

27 August 2006

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Re: CONSULTATION PAPER ON ORGANIZATIONAL FRAMEWORK  
DRAFT FOR BROADBAND WIRELESS ACCESS NETWORKS

Dear Sir:

ATCO Clearwire Telecom Limited (“ACT”) welcomes this opportunity to submit comments in response to the National Telecommunication Regulatory Authority’s (the “NTRA” or the “Authority”) Consultation Paper on Organizational Framework Draft for Broadband Wireless Access Networks (the “Consultation Paper”).

ACT is an interested party to this consultation as a potential applicant for a Broadband Wireless Access (“BWA”) network license to provide telecommunications services in the Arab Republic of Egypt (the “Republic”). ACT submitted comments in June responding to the NTRA’s First Hearing Session and its published Points of Discussion About Regulating BWA in Egypt (“Points of Discussion”) resulting therefrom, and has met with both the NTRA and the Ministry of Communications and Information Technology on various occasions dating back to the summer of 2005 regarding BWA in Egypt. As the exclusivity in fixed line telecommunications services afforded to Telecom Egypt (“TE”) expired in its entirety on 31 December 2005, ACT looks forward to the awarding of BWA licenses and the introduction of robust competition in the Egyptian market to the benefit of consumers and the public at large.

ACT’s comments are attached in the template format requested by the NTRA. ACT would welcome the opportunity to discuss its comments with the NTRA in person at a time and place convenient for the NTRA.

Sincerely,



Mohab Tarek Khattab  
V.P. of Business Development and  
Senior Legal Counsel  
ATCO Clearwire Telecom Limited

## **ACT's GENERAL POSITION AND COMMENTS**

ACT's comments are set forth below using the form and format outlined in paragraph 6 of the Consultation Paper. Immediately below is the company and contact information requested by the NTRA. The company information is followed by a completed copy of Table 5-1 and a brief summary of ACT's comments. Following Table 5-1 and the summary are ACT's detailed comments in terms of its answers to the Table 5-1 questions. Finally, ACT provides general comments on aspects of the proposed BWA framework not covered by the Table 5-1 questions.

Further, where ACT does not comment on an issue or question under consideration by the NTRA, no inference of agreement or disagreement should be read into ACT's silence. ACT reserves its right to take a position on any issue or question that it does not specifically comment on in reply comments or during future consultations.

### **Company Information**

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### **Introduction to Company**

ATCO Clearwire Telecom Limited ("ACT") is a Cayman Islands company wholly owned by A.A. Turki Corporation for Trading and Contracting of Saudi Arabia ("ATCO") and Clearwire International, LLC of the United States of America (the "U.S."). ATCO and Clearwire have joined together to offer high bandwidth, wireless data, voice, and video telecommunications services throughout the Arab world; drawing upon Clearwire's unsurpassed wireless operating experience (over 200 cities and towns served in the U.S., Mexico, Ireland, Denmark, Belgium, Spain, Romania, and Poland). Clearwire was founded and is managed by Mr. Craig McCaw, a pioneer in the U.S. mobile business and the driving force behind McCaw Cellular (which later became AT&T Wireless) and Nextel Communications.

## 1. ACT's Responses to Questions Listed in Table 5-1

1.	Do you agree to provide licenses throughout the Republic?	<input checked="" type="checkbox"/> Agree	
2.	Do you agree to provide licenses to three operators only?		<input checked="" type="checkbox"/> Disagree
3.	Do you agree not to prevent any of the licensed telecommunication service providers from applying to get this license?		<input checked="" type="checkbox"/> Disagree
4.	Do you agree on the aforementioned granting method?		<input checked="" type="checkbox"/> Disagree
5.	Are the designated annual fees appropriate?		<input checked="" type="checkbox"/> Disagree
6.	Will the suggested facilitations by the Authority with respect to the concession grant help speed up the providing of services at reasonable costs?	<input checked="" type="checkbox"/> Agree	
7.	Does the license period permit the achievement of a reasonable economic revenue?		<input checked="" type="checkbox"/> Disagree
8.	Is the given frequency allocation appropriate to provide a service throughout the Republic?		<input checked="" type="checkbox"/> Disagree
9.	Does the variety of the permitted services allow the achievement of an economic revenue?		<input checked="" type="checkbox"/> Disagree

