

**Telecom Policy Recommendation**

**To**

**Ministry of Information Technology &  
Telecommunication**

**By**

**Central Asian Cellular Forum**

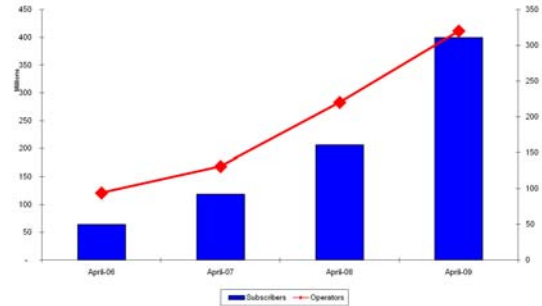
**Revised Telecom Policy Issues, Guidelines & CACF Support**

**September, 2009  
Islamabad**

## 1. **Title: 3G Licensing & Spectrum Auction**

### **Issue:**

Progression in telecom technologies has become an unavoidable phenomenon. Telecom markets are reshaping themselves into 3G networks. 3G UMTS/WCDMA licensing and spectrum auctioning has happened in all the major markets including the developing economies similar to Pakistan. There are almost over 405 million UMTS/WCDMA subscribers in 320 networks in over 130 countries. This number is growing at an exponential pace as more and more networks embrace this technology.



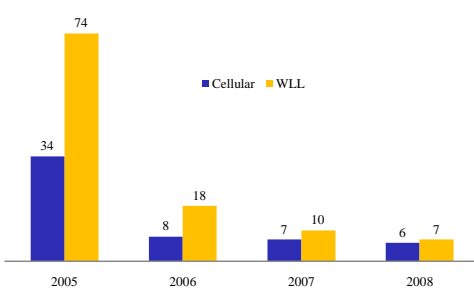
However, Pakistan has unfortunately delayed the 3G licensing and spectrum auction now for over 3 years and is lagging behind in offering broadband and other consumer oriented E&M (electronic & mobile) applications such as health, education, commerce, video conferencing over its mobile networks. While, the importance of 3G licensing is a key aspect from the consumer point of view but an early adoption by the operators could have resulted in less capex and opex today since most of the sites especially in the larger cities are for providing excess Voice & Data capacity which could have been avoided by deployment of 3G networks.

While, some of the operators are still resisting the 3G licensing but most of them have shown this resistance due to likely higher Spectrum Fee being envisaged by the Government for 3G. The Operators are of the view that the spectrum should be offered at cheaper tariff so that investment goes into infrastructure and not licensing. The other issue confronting the regulator and policy makers is whether to open up the process to new players or limit the auction to only the existing operators.

### **Policy Guidelines:**

- Keeping in view the market trend across the globe and the current telecom requirement of the country specially the interest of the consumer, the licensing/spectrum auction should be carried out at the earliest possible, so that the benefits of Technology can be passed on to the consumer and the industry.
- The policy should allow preferential and rationalized treatment of 3G spectrum to existing operators. Rationalized 3G licensing can help overcome the existing fears of the operators and would help them in early adoption of the new regime. In case, still some of the existing operators resist than only licensing of green field operators be considered.
- Spectrum provided to the operators for 3G should be free of interference and sufficient for the operator to provide consumer oriented services. Irrational allocation of smaller chunks can seriously mitigate the benefits of technology.
- A long term spectrum strategy should be adopted to ensure that maximum operators are accommodated. A rational and long-term spectrum strategy shall ensure that 3G Spectrum Auction does not in any way used to the disadvantage of current operators, who miss-out on the initial distribution/auction if this is to be done in Phases.

