



BANGLADESH TELECOMMUNICATION REGULATORY COMMISSION

Shetu Bhaban, New Airport Road, Banani, Dhaka-1212

No. BTRC/LL/BWA(275)/2008-1033

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REGULATORY AND LICENSING GUIDELINES FOR INVITATION OF PROPOSALS/OFFERS

FOR

ISSUING LICENSE

FOR

ESTABLISHING, OPERATING AND MAINTAINING

BROADBAND WIRELESS ACCESS SERVICES

IN

BANGLADESH

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Bangladesh Telecommunication Regulatory Commission

Shetu Bhaban, New Airport Road, Banani, Dhaka 1212

Invitation of proposals/offers for grant of license for Broadband Wireless Access (BWA) Services

1. The Bangladesh Telecommunication Regulatory Commission (the Commission) invites proposals/offers from eligible Bangladeshi entities or joint venture companies with foreign/Bangladeshi partners (proprietorships, partnerships and companies registered under 'Joint Stock of Companies and Firms' under the Companies Act 1994) for grant of license to establish, maintain and operate Broadband Wireless Access (BWA) Services. Only entities having adequate financial, technical and organizational capability to serve in the field should apply with an updated list of their business record and record of experience.
2. The Applicant(s) companies/proprietorships for the Broadband Wireless Access (BWA) Services should be registered with Registrar, Joint Stock of Companies and Firms, as well as with the concerned chamber of commerce and industries and hold an up to date Certificate of Income Tax and/or TIN/BIN certificate. Copies of the certification of registration should be submitted with the proposal/offer.
3. In case of foreign companies (applying with Bangladeshi partners), the Certificate of Registration of the said foreign Company from Joint Stock of Companies or Firms or equivalent authority of its Country of Origin should be provided with the proposal/offer.
4. The prescribed application form along with general terms and conditions are included in the "Regulatory and Licensing Guidelines" which can be obtained from the Bangladesh Telecommunication Regulatory Commission (the Commission), Shetu Bhaban, Banani, Dhaka-1212 during working days and hours on payment of non-refundable Tk. 50,000.00 (Taka fifty thousand) only for each copy in the form of bank draft/pay order in favour of the Bangladesh Telecommunication Regulatory Commission by making an application to the Commission in its letterhead.
5. All applications duly sealed are to be submitted in the tender box kept in the BTRC, Shetu Bhaban, Banani, Dhaka-1212 addressing the Chairman, Bangladesh Telecommunication Regulatory Commission on or before 12.00 hrs on 11th September, 2008. The sealed application(s) will be opened by the representatives of the Commission at 12.30 hrs in the office of the Commission on the same day in presence of the Applicant(s) who are present. Applications will not be received after the deadline i.e. 12.00 hrs on 11th September, 2008.
6. The Commission will issue **3 (three) Licenses for Broadband Wireless Access Services** as per Regulatory and Licensing Guidelines for **Broadband Wireless Access Services License**.
7. Regulatory and Licensing Guidelines containing among other things, the Guidelines for invitation of application for issuing of license for **Broadband Wireless Access Services** is also available in the Commission website: **www.btrc.gov.bd** for information only.
8. Any Applicant may communicate for clarification on the subject in writing along with soft copy to the Director, Legal and Licensing Division, Bangladesh Telecommunication Regulatory Commission, by 17:00 hrs of 16th August, 2008. There will be a pre-offer/pre-bid meeting for any clarification or explanation on the matter on 20th August, 2008 at a time and place to be notified later. Those who are interested to attend the pre-offer/ pre-bid meeting shall register with Director, Legal and Licensing Division, Bangladesh Telecommunication Regulatory Commission on or before 17:00 hrs 16th August, 2008.
9. Any proposal/offer submitted which does not comply with any of the above terms and conditions will not be accepted.
10. The Commission reserves the right to accept or reject any or all proposals/ offers, without assigning any reason thereof.

Director
Legal and Licensing Division
BTRC



BANGLADESH TELECOMMUNICATION REGULATORY COMMISSION

REGULATORY AND LICENSING GUIDELINES

ON

Broadband Wireless Access (BWA) Services Operator Licenses

1. INTRODUCTION

- 1.01 The Bangladesh Telecommunication Regulatory Commission (“the Commission”) is empowered under section 36 of the Bangladesh Telecommunication Act 2001 (Act No. XVIII of 2001) (“the Act”) to issue Licenses for the operation and provision of telecommunication services, and to determine the eligibility criteria and other general terms and conditions of Licenses.
- 1.02 Having given due consideration to the principles of transparency, fairness, non-discrimination and all other relevant principles, the Commission has decided to issue Guidelines on Licensing Procedure of **Broadband Wireless Access (BWA) Services** as envisaged in the Licensing (Procedure) Regulation 2004.
- 1.03 These Guidelines, along with the terms and conditions of the License, should be read in conjunction with the Act, any subsequent legislation, and prevalent laws or sector policies framed by the Government, and other rules, regulations, decrees, orders, decisions, guidelines, directives and documents of general application issued by the Government or the Commission from time to time. The Act specifically provides, under Section 35 and 55, that the establishment, operation or use of telecommunication system including radio apparatus and provision of telecommunication services in Bangladesh without a License is an offence, punishable with imprisonment or a fine or both.
- 1.04 These Guidelines may be withdrawn, revised, updated or amended from time to time, without any prior notice, to take into consideration various factors including, but not limited to, any threat to public health, national security and change of statute or Court orders.

2. INTERPRETATIONS AND DEFINITIONS

The interpretations and definitions of the terms used in this document are annexed herewith as SCHEDULE -1 to the Generic Form of license appended with these guidelines as APPENDIX-7.

3. OBJECTIVES

- 3.01 These Guidelines have been prepared taking into account the objectives of the Government to facilitate the introduction of Broadband Wireless Access (BWA) Services in Bangladesh.
- 3.02 These Guidelines are intended to provide an overview of the licensing and regulatory framework for Applicant(s) seeking to obtain a License to provide and operate Broadband Wireless Access (BWA) Services in Bangladesh. In this context BWA means High-speed mobile wireless internet access and the subscribers will be allowed to use their equipment as fixed, nomadic or mobile.
- 3.03 BWA Services Operator License to be issued under these Guidelines will authorize an operator to establish, operate and maintain BWA Services in Bangladesh. No person or business entity shall be allowed to provide BWA Services without a valid License issued by the Commission.

4. GENERAL REQUIREMENTS

4.01 The Licensee shall establish, operate and maintain the BWA Services as provided in the License.

4.02 In order to ensure proper competition among the BWA Services licensees, total 3 (three) licenses will be issued to provide nationwide BWA Services in 2.3 GHz and 2.5 GHz spectrum bands. An additional BWA license (fourth license) may be issued to Bangladesh Telecommunications Company Limited (BTCL) in the same terms and conditions including the License Acquisition Fee (to be fixed by way of auction) as shall be applicable to the other BWA licensees.

4.03 Two licenses will be awarded to the prospective Applicant(s) to provide nationwide BWA Services in 2.3 GHz and one license will be awarded in 2.5 GHz spectrum bands.

4.04 The following are the principal legal statutes governing the telecommunication industry in Bangladesh:

(i) The Bangladesh Telecommunication Act, 2001 (Act No. XVIII of 2001).

(ii) The Wireless Telegraphy Act, 1933 (Act No. XVII of 1933) and The Telegraph Act, 1885 (Act No. XIII of 1885), for matters that are not covered by the Bangladesh Telecommunication Act, 2001.

(iii) Any Regulation/Directives/Instructions made or to be made by the Commission.

4.05 Applicant(s) shall be disqualified from obtaining a License if any provision listed in sub clauses (i) to (vii) below applies to its owner(s) or to any of its director(s) or partner(s) or to the Applicant(s) himself

(i) he is an insane person;

(ii) he has been sentenced by a court under any law, other than this Act, to imprisonment for a term of 2 (two) years or more, and a period of 5 (five) years has not elapsed since his release from such imprisonment;

(iii) he has been sentenced by a court for committing of any offence under the Act and a period of 5 (five) years has not elapsed since his release from such imprisonment;

(iv) he has been declared bankrupt by the Court and has not been discharged from the liability of bankruptcy;

(v) he has been identified or declared by the Bangladesh Bank or by the court or by a bank or financial institution as a defaulter loanee of that bank or institution;

(vi) his license has been cancelled by the Commission at any time during the last 5 (five) years;

(vii) if prosecution is going on against the applicant(s) or its owner(s) or shareholder(s) or any of its director(s) or partner(s) for any violation of the Act or license conditions or any other illegal activities.

4.06 Eligibility

(i) Foreign Equity is limited to maximum 60% (sixty percent). The foreign partner shall invest in foreign currency directly equal to his percentage of ownership and no bank loan from any Bangladeshi Scheduled Bank/ Financial institution/ Leasing Company can be raised for the foreign part of the investment.

(ii) For NRB (Non-Resident Bangladeshi), maximum 70% of FDI (Foreign Direct Investment) is allowed. The Foreign investment shall be invested directly in foreign currency and no bank loan from any Bangladeshi Scheduled Bank/ Financial Institution/ Leasing Company can be raised for the foreign part of the investment.

(iii) The mobile operators (CDMA/GSM) having cellular mobile phone operator license from the Commission and any of its existing shareholders (foreign/Bangladeshi) and any other company whose shareholders hold shares of any cellular mobile phone operator company holding license from the Commission and any other person who is partner/ director/shareholder of licensed mobile operator in Bangladesh shall not be eligible to apply for this license.

- (iv) One entity will be allowed to get only one BWA Services License. One person can apply for only one license either as his individual entity or as a partner or shareholder.
- (v) The Licenses will be awarded by auction subject to fulfillment of other conditions.
- (vi) The licensee has to file for Initial Public Offering (IPO) within 03 (three) years of the issuance of license. The licensee shall not be allowed to transfer any share before issuance of IPO without prior written permission from the Commission.

5. AVAILABILITY OF THE LICENSING GUIDELINE

These guidelines are also available at **www.btrc.gov.bd** for information only.

6. LAST DAY OF SUBMISSION OF BIDDING DOCUMENTS

Last day for submission of the bidding documents is by 12:00 hours on 11th September, 2008.

7. LICENSE AWARDING PROCESS

- 7.01 A selection method for the evaluation of applications based on submission of mandatory documents, as per APPENDIX: 2 (enclosed herewith), will be used to evaluate the Applicant(s). The Commission, upon evaluation, will select the appropriate Applicant(s) who shall fulfill the eligibility criteria to participate in the 2nd stage i.e. open auction.
- 7.02 Selected Applicant(s) i.e. selected bidders will be invited to participate in the 2nd stage i.e. open outcry auction process for BWA license. The auction shall be for License Acquisition Fee. The bidding shall start at Tk. 25 Crore [BDT 250 Million]. The topmost bidder shall have the liberty to choose his preferred band from the offered spectrum. The bidding and auction procedure for selecting the three BWA service operators is provided in APPENDIX-6 in greater detail.

8. NETWORK AND SERVICES

- 8.01 The Licensee(s) is authorized to develop and operate a broadband network to provide nationwide BWA services based on IEEE 802.16e standards. The adoption of future evolution is subject to approval of the Commission. The system can be point-to-multipoint or mesh radio systems consisting of BWA distribution hub stations and their associated subscriber stations (or BWA access devices).
- 8.02 At least 128 kbps download rate with upload download ratio of 1:4 per subscriber should be ensured at all time. The contention ratio must be 1:8 (maximum) at the backbone connectivity (both domestic and international) and the said throughput must be ensured up to the first overseas internet entry point. For concurrent voice and data application, voice calls should be provided with adequate additional bandwidth to ensure QoS.
- 8.03 The operators and end-users are allowed to use their equipment in fixed locations, in a nomadic manner or with a fully mobile capability, at their choice. BWA licensees shall not require a separate ISP (Internet Services Provider) license. The licensees are allowed to use cable, fiber or any other means appropriate in conjunction with WiMAX as last mile solution. However, cable and fiber connectivity as last mile solutions are not allowed in Dhaka and Chittagong Metropolitan area. The end user distribution may be done in conjunction with WiFi (2.4 and 5.7 GHz ISM band).
- 8.04 Technical characteristics of equipment used in BWA systems shall be in conformity with the WiMAX forum standards and International Telecommunications Union (ITU) and its radio regulations. The operator must deploy certified equipment from the accredited/certified vendors (e.g. WiMAX Forum Certification). The certification must conform to IEEE 802.16e standard. However, the licensees, who would be operating in 2.3 GHz band, must produce the required documentation as and when the equipment are certified. They must also provide enough documentary evidence that the manufacturers have applied for such certification to WiMAX Forum.
- 8.05 BWA services are intended for providing wireless broadband connectivity to subscribers including voice application. Other value added services are subject to the approval of the Commission.

- 8.06 Coordination initiatives are encouraged in order to maximize the best utilization of the spectrum and minimize interference without reducing quality of service.
- 8.07 If any interference occurs to the existing operators, it will be the responsibility of the new entrant to adjust its system or to make necessary arrangement to overcome the interference.
- 8.08 EIRP of BTS should not exceed +57.3 dBm per RF channel. The maximum EIRP power can be relaxed up to +60 dBm for covering rural areas. Should harmful interference is caused to other radio systems/stations, the BTS may be required to modify its radiated power.
- 8.09 The licensee(s) have to ensure QoS as per the guideline to be provided by the Commission. The QoS shall be monitored by the Commission from time to time.
- 8.10 The licensee(s) is allowed to provide IP Telephony services as bundled with the instant license. The licensee(s) shall optimize their QoS for providing voice along with basic data services. The minimum compression Codec to be used is equivalent to G. 729.
- 8.11 The operator shall have the capability to provide domestic roaming within its own network. The Licensee shall provide inter operator roaming service when such technology available and directed by the Commission. Voice Application will be provided with separate numbering plan. All voice calls shall be routed through ICX and IGW as per ILDTS Policy 2007. The licensee will route their data through IIG.
- 8.12 The Applicant(s) shall indicate its proposed technology, network topology and its designed capacity (number of subscribers and bandwidth that can be offered to each subscriber etc.).
- 8.13 The Licensee(s) shall provide interoperability facility of its CPE within 2.3 GHz or 2.5 GHz band and would be encouraged to provide the same between 2.3 and 2.5 GHz Band when such technology will be available.
- 8.14 All BWA installation must comply with the safety rules as defined by the Commission's regulation.
- 8.15 The licensee(s) shall manage its emission which must not cross international border. The licensee(s) shall obtain permission from the Commission to install base station within 8 kilometres from the Bangladesh border.
- 8.16 Applicable numbering plan shall be assigned to the licensees by the Commission.

9. STANDARD CONNECTIVITY

- 9.01 All IP Voice Calls will be routed (Terminated to and Originated from Bangladesh) through Interconnection Exchanges (ICXs) and International Gateways (IGWs). To maintain balanced flow of traffic Domestic inter-operator voice call services will be routed through ICXs. For domestic and international calls applicable revenue sharing and pricing will be in vogue.
- 9.02 BWA licensees are required to maintain "balanced flow of traffic" by ensuring at least 30% of their originating calls routed to each ICX operator.
- 9.03 The licensees shall connect to IIGs to handle international data traffic and domestic data peering would be through NIX(s).

10. SPECTRUM ASSIGNMENT

- 10.01 Spectrum bands 2.3 GHz and 2.5 GHz have been considered for BWA Service License.
- 10.02 A contiguous 35 MHz of unpaired spectrum from 2.3 GHz band (2330-2365 MHz and 2365-2400 MHz) will be assigned to two of the licensees. This allocation of 35 MHz is inclusive of guard bands where all the licensees must keep 5 MHz of spectrum as guard bands from the higher portion of the assignment.

Operator A [2330-2365 MHz]

Operator B [2365-2400 MHz]

- 10.03 A contiguous 35 MHz of unpaired spectrum from 2.5 GHz band (2585-2620 MHz) will be assigned to one of the licensee. The assignment of 2615-2620 MHz is to be kept as mandatory guard band between its TDD and future FDD assignment.

Operator C [2585-2620 MHz]

- 10.04 35 MHz contiguous channel will be allocated to each operator to provide BWA services. Per channel bandwidth should be either 5 or 10 MHz.
- 10.05 The spectrum assignment will be inclusive of guard bands needed for the operation of the equipment to avoid interference to adjacent equipment operating in adjacent bands.
- 10.06 In case license for BWA service is cancelled / terminated for any reason, the spectrum allocation shall stand withdrawn.
- 10.07 The Successful Applicant(s) shall abide by the coordination agreements, either current or future, which shall ensure the harmonization of spectrum usage.
- 10.08 The Commission reserves the rights to make any rearrangement in the assignment within the band if required and the equipment shall have the provision to readjust according to that rearrangement.
- 10.09 Two pairs of frequency will be assigned from and above 18 GHz band, subject to requirement/availability to build their own point to point link for inter BTS connectivity.
- 10.10 Spectrum Charges for BWA Services Operator License is provided in APPENDIX-1.

11. SCOPE FOR THE EXISTING ISP LICENSEES

- 11.01 The existing ISP license holders operating in 2.3, 2.5, 3.5, 5.2, 5.4 GHz, 700 MHz or any other bands will be allowed to continue their fixed wireless Internet services. They shall not be allowed to provide mobile broadband wireless access (BWA) services.
- 11.02 The existing ISPs whether forming a partnership or bidding alone and wins the BWA license, then the existing ISP license including the assigned frequency shall stand as cancelled.
- 11.03 The BWA licensees shall not be eligible to hold additional ISP license.

12. DURATION OF LICENSE

The duration of the Licenses, shall initially be for a term of 15 (fifteen) years. Upon expiry of the initial term, the License may be renewed for subsequent terms, each of 5 years in duration, subject to the approval from the Commission and to such conditions, including the payment of any fees, as may be specified herein and/or by the Commission under the Act.

13. FEES AND CHARGES

- 13.01 Following fees and charges shall be applicable to the Licensees. Some of the charges or part thereof shall be in proportion to the Licensee's annual audited gross revenue.

1.	Application Fee	Taka 50,000.00 (Tk. Fifty thousand) only
2.	License acquisition fee	To be fixed by auction
3.	Annual License Fee	Taka 3 (three) crore [BDT 30 Million] only
4.	Gross Revenue Sharing	0% for the 1 st year 2% for 2 nd year and 4% for each of the subsequent years

5.	Annual Spectrum Charge	As per the Spectrum formula (Appendix-I)
6.	Performance Bank Guarantee.	Taka 15 (fifteen) crore [BDT 150 Million] only

- 13.02 The Licensee shall pay all the required fees within the stipulated time frame given hereafter. All fees, charges etc. paid by the Licensee are non-refundable and are payable in favour of Bangladesh Telecommunication Regulatory Commission in the form of bank draft or pay order from any scheduled bank of Bangladesh mentioned in the Bangladesh Bank Order 1972.
- 13.03 **Application fee:** The Application fee shall be Taka 50,000/-(taka fifty thousand) only in the form of pay order/bank draft.
- 13.04 **The License Acquisition Fee:** The License Acquisition Fee for BWA Services License will be fixed through auction. The license will be issued after payment of 50% of the said amount within 10 working days after notification of award of license. The rest 50% amount shall be paid within 3 (three) months from the date of license awarding notification.
- 13.05 The Licensee, after the payment of the License Acquisition fee (to be fixed through auction), shall for the second and subsequent years of operation, pay annual License fees comprising of the,
- (i) **Annual License Fee:** a sum of Taka 3 crore [BDT 30 Million] payable by the Licensee in advance on each anniversary of the date of the License; and
 - (ii) **Gross Revenue Sharing:** No Revenue (0%) shall be shared for the first year. A sum equivalent to 2% of the annual audited gross revenue of the Licensee for the second year and 4% for the subsequent years, which shall be paid on a quarterly basis within the first 10 days at the end of each quarter. The total amount shall be reconciled on an annual basis based on the Licensee's audited accounts for that year and if there has been any underpayment, the balance must be paid within 90 days of the financial year-end of the Licensee. In the event of any overpayment by the Licensee, the Licensee may set off any excess amount against quarterly payments in the next year. The percentage of revenue to be shared may be changed from time to time by the Commission and the licensee shall abide by it.
 - (iii) **Radio Equipment and Spectrum Charges:** The rights granted to the Licensee do not include any rights to use any radio frequency except the BWA frequency until such frequencies are allocated by the Commission. For all allocated frequency, the Licensee shall be obliged to pay all required fees and charges related to such frequencies as fixed by the Commission. The Licensee shall pay to the Commission the spectrum charge quarterly in every year according to the spectrum formula (Appendix-1). If the amount along with late fee is not paid in full within 60 (sixty) days from the due date, such failure may result in cancellation of the allocated frequency.
 - (iv) **Performance Bank Guarantee:** The licensee shall submit Bank Guarantee of Taka 15 (fifteen) crore (BDT 150 million) in favour of Bangladesh Telecommunication Regulatory Commission within 15 (fifteen) days from the date of issue of the licence. The bank guarantee will be encashed as per the roll out target obligation as stated in clauses 20 and 22 of these guidelines.
- 13.06 The annual license fee and the amount of revenue to be shared has to be paid within due time. The amount due may be paid till 60 (sixty) days after the due date by paying late fee at the rate of 15% per annum as compensation to the Commission. If the amount is not paid within the 60 days as stipulated, then the license shall stand as cancelled.