## 2. Summary of ACT's Positions

As a potential applicant for a BWA license, ACT is concerned by some of the proposals limiting a BWA operator's network and services set forth in the Draft Regulatory Framework for BWA. Specifically, ACT is troubled by the NTRA's characterization of BWA as a "gap filler" technology capable of only delivering "last mile" access in places where traditional wireline services have not been able to reach. While one of the greatest advantages of BWA technology is its ability to economically deliver last mile access, the NTRA should refrain from placing artificial limits on the network architecture BWA operators can utilize and the services they can provide.

BWA is a robust technology that, in addition to "last mile" access, can offer true broadband connectivity at a level that meets and often exceeds DSL wireline speeds. Pioneers in the BWA market, such as Clearwire and Intel Corporation, see BWA as a true competitor to DSL, cable, and other fixed wireless services. ACT encourages the NTRA to allow BWA systems to be developed in such a way to reach their full technical and operational potentials to service a large segment of the Egyptian population. The limitations proposed in the draft framework, both related to services and network utility, will only succeed in fragmenting the Egyptian telecommunications market in favor of entrenched service providers to the detriment of the Egyptian consumer. If the Authority truly intends to be a pioneer in terms of technological advancement across the Arab world and, indeed, globally, then its proposed regulatory framework cannot perpetuate a legacy protectionist structure. If consumers in the Republic are to benefit, the Authority must construct a regulatory framework that takes the following into account:

- Sufficient Spectrum – The proposed 2x14 MHz per licensee limit on spectrum is simply not enough spectrum to support the rollout of advanced broadband networks capable of serving densely populated urban areas, as well as suburban and rural environments, with high quality of service (“QoS”) in competition with other broadband access technologies. Imposing a 2x14 MHz allocation in the Egyptian market means that the NTRA is effectively regulating BWA to be a small bit player that is incapable of becoming a viable alternative to DSL and other access technologies for residential and small business customers. ACT realizes that some operators, based on limited rollout plans, a lack of significant experience in the commercial operation of BWA systems, or other limitations, may seek access to limited amounts of spectrum. Therefore, ACT proposes a flexible allocation of spectrum that would permit an operator to acquire a minimum of 28 MHz and a maximum of 56 MHz of spectrum throughout Egypt. However, based on Clearwire’s vast and successful international experience in developing BWA operations, ACT submits that, in order to provide viable broadband services to the urban markets of Egypt, 2x28 MHz (56 MHz) is the minimum amount of spectrum necessary. ACT urges the NTRA not to exclude the possibility of true broadband competition in Egypt.
- Adequate License Terms – A seven year license will not afford new BWA providers sufficient time to roll out national networks and make a return on that investment. BWA operators will need at least a ten to fifteen year license term to give them sufficient time to, among other things, roll out infrastructure, test products for consumer acceptance, win customer confidence, and overcome the myriad obstacles inherent in being the new entrant in a market.
- Fair Bidding Process- The proposed bidding process, requiring all BWA operators to pay the maximum bid price, will result in unfair competition, contrary to the NTRA’s intended goals in licensing BWA in the first instance, and fails to recognize, within the “principle of equality,” the financial commitment of the prospective operator in network rollout. Moreover, the bidding model proposed by the NTRA has not been proven in other markets and ACT does not recommend a trial in Egypt, given that increasing broadband penetration is a national priority. The bidding process, as currently proposed, can easily be sabotaged merely by one bidder creating a bias bid, knowing that all other winning bidders will be required to match the price notwithstanding the fact that other bidders may have a far superior technical rollout plan and higher investment in infrastructure and services. Such actions could potentially destroy the BWA market. As an alternative, ACT recommends that the NTRA use a proven bidding process whereby potential operators are first evaluated based on their technical performance in fixed broadband wireless operations in other markets then, having met a minimum qualifying score set by the NTRA, are allowed to participate in a financial bid process. The highest three bidders should then each be granted a license. The “principle of equality” is then satisfied by a balance between investment in infrastructure and services, coupled with the bid price. ACT urges the NTRA to seriously re-evaluate the proposed bidding process.
- Flexibility and Light Tough Regulation – While ACT supports the NTRA as the governmental body responsible for oversight of the telecommunications market, the level of regulation proposed for new BWA operators in the draft framework is unnecessary and, in all likelihood, will lead to the same failure experienced in terms of Egypt’s Internet service provider (“ISP”) market. In total, the Authority intends to impose itself in the business decisions of the BWA operator by (1) seemingly dictating the technologies that may be used, (2) limiting the scope of services that may be provided, (3) instituting only a seven-year license term, and, foremost, (4) regulating prices. These proposals amount to regulatory overkill. BWA operators with no market power do not threaten competition or consumers. Accordingly, the NTRA need not regulate prices. Nor does the NTRA need to involve itself in terms of the technology or the services provided by an operator. Moreover, the BWA market is an immature one in technical terms. Therefore, the experience and plans of the BWA operator are of the utmost importance in ensuring commercial success and increasing broadband teledensity in Egypt. The restrictions seemingly proposed by the NTRA effectively negate most of the value added that can be offered by the world’s leading BWA operators.

