to make their operations more efficient and that accrued cost-savings are shared with their users.
- 6) *Involvement of the industry*. It is important that industry is appropriately involved in the designing and implementing of the regulatory policy. Public consultations, industry technical committees and encouragement of voluntary self-regulatory codes of conduct could be usefully employed in achieving this;

- 7) *Additional incentives might be appropriate in some cases.* When benefits of sharing clearly outweigh the possible risks of negative outcomes (e.g., in case of duct sharing), a regulatory policy may establish some additional incentives for sharing. An example of such incentives could be an obligation to install spare capacity for the use of other market players, whenever ducts are deployed. Establishment of Internet Exchange Points (similar to the Bahrain Internet Exchange) could also encourage shared and more affordable access to national and international internet capacity for internet service providers willing to enter the market.

It is important that sharing is encouraged not only within the boundaries of telecommunications industry, but together with other infrastructure industries (such as electricity, water, sewage, central cooling etc.) as well. This could facilitate faster, easier and less costly development of both telecommunications and other relevant infrastructures. As such cross-sector cooperation is, however, usually outside the remit of a traditional telecommunications regulatory authority therefore the strong lead of policy makers at the national level is necessary to achieve it.

International and Regional Harmonisation

In order to ensure that best practise regulatory policies on sharing are widespread and not constrained to the relevant authorities geographic limits an appropriate level of international and regional harmonisation would be desirable. However harmonisation is even more important in areas where a specific regulatory issue has a significant cross-border effect and thereby cannot be tackled by a single regulatory authority.

An important example of an issue having a significant cross-border effect is international mobile roaming. A few regions have therefore launched initiatives in this regard. In Europe they led to region-wide regulation. The Arab Regulators Network (AREGNET), following the mandate of the Arab Telecommunications and Information Council of Ministers, also aims to achieve a region wide solution in this regard. The recent recommendation of AREGNET (November 2007) suggests implementation of the specific measures designed to ensure that arrangements in the field of international mobile roaming provide a better deal to Arab customers as well as encourages liberalization of international gateways.