14. SECURITY DEPOSIT

- 14.01 The Applicant(s) shall submit Taka 3 (three) crore [BDT 30 Million] as security deposit in the form of pay order/bank draft to the Commission while submitting the application. This security deposit will be refunded to the unsuccessful applicants within 30 (thirty) working days of the auction date without bearing any liability towards interest, indexation, inflation or deflation.

- 14.02 The Bid Security money of the successful applicant(s) will be adjusted towards the License Acquisition Fee.

15. EXISTING INTERCONNECTION AND INTERNATIONAL VOICE CALL TARIFFS

i) For International Incoming calls:

Existing International incoming call termination rate is minimum US\$ 0.06. This rate may be reviewed by the Commission from time to time.

After deducting VAT (if applicable):

- (a) 15% (fifteen percent) of prevailing call rates (call rates to be determined by the Commission from time to time) to be paid to ICX by IGW operators.
- (b) 20% (twenty percent) of prevailing call rates (call rates to be determined by the Commission from time to time) to be paid to the licensee by IGW Operators.

ii) For International outgoing calls (either to PSTN or mobile network):

Existing call rate for International Outgoing calls to mobile network is Tk. 16.50 (Taka sixteen paisa fifty) and to PSTN network is Tk. 6.00 (Taka six). For International Outgoing calls, a specific settlement amount would be paid to overseas networks. These rates will be reviewed time to time by the Commission. The following revenue distribution/ sharing is based on the balance amount only excluding VAT which is to be paid by the respective licensee.

- a) Balance amount = Call rate - specific settlement amount payable to foreign carriers.
- b) Licensee shall keep 40% of balance amount.
- c) Licensee shall pay 15% (fifteen percent) of balance amount to the ICX licensee.
- d) Licensee shall pay to the IGW licensee as follows: the specific settlement amount payable to foreign carriers + 15% (fifteen percent) of balance amount.
- e) Licensee shall pay 30% (thirty percent) of balance amount to the Commission.

- iii) Licensee shall pay to ICX 10% (ten percent) of prevailing domestic Interconnection charge. Current Interconnection Charge is Tk.0.40 (paisa forty) only per minute. This rate will be reviewed time to time by the Commission.

16. ACCOUNTING SYSTEMS

The Licensee shall implement such accounting practices that allow for the identification of the costs and charges on a prevailing cost accounting basis for its accounting purpose.

17. APPLICATION FORM

- 17.01 The applicant shall submit Application for BWA Services Operator License to the Commission in the prescribed Form duly filled in, signed and sealed, together with all the necessary documents and information indicated in the Application Information Instructions at APPENDIX -3. The prescribed Application Form is appended with these Guidelines at APPENDIX -4.
- 17.02 The Guidelines prescribing application Form; generic License form and application information instructions will be available in the office of the Commission from 07 August, 2008.

18. AFFIDAVIT

The applicant shall submit and Affidavit attested by Notary Public according to the format as given in APPENDIX-5.

19. EVALUATION OF APPLICATION

- 19.01 The Commission shall announce the Selected Applicant(s) eligible to bid in the first phase at appropriate time.
- 19.02 In the event the Commission requires additional information from the Applicant(s), the Commission may request for such information, by writing to the Applicant(s). The information requested is to be forwarded to the Commission within a stipulated time to be decided by the Commission.

20. ROLLOUT OBLIGATION

20.01 COVERAGE:

Broadband Penetration Targets to be fulfilled by the licensees by connecting:

A. First Year: Areas to be covered by the end of first year of issuance of license

- (i) The operators, within 1 year of issuance of license, shall have to install minimum 5 operational full fledged Base Transceiver Station (BTS) radio sites in areas covering each Divisional Headquarters (including the whole District), minimum 3 operational full fledged Base Transceiver Station (BTS) radio sites in each category-A districts, minimum 2 operational full fledged Base Transceiver Station (BTS) radio sites in each category-B districts and minimum 1 operational full fledged Base Transceiver Station (BTS) radio site in each category-C districts.

Divisional Headquarters (including the whole District)	No. of BTS
Barisal	5
Chittagong	5
Dhaka	5
Khulna	5
Rajshahi	5
Sylhet	5

Category-A	
District	No. of BTS
Bogra	3
Brahmanbaria	3
Comilla	3
Dinajpur	3
Feni	3
Gazipur	3
Jessore	3
Mymensingh	3
Narayanganj	3
Noakhali	3
Norshindi	3
Rangpur	3

Category-B	
District	No. of BTS
Chandpur	2
Cox's Bazar	2
Faridpur	2
Gopalganj	2
Habiganj	2
Jamalpur	2
Jhenaidah	2
Kishoreganj	2
Kushtia	2
Lakshmipur	2
Magura	2
Manikganj	2
Moulvi Bazar	2
Munshiganj	2

Category-C	
District	No. of BTS
Bagerhat	1
Bandarban	1
Barguna	1
Bhola	1
Chuadanga	1
Gaibandha	1
Jaipurhat	1
Jhalakathi	1
Khagrachari	1
Kurigram	1
Lalmonirhat	1
Meherpur	1
Nawabganj	1
Nilphamari	1

Madaripur	2	Narail	1
Natore	2	Panchagarh	1
Netrokona	2	Priajpur	1
Naogaon	2	Rangamati	1
Pabna	2	Rajbari	1
Patuakhali	2	Sunamganj	1
Satkhira	2	Thakurgaon	1
Shariatpur	2		
Sherpur	2		
Sirajganj	2		
Tangail	2		

(ii) 20% Upazilas and 10% of villages of Bangladesh.

B. Second Year: Areas to be covered by the end of second year of issuance of license

- (i) 40% Upazilas and 20% of villages.
- (ii) All Universities, Medical and Engineering Colleges and research institutes in public sector.
- (iii) All Ministries, Divisions, Attached Departments, Government Boards, Corporations, Semi-government and Autonomous organizations, Commissions, Statutory bodies.
- (iv) 50% of secondary educational institutes in district headquarters and 25% of secondary educational institutes at Upazila headquarters.
- (v) All local government institutions (e.g. City Corporation, Municipality/Pourasava) up to district level.

C. Third Year: Areas to be covered by the end of third year of issuance of license

- (i) 60% Upazilas and 30% of villages.
- (ii) All Universities, Medical and Engineering Colleges and research institutes in private sector.
- (iii) All public libraries.
- (iv) 50% of higher secondary educational institutes situated at district headquarters.
- (v) 50% of secondary educational institutes in district headquarters and 25% of secondary educational institutes at Upazila headquarters.

D. Fourth Year: Areas to be covered by the end of fourth year of issuance of license

- (i) 80% Upazilas and 40% of villages.
- (ii) All higher secondary educational institutes situated at district headquarters.
- (iii) All secondary educational institutes in district headquarters and 50% of secondary educational institutes at Upazila headquarters.
- (iv) All local government institutions (e.g. City Corporation, Municipality/Pourasava) up to district level.

E. Five Year: Areas to be covered by the end of fifth year of issuance of license

- (i) All Upazilas and villages and connectivity to community access points.
- (ii) All higher secondary, secondary and primary educational institutes.
- (iii) All cultural centres, museums, post offices and archives.
- (iv) All Union Parishad Offices.

20.02 ANNUAL CUMULATIVE BWA SUBSCRIBERS:

The annual cumulative BWA subscribers to be achieved by the licensee(s) are as below:

Year	Minimum Cumulative BWA Subscribers in Service
1 st	25,000
2 nd	75,000
3 rd	1,75,000
4 th	2,50,000
5 th	5,00,000

21. SHARING OF FACILITIES

All the licensed operators shall share the infrastructures as per Infrastructure Sharing Guidelines issued by the Commission. They will only be allowed to build their own network when no existing infrastructure is available which shall be shared with other operators. The pricing for sharing infrastructure (including backbone) shall be as per Infrastructure Sharing Guidelines of the Commission.

22. REDUCTION OF PERFORMANCE BANK GUARANTEE AMOUNT PROPORTIONATELY

The Licensee having discharged all its obligations under the License and meeting the targets set by the Commission, as determined solely by the Commission; the value of the Guarantee shall be reduced in the following manner:

Year	% reduction in PBG Amount (15% from coverage)		% reduction in PBG Amount (05% from cumulative BWA subscriber)	
	%	Amount to be reduced	%	Amount to be reduced
1 st	15%	Taka 2.25 Crore [BDT 22.5 Million]	05%	75 Lacs [BDT 7.5 Million]
2 nd	15%	Taka 2.25 Crore [BDT 22.5 Million]	05%	75 Lacs [BDT 7.5 Million]
3 rd	15%	Taka 2.25 Crore [BDT 22.5 Million]	05%	75 Lacs [BDT 7.5 Million]
4 th	15%	Taka 2.25 Crore [BDT 22.5 Million]	05%	75 Lacs [BDT 7.5 Million]
5 th	15%	Taka 2.25 Crore [BDT 22.5 Million]	05%	75 Lacs [BDT 7.5 Million]

Any reduction in the value of the Guarantee shall not have effect unless the Licensee has submitted a request for reduction in the form annexed and the Commission has confirmed in writing the reduction.

If the targets are not met, the Commission shall call on the Guarantee for the amount indicated in column B & C above.

23. TARIFFS AND PRICING

- 23.01 The Licensee shall, before providing any Services, submit to the Commission in writing:
- (i) a tariff chart / schedule containing the maximum and minimum charges that it proposes to charge for the Services, and its justification for the charges; and
 - (ii) the description of the Services, the terms and conditions and all other relevant information which it proposes to publish to its customers. The information to be published must be in a form that is readily available, current and easy to understand.
 - (iii) Subscriber application forms for Services.
- 23.02 The Licensee shall not start providing any Services before obtaining the approval of the Commission for its tariff and shall comply with conditions as may be imposed by the Commission.
- 23.03 The Licensee shall obtain the written approval of the Commission before making any changes to the approved tariff charges.

24. MANDATORY REQUIREMENTS FOR APPLICATIONS

The mandatory papers/documents to be submitted by the applicants are appended herewith as APPENDIX: 2.

25. LAWFUL INTERCEPTION (LI) AND MONITORING COMPLIANCE

- 25.01 LI compliance will be as per the license condition and will be decided in consultation with National Monitoring Committee (NMC) and the Commission and the same will be communicated to the winners.
- 25.02 License shall provide an appropriate system to accumulate CDR/IPDR/PDR at NMC and the Commission. Duration of CDR/IPDR/PDR shall be decided by the Commission in consultation with NMC.

26. MISCELLANEOUS

Each Licensee shall comply with the provisions of the Act, the terms and conditions of its License, and any regulations or guidelines issued by the Commission. The Commission has the right in its sole discretion to change, amend, vary or revoke any of the terms and conditions of the guidelines. This guideline is provided for information only as an indication of the format and types of provisions that may be included in the final guideline. The final terms of the guidelines are matters solely for the Commission to determine and shall contain in the final guidelines issued by the Commission.

27. STATUS

- 27.01 The information contained in this document is intended to assist interested parties in applying for the relevant Licenses. It does not bind the Commission to any particular course of action in relation to the handling of any application, or to the terms of any License to be granted, or to grant any License to any party.
- 27.02 The Commission reserves the right to change this BWA licensing guidelines and/or to amend this document without prior notice.

APPENDIX-1

SPECTRUM CHARGES FOR BWA SERVICES OPERATOR LICENSE

1. Access Frequency Charge:

The spectrum charges shall be calculated using the following formula.

$$\text{Spectrum Charges in Taka} = \text{STU} \times \text{CF} \times \text{BW} \times \text{AF} \times \text{BF}$$

Where, i) STU=Spectrum Tariff Unit=1 US Dollar equivalent BDT @ published by Bangladesh Bank on the last day of each quarter.

ii) CF=Contribution Factor for Access Frequency shall be calculated considering the following table of subscriber base (sales figure):

Sl.	Subscriber Base (lower limit inclusive & upper limit exclusive)	CF
1	From 0 to 200 K	0.35
2	From 200 K to 400 K	0.40
3	From 400 K to 600 K	0.45
4	From 600 K to 800 K	0.50
5	From 800 K to 1000 K	0.55
6	From 1000 K to above	0.60

iii) BW=Bandwidth Assigned for Access Frequency in MHz

iv) AF=Area Factor for Access Frequency= Geographical area of Bangladesh.

v) BF=Band Factor = 0.50

2. Microwave Frequency Charge: If any microwave frequency is assigned for point to point link, the spectrum charges shall be calculated using the following formula.

$$\text{Spectrum Charges in Taka} = \text{STU} \times \text{CF} \times \text{BW} \times \text{AF} \times \text{BF}$$

Where, i) STU=Spectrum Tariff Unit=1 US Dollar equivalent BDT @ published by Bangladesh Bank on the last day of each quarter.

ii) CF=Contribution Factor for Microwave Frequency=1

iii) BW=Bandwidth occupied for Microwave Frequency in MHz

iv) AF=Area Factor for Microwave Frequency Point to Point link=Link Length² x 0.273
(Minimum distance for Link Length shall be 7 km)

v) BF=Band Factor shall be calculated as per following table:

Sl.	Band (lower limit exclusive & upper limit inclusive)	BF
1	SHF1 (2.69-16 GHz)	0.25
2	SHF2 (16-31 GHz)	0.15
3	EHF1 (31-65 GHz)	0.10

APPENDIX- 2

MANDATORY DOCUMENTS/INFORMATION TO BE PROVIDED BY THE APPLICANT

1. General Documents/Information:

Applicant(s) must furnish to the following information/documents (in English) as is applicable:

- 1.01 Letter of Application (in letterhead pad).
- 1.02 Application Form (duly filled in and signed and sealed)
- 1.03 Applicant(s)' Details
- 1.04 Shareholders of the Applicant(s);
- 1.05 List of the license(s) from the Commission (if any)
- 1.06 Consortium Information;
- 1.07 Business Plan;
- 1.08 Financial Projections;
- 1.09 Telecommunications Sector Experience;
- 1.10 Network Rollout;
- 1.11 Commitments and Guarantees;
- 1.12 Supplementary documents to support Applicant(s)'s proposals (if any).
- 1.13 Original receipt of the bid document

2. Applicant(s)' Details

The following information in relation to the Applicant(s) must be contained in the Application:

- 2.01 name, registered office, date and place of incorporation, from the companies register (if applicable);
- 2.02 the issued share details of shareholders as at the date of lodging the Application, along with any proposals in this area;
- 2.03 full names and addresses of all directors identifying executive and non-executive positions, photocopy of first six pages of passport/Voter ID Card;
- 2.04 disclosure of any criminal record or personal bankruptcy of any person;
- 2.05 Certified copy Memorandum and Articles of Association.
- 2.06 descriptions of principal business activity and principal place of business;
- 2.07 attested copy of the last three years annual audited accounts (if any);
- 2.08 summaries of financial results for the last five years (if any);
- 2.09 the name of a nominated contact person with is duly attested signature including email, telephone, facsimile and postal contact details;
- 2.10 any other matter which Applicant(s) consider the disclosure or non-disclosure of which might materially affect the Commission's decision to make the award of the license.

3. Shareholders of Applicant(s)

Applicant(s) must provide information concerning their identity and composition of the Company. For each shareholder, holder of options, warrants, preference or loan capital or other security issued by the Applicant(s) the following information is sought:

- 3.01 name, registered office, date and place of incorporation;
- 3.02 principal place of business and description of principal business activity;
- 3.03 ultimate holding company;
- 3.04 attested copies of last three years annual audited accounts (if any);
- 3.05 summaries of financial results for the last five years (if any);
- 3.06 photocopy of first six pages of passport/Voter ID Card of each shareholder.

Where any party holds shares or other securities in the Applicant(s) as a trustee or nominee this must be declared and the details requested above must be provided for the beneficial owner.

Where the Applicant(s) has a large number of share holders the above information must be provided for major shareholders. Broad details for the minority shareholdings, i.e. those with a small investment, will suffice. The Commission may request further information in this regard if it is thought to be necessary.

Where the shareholder is a part of a group, consolidated group financial information is also required.

4. Consortium Information

Where the Applicant(s) is a consortium or joint venture the following additional information is required:

- 4.01 the role and contribution of each consortium member in terms of resources, experience or expertise;
- 4.02 the nature of the relationship between members including a copy and details of any joint venture agreement, memorandum of understanding or shareholder agreement;
- 4.03 the Applicant(s)'s details for the proposed management structure and corporate governance in the event it is awarded the License.

APPENDIX-3

INSTRUCTIONS FOR COMPLETING THE APPLICATION FORM FOR BWA LICENSE

1. The prescribed Application Form annexed as APPENDIX-4 is the first and foremost instrument for obtaining BWA Services License.
2. Unless otherwise indicated, all sections in the application form must be completed together with the supporting affidavit in Schedule-6. The completed application form and any supporting documents required should be sent to the address of the Commission in duplicate, together with one soft copy in CD containing the complete application in non scanned PDF Format. The application form and all supporting documents must be in English. All copies of original documents e.g. certificates of incorporation, must be certified as true copies by a notary public of Bangladesh.
3. The application must be made by the Applicant/ Applicant(s)'s authorized personnel. The Commission reserves the right to reject the application if it is found that the information or documents provided for, in this application are untrue, inaccurate or incomplete.
4. The License shall be granted subject to the payment of License Acquisition fee and any other relevant fees as laid down in the Licensing Guidelines.
5. All other fees and security deposit for the BWA Services License shall be as per these guidelines.
6. The License fees and other fees payable in connection with this application and the BWA Services License shall be paid in the form of Bank Draft/ Pay Order made in favour of Bangladesh Telecommunication Regulatory Commission. All payments must be made in BDT on/before the due date for payment.
7. The Commission reserves the right either to accept or reject any application submitted without assigning any reason thereof.
8. Consideration for approval of the application shall be based on information declared in the application form. Where it thinks fit, the Commission may seek clarification or request additional information from any applicant/entity arising from the application. Any delay in notification or response may also affect the time for a decision on the application including declaration as non responsive.
9. The Commission reserves the right to disclose any information submitted by Applicant(s) to any competent authority if the Commission deems the same necessary.
10. Checklist of documentation must be provided with all Applications. Full details are described in this guideline. This is only a checklist for reference:
 - ☐ The Applicant(s) will submit 2 (two) copies of its application/offer with all relevant documents of which 01(one) will be original while the other will be copy along with one soft copy in CD containing the complete application in non scanned PDF Format. Each page of the application including tender documents has to be authenticated/ signed by authorized personnel.
 - ☐ Certified copies of Memorandum and Articles of Association and Certificate of Incorporation for corporate Applicant(s).
 - ☐ Certified copies of share certificates demonstrating ownership interest in application (if applicable).
 - ☐ List of Directors with details of their shareholdings, and relation to other Operators and Applicant(s) for a License along with bio-data and photo.
 - ☐ List of Shareholders with details of equity ownership.
 - ☐ summaries of financial results for the last five years (if any)
 - ☐ Up to date Income Tax Clearance Certificate (if applicable) and TIN/BIN Certificate (attested photocopy).
 - ☐ Business and implementation plan.
 - ☐ Application Fee.
 - ☐ Other mandatory documents/information to be provided by the applicant as stated in APPENDIX-2.

APPENDIX-4
BANGLADESH TELECOMMUNICATION REGULATORY COMMISSION
APPLICATION FORM
[Section 36(5) of the Act 2001]
For BWA Services License
Information Requirement

SL	Information required	Information furnished/compliance
01	Identity of Applicant(s) Name of Person/Company/Firm/ Partnership/ Consortium/ Society as the case may be.	
02	Business Address and Registered Office Address and Telephone number, facsimile number, E-mail and Website details.	
03	Business or Company's structure details For Applicant(s) that are corporate entities, include/ submit copies of Certified true copies of Memorandum and Articles of Association and Certificate of Incorporation/registration or other equivalent documents. If Applicant(s) company is in the name of a consortium which includes one or more corporate members or partnerships, include/submit documents for each corporate member or partnership as applicable along with up to date clearance certificate of Income Tax (if applicable) for each and individual member of the consortium. If Applicant(s) company is a partnership, provide copy of partnership deed or equivalent documents. If Applicant(s) is a society or other organisation, provide rules of society or equivalent documents. If the Applicant(s) is a Company/firm, provide documents of registration from the Registrar of Joint Stock Companies and Firms, as well as from the concerned Chamber of Commerce and Industries or equivalent trade bodies and also submit a clearance certificate of Income Tax paid (if applicable).	
04	Contact Person's Name and Position The person should be an appropriate senior level individual i.e. Chairman, Managing Director, Chief Operating Officer, Chief Executive Officer, Chief Technical Officer, Chief Commercial Officer, who would be an appropriate point of contact for general and/or technical enquiries.	
05	Contact Person's Passport No. and Country of Issue With Photocopy of the first six pages of the passport	
06	Contact Number of the contact person (Telephone, Fixed & Mobile, Facsimile and E-mail)	

07	Business Proposal and other information	
08	All documents and Information as described in appendix-2 and appendix-3 shall be provided	

I/we declare that all the information furnished in this application form is true and correct. I/we understand that approval from the Commission for this application is based on information as declared in this application. Should any of the information as declared be incorrect, then any License granted by the Commission may be cancelled.