- Technology Neutrality – Operators should be allowed to use any technologies to provide BWA in the Republic, consistent with international norms. BWA represents a rare opportunity for Egypt to facilitate true facilities-based competition in the Republic. There are a number of viable technologies being deployed in Europe, the U.S., and elsewhere that can deliver on the promise of true broadband services to the benefit of Egyptian society. The NTRA should encourage qualified operators to leverage their experiences around the world to building advanced networks that can deliver high quality broadband services to the Egyptian market.
  
- Application of Reasonable Regulatory Fees – Regulatory fee assessments should be set at a level for the NTRA to recoup the administrative costs associated with managing additional spectrum allocations for BWA services and nothing more. Setting regulatory fees above administrative costs amounts to the imposition of additional taxes on BWA operators. The better course is for the NTRA to recover its administrative costs only and allow BWA operators to reinvest revenues in rolling out networks and upgrading equipment as newer technologies become available. Such an approach is consistent with the objects of the Telecommunication Law and the goals of the Republic to put Egypt in the forefront of international communications and information technology developments.

In short, ACT stipulates that, by giving BWA operators the tools to succeed, the Authority will allow Egypt to be the beneficiary of a competitive broadband market that not only will increase teledensity, but increase Internet access, advancing the information society in Egypt and throughout the region. If, however, the NTRA persists in regulating every aspect of BWA, it can only lead to a market failure.