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|  | <p><b><u>Policy/CACF Support:</u></b></p> <ul style="list-style-type: none"> <li>- CACF has played an active role in the CIS and Africa assisting Ministries, Regulators and Operators in policy recommendation and licensing specially providing the technical advice for frame work, which resulted in timely implementation of the 3G licensing and garnering of huge benefits. With its areas of expertise in 3G and extensive knowledge of the Telecom sector, CACF will be willing to contribute significantly towards the telecom policy by way of: <ul style="list-style-type: none"> <li>o Providing Technical Advice on 3G Spectrum Allocation Issues</li> <li>o Providing Training Workshop to MoITT &amp; PTA and any working Group Members for realizing the 3G Spectrum Policy Guidelines stated above</li> <li>o Acting as Information resource for 3G related industry practices that shall be of immense use to MoITT, PTA or the Working Group members assigned for preparing specific recommendations tailor made for our market place.</li> </ul> </li> </ul> |
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| <p><b>2.</b></p> | <p><b>Title: <i>Unified Licensing Regime</i></b></p> <p><b><u>Issue:</u></b></p> <p>In Pakistan the last two nation-wide mobile licenses including spectrum were auctioned at US \$290 million each, which became a benchmark for all existing mobile licenses and their renewals. The WLL licenses auctioned in 2004 offered lesser spectrum and were auctioned on regional basis (14 total regions) at lower values. However, the “normalized cost” (\$/MHz/pop) paid by the WLL operators was about the same as that of the mobile operators and for certain regions the WLL operators paid more than the mobile operators. Being the prime choice for providing basic telephony services to un-served rural area’s the WLL industry didn’t get much support from the Government rather was put at disadvantage by way of regulatory and technical restrictions on the services and technology used by the WLL operators.</p>  <table border="1" data-bbox="925 1029 1396 1323"> <thead> <tr> <th>Year</th> <th>Cellular</th> <th>WLL</th> </tr> </thead> <tbody> <tr> <td>2005</td> <td>34</td> <td>74</td> </tr> <tr> <td>2006</td> <td>8</td> <td>18</td> </tr> <tr> <td>2007</td> <td>7</td> <td>10</td> </tr> <tr> <td>2008</td> <td>6</td> <td>7</td> </tr> </tbody> </table> <p>Since, its inception based on the subscribers and the spectrum fee paid, the cost of regulatory fee has been more that the Mobile operators for the WLL operators on per subscriber basis and in some case such as in its first two years of operation it was almost double. The decreasing ARPU in Pakistan which is less that USD 3 and the fact that mobile operators have much more to offer in terms of mobility and variety of sets, the business case for a successful WLL does not exist. To add miseries to the WLL operators business case the Technology of CDMA was specifically singled out by taxing its user terminals a whopping 38% (in actual over 40% as all taxes are compounded) for its imports. Last but not the least the spectrum allocation specially the spectrum of 450 MHz that is deployed over most of rural areas by the operators was auctioned on per carrier basis thus restricting either to offer any Data Services or even allow operators to offer voice services to a larger population. The improper or un-availability of appropriate spectrum for the WLL operators specially those who have deployed CDMA Technology are restricted in offering enhanced version of the technology (Data Services ) to a larger segment of the population such as EVDO-Rev A &amp; Rev-B or Even Voice.</p> <p>If appropriate remedial step on the policy and regulatory front are not taken the WLL operators will eventually have to close their operations. Infact, while some even failed to lunch like Dvcom, Ertibat, others could not achieve any substantial growth after initial lunch such as Dialog. The WLL operators needs to be provided drastic policy and regulatory incentives for this industry to survive</p> | Year | Cellular | WLL | 2005 | 34 | 74 | 2006 | 8 | 18 | 2007 | 7 | 10 | 2008 | 6 | 7 |
|------------------|--|------|----------|-----|------|----|----|------|---|----|------|---|----|------|---|---|
| Year             | Cellular   | WLL  |          |     |      |    |    |      |   |    |      |   |    |      |   |   |
| 2005             | 34   | 74   |          |     |      |    |    |      |   |    |      |   |    |      |   |   |
| 2006             | 8  | 18   |          |     |      |    |    |      |   |    |      |   |    |      |   |   |
| 2007             | 7  | 10   |          |     |      |    |    |      |   |    |      |   |    |      |   |   |
| 2008             | 6  | 7    |          |     |      |    |    |      |   |    |      |   |    |      |   |   |

otherwise it closure will not only impact the investments made already but will earn a bad name for the country not to mention the consumers specially in the rural areas who have benefitted from these services.