I/we also declare that I/we have read, understood and undertake to comply, with all the terms and conditions outlined or referred to in the Commission document entitled Regulatory and Licensing Guidelines for invitation of application for granting of BWA Services license in the country, and those terms and conditions included in the License to be issued to us/me, if this application is approved by the Commission.

Name & Designation & Company Stamp

Date

APPENDIX-5

AFFIDAVIT

The undersigned, _____, of legal age, and residing at

(Name of Official/Individual Applicant(s))

_____ after having been duly sworn deposed states:

(Address)

1. That he/she is the _____
(Official Capacity)

of _____,

(Name of company/corporation/partnership/society/individual (the Applicant(s)))

duly organized under the laws of _____ .

(Name of Country)

OR

That he/she is the Applicant(s) for the License referred to below (the Applicant(s)), a citizen of

The Peoples Republic of Bangladesh.

2. That personally, and as _____ for and on behalf
(Official Capacity)

of the Applicant(s) he/she hereby certifies:

a) That all statements made in the Applicant(s)'s application for a License to establish, maintain and operate Broadband Wireless Access Services and in the required attachments to that application are true and correct;

b) That this certification is made for the expressed purpose of an application by
_____ for an Broadband Wireless Access Services License from the
(name)
Bangladesh Telecommunication Regulatory Commission;

c) The Applicant(s) will make available to the Commission or any other of its authorized agencies any information they may find necessary to verify any item in the application or regarding its competence and general reputation;

~~d) That the Applicant(s) has not held any License of the Bangladesh Telecommunication Regulatory Commission.~~

* The sub-clause (d) has been deleted.

- d) That the Applicant(s) (where the Applicant(s) is an individual) or the owner of the Applicant(s) or any of its directors or partners (where the Applicant(s) is a company, corporation, partnership or society):
- (i) he is not an insane person,
 - (ii) he has not been sentenced by a court under any law, other than the Act, to imprisonment for a term of 2 (two) years or more, and a period of 5 (five) years has not elapsed since his release from such imprisonment;
 - (iii) he has not been sentenced by a court for committing any offence under the Act and a period of 5 (five) years has not elapsed since his release from such imprisonment;
 - (iv) he has not been declared bankrupt by the Court and has not been discharged from the liability of bankruptcy;
 - (v) he has not been identified or declared by the Bangladesh Bank, by the court or by a bank or financial institution as a loan defaulter of that bank or institution;
 - (vi) any license of his has not been cancelled by the Commission at any time during the last 5 (five) years.
 - (vii) No prosecution is going on against the applicant or its owner(s) or any of its director(s) or partner(s) for any violation of the Act or license conditions or any other illegal activities.
- e) That no shareholder/director or a member of his/her family of the Applicant(s) in the capacity of an owner, shareholder, director or partner of any other company holds Cellular Mobile Operator license from Bangladesh Telecommunication Regulatory Commission.

That the undersigned is the Applicant(s) or is duly authorized by the Applicant(s) to make these representations and to sign this affidavit.

Director/Secretary/Partner/Duly Authorised Representative/Attorney/Individual

as or on behalf of the Applicant(s)

WITNESSES

1. _____ 2. _____

Subscribed and sworn to before me

this _____ day of _____ 20 ____ at _____.

Notary Public

APPENDIX-6

BIDDING AND AUCTION PROCESS

1. The bidding and auction process shall be as follows:

- 1.01 The Commission will invite the qualified Applicants attending the Auction to be held on 24th September, 2008 (this date may be changed in case of unavoidable circumstances).
- 1.02 The Bid Security money of the successful bidder(s) will be adjusted towards the License Acquisition Fee, while the Bid Security money of the unsuccessful bidders shall be returned within 30 (thirty) working days of the Bidding date without bearing any liability towards interest, indexation, inflation or deflation.
- 1.03 The auction will be held at a venue to be decided by the Commission. Only three persons including the authorized representative from each qualified Applicant(s) shall be allowed to participate in the Bidding process.

2. BIDDING

- 2.01 The auction shall be based on an open outcry on the date, time and venue to be announced by the BWA Auction Committee to be formed by the Commission.
- 2.02 The bidders shall bid for the License Acquisition Fee. The floor price is set at Tk. 25 Crore (BDT 250 million).
- 2.03 Each subsequent bid increment shall be for Tk. 2.5 Crore (taka two crore fifty lac) (BDT 25 million) only.
- 2.04 The bidder shall cry-out his bid and write it on the prescribed form duly signed by the Authorized Representative and hand it over to the BWA Auction Committee. Only Authorized Representative shall be allowed to participate in the open out cry.
- 2.05 After each Bid, the bidding and Bidder's details will be recorded before the next Bid;
- 2.06 The Commission shall continue the open outcry auction until there are no further Bids.
- 2.07 When there are no further Bids, the BWA Auction Committee shall announce the Auction Winning Bid and the names of the Bidders in order of their bid amounts, i.e. from higher to lower.
- 2.08 After the announcement of the highest Bidder, no further offers to obtain the license shall be entertained by the Commission.
- 2.09 The highest bidder shall have the option to choose its 35 MHz of frequency from either 2.3GHz or 2.5 GHz bands. After that, the second highest bidder will be asked to match the price of the highest bidder. After matching the price, he will be able to choose from rest two spectrum bands. The third highest bidder, subject to matching the highest bid, shall be assigned the other spectrum band offered.
- 2.10 In case the second highest Bidder is unwilling to match the Auction Winning Bid, the second License shall be offered at the Auction Winning Bid to the other Bidders in order of their bid amounts, i.e. from higher to lower until Auction winning Bid is matched. The third license also shall be awarded in the similar way. If no other Bidder is ready to match the Auction Winning Bid until the second license is taken, the Bidding session will be cancelled and a future date of fresh bid and auction will be announced by the Commission. If two bidders agree the highest bid and a third bidder, willing to match the same could not be found, then the top two bidders agreeing to match the highest bid shall be offered to take two licenses.
- 2.11 Each winning Bidder shall deposit 50% (fifty percent) of the license acquisition fee to the Commission in the form of bank draft or pay order within 10 (ten) working days after notification. This 50% of the license acquisition fee will be inclusive of bid security money. If the bidder fails to pay the license acquisition fee within the stipulated periods as mentioned above, he shall loose the right of acquisition of BWA license and his bid security money will be forfeited. In such case, the license will be offered to the next matching bidder and so on.

- 2.12 The licensee(s) shall pay the rest of the 50% (Fifty percent) amount within 3 (three) months thereof. If the bidder fails to pay the license acquisition fee as mentioned above within the stipulated periods, the license shall be cancelled and the paid amount (50%) as license acquisition fee will be forfeited. In such case, the license will be offered to the next matching bidder and so on.
- 2.13 If any of the winning Bidders fail to make the payment as referred in sub-clause 2.11 and 2.12 above within the stipulated time, the next highest bidder(s) in order of their bid(s) will be offered the License(s) on the same Auction Winning Bid and on the same terms and conditions.
- 2.14 The license shall be issued only after payment of the first installment of License Acquisition Fee.
- 3. Disqualification: the Commission may, on the recommendation of the BWA Auction committee, disqualify any Bidder and forfeit its money for any of the reasons set out below:**
 - 3.01 If a successful Bidder abandons the bid or fails to pay the first installment of License Acquisition fee (50% of the highest bid) within 10 (ten) working days.
 - 3.02 Willful misrepresentation of any facts in any part of the initial application.
 - 3.03 Illegal conduct in the Bid procedure and auction process or improper attempts to influence the outcome, or delay or disrupt the process.
 - 3.04 Any “corrupt practice” meaning the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in relation to licensing process provided in the guidelines.
 - 3.05 Any “fraudulent practice” or misrepresentation of the facts in order to influence the results of the licensing process established by the Guideline.
 - 3.06 If the bidder fails to justify viability of his bids.
- 4. INFORMATION PROVIDED BY THE COMMISSION**
 - 4.01 The information contained in this guideline and any other information provided to Applicant(s) during the Application process, in writing, is intended to assist Bidder in the preparation of their Bids and shall be binding on them in the course of bidding/auction.
 - 4.02 The Commission has made and will continue to make reasonable efforts to include accurate and current information in the guideline and in any other documents provided to the Applicant(s)s. However, neither the Commission nor any of the agencies, employees, representatives, advisors or consultants shall have any liability whatsoever to any Applicant(s) or any of its shareholders or members or any other person resulting from use of or reliance on any of the information so provided. Applicant(s)s are encouraged to undertake their own verification of any information supplied by the Commission prior to use of or reliance on that information.
- 5. OTHER COMMUNICATIONS**
 - 5.01 All deliveries, notices or other communications made to Applicant(s) in connection with the Application process shall be sent by post, courier, fax or personal delivery to the contact office of the bidder(s)/Applicant(s), as specified by the Applicant(s) to the Commission in his initial application.
 - 5.02 All deliveries, notices or other communications made by Applicant(s) to the Commission in connection with the Application process shall be sent by fax or personal delivery to the officers mentioned at the address mentioned in the initial application.
 - 5.03 The Bidders are expected to carefully examine all information, instructions, and annexes given in this guideline.
- 6. CONFIDENTIALITY OF APPLICATIONS**
 - 6.01 The Commission shall make all reasonable efforts to ensure confidentiality of the information provided by the Applicant(s). However neither the Commission nor any of its agencies, employees, representatives, advisors or consultants shall be liable in any respect whatsoever to any Applicant(s) or any of its members or representatives for damages or harm resulting from a failure to maintain such confidentiality.

- 6.02 **Costs associated with Bid and bidding:** The Bidders shall bear all their costs associated with the preparation and submission of their Bids and the Commission shall in no case be responsible for these or any other costs, regardless of the conduct or outcome of the application process.

7. RESERVATION OF RIGHTS

- 7.01 The Commission reserves the right, in its sole discretion, to take any action, including amendment in this guideline, which it considers necessary to ensure that the Bid process occur in a fair, open and transparent manner, in accordance with law and discourage collusion and predatory bidding that may block the entry of potential bidders into the bidding/auction process.
- 7.02 The Commission further reserves the right to modify/temporarily stop/ terminate the bid process at any time including the auction period, in its sole discretion. In case of termination of the Bid process Bid Security money would be returned to the Bidder within 30 (thirty) working days without bearing any liability.

8. MISCELLANEOUS

- 8.01 This guideline and any License issued pursuant to the process announced herein shall be exclusively subject to, and interpreted in accordance with provisions of the Act, the Rules and the Regulations issued there under.
- 8.02 Any dispute, controversy or claim arising out to or in connection with this guideline, or the breach, termination or invalidity thereof, shall be settled by the Commission and its decision shall be final.
- 8.03 The Bid process, the accompanying documents, and all correspondence relating to the process announced in this guideline shall be submitted in English language.
- 8.04 The Commission at all times shall reserve the right to change, alter, modify, amend, supplement or replace any or all of the Bidding procedure before the Bidding Date and such change, alteration, modification, amendment, supplemental or replacement shall be communicated to the Bidders and become an integral part of the Bidding procedure.
- 8.05 Section 95 of the Bangladesh Telecommunication Act 2001 will be applicable in every case.

APPENDIX-7

GENERIC FORM OF BWA SERVICES OPERATOR LICENSE



**BANGLADESH TELECOMMUNICATION
REGULATORY COMMISSION**

SHETU BHABAN, NEW AIRPORT ROAD, BANANI, DHAKA-1212

OPERATOR LICENSE

FOR

BROADBAND WIRELESS ACCESS SERVICES

ISSUED

TO

.....

Under

THE BANGLADESH TELECOMMUNICATION ACT, 2001

ON THE

..... DAY OF2008



**BANGLADESH TELECOMMUNICATION
REGULATORY COMMISSION**

SHETU BHABAN, NEW AIRPORT ROAD, BANANI, DHAKA-1212

**OPERATOR LICENSE
FOR
BROADBAND WIRELESS ACCESS (BWA) SERVICES**

LICENSE NO:

DATE :

In Exercise of the Powers
under section 36 of the Bangladesh Telecommunication Act, 2001
(Act No. XVIII of 2001)
BANGLADESH TELECOMMUNICATION REGULATORY COMMISSION
is pleased to grant the license in favour of

.....
represented by its CHAIRMAN/MD/CEO/MANAGING PARTNER having registered office at

.....

as an Operator of

Broadband Wireless Access (BWA) Services

in Bangladesh

whereby it is authorized

to establish, maintain and operate the BWA Systems and

provide services as specified in this license

ON NON-EXCLUSIVE BASIS

under the terms and conditions given in the following pages

including the schedules annexed hereto.

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BANGLADESH TELECOMMUNICATION REGULATORY COMMISSION

Shetu Bhaban, New Airport Road, Banani, Dhaka 1212, Bangladesh

BROADBAND WIRELESS ACCESS (BWA) SERVICES OPERATOR LICENSE

(Issued under sections 36 of Bangladesh Telecommunication Act, 2001)

The Bangladesh Telecommunication Regulatory Commission (hereinafter referred to as the Commission) has been empowered under section 36 of the Bangladesh Telecommunication Act, 2001 (hereinafter referred to as the Act) to issue Licenses for the operation and provision of telecommunication services.

Having given due consideration to the principles of transparency, fairness, non-discrimination and all other relevant principles, the Commission has decided to issue License on Broadband Wireless Access (BWA) Services.

Therefore, in exercise of the powers under section 36 of the Bangladesh Telecommunication Act, 2001 Bangladesh Telecommunication Regulatory Commission is pleased to issue

LICENSE

To

.....

..... represented by its Chairman/CEO/MD having its registered office at
..... as an operator to establish, maintain and
operate Broadband Wireless Access (BWA) Services, subject to the terms and conditions detailed hereinafter.

1. INTERPRETATIONS AND DEFINITIONS

The interpretations and definitions of the terms used in this document are annexed herewith as SCHEDULE -1.

2. COMMENCEMENT AND DURATION OF THE LICENSE

- 2.01 The license shall come into force on thisday of, 2008 (two thousand eight).
- 2.02 The duration of the Licenses, shall initially be for a term of 15 (fifteen) years.

3. RENEWAL OF THE LICENSE

Upon expiry of the initial term of 15 (fifteen) years, the License may be renewed by the Commission for subsequent terms, each of 5 (five) years in duration, subject to the satisfaction of the Commission upon fulfillment of necessary conditions, including the payment of any fees, as may be specified herein and/or by the Commission under the Act. The Licensee shall submit the renewal application 6 (six) months prior to the expiry date of each term, initial or subsequent whatsoever.

4. SCOPE OF THE LICENSE

- 4.01 The licensee shall establish, operate and maintain nationwide Broadband Wireless Access (BWA) Services inspectrum band.
- 4.02 This Broadband Wireless Access Services Operator License is a stand-alone License which is independent of other types of operating Licenses. Licensee shall not require any separate Internet Service Provider (ISP) License and IP Telephony Services License.
- 4.03 The provisions of the Act shall regulate the License. The Wireless Telegraphy Act 1933 and the Telegraph Act 1885 as amended from time to time shall also be applicable on matters not covered in the Act. In addition, the Regulations published in gazette, the Guidelines set forth, Directives and the Executive Orders issued from time to time by the Commission in respect of the services shall also be applicable and binding on the Licensee.

5. FEES AND CHARGES

- 5.01 Following fees and charges shall be paid by the Licensee. Some of the charges or part thereof shall be in proportion to the Licensee's annual audited gross revenue.

1.	License acquisition fee	[To be fixed by auction]
2.	Annual License Fee	Taka 3 (three) crore (BDT 30 million)
3.	Gross Revenue Sharing	0% for the 1 st year 2% for 2 nd year and 4% for each of the subsequent years
4.	Annual Spectrum Charge	As per the Spectrum formula
5.	Performance Bank Guarantee.	Taka 15 (fifteen) crore (BDT 150 million)

- 5.02 The Licensee shall pay all the required fees within the stipulated time frame given hereafter. All fees, charges etc. paid by the Licensee are non-refundable and are payable in favour of Bangladesh Telecommunication Regulatory Commission in the form of bank draft or pay order from any scheduled bank of Bangladesh.
- 5.03 **The License Acquisition Fee:** BDT..... (50% payable within 10 working days of notification and the rest within 3 months thereof)

- 5.04 The Licensee, after the payment of License Acquisition fee of Taka(to be fixed in auction) at the time of issuance of license, shall for the second and subsequent years of operation, pay annual fees comprising of the,
- (i) **Annual License Fee:** a sum of Taka 3 crore (BDT 30 million) payable by the Licensee in advance on each anniversary of the date of the License; and
 - (ii) **Gross Revenue Sharing:** No Revenue (0%) shall be shared for the first year. A sum equivalent to 2% of the annual audited gross revenue of the Licensee for the second year and 4% for the subsequent years, which shall be paid on a quarterly basis within the first 10 days at the end of each quarter. The total amount shall be reconciled on an annual basis based on the Licensee's audited accounts for that year and if there has been any underpayment, the balance must be paid within 90 days of the financial year-end of the Licensee. In the event of any overpayment by the Licensee, the Licensee may set off any excess amount against quarterly payments in the next year. The percentage of revenue to be shared may be changed from time to time by the Commission and the licensee shall abide by it.
 - (iii) **Radio Equipment and Spectrum Charges:** The rights granted to the Licensee do not include any rights to use any radio frequency except the BWA frequency until such frequencies are allocated by the Commission. For all allocated frequency, the Licensee shall be obliged to pay all required fees and charges related to such frequencies as fixed by the Commission. The Licensee shall pay to the Commission the spectrum charge quarterly in every year according to the spectrum formula. If the amount along with late fee is not paid in full within 60 (sixty) days from the due date, such failure may result in cancellation of the allocated frequency.
- 5.05 The annual license fee and the amount of revenue to be shared has to be paid within due time. The amount due may be paid till 60 (sixty) days after the due date by paying late fee at the rate of 15% per annum as compensation to the Commission. If the amount is not paid within the 60 days as stipulated, then the license shall stand as cancelled.

6. PERFORMANCE BANK GUARANTEE

- 6.01 The license shall submit Bank Guarantee of Taka 15 (fifteen) crore (BDT 150 million) in favour of Bangladesh Telecommunication Regulatory Commission within 15 (fifteen) days from the date of issue of the licence.
- 6.02 As security for the performance of Licensee's obligation, the Licensee shall deliver to the Commission an unconditional bank guarantee for the amount of Taka 15 (fifteen) crore (BDT 150 million) only with a minimum validity of 1 (one) year from the date on which the License shall come into force, in a prescribed form (Schedule-3) issued by a scheduled bank [Schedule to the Bangladesh Bank Order, 1972 (P.O. No. 127 of 1972)]
- 6.03 The bank guarantee will be encashed as per the roll out target obligation as stated in clause 14 and Form 1 of the instant license.

7. EXISTING INTERCONNECTION AND INTERNATIONAL VOICE CALL TARIFFS

i) For International Incoming calls:

Existing International incoming call termination rate is minimum US\$ 0.06. This rate may be reviewed by the Commission from time to time.

After deducting VAT (if applicable):

- (a) 15% (fifteen percent) of prevailing call rates (call rates to be determined by the Commission from time to time) to be paid to ICX by IGW operators.
- (b) 20% (twenty percent) of prevailing call rates (call rates to be determined by the Commission from time to time) to be paid to the licensee by IGW Operators.

ii) For International outgoing calls (either to PSTN or mobile network):

Existing call rate for International Outgoing calls to mobile network is Tk. 16.50 (Taka sixteen paisa fifty) and to PSTN network is Tk. 6.00 (Taka six). For International Outgoing calls, a specific settlement amount would be paid to overseas networks. These rates will be reviewed time to time by the Commission. The following revenue distribution/ sharing is based on the balance amount only excluding VAT which is to be paid by the respective licensee.