### 3. ACT’s Detailed Responses and Comments on the Table 5-1 Questions

1.	<p><b>Do you agree to provide licenses throughout the Republic?</b></p> <p><u>Agree:</u> ACT agrees that the licenses for BWA networks should be national in scope. A national network license will enable the licensee to maximize the utility of its network and realize a satisfactory return on infrastructure investment. In order to achieve the Authority’s goals of increasing teledensity and enhanced competition in the market for broadband services, licensees will need to make use of the economies of scale and scope that only a national network coverage area can provide. A national license will permit the BWA licensee to deploy its network throughout the Republic, in accordance with the company’s business plan and rollout strategy.</p>
2.	<p><b>Do you agree to provide licenses to three operators only?</b></p> <p><u>Disagree:</u> ACT disagrees with the number of licenses, unless the NTRA is prepared to make available at least 2x28 MHz of spectrum for each of the three licensees. As ACT points out in its comments related to frequency allocation (ACT’s response to Question 8 below), the proposed allocation of 2x14 MHz is insufficient to deliver reliable broadband speeds at a quality on par with existing fixed line operators. ACT recommends, in line with Intel’s written comments filed in response to the NTRA’s Points of Discussion, that the three national BWA licensees should be provided a minimum spectrum allocation of 2x28 MHz. ACT does not object to a licensee electing to take less than 2x28 MHz of spectrum, if that licensee’s business plan does not require the full 2x28 MHz. Allowing licensees the option to elect to take a lesser amount of spectrum would be consistent with the NTRA’s mandate to utilize the spectrum efficiently and discourage “warehousing.” However, such an approach should be elective and not mandated by the NTRA. For licensees intending to service residential and small business in urban areas, the minimum frequency must be set at 2x28 MHz. If the NTRA can accommodate three national licensees,</p>

	with each operator having the ability to access 2x28 MHz of spectrum, ACT supports or “agrees” with the NTRA’s proposed approach.
3.	<p><b>Do you agree not to prevent any of the licensed telecommunication service providers from applying to get this license?</b></p> <p><u>Disagree:</u> ACT submits that TE and existing GSM mobile operators should be excluded from applying for a BWA license. Both TE and the mobile operators are currently thriving in the market and have sufficient means to reach end users, either via existing wireline facilities or utilizing spectrum resources already at their disposal. Given the proposed limitation to be imposed on BWA operators, in terms of services, pricing, and network architecture, allowing established network operators, such as TE, to apply for BWA licenses would only exacerbate existing barriers to market entry for new operators and frustrate the goal of competition that the provision of true alternative network services can offer.</p>
4.	<p><b>Do you agree on the aforementioned granting method?</b></p> <p><u>Disagree:</u> ACT does not disagree with the concept of issuing licenses pursuant to an auction per se, but respectfully submits that the methodology proposed in the Consultation Paper is unworkable. First and foremost, because the proposed auction process contemplates taking into account both technical and financial proposals, any bidding entities will have to consider a variety of interrelated factors in determining an appropriate bid. Specifically, bidders will be required to set their bid amounts at levels that factor in the costs associated with their business plans in order to achieve a reasonable return on their investment. A bidder that proposes a nationwide rollout, for example, necessarily would have higher capital expenses and operating expenses than would a bidder that focuses on just a few large cities.</p> <p>If ACT correctly understands the proposed auction process as set forth in the Consultation Paper, the NTRA intends not only that licenses be granted to the three best bids (accounting for both technical and financial merit), but also that all three winning bidders be committed to paying the value of the highest financial offer in order to achieve equality. As described above, the financial value of any particular bid is certain to be influenced by the costs associated with a bidder’s proposed technical service. The NTRA apparently intends that all three winning bidders pay the highest price bid by any of them, even though one or two of the successful parties may propose a more extensive technical service (with attendant heightened capital and operational expenses).</p> <p>In short, this proposal simply is not viable. There is no way that an entity could raise sufficient capital to participate in an auction if “winning” could result in the bidder’s obligation to pay more than it expected (and more than its business plan allows). To the degree that the NTRA is concerned with the principle of equality among bidders, ACT submits that the auction process itself, together with market forces, is sufficient to guarantee an equitable result. In particular, ACT believes that the bidders themselves are best positioned to ensure that the value of any given bid is fair and just, since each bidder knows precisely how to balance its resources between the technical and financial aspects of a bid while ensuring a reasonable return on investment. In other words, even if one of the top three bids would result in a lower auction payment, that bidder would still face similar costs to the other winners once capital and operational expenses are taken into account. At the same time, it would be highly inequitable, and contrary to the NTRA’s stated goals, to force a bidder with higher expenses on the technical side to increase its auction payment.</p> <p>Moreover, the bidding model proposed by the NTRA has not been proven in other markets and</p>

