

Voluntary Guidelines for Mobile Network Operators to Publish the Technical Performance Pledges for Mobile Broadband Services

Objective

The purpose of these voluntary guidelines is to provide mobile network operators (MNOs) with guidance when they devise their performance pledges on technical aspects (i.e. the Technical Performance Pledges) of their mobile broadband services, which include among others network coverage and upload/download speeds.

Background

2. In his Statement “Publication of Performance Pledges of Mobile Broadband Services by Mobile Network Operators” of 12 March 2010, the Telecommunications Authority (TA) announced the joint initiative of the Office of the Telecommunications Authority (OFTA) and the industry, which is aimed at increasing the transparency of the service performance of and level of customer satisfaction with the mobile broadband service market. Under the arrangement, MNOs will publish the performance pledges and the actual performance statistics for their mobile broadband services by July 2010 and October 2010 respectively. Such performance information will allow consumers to understand the performance of different mobile broadband services and facilitate them to make informed choice.

Technical Performance Pledges

3. The parameters to be included in the Technical Performance Pledges are to be determined by individual MNOs. Some of the basic guiding principles on publishing the key parameters of network coverage and download/upload speed are given in the following paragraphs.

Network Coverage

4. Network coverage is a useful parameter for consumers to tell

whether or not he/she can receive a satisfactory service at the locations where he/she resides, works or spends his/her spare time. MNOs should provide comprehensive information on network coverage as far as possible.

5. Different MNOs may have different ideas of how to present the information related to network coverage to their prospective customers. One of the common methods is to specify the percentage of areas in Hong Kong with mobile broadband coverage (e.g. 95% of areas in Hong Kong). Coverage information of specific or popular locations such as railways, road tunnels, hiking trails, commercial buildings or shopping malls may be highlighted as far as possible to consumers. In addition, the areas with satisfactory mobile broadband coverage may be shown on digital maps. MNOs should strive to explain the meaning of these maps and the extent or limitations of their coverage. The methodology of deriving the coverage percentage should also be described.

Download/Upload Speeds

6. The parameter on download/upload speeds refers to the typical speed (i.e. not the theoretical maximum speed or peak speed of the technology adopted) that can generally be experienced by consumers using the mobile broadband services. Any download and upload speeds quoted in the performance pledges must be achievable by end users.

7. An indicative range of download and upload speeds under normal conditions may be specified. Since download/upload speeds may vary with the time of the day and the location, when MNOs publish their speed performance, they should quote the speed or range of speeds under certain measurement conditions such as measurement frequency, measurement time and test locations; and such measurement conditions and any limitations should be published in their website. Some examples of the measurement conditions are:

- in no less than [M] hours during the network busy period of a day (e.g. 14:00 – 20:00 of a measurement day);
- in no less than [N] measurement days in a quarter (e.g. 12 measurement days in a quarter), and

- in no less than [P] different cell sites along the MTR route on the Hong Kong Island and in Kowloon (e.g. the measurements are conducted in the cell sites of Central, Admiralty, Wanchai, Causeway Bay, Kowloon Tong, Shamshuipo, Mongkok, Yaumatei, Jordan, Tsimshatsui, Kwun Tong and Kowloon Bay).

While MNOs may pick and choose their own parameters for M, N and P, there should be minimum thresholds if the measured results are to be meaningful to the consumers. If necessary, OFTA may specify the minimum thresholds.

8. The following are some examples of speed performance that can be published by MNOs:

- typical download/upload speeds ranging from xx – yy Mbps; or
- typical download/upload speeds ranging from pp – qq Mbps (burst download/upload speeds of zz Mbps may be experienced in Central and Admiralty. Slower download/upload speeds may be expected in other areas).

9. MNOs may also publish typical speeds in outdoor, indoor, country park/remote area or when the consumers are driving. When OFTA sets up the official speed test site later this year, MNOs should make use of that site to conduct the speed test and such site should be specified in the performance pledge so that consumers may conduct similar speed test themselves to verify the actual speed which they can achieve.

10. Given the special characteristics of mobile broadband technology, MNOs may list and explain those factors and circumstances such as network conditions and connection, traffic conditions, number of concurrent users, surrounding environment, distance from base stations, software and hardware limitations, etc. that may affect the actual speed performance in their pledges. Such information may assist consumers to understand the speed they experienced will vary and there is no guarantee on any speed quoted.

Publication of Performance Statistics

11. To verify their actual performance against the Technical Performance Pledges, MNOs will conduct regular tests of their networks and services and publish such statistics on a quarterly basis. MNOs should set up an internal auditing process so that the performance statistics published may readily be substantiated and verified. Performance statistics related to speed should be based on the test results of a reasonable number of sampled tests conducted throughout the quarter.

Amendment of these Guidelines

12. In consultation with MNOs or other interested parties, these guidelines may be updated or amended from time to time in order to reflect or incorporate the latest arrangement, requirements and scope for the publication of mobile broadband performance pledges by MNOs.

Office of the Telecommunications Authority
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