- a) Balance amount = Call rate - specific settlement amount payable to foreign carriers
- b) Licensee shall keep 40% of balance amount.
- c) Licensee shall pay 15% (fifteen percent) of balance amount to the ICX licensee.
- d) Licensee shall pay to the IGW licensee as follows: the specific settlement amount payable to foreign carriers + 15% (fifteen percent) of balance amount.
- e) Licensee shall pay 30% (thirty percent) of balance amount to the Commission.

iii) Licensee shall pay to ICX 10% (ten percent) of prevailing domestic Interconnection charge. Current Interconnection Charge is Tk.0.40 (paisa forty) only per minute. This rate will be reviewed time to time by the Commission.

8. NETWORK AND SERVICES

- 8.01 The Licensee is authorized to develop and operate a broadband network to provide nationwide BWA services based on IEEE 802.16e standards. The adoption of future evolution is subject to approval of the Commission. The system can be point-to-multipoint or mesh radio systems consisting of BWA distribution hub stations and their associated subscriber stations (or BWA access devices).
- 8.02 At least 128 kbps download rate with upload download ratio of 1:4 per subscriber should be ensured at all time. The contention ratio must be 1:8 (maximum) at the backbone connectivity (both domestic and international) and the said throughput must be ensured up to the first overseas internet entry point. For concurrent voice and data application, voice calls should be provided with adequate additional bandwidth to ensure QoS.
- 8.03 The Licensee and end-users are allowed to use their equipment in fixed locations, in a nomadic manner or with a fully mobile capability, at their choice. BWA licensees shall not require a separate ISP (Internet Services Provider) license. The licensees are allowed to use cable, fiber or any other means appropriate in conjunction with WiMAX as last mile solution. However, cable and fiber connectivity as last mile solutions are not allowed in Dhaka and Chittagong Metropolitan area. The end user distribution may be done in conjunction with WiFi (2.4 and 5.7 GHz ISM band).
- 8.04 Technical characteristics of equipment used in BWA systems shall be in conformity with the WiMAX forum standards and International Telecommunications Union (ITU) and its radio regulations. The operator must deploy certified equipment from the accredited/certified vendors (e.g. WiMAX Forum Certification). The certification must conform to IEEE 802.16e standard. However, the licensees, who would be operating in 2.3 GHz band, must produce the required documentation as and when the equipment are certified. They must also provide enough documentary evidence that the manufacturers have applied for such certification to WiMAX Forum.
- 8.05 BWA services are intended for providing wireless broadband connectivity to subscribers including voice application. Other value added services are subject to the approval of the Commission.
- 8.06 Coordination initiatives are encouraged in order to maximize the best utilization of the spectrum and minimize interference without reducing quality of service.
- 8.07 If any interference occurs to the existing operators, it will be the responsibility of the new entrant to adjust its system or to make necessary arrangement to overcome the interference.
- 8.08 EIRP of BTS should not exceed +57.3 dBm per RF channel. The maximum EIRP power can be relaxed up to +60 dBm for covering rural areas. Should harmful interference is caused to other radio systems/stations, the BTS may be required to modify its radiated power.

- 8.09 The licensee shall have to ensure QoS as per the guideline to be provided by the Commission. The QoS shall be monitored by the Commission from time to time.
- 8.10 The Licensee is allowed to provide IP Telephony services bundled with the instant license. The licensee shall optimize their QoS for providing voice along with basic data services. The minimum compression Codec to be used is equivalent to G. 729.
- 8.11 The Licensee shall have the capability to provide domestic roaming within its own network. The Licensee shall provide inter operator roaming service when such technology available and directed by the Commission. Voice Application will be provided with separate numbering plan. All voice calls shall be routed through ICX and IGW as per ILDTS Policy 2007. The licensee shall route their data through IIG.
- 8.12 The Licensee shall provide interoperability facility of its CPE within its band and would be encouraged to provide the same between 2.3 and 2.5 GHz Band when such technology will be available.
- 8.13 All BWA installation must comply with the safety rules as defined by the Commission's regulation.
- 8.14 The Licensee shall manage its emission which must not cross international border. The licensee(s) shall obtain permission from the Commission to install base station within 8 kilometres from the Bangladesh border.
- 8.15 Applicable numbering plan shall be assigned to the licensee by the Commission.

9. QUALITY OF SERVICE OBLIGATIONS

- 9.01 The Licensee shall ensure that voice and data traffic passes through its network with minimal interference and/or loss and without unauthorized access.
- 9.02 The Licensee shall achieve the QoS standards as set out by the International Telecommunication Union (ITU) and also by the Commission from time to time and maintain records of the same. The Commission may inspect these records and the Licensee shall furnish certified copies of such reports to the Commission upon demand or at scheduled intervals.
- 9.03 The Commission may vary, change, amend, modify or revise the QoS standards from time to time without prior notice and the Licensee shall comply with the new QoS standards imposed within the time period stipulated by the Commission. The Licensee shall submit to the Commission monthly reports on its compliance with each of the QoS standards within the first five working days of each English calendar month, in such form as may be stipulated by the Commission.
- 9.04 If the Licensee does not meet the QoS standards, the Commission may impose the penalties set out by the Commission from time to time.
- 9.05 Without reducing the QoS, the Licensees are encouraged to ensure spectral efficiency. The QoS shall be monitored by the Commission from time to time.
- 9.06 The licensee shall optimize their QoS for providing voice along with basic data services. The minimum compression Codec to be used as equivalent to G. 729.
- 9.07 The Licensee may be allowed any exception beyond its reasonable control such as fire, flooding and industrial disputes, provided that it promptly notifies the Commission and/or where applicable the other Licensee, of the facts and circumstances giving rise to such inability to comply and takes any commercially reasonable action necessary to correct any fault or avoid any such circumstances so as to re-establish compliance with the QoS standards as soon as possible.

10. INTERCONNECTION

- 10.01 The Licensee shall have the capability to provide domestic roaming within its own network. The Licensee shall provide inter operator roaming service when such technology available and directed by the Commission. Voice Application will be provided with separate numbering plan. The Licensee shall connect to ICXs for domestic inter operator and international calls. The licensee shall route their data through IIGs and NIXs.

- 10.02 The Licensee shall:
- (i) submit all concluded interconnection agreements to the Commission;
 - (ii) comply with all other access and interconnection obligations including Service Level Agreement as stipulated by Commission or as issued by Commission from time to time.
- 10.03 The Licensee shall not impose any technical or other conditions, which may hinder access or interconnection apart from that stipulated by the Commission nor shall the Licensee inhibit access or interconnection through other ways or means.

11. STANDARD CONNECTIVITY

- 11.01 All IP voice Calls will be routed (Terminated to and Originated from Bangladesh) through Interconnection Exchanges (ICXs) and International Gateways (IGWs). To maintain balanced flow of traffic Domestic inter operator voice call services will be routed through ICXs. For domestic and international calls applicable revenue sharing and pricing will be in vogue.
- 11.02 The Licensee is required to maintain “balanced flow of traffic” by ensuring at least 30% of their originating calls routed to each ICX operator.
- 11.03 The licensee shall connect to IIGs to handle international data traffic and domestic data peering would be through NIXs.

12. SPECTRUM ASSIGNMENT

- 12.01 A contiguous 35 MHz of unpaired spectrum fromMHz is assigned to the Licensee. This allocation of 35 MHz is inclusive of guard bands where the licensee must keep 5 MHz of spectrum as guard band from the upper portions of the allocation.
- 12.02 35 MHz contiguous channel will be allocated to each operator to provide BWA services. Per channel bandwidth should be either 5 or 10 MHz.
- 12.03 The spectrum assignment is inclusive of guard band needed for the operation of the equipment to avoid interference to adjacent equipment operating in adjacent bands.
- 12.04 The Successful Applicant(s) shall abide by the coordination agreements, either current or future, which shall ensure the harmonization of spectrum usage.
- 12.05 The Commission reserves the rights to make any rearrangement in the assignment within the band if required in future and the equipment shall have the provision to readjust according to that rearrangement.
- 12.06 Two pairs of frequency are assigned from and above 18 GHz band, subject to requirement/availability to build their own point to point link for inter BTS connectivity.
- 12.07 The licensee shall provide Spectrum Charges for BWA Services Operator License as per the formula as per the decision of the Commission.

13. ROLLOUT OBLIGATION

13.01 COVERAGE:

Broadband Penetration Targets to be fulfilled by the licensees by connecting:

A. First Year: Areas to be covered by the end of first year of issuance of license

- (i) The operators, within 1 year of issuance of license, shall have to install minimum 5 operational full fledged Base Transceiver Station (BTS) radio sites in areas covering each Divisional Headquarters (including the whole District), minimum 3 operational full fledged Base Transceiver Station (BTS) radio sites in each category-A districts, minimum 2 operational full fledged Base Transceiver Station (BTS) radio sites in each category-B districts and minimum 1 operational full fledged Base Transceiver Station (BTS) radio site in each category-C districts.

Divisional Headquarters (including the whole District)	No. of BTS
Barisal	5
Chittagong	5
Dhaka	5
Khulna	5
Rajshahi	5
Sylhet	5

Category-A	
District	No. of BTS
Bogra	3
Brahmanbaria	3
Comilla	3
Dinajpur	3
Feni	3
Gazipur	3
Jessore	3
Mymensingh	3
Narayanganj	3
Noakhali	3
Norshindi	3
Rangpur	3

Category-B	
District	No. of BTS
Chandpur	2
Cox's Bazar	2
Faridpur	2
Gopalganj	2
Habiganj	2
Jamalpur	2
Jhenaidah	2
Kishoreganj	2
Kushtia	2
Lakshmipur	2
Magura	2
Manikganj	2
Moulvi Bazar	2
Munshiganj	2
Madaripur	2
Natore	2
Netrokona	2
Naogaon	2
Pabna	2
Patuakhali	2
Satkhira	2
Shariatpur	2
Sherpur	2
Sirajganj	2
Tangail	2

Category-C	
District	No. of BTS
Bagerhat	1
Bandarban	1
Barguna	1
Bhola	1
Chuadanga	1
Gaibandha	1
Jaipurhat	1
Jhalakathi	1
Khagrachari	1
Kurigram	1
Lalmonirhat	1
Meherpur	1
Nawabganj	1
Nilphamari	1
Narail	1
Panchagarh	1
Priajpur	1
Rangamati	1
Rajbari	1
Sunamganj	1
Thakurgaon	1

(ii) 20% Upazilas and 10% of villages of Bangladesh.

B. Second Year: Areas to be covered by the end of second year of issuance of license

(i) 40% Upazilas and 20% of villages.

(ii) All Universities, Medical and Engineering Colleges and research institutes in public sector.

- (iii) All Ministries, Divisions, Attached Departments, Government Boards, Corporations, Semi-government and Autonomous organizations, Commissions, Statutory bodies.
- (iv) 50% of secondary educational institutes in district headquarters and 25% of secondary educational institutes at Upazila headquarters.
- (v) All local government institutions (e.g. City Corporation, Municipality/Pourasava) up to district level.

C. Third Year: Areas to be covered by the end of third year of issuance of license

- (i) 60% Upazilas and 30% of villages.
- (ii) All Universities, Medical and Engineering Colleges and research institutes in private sector.
- (iii) All public libraries.
- (iv) 50% of higher secondary educational institutes situated at district headquarters.
- (v) 50% of secondary educational institutes in district headquarters and 25% of secondary educational institutes at Upazila headquarters.

D. Fourth Year: Areas to be covered by the end of fourth year of issuance of license

- (i) 80% Upazilas and 40% of villages.
- (ii) All higher secondary educational institutes situated at district headquarters.
- (iii) All secondary educational institutes in district headquarters and 50% of secondary educational institutes at Upazila headquarters.
- (iv) All local government institutions (e.g. City Corporation, Municipality/Pourasava) up to district level.

E. Five Year: Areas to be covered by the end of fifth year of issuance of license

- (i) All Upazilas and villages and connectivity to community access points.
- (ii) All higher secondary, secondary and primary educational institutes.
- (iii) All cultural centres, museums, post offices and archives.
- (iv) All Union Parishad Offices.

13.02 ANNUAL CUMULATIVE BWA SUBSCRIBERS:

The annual cumulative BWA subscribers to be achieved by the licensee(s) are as below:

Year	Minimum Cumulative BWA Subscribers in Service
1 st	25,000
2 nd	75,000
3 rd	1,75,000
4 th	2,50,000
5 th	5,00,000

14. REDUCTION OF PERFORMANCE BANK GUARANTEE AMOUNT PROPORTIONATELY

The Licensee having discharged all its obligations under the License and meeting the targets set by the Commission, as determined solely by the Commission; the value of the Guarantee shall be reduced in the following manner:

<i>Year</i>	<i>% reduction in PBG Amount (15% from coverage)</i>		<i>% reduction in PBG Amount (05% from cumulative BWA subscriber)</i>	
	<i>%</i>	<i>Amount to be reduced</i>	<i>%</i>	<i>Amount to be reduced</i>
1 st	15%	Taka 2.25 Crore [BDT 22.5 Million]	05%	75 Lacs [BDT 7.5 Million]
2 nd	15%	Taka 2.25 Crore [BDT 22.5 Million]	05%	75 Lacs [BDT 7.5 Million]
3 rd	15%	Taka 2.25 Crore [BDT 22.5 Million]	05%	75 Lacs [BDT 7.5 Million]
4 th	15%	Taka 2.25 Crore [BDT 22.5 Million]	05%	75 Lacs [BDT 7.5 Million]
5 th	15%	Taka 2.25 Crore [BDT 22.5 Million]	05%	75 Lacs [BDT 7.5 Million]

Any reduction in the value of the Guarantee shall not have effect unless the Licensee has submitted a request for reduction in the form annexed and the Commission has confirmed in writing the reduction.

If the targets are not met, the Commission shall call on the Guarantee for the amount indicated in column B & C above.

15. SHARING OF FACILITIES

- 15.01 All the licensed operators shall share the infrastructures as per Infrastructure Sharing Guidelines issued by the Commission. They will only be allowed to build their own network when no existing infrastructure is available which shall be shared with other operators. The pricing for sharing infrastructure (including backbone) shall be as per Infrastructure Sharing Guidelines of the Commission.
- 15.02 Unless expressly exempted, the Licensee shall be bound to obtain necessary permissions under Section 40 of the Act for sharing or leasing of any of its installations or systems or any apparatus, infrastructure or facilities by which BWA Services can be provided.
- 15.03 The Licensee shall comply with the directions of the Commission on network access and facility sharing.
- 15.04 Where it deems necessary, the Commission may direct the Licensee to share facilities and/or infrastructure with other Licensees and the Licensee shall cooperate and work with other Licensees to submit plan for sharing of facilities/infrastructure to the Commission.
- 15.05 The Licensee shall manage its emission which must not cross international border. The licensee(s) shall obtain permission from the Commission to install base station within 8 kilometres from the Bangladesh border.

16. TARIFFS AND PRICING

- 16.01 The Licensee shall, before providing any Services, submit to the Commission in writing:
- a tariff chart / schedule containing the maximum and minimum charges that it proposes to charge for the Services, and its justification for the charges; and

- (ii) the description of the Services, the terms and conditions and all other relevant information which it proposes to publish to its customers. The information to be published must be in a form that is readily available, current and easy to understand.
 - (iii) Subscriber application forms for Services.
- 16.02 The Licensee shall not start providing any Services before obtaining the approval of the Commission for its tariff and shall comply with conditions as may be imposed by the Commission.
- 16.03 The Licensee shall obtain the written approval of the Commission before making any changes to the approved tariff charges.

17. BILLING AND METERING

- 17.01 The Licensee shall provide a clear and concise statement of charges to its subscribers on a timely and regular basis. This statement shall reflect the prices, terms and conditions for any applicable price or service plans which the subscriber has subscribed to and the due date of payment before late charges are incurred. The Licensee shall not bill its subscribers for any charges, which it has not disclosed to the subscribers in its published tariff and/or terms and conditions, or for services that have not been sought for by the subscribers.
- 17.02 The Licensee shall take all reasonable steps to ensure that its billing and metering systems used in connection with the Services are reliable and accurate and capable of providing subscribers with itemized detailed billing if so requested at a reasonable charge for this service. However itemized detailed billing for International Long Distance calls will be provided free of charges.
- 17.03 The Licensee shall keep records of any metering systems used in such form as may be specified by the Commission and shall supply such records as and when called for by the Commission. Any tampering and/or manipulation of the billing system shall result in imposition of penalty by the Commission.

18. NUMBERING AND SIGNALING POINT CODE

- 18.01 The Licensee shall comply with any national numbering plan/grid or the directives of the Commission with regard to the same and abide by all guidelines on usage, allocation and assignment of numbers issued by the Commission. The Licensee shall provide justification for the use of numbers if called for by the Commission, in any application and shall seek to ensure efficient allocation and usage of the numbers amongst its subscribers.
- 18.02 The Licensee shall comply at its own cost, with all requirements, guidelines and directives issued by the Commission on number portability.
- 18.03 Any numbering plan assigned to the Licensee by the Commission is the property of the Commission; the Licensee and its subscribers shall not have proprietary rights in the numbering plan and telephone numbers assigned under the numbering plan respectively. The Commission reserves the right to amend or reallocate any numbering plan upon written notice to the Licensee at the cost, if any, of the Licensee.
- 18.04 The Licensee shall inform the Commission on any arrangements for the allocation and reallocation of numbers and codes within its own numbering plan, and prepare and furnish to the Commission its proposals for developing, adding to or replacing the numbering plan relating to the services.
- 18.05 The Licensee shall ensure that its Systems are upgradeable to number portability as and when the Commission mandates number portability. All expenses in this regard shall be borne by the Licensee.
- 18.06 Applicable numbering plan shall be assigned to the licensees by the commission.

19. NETWORK DESIGN, INTEROPERABILITY AND PUBLIC WORKS

- 19.01 The Licensee shall design and maintain its telecommunication network(s) in accordance with any directions issued by the Commission and shall comply with interoperability and other technical standards prescribed by the Commission.
- 19.02 The Licensee shall not connect to the systems, any equipment or system(s) that does not comply with the national standards for telecommunication apparatus set by the Commission.

- 19.03 The Licensee shall inform the Commission about the network routing used and systems followed for the transmission and reception of messages, signals and other information into and out of its systems.
- 19.04 The Licensee shall prior to any installation or maintenance work on the systems obtain all necessary permissions from the relevant authorities or governmental departments for works on land owned or controlled by any Government or local authority or statutory body, and from the relevant owner or occupier for works on any private land.
- 19.05 The Licensee shall undertake and complete all installation and maintenance work diligently and without delay whilst at all times observing the need for public safety in compliance with local laws and regulations. The Licensee shall at a minimum, fence up the site, install warning lighting at night and reinstate any affected areas to their original condition once the Licensee's work is completed.
- 19.06 If third party owned or Licensed property is affected as a result of the installation and/or maintenance work, the Licensee shall seek the applicable third party's consent prior to displacing or hindering with telecommunication lines, gas or water pipes, drains or sewers, or tubes, casings, ducts, wires or cables or other third party property or equipment.
- 19.07 The Licensee shall be solely liable for any losses, damages, claims, costs or expenses caused, arising from or in connection with any installation and/or maintenance work in public and private areas.

20. LAWFUL INTERCEPTION

- 20.01 All the equipment used by the licensee shall be compliant as per ETSI ES 201 671 v.2.1.1. and CALEA J.25B.
- 20.02 LI system shall be installed with proper redundancy at National Monitoring Center (NMC) including transmission media, other necessary hardware and software for on-line and off-line monitoring, of every exchange.
- 20.03 The licensee shall provide high capacity storage media, as per requirement, to store bulk intercepted products i.e call content etc at NMC premises.
- 20.04 The licensee shall also provide for on-line listening capability of Call Content (CC) and on-line viewing of content as per ETSI and CALEA standard.
- 20.05 Duration of CC storage shall be decided by the Commission in consultation with NMC.
- 20.06 The system shall be capable of sorting and sending data contents to NMC on the basis of the criteria including but not limited to the followings:
- a. Source IP address
 - b. Destination IP address
 - c. E-mail address
 - d. MAC address
 - e. Web address
 - f. Catchy words in e-mail, ftp, chatting
 - g. Type of application
- 20.07 The BWA Licensees shall arrange training programs (at home and abroad) for personnel nominated by the Commission to enable them to monitor BWA System and Services and LI equipment.

21. CDR ANALYSIS SYSTEM

- 21.01 License shall provide an appropriate system to accumulate CDR/IPDR/PDR at NMC and the Commission. Duration of CDR/IPDR/PDR shall be decided by the Commission with consultation with NMC.
- 21.02 The Licensee shall provide an appropriate system to analyze all accumulated CDR/IPDR/PDR. The format and other things shall be as per requirement of the Commission and NMC.

- 21.03 The Licensee shall provide necessary storage, archiving device to retain bulk data/CDR/IPDR/PDR as per the requirement of NMC and the Commission.
- 21.04 The format/coding of CDR/IPDR/PDR shall comply with ETSI and CALEA standard.