	<p>ACT does not recommend a trial in Egypt, given that increasing broadband penetration is a national priority. The bidding process, as currently proposed, can easily be sabotaged merely by one bidder creating a bias bid knowing that all other winning bidders will be required to match its price, notwithstanding the fact that other bidders may have far superior technical rollout plans and higher investment in infrastructure and services. Such actions could potentially destroy the BWA market. As an alternative, ACT recommends that the NTRA use a process whereby potential operators are evaluated based on their technical and deployments plans and their technical and operational performance in fixed BWA activities in multiple international markets. Those applicants that have met a minimum qualifying score set by the NTRA would then qualify to participate in a financial bid process. The highest three bidders should then each be granted a license based on their individual bid prices. The “principle of equality” is then satisfied by a balance between investment in infrastructure and services, operational experience, and bid prices.</p> <p>Finally, as previously stated, ACT encourages the NTRA to develop an approach that allows operators with different spectrum requirements to be accommodated. Such an approach will ensure each individual operator’s ability to execute their established business plan successfully.</p>
5.	<p><b>Are the designated annual fees appropriate?</b></p> <p><u>Disagree:</u> There are generally two models for charging for spectrum. The first model involves no up front cost (i.e. no auction), with yearly fees charged for spectrum use plus compensation to the regulator for the cost of spectrum management. The second model involves payment of an up-front amount through auction, with yearly fees charged for spectrum management only. Since the NTRA appears to be moving towards the auction method, ACT suggests that the Authority eliminate the "percentage of the revenue" payment and review the annual regulatory fees anticipated for BWA licensees to make sure they are consistent with fees charged by other countries to cover the administrative costs associated with spectrum management.</p> <p>A percentage of the revenue charge unfairly taxes those operators that aggressively rollout network infrastructure and use incentives to increase their subscriber base. Therefore, the charge creates a disincentive for operators to increase their subscriber base quickly.</p>
6.	<p><b>Will the suggested facilitations by the Authority with respect to the concession grant help speed up the providing of services at reasonable costs?</b></p> <p><u>Agree:</u> ACT's answer is conditioned upon its understanding that this question is a reference to paragraph 4-2(d), whereby the NTRA proposes to allow a BWA operator to make a payment of 25% of the concession grant upon receiving the license, with the remaining balance paid in equal, annual installments for two successive years.</p>
7.	<p><b>Does the license period permit the achievement of a reasonable economic revenue?</b></p> <p><u>Disagree:</u> As contemplated in the Consultation Paper, the NTRA intends to grant licenses for BWA operations for a period of seven years, after which the license will be “renewable for periods of five consecutive years....” ACT submits that seven years is not a sufficient time period to recoup the intensive upfront capital investment required to roll out a national BWA network and realize a reasonable return on that investment. Securing financing from the capital markets necessitates a sound business plan and assurances from the operator that investors will not only be able to recoup their initial investments but receive a reasonable return on that investment. Deploying a national network is characterized by significant upfront construction costs and a buildup of revenue growth for the company. The achievement of reasonable</p>

