

TELECOM EGYPT

RESPONSE TO NTRA PUBLIC CONSULTATION PAPER ON BROADBAND WIRELESS ACCESS FRAMEWORK

Introduction:

Telecom Egypt is pleased to submit its response to the NTRA Consultation paper concerning the proposed Regulatory Framework for licensing Broadband Wireless Access spectrum and services in Egypt.

Telecom Egypt welcomes this initiative by the NTRA and believes that the introduction of a spectrum allocation and licensing framework for Broadband Wireless Access will, if properly introduced facilitate the development of broadband access and advanced ICT services in Egypt.

The views and opinions expressed herein are based upon the current state of the Company's internal consideration of the BWA business case. This is an evolving process and, therefore, Telecom Egypt may modify its opinion in line with such evolution of thought.

This paper discusses the specific points raised in Schedule 5.1 of the NTRA Consultation Paper together with a general discussion of the proposed framework for BWA in Egypt.

General:

Telecom Egypt expects Broadband Wireless Access to play a key part in the development of broadband access and advanced ICT services in Egypt; however it is viewed as complementary to other forms of access not an alternative to them. These notes summarise TE's position regarding broadband access in general and the proposed licensing framework.

- BWA is viewed as an access technology and not a service in its own right. The technique provides a complementary method of delivering existing fixed telecoms services (voice, data, multimedia etc.) providing the means to add additional features to these services e.g. "nomadic" access.

- TE supports the concept of technology and service neutrality subject to standards however, the operator must be free to make its own decisions as to how the standards are implemented in the network as they evolve for example – with OFDM the migration path from pre-Wimax through the various 802.16xx stages.
- TE believes that the award mechanism should be transparent and treat all players on equal grounds, therefore it also believes that Existing operators must be given equal opportunity to access BWA spectrum alongside new entrants.
- In line with the broadband policy objectives, TE fully supports the principle of awarding The BWA spectrum for last mile only. Any services delivered over the network should be subject to the existing licensing and competition regime governing those services.
- TE expects BWA to have significant application in the area of Universal Access, improving broadband penetration in areas and regions that are currently underserved and in a manner that is efficient in terms of required Universal Service subsidies. BWA, where economically feasible can deliver services and bandwidths to rural areas that cannot be efficiently delivered over the existing CDMA 2000 WLL network.
- TE is broadly in support to the scope of services being offered

Consultation Response

This section provides a response to the specific points in the NTRA Consultation Paper and in particular the questions raised in Schedule 5.1 therein.

Telecom Egypt's agreement or disagreement with Schedule 5.1 is summarised in Table 1. Specific points and issues are discussed in the following paragraphs.

Item	NTRA Question	Telecom Egypt Response	
1	Do you agree on awarding nationwide licences?	<input checked="" type="checkbox"/> Agree	<input type="checkbox"/> Not agree
2	Do you agree on awarding licenses to three operators?	<input checked="" type="checkbox"/> Agree	<input type="checkbox"/> Not agree
3	Do you agree on allowing existing telecommunication service providers to apply for this license?	<input checked="" type="checkbox"/> Agree	<input type="checkbox"/> Not agree
4	Do you agree on the proposed method of licence award?	<input checked="" type="checkbox"/> Agree	<input type="checkbox"/> Not agree
5	Do you think the proposed annual fees are reasonable?	<input type="checkbox"/> Agree	<input checked="" type="checkbox"/> Not agree <u>Refer to Comment # 5</u>
6	Does the framework proposed by the NTRA allow for fast deployment of services with reasonable prices?	<input checked="" type="checkbox"/> Agree	<input type="checkbox"/> Not agree
7	Does the license duration provide a reasonable financial return?	<input type="checkbox"/> Agree	<input checked="" type="checkbox"/> Not agree <u>Refer to comment # 7</u>
8	Is the proposed frequency assignment suitable to provide nationwide service?	<input type="checkbox"/> Agree	<input checked="" type="checkbox"/> Not agree
9	Does the diversity of services provide for positive financial return?	<input checked="" type="checkbox"/> Agree	<input type="checkbox"/> Not agree

Table 1 Questions posed in NTRA Paper Schedule 5.1

1. Nationwide Licensing:

Telecom Egypt believes that the initial round of spectrum allocation should concentrate on the award of a limited number of nationwide "licences" Depending upon availability of additional spectrum,

Under current economic conditions, it is clear that this can only be achieved if services are able to reach the maximum portion of population in an efficient manner as possible in terms of the capital investments required and this in turn can best be done by achieving the economies of scale that only a large scale network deployment can deliver.

Another point to note is that it would be highly recommended to tie-up national licences to reasonable, specific and time-bound rollout targets that spread across the nation. Indicating and clarifying those obligations are essential in the framework being introduced and ensures that the national licence award results in provision of the service on a national scale.