22. PERFORMANCE MONITORING BY THE COMMISSION

- 22.01 The Licensee shall provide Operation and Maintenance (O & M) Control Consoles at the Commission premises for inspection and monitoring purpose. The Licensee shall arrange the connectivity of sufficient speed/bandwidth to facilitate smooth monitoring. The terminal must be with original software and hardware to properly communicate with the licensee's O & M software. The Licensee shall extend maintenance support of the supplied system. The Licensee shall provide 5 User license for all the supplied software.
- 22.02 The terminal shall be equipped with sufficient primary storage and external storage to maintain traffic data, log files and CDR dump for 6 (six) months.

23. COMPLAINTS, DISPUTE RESOLUTION AND CONSUMER PROTECTION

- 23.01 In the event of any differences or disputes with the other BWA Licensees or other licensed telecom operators and failure to resolve the differences or disputes amicably among themselves, the Licensee shall refer the matter to the Commission for resolution of the same. The decision of the Commission in that regard will be final and binding.
- 23.02 The Licensee shall prepare a customer charter of rights that sets out the minimum standards of service to the customers/subscribers of the Licensee and gives guidance to the employees of the Licensee in their dealings with customers and subscribers. This charter shall be prominently displayed at all of the premises of the Licensee, and a copy shall be provided to customers upon request.
- 23.03 The Licensee shall publish information about the Services it provides in a form, which is easily available to consumers. This shall cover inter alia a description of the services, the pricing plans, terms and conditions, procedures for billing, bill enquiries and complaints, the provision of fault repair services and all other relevant information relating to the provision of the Services and other telecommunications equipment.
- 23.04 The Licensee shall inform subscribers all of its obligations under this License and in particular apprise its subscribers the obligations of the Licensee of confidentiality and specific use of information.
- 23.05 The Licensee shall operate a consumer friendly system, which will allow subscribers to lodge complaints to the Licensee in the event of a breach of any of the terms of this License.
- 23.06 The Licensee shall submit to the Commission and make publicly available at the end of the Licensee's financial year or upon demand by the Commission, a report indicating the number of complaints received from subscribers, the nature of such complaints and the steps taken by the Licensee to address these complaints. The Licensee shall prepare the report in a format prescribed or approved by the Commission.
- 23.07 In the event of any differences or disputes with other operators and failure to resolve the differences or disputes among themselves, the Licensee may refer the matter to the Commission for resolution of the same. The Commission may decide as it considers appropriate to resolve the dispute and the same shall be binding on the concerned parties.

24. SUBSCRIBER CONFIDENTIALITY

- 24.01 The Licensee shall maintain confidentiality in respect of all information provided by the subscriber except following situations:
- (i) where the disclosure of the information is necessary for the purposes of detecting, preventing or investigating crime in which case disclosure should only be made to persons authorized by the Commission;

- (ii) where disclosure is deemed necessary by the Commission or other national security and law enforcement agencies; and
- (iii) where disclosure is ordered by a court of competent jurisdiction or so provided by law.

24.02 Further, the Licensee may only use any information provided by a subscriber for the following purposes:

- (i) internal planning, provisioning and billing for services;
- (ii) facilitating interconnection and inter-operability between Licensees;
- (iii) other purposes approved by the Commission; and providing assistance to national security and law enforcement agencies as specified by law.

25. DIRECTORY INFORMATION, OPERATOR ASSISTANCE AND EMERGENCY CALL SERVICES

25.01 The Licensee shall provide 24 hour operator assistance services to its subscribers. The Licensee shall exchange relevant subscriber data with other Licensees without charge and maintain an integrated customer/subscriber information database for the purposes of providing directory information and inquiry services to its subscribers or to any person who so requests at a fair and reasonable charge.

25.02 The Licensee shall provide directories for its subscribers or to any person who so requests at a fair and reasonable charge and on a regular basis.

25.03 The Licensee shall ensure that any person connected through customer premises equipment and through public payphones owned or operated by the Licensee, may on a 24 hour basis and without charge, contact emergency services including but not limited to (a) the Police Services, (b) Fire Fighting Services, (c) Ambulance or Emergency Hospital Services and (d) Any other national agencies as directed by the Commission.

26. NATIONAL EMERGENCIES

26.01 Licensee shall facilitate and cooperate with all relevant government bodies, departments and official agencies for the provision of the services in the event of national emergencies or where issues of national security arise.

26.02 In the event of any war or war situation, internal national disorder (including strikes), urgent state of affairs or situations demanding national security, the Government may use equipment and the systems used by the Licensee for its BWA network.

26.03 In case of national emergency, declared by the State/President, the Government may suspend any particular activity of or a particular service provided by the Licensee. For public interest reasons, the Government may take over the possession of the BWA installations along with its employees to operate the Systems during the period of such emergency.

27. ANTI-COMPETITIVE CONDUCT, UNFAIR COMPETITION AND DISCRIMINATION

27.01 **Anti-Competitive Conduct:** The Licensee shall not engage in anti-competitive conduct which in the view of the Commission inhibits or impedes fair competition including exploiting a position of dominance such as to unreasonably restrict competition. Acts of anti-competitive conduct include, but not limited to, the following:

- (a) engaging in predatory price cutting which may be implied where:
 - (i) a service is priced at less than marginal costs for 2 (two) consecutive months;
 - (ii) such costs are likely to price competition out of the market or deter competitors from entering the market;
 - (iii) the Licensee is able to recoup the full amount of the loss incurred during the period of price cutting.

- (iv) engaging in cross subsidizing where the revenues for a service is used to unfairly cross subsidize the price of other services or equipment;
- (v) engaging in unfair pricing such as to reduce or eliminate competition including fixing prices for services or equipment at a level which cannot be re-sold with a margin of profit to subscribers;
- (vi) entering into exclusive arrangements which deny competitors access to services or equipment.

27.02 **Unfair Competition:** The Licensee, on his own or through a third party, shall not engage in any practice which unfairly restricts or is likely to restrict existing competition in the national telecommunications industry or which deters or restricts or is likely to deter or restrict new Licensees into the national telecommunications industry including, but not limited to, engaging in the following practices:

- (i) asserting false or misleading claims on the availability, price or quality of its Services or Systems or the services or systems of any other Licensee or competitor;
- (ii) degrading the availability or quality of a Licensee or competitor's services or systems or unfairly raising their business, operational or technical costs;
- (iii) unlawfully interfering with the suppliers or subscribers of the Licensee or its competitors; or
- (iv) providing false or misleading information to other Licensees or competitors or to any third party.

27.03 **Discrimination:** The Licensee shall not discriminate or create any inconvenience to any person, group or class of persons, nor shall it give any unfair or unreasonable preference to itself or any other person in, amongst other things, the performance, price, terms and conditions of the Services provided.

28. ACCOUNTS

28.01 The Licensee shall maintain separate accounts and other records, in accordance with acceptable accounting practices. The Licensee shall at all times, maintain full and accurate books of accounts and other records reflecting all financial matters, in accordance with the sound and acceptable accounting practices. The Commission reserves the right to issue accounting guidelines to the Licensee from time to time.

28.02 The Licensee shall submit certified copies of its financial records and yearly audited accounts to the Commission. The Commission shall have the access to originals of such records and accounts as and when required.

28.03 The Licensee shall provide an auditing facility that can be accessed by the Commission to verify the reported services revenues. The Commission shall have the access to computerized accounting system of the licensee as and when deemed necessary by the Commission.

28.04 All financial transactions (in local and foreign currency) in relation to the License must be through Scheduled Bank(s) mentioned in the Bangladesh Bank Order, 1972. The Licensee shall inform the Commission of the details of the accounts in operation. The Licensee shall have to submit monthly statement of all the accounts to the Commission within 10th day of the following Gregorian calendar month.

29. CHANGES IN MANAGEMENT STRUCTURE

29.01 The Licensee shall seek written approval of the Commission before making any change in its ownership or shareholding. Any change in the ownership or shareholding shall not be valid or effective without the prior written approval of the Commission.

29.02 The Licensee shall neither transfer any share nor issue new shares without prior written permission of the Commission.

29.03 Any breach of the above conditions contained in this license shall result in cancellation of the license.

30. INFORMATION, INSPECTION AND REPORTING

- 30.01 The Licensee shall furnish necessary information and other related matters as may be sought by the Commission from time to time.
- 30.02 The Commission or any person authorized by the Commission shall have unfettered right and authority to take the copies of records, documents and other information relating to the Licensee's business, for the purpose of enabling Commission to perform its functions under the Act and provisions in the License.
- 30.03 The Commission or its authorized representatives shall have free access to the installations and equipment of the licensee and shall have each and every right and authority to inspect such installations at any time and the Licensee shall always provide all sorts of cooperation and assistance including but not limited to use of suitable office accommodation for the purpose of inspection, tests and monitoring.

31. REPORTS

- 31.01 The Licensee shall furnish to the Commission on quarterly basis the information on the type and capacity of its installations, the number of active subscribers, the number and type of end-user connectivity, pending demand, QoS reports, traffic data of each installation as well as the type and capacity of the transmission links owned and taken on lease. In addition, the Licensee shall also be required to furnish any information on Systems and Services any time if asked for by the Commission.
- 31.02 The Licensee shall publish Annual Report of the company within 3 (three) months of the end of each financial year. The Commission may, from time to time, issue guidelines for the purpose as regards its contents, which will be obligatory on the Licensee to follow. In addition, the Licensee shall submit to the Commission 5 (five) copies of the audited financial statement of the company that will contain its balance sheet, profit and loss account, cash flow statements, plant capacity of local and trunk exchanges, number of subscribers connected or waiting for connection etc.

32. AMENDMENTS

The Commission has the right and authority to change, amend, vary or revoke any of the terms and conditions of this License and also to incorporate new terms and conditions necessary for the interest of national security, or public interest, or any other reason, in consonance with the provisions of the Act and Regulations.

33. TRANSFER, ASSIGNMENT AND PLEDGE AS SECURITY

- 33.01 The Licensee shall take prior written permission of the Commission to take any loan. The License shall not be assigned or pledged as security.
- 33.02 This License and any right accrued hereunder shall not be transferred, wholly or partly, and as such transfer, if any shall be void.
- 33.03 The Licensee shall not subcontract out any part of the Services or the System without prior written permission of the Commission. The Licensee may appoint agents or independent contractors or sub-contractors to carry out works or provide services which enable the Licensee to discharge its duties and obligations under this License provided always that the Licensee shall be liable for any act, omission, default, neglect or otherwise of the agents and independent contractors or sub-contractors in carrying out any such works or providing any such services.

34. FRANCHISING

- 34.01 The Licensee shall provide the Commission with all relevant information on proposed franchisees including the proposed franchising area, the background, financial standing and experience of the franchisee, at least 6 weeks prior to their appointment or engagement for approval. The Commission shall review such information, issue directions and/or disallow the appointment of the franchisee by the Licensee.
- 34.02 The Commission may at any time request for more information on the proposed franchisee or direct the Licensee to provide documentary evidence on various matters including the financial standing of the franchisee.

- 34.03 The Licensee shall ensure that its franchisees comply fully with all the conditions of this License and all applicable laws.
- 34.04 The Licensee shall remain at all times fully accountable and liable for any act, omission, default, and neglect or otherwise of its franchisees.

35. SUSPENSION, CANCELLATION AND FINES

35.01 For Violation of Law or the License:

Violation of any provision of any law or any condition of this License shall render the Licensee to be prosecuted as per the relevant provisions of the relevant Law.

35.02 For Disclosure of Disqualifications of the Licensee:

On the disclosure of any of the disqualifications being suppressed by the Licensee, the License shall be cancelled and the Licensee shall be liable to be punished under the relevant provisions of law.

35.03 For any other reasonable cause:

The License may be cancelled for any reason(s) including but not limited to those described below:

- (i) in the event of the Licensee's liquidation, bankruptcy or state of insolvency, or in the event that an application for declaration of bankruptcy or similar declaration or order is filed by the Licensee itself or a third party against the Licensee;
- (ii) in case the Licensee ceases to carry on business mentioned in this license; or
- (iii) in case the Licensee refrains from complying with any decision or written directive of the Commission.

36. IMPACT OF CANCELLATION OF LICENSE

Cancellation of License for any reason whatsoever shall not prejudice any other legal rights or remedies of the Commission conferred by the Act or any other law for the time being in force or the License. Cancellation shall not relieve the Licensee from any obligations accrued and due under any law or this License.

37. MISCELLANEOUS

- 37.01 The Licensee shall comply with all terms and conditions of this License, applicable legislation including the Bangladesh Telecommunication Act, 2001 and any applicable subsidiary legislation and all directions issued by the Commission from time to time.
- 37.02 The Licensee shall also comply with the provisions of any existing enactment, the rules and regulations made there under by the Government and/or the Commission, and the changes and modifications including any new enactments as may be considered expedient and necessary from time to time.
- 37.03 The Commission reserves exclusive right and authority to explain or interpret any provision of this License, if any confusion arises regarding the actual sense or import of any provision of this License. The explanation of the Commission shall be final and binding on the Licensee.
- 37.04 Violation of any of the conditions of the License shall render the License to be cancelled.
- 37.05 The Schedules annexed herewith shall form integral part of the license.
- 37.06 All correspondences shall be in writing and shall be sent to the Licensee's registered place of business.

37.07 Unless otherwise stated –

- (i) all headings are for convenience only and shall not affect the interpretation of the provisions of this License;
- (ii) the words importing the singular or plural shall be deemed to include the plural or singular respectively;
- (iii) any expression in masculine gender shall denote both genders;
- (iv) any reference in this License to a person shall be deemed to include natural and legal persons;
- (v) all references to legislation or guidelines or directions issued by the Commission shall include all amendments made from time to time;
- (vi) the term ‘or’ shall include ‘and’ but not vice versa;
- (vii) any reference in this License to “writing” or “written” includes a reference to official facsimile transmission, official e-mail, or comparable means of communication;
- (viii) references to Clauses, Sub-Clauses, Annexure and Schedule are to Clauses, Sub-Clauses, Annexure and Schedule to this License, respectively.

37.08 None of the provisions of this License shall be deemed to have been waived by any act of or acquiescence on the part of the Commission, but only by an instrument in writing signed / issued by the Commission. No waiver of any provision of this License shall be construed as a waiver of any other provision or of the same provision on another occasion.

37.09 This License shall be governed by and construed in accordance with the laws of Bangladesh.

Signed on thisday of, 2008.

for and on behalf of the

Bangladesh Telecommunication Regulatory Commission

Commissioner

Chairman

SCHEDULE- 1

INTERPRETATIONS, DEFINITIONS AND ABBREVIATIONS

Unless the context otherwise requires, the different terms and expression used in the License shall have the following meaning assigned to them.

1. **“Access Network Service Operators (ANS Operators)”** means the PSTN, Cellular, Cable Service Provider and ISPs who have a direct access with the subscribers.
2. **“Act”** means the Bangladesh Telecommunication Act, 2001 (Act No. XVIII of 2001).
3. **“Application form”** means a form prescribed for applying for the license for the operation of BWA services.
4. **“BTCL”** means the Bangladesh Telecommunications Company Limited under the Bangladesh Telegraph and Telephone Board Ordinance, 1979 and any of its successors.
5. **“Broadband Wireless Access (BWA)”** means high speed mobile wireless internet access and the subscribers will be allowed to use their equipment as fixed, nomadic or mobile.
6. **“Call Detail Record (CDR)”** is generated by all types of switch and HUB in the form of binary or any other form of file that includes all types of records of outgoing and incoming calls such as caller and called party number, origin and destination of calls, call duration, calling time, location, etc.
7. **“Commission”** means the Bangladesh Telecommunication Regulatory Commission established under the Bangladesh Telecommunication Act, 2001.
8. **“Family”** means the husband or a wife, the dependent father, mother, brother or sister, son or daughter.
9. **“Government”** means the Government of the People’s Republic of Bangladesh.
10. **“ILDTS Policy 2007”** means the International Long Distance Telecommunication Services Policy 2007 of Bangladesh.
11. **“Interconnection”** means the visible or invisible or physical or logical linking of more than one telecommunication network in order to enable the users of one network to communicate among themselves or to communicate with the users of another network or to avail themselves of the service of the other network.
12. **“Interconnection Exchange (ICX)”** refers to switching system which provides interconnections among the existing/future telecommunication network of the operators and allows monitoring, Lawful Interception (LI) facilities and roaming number portability.
13. **“International Gateways (IGWs)”** are switching systems through which international voice traffic (VoIP and Clear Channel) is sent and received. IGW allows physical monitoring of the traffic flow.
14. **“ITU”** means International Telecommunication Union.
15. **“Infrastructure”** means All telecom related equipment (Hardware and Software) including BWA equipment
16. **“License”** means an authorization issued by the Commission under Section 36 of the Act, and Regulations issued by the Commission for establishing, operating and maintaining BWA systems and services.
17. **“Licensee”** means the holder of this License i.e. the person titled asto whom the Commission has issued this License.
18. **“Multi Router Traffic Grapher (MRTG)”** is a tool to monitor the traffic load on network-links. MRTG generates HTML pages containing GIF images and also other formats which provide live visual representation of traffic. It allows the user to see traffic load on a network over time in graphical form.

19. **“Next Generation Network (NGN)”** is a packet based network able to provide services including telecommunication services and able to make use of multiple broadband, QoS-enabled transport technologies and in which service related function are independent from underlying transport related technologies. It offers unrestricted access by users to different service providers. It supports generalized mobility which will allow consistent and ubiquitous provision of services to users.
20. **“Number Portability”** is the term used to describe capability of individuals, business and organizations to retain their existing telephone number(s) and the same quality of service when switched to another local service provider.
21. **“NTP”** means the National Telecommunication Policy, 1998 of Bangladesh.
22. **“Operator”** means an organization or a person licensed for establishing or operating a telecommunication system or providing telecommunication service or operating a system which is the combination or more than one of those facilities.
23. **“PBG”** means Performance Bank Guarantee from a scheduled Bank mentioned in Bangladesh Bank Order 1972 (P.O. No. 127 of 1972).
24. **“Point of Presence (POP)”** means setting up of switching centre and transmission centre of appropriate capacity to provide on-demand service of prescribed quality and grade of service in a non-discriminatory manner.
25. **“Point of Interconnection (POI)”** means the physical location at which two or more networks interconnect through switches, nodes or other facilities and offering access to the operator/service operators.
26. **“Packet Switching”** is a method to move data around on the Internet. In packet switching, the data is broken up into chunks, attached with address and allows many people to use same line at the same time.
27. **“Quality of Service (QoS)”** is evaluated on the basis of measures on the grade of service, calls lost due to wrong processing, bit error rate, response time, acceptable number of faults per unit subscribers served, and Mean Time To Restore (MTTR), faults carried over beyond the MTTR, etc.
28. **“Quarter”** means a period of three months.
29. **“Regulation”** means, regulations made or will be made in the future by the Commission under the Act.
30. **“Session Initiation Protocol (SIP)”** is an application layer protocol that uses text format messages to setup, manage and terminate multimedia communication sessions. SIP enables the audio signals and dialled digits to be converted into packets that can be routed through a data network i.e. internet.
31. **“SS7”** means signalling system number 7 which is an ITU-T common channel signalling protocol.
32. **“Telecommunication”** means transmission and reception of any speech, sound, sign, signal, writing, visual image and any other intellectual expression by the way of using electricity or electro-magnetic or electro chemical or electro-mechanical energy through cable, radio, optical fibre or other electro- magnetic or electro chemical or electro-mechanical or satellite communication system.
33. **“Telecommunication Service”** means any of the following services:-
 - 33.01 Transmission or reception, with the help of a telecommunication system, or anything that falls within the purview of the definition of telecommunication.
 - 33.02 Any value added telecommunication service (e.g. fax, voice mail, paging service).
 - 33.03 Internet services.
 - 33.04 Supply of information or directory relating to a telecommunication system for the convenience of using a service mentioned in (33.1), (33.2) and (33.3) above.
 - 33.05 A service for installation or a service relating to the adjustment, alteration, repair, moving or replacement of such apparatus.

34. **“Telecommunication System”** means a combination of the telecommunication apparatus (e.g. switching system, transmission apparatus, terminal apparatus, satellite, etc.) whether or not these equipment are visibly connected with one another, or whether or not they are combined in using the transmission or reception of any information or message.
35. **“tElephone Number Mapping (ENUM)”** is mapping of “Telephone Numbers” to Uniform Resources Identifiers (URIs) using the Domain Name System (DNS) in the domain e164.arpa. ENUM enables the convergence between the PSTN/PLMN and Internet.
36. **“Tariff”** means rates, charges payable by a subscriber/party for service provided and related conditions at which telecommunication services may be provided including rates and related conditions at which messages shall be transmitted, deposits, installation fees, rentals, free calls, usages charges and any other related fees or service charge.
37. **“Voice over Internet Protocol (VoIP)”** is the routing of voice conversations over the Internet or any other IP network. The voice data flows over a general-purpose packet-switched network, instead of the traditional dedicated, circuit-switched voice transmission lines.
38. **“Virtual Private Network (VPN)”** usually refers to a network in which some of the parts are connected using the public internet but the data sent across the internet is encrypted, so the entire network is “Virtually Private”.