	<p>economic revenue must take into account the payback period for infrastructure investments, which is generally five to ten years, depending on the amount of spectrum assigned, as well as the time period necessary for the investor to achieve a reasonable return on his investment, which is generally ten to fifteen years. Accordingly, ACT recommends that the NTRA adopt an initial license term of ten to fifteen years, coupled with a right of renewal for additional terms.</p> <p>Moreover, ACT suggests that the NTRA provide greater clarity in the General Regulatory Framework regarding a BWA licensee’s renewal expectancy. Absent material non-compliance with the terms and conditions of its license and Egyptian law, a licensee should be able to rely on the expectation that its license will be renewed. Clarity on this issue will provide greater regulatory certainty and reduce perceived risks for commercial investors.</p> <p>Lastly, ACT would like to comment on the NTRA’s expressed rationale for choosing a seven year license period. In paragraph 4-2(c), the NTRA asserts that the seven year period was chosen “in order for the Authority to cope with the changes that will emerge in technologies or services and the way they are provided.” ACT is troubled by this language, as it implies that the Authority may condition license renewal on a licensee’s implementation of the latest technological advancements in broadband services at the time of renewal, requiring a licensee to effectively start over in terms of making additional capital investments and changes to its network architecture outside the scope of its business plan. Such a situation would be disastrous for the licensees, both in terms of their efforts to raise capital and ensure continuation of services. The NTRA’s statement increases the level of uncertainty surrounding a licensee’s ability to renew its license and raises the risk associated with investment to an unacceptable level. ACT strongly recommends that the NTRA rely on international best practices and implement a policy of technology neutrality that will let market dynamics dictate technology and upgrades.</p>
<p>8.</p>	<p><b>Is the given frequency allocation appropriate to provide a service throughout the Republic?</b></p> <p><u>Disagree:</u> Limiting spectrum allocation to 2x14 MHz severely restricts BWA operators’ ability to develop a viable business plan to compete with other wireless and wired access networks. The proposed frequency allocation of 2x14 MHz per BWA licensee is insufficient to ensure that operators will be able to meet the demand needs in densely populated areas without suffering significant increases in interference and substandard QoS. In short, 2x14 MHz does not work technically, economically, or socially in terms of meeting the Republic’s goals in licensing BWA networks. If the NTRA persists in limiting the spectrum, it chances a repeat of the failed ISP experience of the past.</p> <p>As contemplated in this Consultation Paper and the published Points of Discussion, BWA networks are intended to serve as a “last mile” access service to consumers and businesses, especially small and medium enterprises (“SMEs”). From a consumer perspective, such networks will only be a viable choice if they can deliver broadband speeds reliably and with a level of QoS that meets or exceeds what is available in the market from TE and the ISPs, mobile service providers, and other operators. A frequency allocation of 2x14 MHz cannot meet such a standard.</p> <p>Based on ACT’s analysis of Cairo’s deployment requirements (e.g., accounting for population density and urban terrain) and Clearwire’s past experience in rolling out networks in similar environments, such as Mexico City, ACT believes that an allocation of 2x14 MHz is not adequate to provide broadband services with high QoS to a large segment of the Egyptian population. In order to make sure that enough network capacity is available to potential</p>

subscribers in densely populated areas, BWA operators need to deploy cells in close proximity to each other. In Cairo, an allocation of 2x14 MHz allows for deployment of four TDD channels of 7 MHz or two FDD channels of 7 MHz. In a four sector cell deployment, the same frequencies need to be reused in the adjacent cells. Due to the population density of metropolitan centers, such as Cairo, and the building types (e.g., height and proximity), a four sector cell deployment with inadequate spacing for frequency reuse will result in significant interference. Under such circumstances, an operator has limited options to reduce interference. An operator could:

- 1) Reduce channel size to 3.5 MHz or smaller. However, a reduction in channel size will reduce the maximum data rate available to any subscriber within the cell and require an increase in the number of cells, as well as reduce the total number of subscribers supported by a given base station within a cell.
- 2) Increase the distance between the base stations. However, increasing the distance will reduce the number of subscribers that can be supported in a given area or, alternatively, result in servicing the subscribers at reduced data rates.

In a competitive market, consumers will not pay broadband rates for dial up speeds or poor quality. Further, a new market entrant cannot afford the harm to its reputation that will result from an inability to serve the potential customer base. Not only will word spread among consumers that the service is substandard, but competitors will use any limitation as a means to gain a competitive advantage in the market.

This problem is only compounded because the increased number of cells required to serve a population center, such as Cairo, with insufficient spectrum drives up CapEx, which then must be recouped from subscribers. However, there is a limit on what an operator can charge customers and remain competitive. In addition, as discussed below, it appears that the NTRA intends to place price controls on operators. If operators cannot recoup their increased costs through prices in the short term, they must adjust their business plans so that they can show a viable return over a longer period. However, this may not be possible if the NTRA adopts its proposed seven year license term. The business model simply is not viable given the externalities.