**Policy Guidelines:**

- Unified licensing Regime should be introduced at the earliest to save the WLL industry from collapse, enable the benefits of the technology to reach the consumers and provide level playing field to all operators.
- Since the policy is being reviewed, the Government needs to lend support to the existing WLL operators in order for them to survive/grow in this stringent market. Artificial regulatory restriction such as restricted mobility of WLL operators which has marred their business cases should be lifted and the CDMA technology being used by them should be allowed to be used to its fullest potential.
- For WLL industry to grow, additional spectrum be provided to the existing operators at no or very nominal cost so that they can expand their services and also offer/introduce newer applications. The focus should be in facilitating them and their investment towards network expansion rather on licensing & spectrum fee that has been a major hindrant to their service offering.
- A technical working group is established to indentify the already allocated frequencies and suggest spectrum reframing be done for minimizing interference and maximizing the efficiency of the spectrum.
- All kind of Custom duties/taxes on CDMA user terminal should be revised downward and brought to the level of the existing GSM Mobile Terminals to bring uniformity and provide some sort of relief and level playing field for the WLL operators.

**Policy/CACF support:**

- CACF will be willing to contribute significantly towards the telecom policy by way of:
  - o Providing Technical Advice on Spectrum re-farming or allocation of additional/ Spectrum Allocation Issues to existing operators
  - o Assist in building awareness for the MoITT & PTA about the viability of ULR through case studies of different countries where the industry and consumer benefited from the Unified Licensing Regime.
  - o CACF can also make available experts to be part of the work force accountable for finalizing the ULR policy.

**3. Title: *Custom Duties & Tax Impact***

**Issue:**

While awarding WLL licenses the government imposed 5% custom duty on CDMA based User Terminals. Some, Chinese OEM claimed local manufacturing soon afterwards and applied for protection under the local manufacturing. The custom duty was later raised to 10%. WLL operators appealed in the court that referred the case to Engineering Development Board. EDB found the intention of producing terminals, but since PTA did not have any type approval, it asked Federal Bureau of Revenue to reverse the decision. Currently, all WLL operators are paying almost 38-40%

duties on import of terminals which includes:

- 15% custom duty (10% customs & 5% regulatory duty)
- 15% sales Tax (increased to 21% in FY 08-09 budget)
- 6% withholding tax
- 1% insurance on C&F
- 1% Federal Excise Surcharge

Since, the WLL terminals which are focused mainly for providing coverage to the rural communities these are being purchased and distributed by the operators after subsidizing. A substantial investment of the WLL has gone and is still going into the procurement of the CDMA Terminals affecting the growth of the WLL services and network. While, the PTA on a number of occasions shown its sympathy toward this unfair rather criminal bias towards the WLL operators they have not been able to convince government of this unfair treatment being given to one section of the industry that has been serving the rural communities for the past couple of years. This anomaly needs to be removed, if WLL operators are to survive.

**Policy Guidelines:**

- All types of user terminals imported for WLL for the general public shall be subject t to the same or lesser taxes as applicable for mobile cellular services.

**Policy/CACF Support:**

- The Ministry and the PTA needs to pursue with FBR on revisiting the custom duties on WLL user terminals and specially singling out CDMA technology in FBR custom tariff sheet. If required, CACF can indicate the anomalies in the FBR custom tariff but this is publically and specifically known to all.

**4. Title: *Broadband Policy***

**Issue:**

Broadband is increasingly being observed as a channel for economic triumph in the information market. More and more economies are focused on ensuring that access to Broadband is both available and affordable to their populations. In 2004, the Pakistan Telecommunications Authority (PTA) introduced two types of license for ISPs, regional and nationwide, but keeping in view the user preference for high speed internet and wireless comfort it is predicted that DSL technology may not be able to cater for future broadband needs. This leaves a huge investment potential in optical fiber and wireless broadband access technologies.