39. Abbreviations

39.01	ANS	-	Access Network Services.
39.02	ASCII	-	American Standard Code for Instruction Interchange
39.03	ASNs	-	Autonomous System Numbers
39.04	APNIC-		Asia Pacific Network Information Centre
39.05	BHCA	-	Busy Hour Call Attempts
39.06	BNS	-	Backbone Network Service.
39.07	BPO	-	Business Process Outsourcing.
39.08	BTCL	-	Bangladesh Telecommunications Company Limited.
39.09	BWA	-	Broadband Wireless Access
39.10	BDIX	-	Bangladesh Internet Exchange
39.11	BDNIC-		Bangladesh Network Information Centre
39.12	BDNIX-		Bangladesh National Internet Exchange
39.13	BSIX	-	Bangladesh Society of Internet Exchange
39.14	CALEA-		The Communication Assistance for Law Enforcement Act (US)
39.15	CCS7	-	Common Channel Signalling No. 7
39.16	CDR	-	Call Detail Record.
39.17	THE COMMISSION	-	Bangladesh Telecommunication Regulatory Commission.
39.18	DDF	-	Digital Distribution Frame
39.19	DDCSPs-		Domestic Data Communication Service Providers

39.20	DSL	-	Digital Subscriber Line
39.21	DTH	-	Direct-to-Home
39.22	ENUM	-	tElephone NUmber Mapping.
39.23	ETSI-ES	-	European Telecommunications Standard Institute- European Standard
39.24	FTTx	-	Fibre To The X (endpoint, e.g.,to the home, premises)
39.25	GDP	-	Gross Domestic Product
39.26	ICX	-	Interconnection Exchange.
39.27	IEC	-	International Electrotechnical Commission
39.28	IETF	-	Internet Engineering Task Force
39.29	IGW	-	International Gateways.
39.30	ILDTS	-	International Long Distance Telecommunication Services.
39.31	IP	-	Internet Protocol.
39.32	IPO	-	Initial Public Offer.
39.33	ISO	-	International Organization for Standardization
39.34	ISP	-	Internet Service Provider.
39.35	IX	-	Internet Exchange.
39.36	IANA	-	Internet Assigned Numbers Authority
39.37	ICANN	-	Internet Corporation for Assigned Names and Numbers
39.38	IPLC	-	International Private Leased Circuit
39.39	ICT-		Information and Communication Technology
39.40	ITU	-	International Telecommunication Union
39.41	Kbps	-	kilo bits per second
39.42	LEA	-	Law Enforcing Agencies
39.43	LI	-	Lawful Interception.
39.44	LAN	-	Local Area Network
39.45	MDGs	-	Millennium Development Goals
39.46	MoPT	-	Ministry of Post and Telecommunication
39.47	MRTG	-	Multi Router Traffic Grapher.
39.48	NGN	-	Next Generation Network.
39.49	NMC	-	National Monitoring Centre
39.50	NIX	-	National Internet Exchange
39.51	POP	-	Point of Presence.
39.52	POI	-	Point of Interconnection.

39.53	PLMN	-	Public Land Mobile Network.
39.54	PSTN	-	Public Switched Telephone Network.
39.55	PRS	-	Poverty Reduction Strategy
39.56	REB	-	Rural Electrification Board
39.57	QoS	-	Quality of Service.
39.58	SIP	-	Session Initiation Protocol.
39.59	SLA	-	Service Level Agreement
39.60	STM-x	-	Synchronous Transfer Mode (Fibre Channel Card)
39.61	SEA-ME-WE4	-	South East Asia-Middle East-West Europe 4 project
39.62	SMEs	-	Small and Medium-sized Enterprises
39.63	VoIP	-	Voice over Internet Protocol.
39.64	VPN	-	Virtual Private Network.
39.65	VSAT	-	Very Small Aperture Terminal.
39.66	WiFi	-	Wireless Fidelity
39.67	WiMAX	-	Worldwide Interoperability for Microwave Access

SCHEDULE -2

PRO-FORMA OF SECURITY DEPOSIT AS BANK GUARANTEE

[Non-Judicial Stamp]

[Date]

[Name of Bank] (Hereinafter called the Bank)

[Address]

To: The Bangladesh Telecommunication Regulatory Commission.

[Address]

Dear Sirs

Subject: Bank Guarantee No.: dated: for Tk. 15,00,00,000.00
(Taka fifteen crore) (BDT 150 million) only in favour of “The Bangladesh Telecommunication
Regulatory Commission” as security deposit

This Bank Guarantee (hereinafter called the Guarantee) is issued pursuant to the clause..... of the license no. ----- dated ----- for operating and maintaining of BWA Services in the country granted to ----- (hereinafter called the licensee) by the Bangladesh Telecommunications Regulatory Commission (hereinafter called the Commission) under the Bangladesh Telecommunication Act, 2001.

This Guarantee will serve as security deposit for fulfillment of Licensee's obligations under the terms and conditions of the License.

The Bank hereby irrevocably guarantees and undertakes to pay to the Commission, any or all sums up to the amount stipulated in Form-1 and annexed hereto and in accordance with the following terms and conditions:

- (a) Payment shall be made by the Bank within the same business day of the receipt of any written demand by the Commission;
- (b) The written demand by the Commission is made substantially in the form in the annexed Form-3 and executed by an authorised representative of the Commission;
- (c) Payment is made unconditionally and without reservation including the need for any reference to a third party or the Licensee and without the need for any evidence or proof;
- (d) Payment is to be made in Taka by crossed cheque in favour of:

The Bangladesh Telecommunication Regulatory Commission

This Guarantee is irrevocable and shall remain in force for 5 (five) years from the date hereof.

The Bank shall not be discharged or released from its obligations under this Guarantee unless it has paid any or all sums up to the amount as stated in Form-1 and Form-2 or the Licensee has achieved all its targets under terms and conditions of the license and this has been confirmed in writing by the Commission.

This Guarantee shall be governed and construed in accordance with the relevant laws of Bangladesh.

Signed by,

for and on behalf of:

Name of Bank

Witnessed by:

Signature

Name

Address

date

FORM-1**ROLLOUT OBLIGATIONS AND REDUCTION IN BANK GUARANTEE****1. ROLLOUT OBLIGATION****1.01 COVERAGE:**

Broadband Penetration Targets to be fulfilled by the licensees by connecting:

A. First Year: Areas to be covered by the end of first year of issuance of license

- (i) The operators, within 1 year of issuance of license, shall have to install minimum 5 operational full fledged Base Transceiver Station (BTS) radio sites in areas covering each Divisional Headquarters (including the whole District), minimum 3 operational full fledged Base Transceiver Station (BTS) radio sites in each category-A districts, minimum 2 operational full fledged Base Transceiver Station (BTS) radio sites in each category-B districts and minimum 1 operational full fledged Base Transceiver Station (BTS) radio site in each category-C districts.

Divisional Headquarters (including the whole District)	No. of BTS
Barisal	5
Chittagong	5
Dhaka	5
Khulna	5
Rajshahi	5
Sylhet	5

Category-A	
District	No. of BTS
Bogra	3
Brahmanbaria	3
Comilla	3
Dinajpur	3
Feni	3
Gazipur	3
Jessore	3
Mymensingh	3
Narayanganj	3
Noakhali	3
Norshindi	3
Rangpur	3

Category-B	
District	No. of BTS
Chandpur	2
Cox's Bazar	2
Faridpur	2
Gopalganj	2
Habiganj	2
Jamalpur	2
Jhenaidah	2
Kishoreganj	2
Kushtia	2
Lakshmipur	2
Magura	2
Manikganj	2
Moulvi Bazar	2
Munshiganj	2
Madaripur	2
Natore	2

Category-C	
District	No. of BTS
Bagerhat	1
Bandarban	1
Barguna	1
Bhola	1
Chuadanga	1
Gaibandha	1
Jaipurhat	1
Jhalakathi	1
Khagrachari	1
Kurigram	1
Lalmonirhat	1
Meherpur	1
Nawabganj	1
Nilphamari	1
Narail	1
Panchagarh	1

Netrokona	2	Priajpur	1
Naogaon	2	Rangamati	1
Pabna	2	Rajbari	1
Patuakhali	2	Sunamganj	1
Satkhira	2	Thakurgaon	1
Shariatpur	2		
Sherpur	2		
Sirajganj	2		
Tangail	2		

(ii) 20% Upazilas and 10% of villages of Bangladesh.

B. Second Year: Areas to be covered by the end of second year of issuance of license

- (i) 40% Upazilas and 20% of villages.
- (ii) All Universities, Medical and Engineering Colleges and research institutes in public sector.
- (iii) All Ministries, Divisions, Attached Departments, Government Boards, Corporations, Semi-government and Autonomous organizations, Commissions, Statutory bodies.
- (iv) 50% of secondary educational institutes in district headquarters and 25% of secondary educational institutes at Upazila headquarters.
- (v) All local government institutions (e.g. City Corporation, Municipality/Pourasava) up to district level.

C. Third Year: Areas to be covered by the end of third year of issuance of license

- (i) 60% Upazilas and 30% of villages.
- (ii) All Universities, Medical and Engineering Colleges and research institutes in private sector.
- (iii) All public libraries.
- (iv) 50% of higher secondary educational institutes situated at district headquarters.
- (v) 50% of secondary educational institutes in district headquarters and 25% of secondary educational institutes at Upazila headquarters.

D. Fourth Year: Areas to be covered by the end of fourth year of issuance of license

- (i) 80% Upazilas and 40% of villages.
- (ii) All higher secondary educational institutes situated at district headquarters.
- (iii) All secondary educational institutes in district headquarters and 50% of secondary educational institutes at Upazila headquarters.
- (iv) All local government institutions (e.g. City Corporation, Municipality/Pourasava) up to district level.

E. Five Year: Areas to be covered by the end of fifth year of issuance of license

- (i) All Upazilas and villages and connectivity to community access points.
- (ii) All higher secondary, secondary and primary educational institutes.
- (iii) All cultural centres, museums, post offices and archives.
- (iv) All Union Parishad Offices.

1.02 ANNUAL CUMULATIVE BWA SUBSCRIBERS:

The annual cumulative BWA subscribers to be achieved by the licensee(s) are as below:

Year	Minimum Cumulative BWA Subscribers in Service
1 st	25,000
2 nd	75,000
3 rd	1,75,000
4 th	2,50,000
5 th	5,00,000

2. REDUCTION OF PERFORMANCE BANK GUARANTEE PROPORTIONATELY

The Licensee having discharged all its obligations under the License and meeting the targets set by the Commission, as determined solely by the Commission; the value of the Guarantee shall be reduced in the following manner:

Year	% reduction in PBG Amount (15% from coverage)		% reduction in PBG Amount (05% from cumulative BWA subscriber)	
	%	Amount to be reduced	%	Amount to be reduced
1 st	15%	Taka 2.25 Crore [BDT 22.5 Million]	05%	75 Lacs [BDT 7.5 Million]
2 nd	15%	Taka 2.25 Crore [BDT 22.5 Million]	05%	75 Lacs [BDT 7.5 Million]
3 rd	15%	Taka 2.25 Crore [BDT 22.5 Million]	05%	75 Lacs [BDT 7.5 Million]
4 th	15%	Taka 2.25 Crore [BDT 22.5 Million]	05%	75 Lacs [BDT 7.5 Million]
5 th	15%	Taka 2.25 Crore [BDT 22.5 Million]	05%	75 Lacs [BDT 7.5 Million]

Any reduction in the value of the Guarantee shall not have effect unless the Licensee has submitted a request for reduction in the form annexed and the Commission has confirmed in writing the reduction.

If the targets are not met, the Commission shall call on the Guarantee for the amount indicated in column B & C above.

FORM – 2

FORM FOR REDUCTION OF GUARANTEED AMOUNT

[Letterhead of Licensee]

[Date]

To: The Bangladesh Telecommunication Regulatory Commission

[Address] House No. 10, Road No. 135, Gulshan-1, Dhaka-1212.

Dear Sir,

SUBJECT: REQUEST FOR REDUCTION IN PERFORMANCE BANK GUARANTEE

This is with reference to the performance bank guarantee dated [date] (hereinafter called the **Guarantee**) issued by [Bank] on behalf of [Licensee].

We confirm that we have discharged all of our obligations under the License and have achieved the following target set by the Commission based on our plans submitted under terms and conditions of the License and as repeated hereunder:

<i>Year</i>	<i>Actual Broadband Penetration Target Achieved</i>	<i>Actual Broadband Penetration Target to be Achieved by the Licensee</i>	<i>Actual Cumulative Subscribers in Service</i>	<i>Actual Cumulative Subscribers Target to be Achieved by the Licensee</i>	<i>% Reduction in Guarantee</i>	<i>Guarantee Value (Taka)</i>
[]	[]	[]	[]	[]		

We wish to request that the Guarantee be reduced accordingly.

[Name of authorised representative of Licensee]

for and on behalf of

[Licensee]

FORM - 3

[Letterhead of the Commission]

[Date]

To: [Name of Bank]

[Address]

SUBJECT: REQUEST FOR PAYMENT AGAINST PERFORMANCE BANK GUARANTEE

Dear Sir,

This is with reference to the Performance Bank Guarantee dated [] issued by you on behalf of [Licensee].

We wish to inform you that [Licensee] has failed to meet its obligations under the License. As such, the Commission is empowered to encash the PBG and you are hereby requested to do so in accordance with the terms and conditions of the Performance Bank Guarantee. The amount to be encashed is Tk.
.....

[Name of Authorized Representative of the Commission]

for and on behalf of

Bangladesh Telecommunications Regulatory Commission

Answers to queries /Modification/Amendment/Change in the Regulatory and Licensing Guidelines for Invitation of Proposals/Offer for Issuing License for Establishing, Operating and Maintaining Broadband Wireless Access Services in Bangladesh, consequent to the Pre-offer/Pre-bid meeting of Broadband Wireless Access Services License on 20 of August, 2008 in the BTRC.

The following Answers to queries/Modification/Amendment/Change are made in the Regulatory and Licensing Guidelines for Invitation of Proposals/Offer consequent to the Pre-offer/Pre-bid meeting of Broadband Wireless Access Services License on 20 of August, 2008 in the BTRC.

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
1	3	Eligibility (Local & Foreign Partnership)	(i) Is it necessary to register a local company in order to participate in the tender or we can participate on behalf of the foreign company and show a frame agreement with a local company for the partnership.	The applicants may apply for the license as a consortium stating the name of the proposed company and stating the shareholding structure therein, but such proposed company must be incorporated with Registrar of Joint Stock of Companies and Firms in Bangladesh and proof of such incorporation must be submitted to the Commission before issuance of License. The applicant must form a company before issuance of license keeping in line with clause 4.06(vi) at page 6 of the Guidelines.
2	3.02	BWA Service	Are BWA services limited to "High speed mobile wireless internet service " only (referee clause 3.02)? There could be many kinds of services that may require broadband access. How does BTRC define the are/boundary of BWA services? Will it be necessary to take additional licenses for BWA services other than internet as BTRC is thinking about VAS licenses or if only BTRC approval is enough?	All VAS requires approval from Commission. Depending upon the VAS, separate license may be required.
			Shall BWA license cover other (future) technologies other than WiMAX in the broadband wireless access area?	BWA License shall only cover what is popularly known as Wi-MAX based on IEEE 802.16e as base standard and its evolutions as per Clause 8.01 at page 6 of the guidelines.
			We are a CDMA fixed wireless operator can we use both the technology at same time? Can we offer CDMA mobile to them?	The two licenses, i.e. PSTN license and BWA License, are for two separate services and respective licensing conditions of the separate licenses shall prevail.
			Please clarify in what spectrum band BTCL will be licensed to operate.	2.5 GHz
			What spectrum will be offered to the BTCL	
			Whether the BTCL will be subject to the same rollout obligation as other licensees defined in Section 20	Yes.
			Whether the BTCL will be restricted from using fiber and cable last mile connectivity in Dhaka and Chittagong as defined in 8.02	BTCL will follow same licensing condition as defined in clause 8.03.
			Whether BTCL will be subject to the same revenue sharing, spectrum charges and performance bank guarantee arrangements as other licensees	Yes.

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
3	4.02	Fourth Licensee's Spectrum	What spectrum and bandwidth is going to be the incumbent BTCL? Will any terms or conditions of the BTCL license differ from those of the other three licensees? For example, will BTCL have to use 5 MHz of its spectrum as a guard band? Is BTCL considered a dominant operator, and are there any competition safeguards imposed on BTCL? Is BTCL required to interconnect with operators at any points?	35 MHz from 2.5 GHz Band. They are not considered as dominant operator. They will be treated as like as any other operator under the same licensing conditions.
			The provision for reserving an additional BWA License for BTCL is discriminatory and does not ensure proper level playing field. Furthermore, there is no time limit imposed on BTCL to apply for this license. - We would request the commission to clarify, in writing, how it will ensure non-discriminatory level playing field for provision of nationwide BWA services if the fourth BWA License is issued to BTCL.	BTCL will be treated as like as any other operator under the same licensing conditions.
4	4.06	Eligibility	(i) Foreign equity is limited to maximum 60%. Please clarify that the 60% foreign equity can be split among multiple foreign shareholders (i.e. more than one foreign shareholder is acceptable provided that the foreign shareholders in total do not own more than 60% of the equity).	Yes.
			(ii) In relation to FDI, please clarify whether a mix of foreign and NRB equity totaling up to 70% acceptable or not? [For example, foreign equity = 60% and NRB equity = 10%]	NRB or foreign entity must have a Bangladeshi partner(s). A partnership/consortium of NRB and foreign entity without Bangladeshi partner(s) is not eligible. In case of NRB and foreign entity applying together with Bangladeshi partner, foreign equity from foreign entity shall not exceed 60% and the total foreign equity (both NRB and foreign entity) shall not exceed 70%. In any case Bangladeshi partner(s) shall hold minimum 30% equity.
			why there is a requirement for an IPO to be filed 3 years after the licenses obtained? This is a sovereign decision within the company itself, and if it has all the financial, technical etc. potential this may not be necessary and in fact jeopardize the proper functioning of the company.	Provisions of the guidelines shall prevail.
			Does this FDI clause apply to Equity only or does it apply to Debt funding as well?	Yes
			Does this FDI prohibit the company to borrow money from the local lenders?	yes, provisions of the guidelines shall prevail.
			What are the conditions of the IPO, which percentage of the company shall we float and how much of the float will involve the sale of existing shares versus new shares?	The rules and regulations of Security Exchange Commission shall dictate the matter.

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
			Licensees must file for IPO within 3 years. Can you confirm whether this must be done in Bangladesh exclusively?	Yes the requirement to issue IPO is only limited to Bangladesh.
			(vi) This states that the licensee has to file for IPO within the 3 years of the issuance of the license. Please can the Commission confirm whether the IPO must occur within this period?	Yes.
5	8.00	Services	Is IPTV going to be included under the same license for Broadband Wireless Access (BWA) ?	No.
			Are video on demand and online gaming going to be included in the product and services portfolio once an operator gets a Broadband Wireless Access (BWA) service license ?	All VAS requires approval from Commission. Depending upon the VAS, separate license may be required.
6	8.01	Network and Services	Is the BTRC prohibiting upgrades from IEEE 802.16e, such as the WiMAXm, without its approval?	Refer to clause 8.01 at page 6 of the guideline.
7	8.02	Contention Ratio of the Backbone	<p>The contention ratio for backbone connectivity should be 8:1; can the contention ratio at the retail level (i.e. to end users) be higher?</p> <p>1:8 contention ratio is unacceptable from a cost perspective and is the BTRC ready to accept the usual standard of the industry 1:57?</p> <p>In the minimum 128 kbps download rate meant to be provided on a committed, guaranteed rate or on a best effort basis? If it is to be a best effort basis, is the 128 kbps simply meant to be the minimum service package offered?</p> <p>Utilizing best effort service and not being able to manage the location of the CPE nor the customer behavior, will not allow for any guarantees on the 128kbps data rate-There should be a SLA for this requirement that is not more than 90% of the usage time. Is this acceptable?</p> <p>"The contention ration must be 1:8 (maximum) at the backbone connectivity", clause 8.02-Could you please explain the technicality of the statement a bit in detail?</p> <p>Clarification is needed on this section regarding the download ratio. For an operator offering a 1Mb/s service with the mandated contention ratio of 8:1, a bandwidth reservation of 125kb/s per subscriber will be required on the international backhaul. Current international backhaul rates at the IIG are 32,56,000 Tk per STM-1 per month = 2625 Tk/125kbit/s/month. This cost of 2625 Takas per month per customer appears to be unaffordable for most of the population. Is this interpretation of the requirement correct ?</p>	Contention ratio for normal home users is set to be a maximum of 1:20. For Corporate clients, Special users contention ratio is as per SLA done with user.