ACT strongly recommends that, if the NTRA does not want a repeat of the adversity faced by the Republic's ISPs, it should allocate more than the 2x14 MHz proposed in the Consultation Paper. ACT realizes that some operators, based on their limited rollout plan, lack of significant experience in the commercial operation of BWA systems, or other limitations may require access to limited spectrum. Therefore, ACT proposes a flexible allocation of the spectrum that allows an operator access to a minimum of 28 MHz and a maximum of 56 MHz spectrum throughout Egypt. However, ACT submits that, in order to provide viable broadband services to the urban market in Egypt, 2x28 MHz (56 MHz) is the minimum amount of spectrum necessary and encourages the NTRA to not exclude operators from access to this amount of spectrum. In evaluating our recommendation of the amount of spectrum needed, ACT encourages the NTRA to look at the experience of BWA operators that have successful commercial operations around the world, including the amount of spectrum that they have been assigned.

9.	<p><b>Does the variety of the permitted services allow the achievement of an economic revenue?</b></p> <p><u>Disagree:</u> While ACT accepts the limitations the NTRA proposes to enforce upon the new BWA operators in terms of permitted services, the better course in a fully liberalized market, such as Egypt, would be to refrain from placing such regulatory restrictions on licensees and let the market or consumers dictate the services an operator should provide. Intel may have put it best in its response to the issues raised in the First Hearing Session, when it characterized such regulatory restraints on services as akin to someone having the latest model automobile and not having the right to use all the car’s functions. The end result of limiting services is the imposition of artificial constraints on the BWA operator’s potential investment in infrastructure and the Republic as a whole. In other words, the prudent BWA operator will limit its investment in network infrastructure proportionate to the revenue it can reliably predict will be generated from the services offered. The more services the BWA operator can offer, the more incentive it has to invest in infrastructure to support those services.</p> <p>Thus, the better course would be to place no restraints on the type or variety of services a BWA operator could provide and let competition determine the scope and level of services. However, if the NTRA feels compelled to restrict BWA operators out of protection for incumbent operators or other concerns, ACT suggests that the NTRA adopt a schedule whereby, at some near-term date certain, BWA operators would be fully liberalized to provide any services their customer base requires.</p>
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**4. Other Comments/Questions**

Technology Neutrality.

It is unclear exactly what the NTRA means by its references in various places in the Consultation Paper to “global standards” and “standards agreed upon globally” etc. (See Consultation Paper at paragraphs 2-1-3 (p. 3) and 4-1(a) (p. 5)). In Article 4-3 (p. 20), the NTRA makes reference to “technologies that follow unified global standards issued by known global standardizing organizations . . . .” If what the NTRA is referring to is accepting for use in Egypt, as part of the BWA deployment, any equipment that has been previously approved for use by the European Telecommunications Standards Institute (“ETSI”), the U.S. Federal Communications Commission (the “FCC”), or other competent standards bodies, ACT agrees with the NTRA. Such an approach makes the choice of equipment a BWA operator can deploy a business, rather than a regulatory, decision and is entirely consistent with the concept of technology neutrality. If, however, the references to “global standards” mean that the NTRA intends to impose a technology on prospective BWA operators, it is a formula for failure over the long term and contrary to the concept of technology neutrality.

For the reasons ACT previously pointed out in its comments filed in response to the Points of Discussion, regulatory imposition of technology and services requires that a regulator understand the capabilities and drawbacks of various current and future technologies. A regulator trying to forecast future technologies and the services that such technologies can offer places a heavy burden on itself. If it is not correct, a regulator’s decision can materially prejudice the development of a market. Under a technology neutral regime, however, an operator that guesses wrong has more flexibility and incentive to adjust, as it will suffer declining business otherwise.

