Public Consultation on the Assignment of the Available Frequency Spectrum in the 850 MHz, 900 MHz and 2 GHz Bands for Public Mobile Services

Legislative Council Panel on Information Technology and Broadcasting
Discussion Paper

11 January 2010
1. Background
2. The Available Frequency Spectrum
3. The Arrangement for the Assignment of the Spectrum
4. Way Forward
Background

- Local mobile services recorded a significant growth in recent years
- As of September 2009, market penetration of mobile services exceeded 170%, while mobile data usage has recorded about five-fold increase compared with September 2008

Proposal:

- Further supply of frequency spectrum
- Facilitate the industry to expand relevant services
According to the latest Spectrum Release Plan issued on 27 April 2009, frequency spectrum in the following bands is available for assignment:

<table>
<thead>
<tr>
<th>Band</th>
<th>Block</th>
<th>Frequency Spectrum</th>
<th>Bandwidth</th>
</tr>
</thead>
<tbody>
<tr>
<td>850 MHz Band</td>
<td>Block A</td>
<td>832.5 – 837.5 MHz; 877.5 – 882.5 MHz</td>
<td>5 MHz x 2</td>
</tr>
<tr>
<td>900 MHz Band</td>
<td>Block B</td>
<td>885 – 890 MHz; 930 – 935 MHz</td>
<td>5 MHz x 2</td>
</tr>
<tr>
<td>2 GHz Band</td>
<td>Blocks C1 &amp; C2</td>
<td>C1: 2010 – 2014.8 MHz; C2: 2014.8 – 2019.7 MHz</td>
<td>C1: 4.8 MHz; C2: 4.9 MHz</td>
</tr>
</tbody>
</table>
The Available Frequency Spectrum (2)

- **900 MHz Band**
  - Part of the frequency spectrum in Block B has already been assigned to mobile network operators ("MNO"s) to provide public mobile services in the country parks and remote areas
  - To ensure compatibility with the railway communications and control system of the cross border railways (including the Guangzhou-Shenzhen-Hong Kong Express Rail Link and possibly the Hong Kong-Shenzhen Western Express Line), we will reserve the spectrum of 885 – 889 MHz paired with 930 – 934 MHz (4 MHz x 2) for the railway communications
  - Block B is thus ready for assignment for public mobile service on a shared basis

- **850 MHz Band and 2 GHz Band**
  - Only assigned to MNOs to provide public mobile service
The Arrangement for the Assignment of the Spectrum

1. Spectrum Utilisation Fees
2. Eligibility of Bidders
3. Spectrum Cap
4. Network and Service Rollout Obligation
5. Open Network Access Requirement
1. Spectrum Utilisation Fees

- In general, spectrum is assigned by auction
- The Spectrum Utilisation Fees (“SUF”) of using the spectrum would be determined by auction

**Excluding:**
- For the deployment of spectrum for the railway communications and control system, the TA proposes to assign the spectrum on an administrative basis and intends not to apply SUFs
- To encourage MNOs to improve coverage in the countryside, SUF for the use of radio spectrum to serve solely country parks and prescribed remote areas will be waived
2. Eligibility of Bidders

- With total of 29.7MHz frequency spectrum to be released, it is feasible for a new entrant to set up an entirely new territory-wide public mobile network

Proposal:
- Frequency spectrum should be open for bidding by incumbent MNOs and new entrants
3. Spectrum Cap

- At present, more than 430 MHz of the radio spectrum is assigned for mobile services
- The total spectrum offered in this consultation exercise represents only a small fraction of the pool of existing assigned spectrum

**Proposal:**
- It is not necessary to impose any restriction on the amount of spectrum that a bidder can acquire during the upcoming auction
4. Network and Service Rollout Obligation

- In order to prevent spectrum hoarding and to ensure the timely provision of advanced telecommunications services for the benefit of the general public

Proposal:
- Require the successful bidder to roll-out its network and service in order to provide a minimum coverage of 50% of the population within five years from the issue of the licence
- Require successful bidders to lodge a performance bond to ensure compliance with the rollout obligations
5. Open Network Access Requirement

- With a large number of wireless platforms and a high degree of competition in the market nowadays, the market force should be able to address the need of the community and the industry more effectively and efficiently.
- The *ex-ante* ONA requirement appears to be unnecessary and out of line with the prevailing market situation.

**Proposal:**
- Taking into consideration the current market situation, the TA does not intend to impose ONA requirement on the successful bidders of the spectrum bands in question.
- The TA also proposes to lift the ONA requirement currently imposed on the 2G and 3G licensees in this consultation exercise.
Way Forward

- To gauge the level of commercial interest in the four frequency blocks in question, the TA has invited separately expressions of interest from parties by 20 January 2010.
- The TA will carefully consider all the submissions from respondents to the consultation paper and expressions of interest before making the decision.
- Should the auction of spectrum be proceeded with, we will initiate necessary amendments to the relevant subsidiary legislation to enable the release of the spectrum by auction and with payment of the SUF.
- Auction of the frequency spectrum is tentatively planned to take place in the last quarter of 2010.
~ Thank you ~