

8 April 2013

Dear Sir/Madam,

Submission of Arrangements for the frequency spectrum in the 1.9-2.2 GHz Band upon expiry of the existing frequency assignments for 3G mobile services

Huawei, as a telecom equipment & solutions provider, would like to share our views here in respect of the arrangement for the frequency 3G spectrum in the 1.9 – 2.2 GHz Band.

Our views are derived from our consideration on the long-term development of the telecom industry in Hong Kong, rather than the short-term interest of one company's sales and orders. In other words, the views to be expressed here have nothing to do with Huawei's short-term business interests.

Huawei believes that, from the technical point of view, Option 1 "Right of first refusal to be offered to the incumbent 3G operators" should be the best choice for the telecom industry in Hong Kong. Our reasons follow:

1. **Best Utilization of Existing Network & System Equipment:** Option 1 (renewal) allows the incumbent operators to make the best use of their existing network and system equipment, and avoid the waste of equipment and facilities due to later frequency reallocation. Please note that building a city-wide 3G network (over 2,000 cell sites per operator) consumed a lot of professional planning and physical work (for installation and testing, etc.). Options 2 & 3 imply a possibility that part of a well-functioning network will be terminated, which means wasting all the work put in building and optimizing this network. In order to compensate for this kind of change, the whole network will need to be re-planned and re-structured.
2. **Customer Service Continuity:** Option 1 allows the incumbent operators to maintain and improve their service to end-users. Whereas if Option 2 (re-auctioning) or 3 (hybrid) were adopted, the incumbent operators will require to re-plan and re-structure the existing network. Everyone knows that the existing traffic loading on the 3G networks are very high, even with the best effort to minimize service impact to end users, no one can guarantee that services to the end-users will not be disrupted when cutting network capacity under high loading conditions. We should carefully consider the implications of service disruption if that happens.
3. **Environmental Protection:** Option 1 allows continuing using the existing equipment. Bear in mind that we are talking about not a few, but over 5,000 cell sites in Hong Kong. Options 2 or 3 would mean that some of these well-functioning equipments will be put down, and new equipment will need to be

installed to make up for the loss in capacity. On the existing spectrum, the old equipment together with the new equipment provide no additional capacity, but there would be an increase in overall electricity consumption, carbon emission, and space occupation. Imagine what all this would mean to our environment.

4. **Industry Trend:** As the mobile internet is booming, mobile data traffic is exploding worldwide. To fulfill the requirements of mobile internet, 4G (LTE) is the technology trend to fulfill the needs of new mobile internet requirements. More spectrum will be needed to support further development of this technology in order to provide even better mobile services in Hong Kong (e.g. 700MHz and 3.5GHz). Besides, more thoughts should be put to consider another global trend, i.e. sharing of the telecom infrastructure, sharing of the spectrum resources, while focusing on competition between service providers to ensure quality service to end-users.

I hope our views on the subject make some meaningful contribution to your consideration.

Thank you!

Huawei Tech. Investment Co., Ltd.
8 April 2013