2. Number of Operators

Telecom Egypt agrees in principle with awarding national licences to a number of applicants; however, the number of co-existing networks is strongly dependent upon the amount of spectrum available and the amount allocated to each operator. Refer also to the notes in Item 8.

3. Existing Service Providers

Existing telecommunications network operators should not be excluded from participating in any award of BWA spectrum. Telecom Egypt believes that BWA is not a service in its own right but simply an access technique that complements the existing networks while providing certain additional features such as nomadicity to existing Services.

It should be left to the licensing framework to ensure that awarded spectrum is put to proper and efficient use.

4. Licence Allocation Process

Telecom Egypt agrees in principle with the proposed licence award process namely a technical and financial qualification phase followed by or combined with a financial offer. In the interests of fairness and transparency, the qualification stage should be based upon well defined and measurable criteria which are published in advance.

The auction has more or less become the defacto method of awarding spectrum for the exclusive use of one or more operators. The method does have certain significant disadvantages to the operator, most notably tying-up capital that could otherwise be employed to accelerate network rollout; in addition, the up-front fees are inevitably reflected in the service price to some extent. However it is accepted that, from the regulatory viewpoint, the auction provides a means of ensuring that a limited resource is allocated to the organisation or organisations that put the highest value on that resource.

Telecom Egypt suggests that the auction could be operated using multiple round ascending price with specified increments rather than a single sealed bid.

5. Annual Fees

In line with TE view that BWA is an access mechanism only and not a specific service, the general point to make here is that any annual licence fees should be in line with the fees charged to existing operators providing the same service to the end user e.g. fixed voice, broadband access, internet services, infrastructure access etc..

The annual spectrum fee needs further review. In general recurring fees for spectrum should reflect the costs associated with administering the spectrum plus perhaps an element that ensures continuing proper, efficient and economic use of the spectrum. For clarity, however our view is based on the assumption that spectrum valuation by market participants had already been reflected, and throughout the initial bidding process.

6. Does Framework allow for Rapid deployment and reasonable pricing?

A specific answer on this point, especially pricing will depend upon a more detailed analysis of the business case (which clearly requires better informed parameters). In general however, paying the bid amount in instalments may alleviate cash flow in the early years allowing allocation of additional funds to a faster rollout.

In general however,

7. Licence Duration

This depends upon the specific criteria and conditions surrounding the renewal of the licence following the initial term and therefore the terminal value that can be attached to the initial 7-year business plan. In this regard, TE believes that a rolling term extension with well-defined conditions, besides a clearly defined timetable about future license awards, will provide additional certainty to the industry while formulating their business plan.

Taken alone, a business plan evaluated over 7 years only will probably not have sufficient period of positive cash flow to generate a reasonable return on investment. Amortising the licence fee and depreciating capital assets over a period as short as 7 years would place a significantly greater financial burden on the operator, particularly in the early years when the concern is to build-out the network and increase the overall market.

8. The general trend worldwide seems to be an initial term of at least 10 years. Frequency Assignment

It is Telecom Egypt's view that the proposed assignment of 2x14MHz is too small for an efficient deployment of a nationwide BWA network.

The spectrum assigned to any one operator has to be able to support the traffic throughput required by the forecast subscriber base as well as accommodate the technical constraints surrounding the re-use of individual RF channels within a network. Typically BWA systems in the 3.5GHz band operate with a channel spacing of 1.75 MHz, 3.5MHz, 7MHz or 14MHz as appropriate. In general the lower channel sizes lead to increased network investment since more equipment is required to support a given traffic throughput per sector/cell. Taking account of all relevant factors, the 7MHz channel probably offers the optimum solution in terms of a trade-off between overall network dimensions and the amount of spectrum required to deliver service.

The OFDM receiver by its very nature has a certain inherent resistance to co-channel and adjacent channel interference from transmissions in adjacent cells within the network however such systems when used in a cellular configuration and especially within an "urban" environment require that different RF channels be used within each adjacent sector within a cell and often within nearest sector in immediately adjacent cells. This leads to a cellular frequency re-use situation that, although more efficient than wireless access techniques (GSM for example) still puts constraints on the number of discrete RF channels required to operate an efficient network.

In general the OFDM network should operate using a minimum frequency re-use of $n=3$ leading to a minimum spectrum requirement of 2x21MHz per operator.

It is worth pointing out that in similar consultations, some WiMax stakeholders, most notable the WiMax Forum and Intel Corporation have been advocating minimum allocations of 2x28MHz plus.

9. Diversity of Services

Apparently any response depends on further clarification regarding the points addressed above, however TE initial position, considers the scope of services being offered, to be reasonably appropriate.