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
			Current pricing for the IIG to customers appears to be very high as stated above at 2,625Tk / subscriber / month. This means that the pricing is out of range of many Bangladeshis. What action will the Commission take to ensure that pricing reflects underlying costs so that economies of scale can be passed on and the service be affordable to consumers?	
			This section requires a specific upload/download ratio. Is it planned to vary the upload/download ratio during the license term in order to maximize spectrum utilization? Or is the 1:4 ratio fixed for the duration of the license?	As per traffic demand, the ratio may be varied.
			Given that the licensee is required to ensure throughput up to the first overseas internet entry point, is the BTRC prohibiting or not requiring interconnection with BTCL? If not, can the licensee sign an interconnection agreement with BTCL with an SLA to meet his requirement?	The licensee shall enter into SLA with IIG.
8	8.03	Backhaul fiber	Please provide details regarding not using the fiber and cable as a last mile backhaul for Dhaka and Chittagong?	Provisions of the guidelines shall prevail.
			Can we build our own fiber network?	Refer to clause 21 at page 13 of the guideline.
			Is the ISM band at 2.4 or 5.7G protected by licensing? Who is allowed to license these ISM bands?	Refer to Wi-Fi Guidelines.
			In clause (8.03), it is stated that the BWA License will not be allowed to provide wired service as last mile solutions in Dhaka & Chittagong Metropolitan Area. Kindly be informed that restriction for providing wired services in Metropolitan area will inhibit large scale deployment of IP telephony services by the BWA licensee. - Please clarify, the commission's rationale on restriction for providing wired service as last mile solution in Dhaka & Chittagong metropolitan area.	Provisions of the guidelines shall prevail.
9	8.05	Other value added services	Which services can be provided under "voice application"	IP Telephony Services
			Please define what value added services are precluded or allowed. For example, email, website hosting, web site design, etc. can be considered value added services. Is a licensee prohibited from offering such basic value added services without BTRC approval, or is there any risk of further revenue split in addition to the royalty fee with the BTRC on those services?	All VAS requires approval from Commission. Depending upon the VAS, separate license may be required.

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
10	8.07	Interference	This section states that it is the responsibility of the WiMAX operator to make arrangements to overcome interference problems affecting existing operators. We suggest that any interference to existing operators should only cover <u>out of band</u> emissions of the WiMAX operators. If an existing network is sensitive to interference within the 2.3GHz or 2.5GHz band then it could make it impossible for the WiMAX operators to operate their networks. We request that this be clarified to address out of band emissions only.	This is applicable in case of out of band emission only. For illegal operators, appropriate action will be taken by the Commission.
			Licensees have no authority whatsoever to force another party, be it another licensee or an illegal broadcaster, from stopping interference in its band. As a result, the licensee will have no other recourse then to limit the spectrum that it uses beyond the guard bands required by the BTRC. Does the BTRC really expect that a licensee has to limit its spectrum usage to adjust to interference in spectrum that it has paid for in an auction and continues to pay for with other fees? Is the BTRC not willing to enforce and guarantee interference free spectrum? Is the BTRC willing to rebate auction pricing or annual frequency fees if the licensee is forced to reduce its usage of its spectrum due to interference that the BTRC fails to mitigate?	
11	8.09	QoS	When will the QoS guideline be provided by the Commission?	The QoS guideline will be published shortly.
			What are the QoS requirements and at what network elements? Can the BTRC provide some KPIs?	
			Please provide QoS requirements for the requested voice service?	
12	8.10	IP Telephony service	Does the WiMAX license come with VoIP license? Meaning, can a WiMAX operator route phone calls as data through IGW to international destinations?	Refer to clause 9 at page 7 of the guidelines.
			Whether this license allows us to terminate voice traffic into Bangladesh of other mobile & fixed operator.	No.
			How long the existing ISP license holders will be allowed to continue providing wireless fixed internet connectivity?	refer to clause 11 at page 8 of the guidelines.
			Will BTRC allow IP telephony to the existing ISP license holders?	ILDTS Policy 2007 states that IP Telephony license shall be granted to ISP licensee only.

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
13	8.11	Domestic Roaming	The existing IIG (BTCL) has access at both Dhaka and Chittagong while the new IIG will start operation in Dhaka only. Please clarify whether new BWA operators are allowed to route the data traffic through the BTCL IIG at Chittagong besides the connectivity at Dhaka?	Yes.
			what is meant by the term domestic roaming in BWA License guideline by the honorable commission	Refer to clause 8.11 at page 7 of the guidelines
			How will BTRC will guarantee the bandwidth requirements are met by the IIG and how the bandwidth price is to be set?	BWA operator shall execute SLA with IIG operator for availability of required bandwidth. The bandwidth price is set by IIG and is approved by the Commission following legal prescription.
			Can the Regulator provide ICX and IGW in multiple points of presence rather than in a single point? Also, the requirement for inter operator roaming should not be simply based on technology availability, especially if the technology is proprietary or expensive. Will the BTRC apply the requirement only when a standardized technology will be made available?	ICX will be available in multiple locations. Licensees will only connect to ICX for voice calls. The inter-operator roaming is mandated when standardized technology is available.
14	8.12	Proposed technology	The requirement to indicate the proposed technology is problematic given that a bidder may see one spectrum band (such as 2.5 GHz) and end up with another band (e.g., 2.3 GHz). Given that, does the BTRC require a bidder to provide information on both possibilities?	The applicant should be ready with both the bands.
15	8.13		what is meant by interoperability "facility"? Does it mean CPE's of different vendor with the same band can be operated on the proposed network?	Yes.
16	8.15		Are they any villages within the 8-km band from the border that need to be covered as per the coverage obligations?	Yes.
17	9.01	Jurisdiction of the License	Is licensee allowed to get a IGW license as well? How? What terms?	No.
			For the BWA operator, it will be very easy to terminate/originate international voice calls over IP to subscribers via IIG bypassing the ICX/IGW. What safeguards are being envisaged for its prevention?	IIG have required safeguards and the Commission shall monitor.
18	9.02		Is it a standard or can we use only one ICX, as this incurs additional costs, in particular during the first years of services?	Provisions of the guidelines shall prevail.
19	9.03		Please confirm whether licensees will be required to purchase full access to internet through the IIG or whether the IIG can be used to provide access to SEA-WE-ME4 cable or other infrastructure	They have to purchase bandwidth from IIGs only.

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
20	10.02, 10.05	Spectrum Assignment	The guidelines specify that each operator will keep the upper 5 MHz as guard band. At present, it is unclear if the WiMAX operators would be protected from interference also at the lower end of their allocated spectrum. We would like to be able to offer 3 times 10 MHz channels. This requires a 5 MHz guard band on either side. Please clarify that any spectrum allocated in the future will be allocated on the condition that the new spectrum holder will also be required to keep 5 MHz clear as a guard band at the upper end of any new spectrum.	Operator A [2330-2365 MHz], Guard band [2360-2365] MHz Operator B [2365-2400 MHz], Guard band [2395-2400] MHz Operator C [2585-2620 MHz], Guard band [2615-2620] MHz
			What interference protection will be provided at the bottom of the Operator A band as well as operator C band as 8.07 clause still applies?	
			Can the Regulator confirm that the same band and amount of bandwidth, including lower and upper guard band, will be available after re-farming the spectrum within the band?	
			Please provide the total spectrum allocations for the 2.3G and 2.5G bands? Provide the before and after allocations and to which operator and what type of technologies are being deployed on these bands.	Sufficient guard band has been ensured to avoid interference between WiMAX and non WiMAX operators.
			Can two operators join to utilize the guard bandwidth between them?	No.
21	10.07	Coordination agreement	What is the "Coordination Agreement"	A coordination agreement is required for harmonisation of spectrum
22	10.09	Spectrum Assignment/back haul	Two pairs of frequency at 18 GHz or higher band have serious limitations in relation to capacity and hop-length. This will increase CAPEX and OPEX due to the large number of additional Microwave Links. There will also be frequency interference which will adversely affect the Quality of Service.	Due to Insufficiency of available spectrum to accommodate all the operators, 18 GHz and above has to be allocated as per availability and requirement. .
			Instead of 18GHz band 6/7GHz or 11GHz band may be assigned	Due to Insufficiency of available spectrum to accommodate all the operators, 18 GHz and above has to be allocated.
			What is the rationale of fixing the minimum Link Length at 7 km where microwave frequencies above 18 GHz (used for building very short haul links) will be allocated to the BWA operator?	Provisions of the guidelines shall prevail.
			What are the actual allocated MW spectrum?	14 + 14 = 28 MHz in 18 GHz Spectrum and above
			What is the allocated channel Bandwidth for the allocated pairs?	14 + 14 = 28 Mhz
			Will there be other backhaul spectrum allocations on an as needed basis for longhauled or backhauled when required by the design? Especially in Dhaka and Chittagong where the fiber usage is not allowed for the last mile, a pair of spectrum may not be sufficient.	Inter BTS connectivity in Dhaka and Chittagong can be done using fibre.

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
			What will be the bandwidth assignment at 18 GHZ for backhaul transmission link? Does BTRC link for such huge broadband access requirement? If not, what are other options or plan from BTRC to offer facility fro backhaul transmission nationwide?	14 + 14 = 28 MHz in 18 GHz Spectrum and above. Infrastructure Sharing Guidelines shall be followed.
23	11	Existing ISP	For existing ISP license holders – can you kindly clarify the clause 11.01 – 11.03	The clauses are self explanatory.
24	11.01	Scope for the Existing ISP Licensees	Will the existing ISP's with spectrum be allowed to import more equipment in future (in the earlier draft there were limitations but that has now gone).	Yes.
			How long and which services can be provided by the Internet Service providers who own spectrum but have not granted BWA License	As per existing license conditions.
			As the Regulator has chosen to sustain the licenses of the existing WiMAX providers, can we have the list of the ISPs with the spectrum, the spectrum held (including the band, bandwidth amounts, and block sizes) and the duration of the licenses as this will impact the business plan	The Commission provides the list of the ISPs which are available in the Commission website "www.btrc.gov.bd"
			Existing ISPs can continue to use their allotted frequencies in perpetuity. the winners can use fibre to connect only their BTSs in Dhaka & Chittagong-but not as the last mile access solution. Will BTRC force all ISPs to take out their existing cables in Dhaka and Chittagong? If yes what would be the timeline for taking out all these cables? Article-11 clause-11.2: Should be amended to read: "the existing ISP License including assigned frequency will be valid for 15 years." Because huge invesement has been made for existing infrastructure for pre WiMAX network. They should also be permitted to import for spare parts for maintenance of the equipment.	provision of license guideline shall prevail.

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
			The existing ISP license holders operating in 2.3, 2.5, 3.5, 5.2, 5.4 GHz, 700 MHz or any other bands will be allowed to continue their fixed wireless Internet services. They shall not be allowed to provide mobile broadband wireless access (BWA) services. Existing ISP are operating various GHz/MHz frequencies and they are using Pre-WiMAX solutions, all through their subscriptions based are low. Earlier draft it was mentioned they will enjoy their frequency for next 5 years and can't import new hardware. But this clause has been modified. Now having their frequencies from BTRC, they can expand their network. It will create a business challenges for new WiMAX license holder.	Provisions of the guidelines shall prevail.
26	11.03		Existing ISPs can continue to use their allotted frequencies in perpetuity. the winners can use fibre to connect only their BTSs in Dhaka & Chittagong-but not as the last mile access solution. Will BTRC force all ISPs to take out their existing cables in Dhaka and Chittagong? If yes what would be the timeline for taking out all these cables? Article-11 clause-11.2: Should be amended to read: "the existing ISP License including assigned frequency will be valid for 15 years." Because huge inveseement has been made for existing infrastructure for pre WiMAX network. They should also be permitted to import for spare parts for maintenance of the equipment.	Clause 8.03 applies only to the winners of BWA licenses.
27	12	DURATION OF LICENSE	Duration of license may be 20 years.	Provisions of the guidelines shall prevail.
28	13		Given that the licensee pays an annual fee for the license and an annual charge for the spectrum, what does the Gross Revenue Sharing apply to? Moreover, is the licensee subject to income or any other taxes or fees imposed by the Government of Bangladesh related to its activities?	Provisions of the guidelines shall prevail. All operators are subject to Bangladeshi laws.
29		Fees & charges	Doesn't BTRC think that operator should be given holiday for revenue sharing for at least first 3 years from starting commercial operation for the establishment of the industry?	It is an issue to be decided by NBR and other Govt. Authorities.
			Doesn't BTRC think that annual license fee should be lowered and should be exempted for at least initial 3 years as operator revenue share will be the main source of government revenue than other fees (license fee & Frequency charge)?	Provisions of the guidelines shall prevail

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
			Annual license fee should be a percentage of gross revenues less interconnection charges, otherwise, interconnection charges will be taxed twice. Both originating and terminating operators will pay annual license fees on the same interconnection charge.	Provisions of the guidelines shall prevail
30	13.01		why would annual license fee is needed from second year on? The Licensee will need to pay for the auction price which is the price of the license. It is understandable that spectrum charges will be collected on an yearly basis but not additional fee. Our experience in other countries shows no similar fees is imposed.	Provisions of the guidelines shall prevail
31	13.05	Revenue sharing	As license will share gross revenue with BTRC, 30% revenue share for international voice call with the commission will only put additional load to the new BWA licensees for establishing their business. This can be imposed later if the Commission thinks it is necessary. Does BTRC agree with this point?	Provisions of the guidelines shall prevail
32	15	EXISTING INTERCONNECTION AND INTERNATIONAL VOICE CALL TARIFFS	What happens to un-terminated calls because the line is engaged or not responded? Can we terminate the calls on our voicemail services? Are we charged for hang-up calls before they reach their correspondents? Does this scheme cumulate with the royalty fee?	Calls can be terminated as voice mail services. The revenue from this shall also be cumulated. Completed Calls are only to be charged.
33	15 (i)	International Incoming Calls	<u>International Incoming Calls</u> - The international incoming calls minimum rate is set by BTRC at \$0.06min. This automatically puts the Licensees in not competitive position to all other companies offering termination to Bangladesh. The current market termination rate is in \$0.02-0.03min range and it is clear than having in mind the minimum rate set by BTRC will not bring any international traffic to the Licensees.	Provisions of the guidelines shall prevail.
			(a) and (b) - could you clarify what these mean? In other words, if the Licensee gets 1 Million minutes of international traffic for termination to Bangladesh at the minimum set rate of \$0.06min, which is total \$60000.00, then what is owed to ICX and IGW operators and by whom, and how much the Licensee gets out of this amount.	
			we need clarification what BTRC mean by existing call rate for International Outgoing Calls. The rate shown for international outgoing calls to mobile network is TK. 16.50, and the one to PSTN network is TK. 6.00. Are these the maximum rates customers are to be charged imposed by BTRC?	Clauses are self explanatory.

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
34	15 (ii)	International Outgoing Calls	(d) it shows that Licensee shall pay to the IGW licensee the specific settlement amt payable to foreign carriers +15% of balance amount. Could this be clarified. This seems out of order.	
			(e) it calls for the licensee to pay 30% of balance amount to the commission. Why is this required after the Licensee is charged already 2% of gross revenue for the second year of operation and 4% of gross revenue for the third year onwards. This way the Licensee is charged 2 times for one service.	Provisions of the guidelines shall prevail.
35			Can incoming international calls the percentage of sharing be based on the call termination charge and not on total call charges. This is because the call charges for incoming international calls are decided in foreign countries. The percentage of sharing should be based on the current approx 6 US cents- which is the current call termination charge in Bangladesh.	Provisions of the guidelines shall prevail.
			How will BTRC decide whether outgoing international calls are being made to fixed or mobile subscribers? In many countries, including the USA, the numbering scheme does not differentiate between fixed and mobile subscribers.	Existing practice shall govern the issue.
			Further, the practical implementation of collecting 30% revenue of out going international calls by BTRC will be very difficult. Even operators who have full records of incoming and out going traffic face difficulties in the settlement process. The better working option is to charge higher annual license fee as a percentage of revenue. Otherwise, it opens up so many parameters which are not under control of BTRC.	Provisions of the guidelines shall prevail.
	20	Rollout Obligation	From our experience, it would not be practically possible to have a business case if roll out time & user base given in your document are still in force. For the sake of the citizen of the country & security of investment to be done, rollout time be double the time given and user base half of what was given.	
			<u>A (ii)</u> 20% Upazilas are to be covered as the coverage obligation for the first year. Does this 20% include the areas to be covered by the minimum number of BTS for the Districts?	

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
37	20.01	Rollout Obligation (Coverage)	<u>(A) Rollout Obligation. Coverage. First year</u> - the requirement for installation of 137 Base Stations nationwide is very steep. This means practically that 3 Base Stations are to be installed per week, from day 1 of operation. Having in mind that a newly licensed company needs from 3 to 6 months to establish itself locally, hire personnel etc., this makes impossible to keep up with the rollout plan guidelines stated by BTRC.	Clause 20 of the Guidelines is modified. The modified clause is annexed at the end of the document
			Para 6 of license The amount of Performance Bank Guarantee (Para 6 of license) appears to be high, that may kindly be reduced. Presently it is very difficult to get electricity in the most of the areas of Bangladesh. Positioning of rollout will also depend on the status of the power/ electricity supply. In places the approval procedure for power connection takes even more than 6 months. Therefore the extension of rollout target in specified locations with non-availability of power connection also needs to be spelt out clearly, which has a direct relationship with the Performance Bank Guarantee.	
			E (i) - Could the meaning of "community access points" be clarified?	Community Access Points mean Community Information Centre, Telecentres, Community Learning Centres, Growthcentres, Community Education Centres etc.
			For the second point (ii) 20% of Upazilas and 10% of villages 1. do these percentages include the above listed districts? 2. please provide the total targets of upazilas and village.	Clause 20 of the Guidelines is modified. The modified clause is annexed at the end of the document
			Does villages coverage mean a BTS in each village or the ability to connect to the WiMAX network while in the village?	Ability to connect to the WiMAX network while in the village
			Is there a USF(Universal Services Fund) fund available in Bangladesh and would the WiMAX operators be given access to this fund, or will the operators be provided any other financial incentives or subsidies to provide rural and upazila coverage?	No.
38			B-E For Years 2-5; can the BTRC provide the targeted coverage as a percentage of population in the area? can the BTRC provide the population count being used as well as the total populated regions areas ?	Statistical data can be found at the Bureau of Statistics, Govt. of Bangladesh.
			BTRC has imposed rollout target almost with equal distribution throughout the country. What measures BTRC will take ensuring minimum demand of market segments to secure the investment of licensees in those low potential areas.	Clause 20 of the Guidelines is modified. The modified clause is annexed at the end of the document
			Can villages without electricity be excluded?	NO

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
			Can you please divide the rural areas amongst the BWA operators? The amount of business in rural is low. The operators can however compete in the cities.	Clause 20 of the Guidelines is modified. The modified clause is annexed at the end of the document
			To make the business case viable, will BTRC consider geographically allocate the licensees' coverage area? This clarification is needed immediately before the bidding.	Clause 20 of the Guidelines is modified. The modified clause is annexed at the end of the document
39	20.02	Annual Cumulative BWA Subscriber	calls for 25 000 customers in the end of Year 1, which is also very high figure for first year of operation. Usually the first year sets the foundations of the company and the focus is on building the network, including backhauling and thus the main marketing efforts are postponed towards the end of the period when the service will be more widely available. In this respect the number of customers requirement is way too high having in mind the real short net time and resources that will be available besides for the network build up. Could the number of customers be reconsidered accordingly?	Clause 20 of the Guidelines is modified. The modified clause is annexed at the end of the document
			<p>Year Minimum Cumulative BWA Subscriber in service</p> <p>1st 5K</p> <p>2nd 15K</p> <p>3rd 40K</p> <p>4th 100K</p> <p>5th 200K</p>	Clause 20 of the Guidelines is modified. The modified clause is annexed at the end of the document
			Is a pre-paid subscriber with credit left on his account taken into consideration against the subscriber objective	All pre-paid subscribers will be counted as cumulative subscriber. The account which shall be inactive for more than three months, be counted as inactive. However, in reporting number of inactive subscribers to be shown separately.
			Infrastructure sharing pricing is as per BTRC's guidelines but it has not yet been issued - when will this happen?	Shortly.
			How does a new licensee protect against free-riders who jump on the back of a new operator building its own infrastructure? This possibility will create disincentives for new infrastructure and may cause significant delays as the licensees negotiate shared infrastructure, as occurred with fiber in Saudi Arabia.	Infrastructure Sharing Guidelines shall govern the issue.
			Whether or not the new license will be allowed to share the network infrastructure in terms of tower with existing telecoms- it is an important issue as the base stations would need to be set up on the top. If the govt. is a PPP partner then what happens is that we take all the govt. building a key strategic locations as the place where we put up the base station	Question is not clear.