Pakistan has a separate policy for Broadband. However, despite government push to encourage broadband proliferation in the country, the results have not been very encouraging. The total broadband users in Pakistan remain a mere less than 400K despite various efforts of reducing internet tariffs and IT push. While, Mobile penetration remains quite high (over

| Month  | BB Connections |
|--------|----------------|
| Jun-07 | 50,000         |
| Aug-07 | 60,000         |
| Oct-07 | 70,000         |
| Dec-07 | 80,000         |
| Feb-08 | 90,000         |
| Apr-08 | 100,000        |
| Jun-08 | 110,000        |
| Aug-08 | 120,000        |
| Oct-08 | 130,000        |
| Dec-08 | 140,000        |
| Feb-09 | 150,000        |
| Apr-09 | 160,000        |
| Jun-09 | 170,000        |

56%), the low broadband penetration (lower than 0.5%) on the other hand does not project a very balanced picture of the efforts being made by the government.

To have access to broadband, first and foremost a PC or a laptop is required and secondly one a modem & connection. The cost of a PC starts at around \$400 and is surely not in harmony with the average income per capita, therefore unless we increase the number of affordable devices the BB penetration will not take off. Secondly, the cost of the modem & flexible bandwidth connection will have to be brought down. The best way forward will be to have 3G introduced as a device which is less than USD 70 can not only provide voice but also broadband internet with thousand of non-text application. It is projected that in Pakistan over 08 million 3G devices are working currently on Pakistan existing 2G networks. While, the early 3G licensing has been discussed in the earlier sections it remain a fact that unless 3G technology is introduced by the operators the BB connectivity and subscriber base will remain quite minimal.

Apart from 3G introduction, the government shall continue to have a liberal policy for private sector facilitation by way of low or no licensing fee, low custom tariff on infrastructure and terminal devices in bringing internet bandwidth through multiple Optical Fiber Cable routes and 03<sup>rd</sup> party satellites.

While, a separate Broadband policy document is not required as was done previously this policy item should importantly be highlighted in the same document as the Telecom Policy.

**Policy Guidelines:**

- As 3G network is an ideal platform not only for voice but data too, so in order to enhance broadband penetration aggressively and more effectively its adoption needs to be ensured by way of early licensing.
- The BB policy needs to be merged with the main frame telecom policy instead of treating it as a separate entity. Only when it is catered in line with the main telecom policy, its objectivity will shine out and creates significance for itself.
- The government shall continue to have open policy for introducing new private sector players and facilitate the existing broad band service provider by way of low or no licensing fee, low taxes and custom tariff on infrastructure and terminal devices in bringing internet bandwidth through multiple Optical Fiber Cable routes and 03<sup>rd</sup> party satellites.
- No artificial restrictions shall be made or encouraged that shall discourage new broad band entrants in the market.

**CACF Support:**

- Review the existing broadband policy and have the salient features of the policy incorporate into the main telecom policy document to maintain an integral document of which BB is an important element.
- No significant policy support instrument is required except the one already discussed above. CACF shall make available it experts if the MoITT or PTA requires any support.