The principles of technology neutrality are especially pertinent in the WiMAX field, which unlike the GSM market, is immature in terms of its technical development. As the NTRA is aware, when it first articulated its view that it should mandate that operators use a recognized standard for WiMAX services, the only standardized WiMAX technology at the time was the 802.16-2004 standard. If, at that time, the NTRA would have imposed the 802.16-2004 standard, operators deploying such equipment would have found themselves with obsolete equipment and no commercially viable means of upgrading their equipment as the WiMAX standard has evolved over the course of a year to the newer 802.16-2005 standard. As the two standards are so technically different, there currently are no major equipment manufacturers planning to offer 802.16-2005 equipment that will backward integrate with 802.16-2004 equipment. The operator's recourse would be to make do with what it has or write-off its investment and deploy a new standardized system, leaving it shell-shocked over what standard to trust. Moreover, the WiMAX standard continues to develop, including in terms of interoperability. If the 802.11 WiFi standard is a guide, then the WiMAX standard may take up to another five years to mature.

It is still too early for the NTRA to impose its views as to the WiMAX or any other standard that should be imposed upon BWA operators. Such a strategy would stagnate growth in Egypt's broadband market and increase the gap in the digital divide. By imposing a standard, the NTRA could inadvertently, by regulatory fiat, undermine its own policy objectives in terms of spectrum usage and facilitating rollout of advanced technologies and services to the Egyptian public.

The better course is for the NTRA to let choice of equipment and technology be a business decision made by the operators who must pay for it. The NTRA can, however, inform those business decisions and facilitate more rapid rollout of networks by accepting for use in Egypt any equipment that has been previously approved for use by ETSI, the FCC, or other competent standards bodies.

#### Price Regulation.

Article 5, paragraph 5-9 of the Draft General Regulatory Framework for Broadband Wireless Access Networks (p. 21) would subject the new BWA licensees to price regulation imposed by the NTRA. Further, paragraph 5-10 would require any amendments or modifications to a BWA operator's tariffs to be pre-approved by the NTRA before coming into effect. ACT questions the need for regulating a BWA operator's tariffs. International best practices dictate that price regulation is a form of "remedy" imposed on operators having what is defined in Europe and elsewhere as significant market power ("SMP") or, as in the case of the U.S. and some other countries, operators found to be "dominant" in the applicable market or market segment. In competitive markets, especially in the case of a new market entrant, the rationale for imposing price regulation simply does not exist. A new market entrant without SMP cannot act independently of the market nor charge consumers more for its services than competition will allow. As the NTRA plans to license at least three BWA operators that will face competition, not only from one another but from TE's broadband offering (through the ISPs) and the mobile and VSAT operators, as well, the market is sufficiently competitive to protect consumers and keep prices in line with costs.

Right to Allow Use of BWA Network by Other Operators.

ACT seeks clarification regarding the NTRA's intent in terms of paragraph 5-5 (p. 21). Reference in that paragraph is made to the BWA licensee's "right" to allow other licensed telecommunication service providers to use the BWA network to provide their services. The "right" is, of course, subject to the BWA operator and the other licensed provider entering into a commercial agreement.

ACT welcomes this concept, as it not only provides a means for the BWA operators to generate revenue from its network assets, but also assists other licensed operators to reach customers without duplicating facilities. However, ACT does seek clarification as to the role the NTRA intends to play in what should be a purely commercial transaction. Paragraph 5-5 indicates that the NTRA might involve itself in the negotiations where the parties cannot reach an agreement. The NTRA should play no such role. If the parties elect to enter into negotiations and cannot reach an agreement, then just as in any other commercial matter, no contract is concluded. Having the NTRA step in the negotiations implies that this "right" discussed in paragraph 5-5 may, in fact, be an "obligation." ACT requests that the NTRA clarify that paragraph 5-5 is indeed a "right" to interconnect and not an obligation. In a competitive market there is no need to impose what is akin to an incumbent unbundling obligation on the new entrant.