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
40	21	Sharing of Facility	What is the policy for fixing the guideline for placing rent on the sharing of infrastructure?	Infrastructure Sharing Guidelines shall govern the issue.
			What is the guideline/standard for allocating the infrastructure sharing policy?	
			What are the criteria for defining 'insufficient capacity' of an infrastructure?	
			What is the minimum notice period to notify an operator to shift/change the infrastructure from the existing supplier?	
			Will BTRC have any guideline on infrastructure rental charges?	The draft guideline of Infrastructure Sharing is already in the web site of the Commission for public consultation. Hopefully by September it will be finalized. BTRC will fix the lower and upper limit of the charge for backbone sharing. For site and tower sharing the bilateral agreement between the parties should govern that, but if any dispute arises, the Commission will try to solve it.
			Specific pricing regime/tariff regime for infrastructure sharing: We request that BTRC sets tariff floor price for fiber optic cable, empty duct, dark fiber, fiber capacity, transmission capacity on rental, lease & IRU basis. In this context BTCL base pricing published in IPC backhaul can be a benchmark both in terms of volume discount and absolute volume.	
			May licensees share active infrastructure?	NO, as per the Infrastructure Sharing Guidelines it is only for Passive Infrastructure sharing.
41	23	TARIFFS AND PRICING	If the Govt. is a PPP partner then what happens is that we take all the Govt. Building as key strategic locations where we put up the base stations.	Question is not clear.
			Can we have a SLA with a response time from the BTRC as that impacts the implementation of our commercial plans and subsequently the number of subscribers as per our obligations?	No.
42	25.00	LI & Monitoring Facility	Regarding lawful intercept for voice traffic, we have assumed that we will do handover to the police for monitoring in each of the following five locations: Dhaka, Khulna, Sylhet, Bogura and Chittagong rather than to backhaul all local area phone calls to Dhaka which would be very expensive as most traffic will be local or regional.	Monitoring Centre is situated only at Dhaka at present.
43	25.01		Since this impacts the cost of our infrastructure, could we have the specifications of the LI? Moreover, providing the requirements after the licensing process creates risk to the new licensee that has just paid 50% of its spectrum acquisition fee.	No, it will be available to the winners of the license.
44	25.02		How long do we need to retain the xDR's for?	For the Commission purpose, 6 months, For NMC purpose, It will be informed to the winners of the license.

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
			How to access the LI cost?	(i) LI cost is to be ascertained from the outline requirement given in Clause 20 at page 39 of the guideline. The details of LI requirements shall only be discussed with the winners.
45	AP. 1	Access Frequency Charge	For Access Frequency Spectrum charges a) CF may be start with value 0.10. b) AF may be at actual coverage area.	Provisions of the guidelines shall prevail.
			Appendix-1: Article-1, clause-1:STU=Should be in national currency. i.e. BDT Article-2, clause-1:STU=Should be in national currency. i.e. BDT Article-2, clause-iv:AF=Formula to calculate the Area Factor should be: "The Link length X diameter of the antenna X 0.273"	provisions of the guidelines shall prevail.
			Item 1.07 specifies a business plan as part of the bid. We would welcome a clarification for any key components that the BTRC would like to see in this section.	Investment, source of fund, expected revenue keeping in view of the rollout obligation etc.
			Item 2.04. Is it sufficient with a statement regarding criminal record and bankruptcy from the applicant or do you require extracts from the police register or bank certification?	That would be most welcome.
			Item 3.04. You require attested copies of audited annual accounts. Is it acceptable with a foreign notary or Bangladesh Embassy for any foreign shareholders in the bidding consortium?	Should be attested by the authorised signatory of the Company.
			Section 3. Please clarify what percentage of shareholding classifies a shareholder as a "minor shareholder".	refer to the Companies Act 1994.
			Please confirm that licensed BWA operators will be allowed to add 802.16m technology without additional license charges for the duration of the 15 year license. We consider this a natural evolution of the BWA standard.	Refer to clause 8.01 at page 6 of the guideline.
			We would welcome a clarification regarding what criteria the BTRC will use to determine which of the submitted bids qualify for the auction.	Provisions of the guidelines shall prevail.
			No duty on importation of CPEs should be imposed in order to make broadband internet affordable to the masses. In case that's not possible, import duty on CPEs should be half of that imposed on mobile handsets or SIM cards.	It is an issue to be decided by NBR and other Govt. Authorities.
			what will be the evaluation criteria when evaluating all the documentation requested - Business Plan, Financial Projection etc.	Provisions of the guidelines shall prevail.
			What extra documents are required for supplementary documents to support applicant's proposal?	Any documents deemed necessary by the applicant.
			What documents are required for commitment and guarantees?	written statement as per rollout obligation.

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
46	AP. 2	Mandatory Documents	What is meant by Telecommunications Sector Experience?	it means experience in telecommunications sector of the individual shareholders/ company.
			What are the items that have to be included under 'business proposal'?	Investment, source of fund, expected revenue keeping in view of the rollout obligation etc.
			Description of principal business and principal activity – how much to write about?	precisely and succinctly
			<u>section 1.11</u> Please can you clarify what commitments and guarantees are required to be provided in support of the license application by the applicant?	written statement as per rollout obligation.
			<u>section 2.03</u> The applicant is required provide a photocopy of the first six pages of each of the director's passports. i) Does this need to be a certified copy? ii) If a certified copy is required, can this be certified by an equivalent of a notary public outside of Bangladesh? iii) Many non Bangladeshi passports do not contain personal information on each of the six first pages of a passport. Therefore, please could you confirm whether it is acceptable to the Commission to provide copies of the equivalent passport pages containing personal information?	i) & ii) photocopy attested by the authorised signatory of the applicant. iii) Acceptable.
			<u>section 2.09</u> i) Please can you clarify whether the "duly attested signature" of the nominated contact is the signature of the nominated contact ii) Please can you confirm whether this needs to be witnessed and certified by a notary public of Bangladesh or whether it can be certified by an equivalent of a notary public outside of Bangladesh?	i) yes. ii) no need to.
			Please clarify, the appropriate weightage to be assigned by commission on the documents to be submitted as per appendix-2 for shortlisting/selection of bidders for second stage.	Due weightage shall be given.
			<u>1.07 & 1.08</u> What is the level of details required by the BTRC for the business plan and financial projections, and for how many years? Can the BTRC confirm that the applicants are not required to plug-in an assumed auction bid amount in these documents? (<u>6.02</u>) What is the level of details required by the BTRC for the business plan and financial projections, and for how many years? Can the BTRC confirm that the applicants are not required to plug-in an assumed auction bid amount in these documents?	Capex, Opex, Investment, source of fund, expected revenue keeping in view of the rollout obligation etc.

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
47	AP. 3		Section 2 refers to “a supporting affidavit in Schedule 6,” but there is no Schedule 6 included within the Guidelines – I assume this should read “a supporting affidavit in Appendix -5.”	yes, the observation is correct. Schedule 6 at page 18 shall be read as "Appendix - 5"
48	AP.4		03 Business or Company's structure details	
			Paragraph 2 requires submission of documents for each corporate member of a consortium. What documents, specifically, are required?	Any appropriate documents
			07 Business Proposal and other information	
			What does the BTRC mean by “other information”? Could the BTRC please elaborate on what other information it may require?	any appropriate information
49			<u>Application Form (03)</u> Please can you confirm whether it is a requirement that if the applicant is a company it should also be a member of a Chamber of Commerce	yes, in case of newly formed company, application for membership shall suffice.
50	AP. 5		Section 1 asks for the name of the country under which a corporate Applicant is duly organized. This implies that an Applicant can be other than a Bangladeshi entity despite the definition of an Applicant in the Licensing Procedure Regulations, 2004: “Applicant means ... [a] company (registered under the Companies Act, 1994 in Bangladesh)” Can a corporate Applicant be other than a Bangladeshi entity?	No, it has to be a Bangladeshi entity.
			Appendix-5 (Affidavit) Item-2, Cluse-d: Requested to be omitted. (If is applicable for IGW, ICX, IIG Licenses). Item-2, Cluse-e, para-vi:Requested to be amended/add: "for illegal activities".	Provisions of the Guidelines shall prevail.
			Will the purpose of the August 30 meeting be just to explain and clarify the Regulatory and Licensing Guidelines or it will also have the purpose to make further changes in those guidelines, if necessary. If so, in what timeframe after the August 20 meeting, those changes will be announced and will this allow additional time for the applicants to present their bids, which is currently set for Sep 11, 2008.	Pre-bid meeting shall be held according to the prevalent practice of Bangladesh. The final submission date shall remain unchanged. The reply shall be given within 7 (seven) working days.
			<u>Page 3.# 3</u> Are there any particular requirements for such documents, such as being filed in originals or copies, or being apostilled in any manner?	Photocopy attested by the authorised signatory of the applicant
			What is the last date for buying the application document?	Applicant's may buy the documents up to the deadline for submission of documents.
			<u>Page 3.# 5</u> Bearing in mind the auctions will occur at the end of Ramadan, does the BTRC foresee any risk of delaying the process?	NO

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
51		General	Can the application submission date will be extendend say for another two months i.e, November 11, 2008	NO, the time for submission of application shall not be extended.
			Given the complexity of the procedure would BTRC consider a time extension of the date of submission which is september 11, 2008.	No, the timelines as provided in the Guidelines shall remian unchanged.
			Does the WiMax license come with VoIP license? Meaning, can a WiMax operator route phone calls as data through IGW to international destinations?	Refer to clause 9 at page 7 of the guidelines.
			<u>Clarifications requested for:-</u> * Regulatory and Licensing Guidelines * The draft licence * The Application Process	
			<u>Draft License - Section 20 - Lawful Interception.</u> Some indication needs to be provided of the amount of Lawful Interception taking place. This is so the cost for the LI can be built into the business plan. Depending on the amount of storage required, and the level of deep packet inspection required for identifying catchy words, the cost for this equipment could run to millions of dollars.	It will be available to the winners of the license.
			<u>Draft License - Section 22</u> . The installation of O&M consoles outside the operator's network management centre will present a risk to the operations and QoS of the service. These consoles could be used to reconfigure the network or even switch the network off. The operator has no control over who accesses these consoles since they are not at the operator's premises. Regulators normally carry out performance monitoring by requesting regular reports. It is suggested this might be a better solution for both parties. We request clarification of the use to which the consoles would be put.	Supplied O&M console would not have any authorization to change any system related configuration data.

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
			<p>Investment:</p> <ul style="list-style-type: none"> * License Fees: at least 50 core (including Performance Security) * PLUS Infrastructures Cost <ol style="list-style-type: none"> 1. Please justified INVESTMENT 2. How end user going to be benefited by this huge investment <p>CPE Cost:</p> <ul style="list-style-type: none"> * CPE Cost is still high – How to justify <p>End user Acceptance:</p> <ul style="list-style-type: none"> * 2.5G/3G vs. WiMAX * Handset * Call Rate <p>Remote usage:</p> <ul style="list-style-type: none"> * Justified Remote usages Nationwide and ROI <p>Success Story:</p> <ul style="list-style-type: none"> * For Nationwide WiMAX Deployment 	Provision of license guideline shall prevail.
			<p><u>Para 13 of license</u> BTRC is going to issue 3 BWA licenses. A very specific Rollout obligations (Para 13 of license) have been given .So if 3 companies are going to install BTS s in the SAME specified areas as shown in the rollout obligation then there would be a uneven competition in those specified areas only but other areas will remain out of BWA coverage for quite some time. As such rollout obligations as per year should be different for three licenses, so that entire Bangladesh comes under quick BWA coverage and uneven competition amongst the companies are not there.</p>	Provision of license guideline shall prevail.
			<p><u>Para13.02 of license</u> The Annual Cumulative BWA subscriber target (Para13.02 of license) appears to be very high. That should be reduced. Because there will be high competition in the market once 3 mobile operators will be given 3G licenses and 3 ISP will be given IP Phone licenses. All most all will provide same types of services.</p>	The statement made is not correct.
			<p>Please clarify in writing, the commission's position on the terms and conditions of the license given to "Always On Network Bangladesh" to provide BWA services in Bangladesh - This Clarification is needed in order to assess the viability of the proposed BWA services in Bangladesh.</p>	refer to Clause 11 at page 8 of the guidelines..
			<p>Please clarify, the a maximum number of bidders who will be invited to participate in the second stage i.e. open outcry suction process.</p>	No fixed numbers, eligible applicants shall be invited to participate in the second stage i.e. open outcry auction process.
			<p>Please provide, the tentative date for the second stage i.e. open outcry auction process.</p>	Refer to clause 1.01 at page 23 of the Guidelines.

S/N	Clause NO.	Description	Comments/Queries	Comments/clarification by BTRC
			<p>To protect upcoming BWA Licensees:</p> <p>(i) When can we expect E-Commerce in other Internet Application un-banned by Govt.</p> <p>(ii) Unless the nation-wide fibre data pricing is reduced, we don't see business case for BWA. When can we see revised tariff for Nationwide data connectivity?</p>	<p>(i) & (ii) Both of these are under active consideration of the the Commission and other related authorities. And will be done as soon as possible.</p>

**The modified clause 20 of the guidelines shall read as follows after modification
(This replaces the Original Clause 20 at page 11 of the Guidelines)**

ANNEX - 1

Rollout obligation period shall be counted from 180 days after issuance of license. Each operator is free to deploy BWA services all over Bangladesh however each shall have an obligation to deploy its network in all 6 (six) divisional headquarters and in a region which shall be allotted to licensee through lottery after the issuance of license. Each of the regions comprises of 2 (two) zones out of the zones as shown herein below:

Zone 1: Munshigonj, Narayanganj, Chandpur, Laxmipur, Noakhali, Chittagong (except divisional Headquarters area), Feni, Comilla, Cox's Bazar, Khagrachari, Rangamati, Bandarban.

Zone 2: Gazipur, Dhaka (except divisional Headquarters area), Manikgonj, Tangail, Jamalpur, Sherpur, Mymensing, Kishorgonj, Sunamgonj, Hobigonj, Moulavibazar, Sylhet (except divisional Headquarters area), Brahmanbaria, Narshindi, Netrokona.

Zone 3: Pabna, Natore, Rajshahi (except divisional Headquarters area), Chapai Nababgonj, Naogaon, Sirajgonj, Bogra, Rangpur, Gaibandha, Dinajpur, Nilphamari, Thakurgaon, Kurigram, Panchogar, Jaipurhat, Lalmonirhat.

Zone 4: Kushtia, Meherpur, Chuadanga, Jhenaidah, Rajbari, Faridpur, Magura, Narail, Jessore, Gopalganj, Madaripur, Shariatpur, Barisal (except divisional Headquarters area), Jhalkhati, Pirojpur, Bagerhat, Satkhira, Barguna, Patuakhali, Bhola, Khulna (except divisional Headquarters area).

** (Places named in each zone consists of administrative district area)

- Region A = Zone1+ Zone 4
- Region B = Zone2+ Zone 3
- Region C = Zone1+ Zone 3
- Region D = Zone2+ Zone 4

A. First Year: Areas to be covered

- (i) The operators, within 1 year of rollout, shall have to cover each Divisional Headquarters.
- (ii) At least 15% coverage of the designated region.

B. Second Year: Areas to be covered

- (i) At least 30% coverage of the designated region.

C. Third Year: Areas to be covered

- (i) At least 50% coverage of the designated region.

D. Fourth Year: Areas to be covered

- (i) At least 65% coverage of the designated region.

E. Fifth Year: Areas to be covered

- (i) At least 85% coverage of the designated region.

20.02 ANNUAL CUMULATIVE BWA SUBSCRIBERS:

The annual cumulative BWA subscribers to be achieved by each of the licensee are as below:

Year	Minimum Cumulative BWA Subscribers in Service
1 st	15,000
2 nd	35,000
3 rd	80,000
4 th	2,00,000
5 th	5,00,000

Bangladesh Telecommunication Regulatory Commission

Shetu Bhaban, New Airport Road, Banani, Dhaka-1212

No. BTRC/LL/BWA(275)/2008-1144

Date: 17-09-2008

BWA AUCTION PROCEDURE

1. The auction shall be based on an open outcry (the British System) on September 24, 2008 at Utsab Hall, Radisson Water Garden Hotel at 11.30 AM.
2. Only 5 (five) representatives of each qualified bidder shall be allowed. The names, photos and designation of these persons should be submitted to the Commission beforehand by September 21, 2008, and the Commission shall issue Identity Cards to those persons. No one else will be allowed to enter the room. The Signatory (the person who signed the main application form) should be one of the representative. If for some reason that person is unavailable, then the representatives with proper Power of Attorney shall attend. The representatives must bring the Company seal.
3. The qualified bidders shall nominate and authorize only 1 (one) of its representative to sign the auction bid. His specimen signature shall be submitted to the Commission by September 21, 2008. The specimen signature of the nominee (who shall sign the bidding forms) shall be attested by the signatory (who signed the main application form) and shall be verified by the BWA Auction Committee during the auction.
4. On the day of the Auction, the bidders shall register their names. The registration shall start at 10.00 AM. The representatives shall take their seat inside the Auction room by 09.45 AM. Upon registration they would be given a number (at random).
5. Only 1 (one) representative of the qualified bidder (apart from the one who will sign the bidding forms) shall be allowed to bid by pushing the electronic button once the auction starts.
6. The bidders shall bid for the License Acquisition Fee. The floor price is set at Tk. 25 Crore (BDT 250 million).
7. Each subsequent bid increment shall be for Tk. 2.5 Crore (taka two crore fifty lac) (BDT 25 million) only.
8. After each Bid, the bidding and Bidder's details will be recorded before the next Bid. For each increment the name of only one bidder (the bidder to push the electronic button first) shall be recorded.
9. After every 4 (four) bids, there will be a short break. The Auctioneer may give a break/pause/stop the auction process at any time as and when necessary.

10. While the bidding shall go on, all mobile phones must be switched off. But only during the breaks those may be turned on.
11. The bidder shall push the electronic button as an outcry his bid and his nominated associate shall write it on the prescribed form duly signed by the Authorized Representative and hand it over to the BWA Auction Committee.
12. the BWA Auction Committee if at any time before or during any bid, considers it necessary to cancel, suspend or abandon that Round due to any circumstance, the Committee will notify all Bidders:
 - (a) that such bid will not proceed or will be suspended or abandoned (as the case may be); and
 - (b) of the time at which such bid will restart.
13. The bidders may participate in the bidding at any time. It is not necessary that each bidder has to participate in every bid.
14. The auction shall continue until there are no further Bids.
15. The final bid will be determined by the fall of the hammer.
16. When there are no further Bids, the BWA Auction Committee shall announce the final bid and the name of the bidder and the names of the Bidders in order of their bid percentage, i.e. from higher to lower.
17. After the announcement of the highest Bidder, no further offers to obtain the license shall be entertained by the Commission.
18. The commission then shall announce the Winning bid and the bidder's name. The highest bidder shall have the option to choose its 35 MHz of frequency from either 2.3GHz or 2.5 GHz bands.
19. The second highest Bidder (i.e. the last recorded bidder) will be asked to match the Auction Winning Bid and if he agrees, he shall qualify for the second License. After matching the price, he will be able to choose from rest two spectrum bands. The third highest bidder (the second last recorded bidder), subject to matching the highest bid, shall be assigned the other spectrum band offered.
20. In case the second highest Bidder is unwilling to match the Auction Winning Bid, the second License shall be offered at the Auction Winning Bid to the other Bidders in order of their bid amounts, i.e. from higher to lower until Auction winning Bid is matched. The third license also shall be awarded in the similar way. If no other Bidder is ready to match the Auction Winning Bid until the second license is taken, the Bidding session will be cancelled and a future date of fresh bid and auction will be announced by the Commission. If second highest bidder agrees to match the highest bid and a third bidder, willing to match the same could not be found, then only two licenses will be issued to the highest bidder and the bidder matching the auction winning bid.
21. All the qualified bidders shall accept any decision given by the BWA Auction Committee as final.

22. The Commission reserves the right to modify/temporarily stop/ terminate the bid process at any time including the auction period, in its sole discretion.

Disqualification: the Commission may, on the recommendation of the BWA Auction committee, disqualify any Bidder and forfeit its money for any of the reasons set out below:

1. Illegal conduct in the Bid procedure and auction process or improper attempts to influence the outcome, or delay or disrupt the process.
2. Any "corrupt practice" meaning the offering, giving, receiving or soliciting of anything of value to influence the action of a public official/ Auctioneer in relation to licensing process provided in the guidelines.
3. Any "fraudulent practice" or misrepresentation of the facts in order to influence the results of the licensing process established by the Guideline.

(A.K.M. Shahiduzzaman)
Director
Legal and Licensing Division
BTRC