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| <p>5.</p> | <p><b>Title: <i>Broadcasting Mobile TV</i></b></p> <p><b><u>Issue:</u></b></p> <p>Broadcast TV on a handset combines two of the greatest consumer products of all time and makes the TV experience mobile. According to a new market research report titled "Mobile TV: Business Models and Opportunities", there will be 140M mobile TV subscribers worldwide by 2011, and global revenues will reach 4.4B Euros.</p> <p>Mobile TV trial commercial networks have now been operational in some developed markets and this will continue to grow, if provided with right policy and regulatory impetus. In Pakistan the Telecom sector policy and regulation is being dealt with by the Ministry of IT &amp; Telecoms and the PTA respectively whereas the media is being governed by the Ministry of Information &amp; Media Development (for policy) and PEMRA (Regulations). With decreasing ARPUs the operators are looking at new avenues with the likes of Mobile TV to increase the revenue. However, since the regulations and policies are being governed by two different set of government entities, the Mobile TV services including spectrum availability have not been given much priority and to a larger extent has been under a state of confusion. The Mobile TV policy and regulation needs to be clarified and processes/procedures defined so that Mobile TV and related applications can be launched for Telecom Industry growth and for the benefit of the consumers alike.</p> <p><b><u>Policy Guidelines:</u></b></p> <ul style="list-style-type: none"> <li>- The Mobile TV services shall be considered as an application to be offered by the existing Mobile &amp; WLL Telecom operators and no separate licensing be required to be taken by the operators.</li> <li>- Adequate Spectrum shall be made available to facilitate the launch and growth of all kind of mobile TV technologies such as DVB-H, MediaFLO, TMB etc., and level playing field shall be provided for all technologies and telecom entities to offer Mobile TV and related applications</li> <li>- To avoid regulatory conflict only the content instrument of censorship, advertising codes, etc., should be dealt with PEMRA whereas the licensing and its implementation to be looked after by PTA.</li> </ul> <p><b><u>CACF support:</u></b></p> <ul style="list-style-type: none"> <li>- CACF shall be able to provide business, regulatory and technical resource person who can provide assistance in making recommendations on policy and regulatory support development for Mobile TV and related services as part of a working group.</li> </ul> |
| <p>6.</p> | <p><b>Title: <i>Convergence of Policies</i></b></p> <p><b><u>Issue:</u></b></p> <p>The Government of Pakistan in year 2000-01 announced the IT &amp; Telecom Policy and after a couple of years announced two separate policies i.e. Mobile Cellular and Broadband policies. All these policies have since expired because policy documents are valid for 5 year period. The usefulness of these separate policies has been a question mark and therefore there is a need to converge all these policy documents into one. Likewise, the bigger question of having one regulatory body for all three</p>   |

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|                  | <p>sectors i.e. IT, Telecom and Media is the need of the hour since technologies have merged and it is difficult to bifurcate which is the voice, video or data bit therefore the business and operational boundaries are getting dimmer. To avoid confusion therefore convergence phenomenon needs to be understood clearly from all domains and all policy institutions as well as regulatory functions need to be re-looked to maintain a balance approach for these challenges.</p> <p><b><u>Policy Guidelines:</u></b></p> <ul style="list-style-type: none"> <li>- The government should work towards and finalize a single policy for all Telecom, IT and Media related services. The policy should cover all aspects and easily implementable without raising any question marks from the stakeholders.</li> </ul> <p><b><u>CACF support:</u></b></p> <ul style="list-style-type: none"> <li>- CACF shall be willing to become part of the MoITT initiatives and assist in providing logical steps in development of country's first convergent policy, collecting ingredients of such policies with case studies where best practices were followed to devise a policy that can be adopted by the Government of Pakistan.</li> </ul>  |
| <p><b>7.</b></p> | <p><b>Title: Allocation of 700 MHz and 2.5/2.6 GHz Spectrum</b></p> <p><b><u>Issue:</u></b><br/>Spectrum availability will be the key to deployment of new technologies. The 700 MHz is being positioned for the broadband data deployment using LTE technology. In the US market, the operators that have acquired the spectrum in the 700 MHz band are looking to deploying LTE over the next few years. The LTE network deployments are complimentary to their 3G networks where LTE is being positioned to provide very high data rates using 20 MHz spectrum or more.</p> <p>In some European markets where spectrum has been awarded in the 2.6 GHz band, the operators are looking to deploy LTE. However, in countries where spectrum has not been awarded yet, regulators and operators are carefully studying Spectrum allocation for possible LTE deployment. Since the policy revision should work for the next several years it is important to have clarity for optimum spectrum availability and allocation, licensing, and eventual deployment of new technologies.</p> <p><b><u>Policy Guidelines:</u></b></p> <ul style="list-style-type: none"> <li>• Ensure that the spectrum is allocated on a technology neutral basis that would be beneficial for the country's telecom sector in the upcoming years.</li> <li>• Allocate adequate interference free spectrum for operators.</li> </ul> <p><b><u>CACF support:</u></b></p> <ul style="list-style-type: none"> <li>• CACF can collaborate to organize an industry-wide workshop especially for the MoITT, PTA, FAB and other stakeholders to bring awareness (such as the global usage of these spectrum and case histories of where the spectrum has been auctioned/awarded) on the best use of the proposed spectrum, the allocation methodology, applications and regulatory and other technical issues associated with the spectrum. Based on these awareness workshops specific recommendations for Pakistan policy should be made.</li> </ul> |