



POSITION PAPER ON MOBILE SPECTRUM HOLDINGS POLICY

(released 2013 August 12)

This Position Paper has been prepared by the Spectrum Management Authority (SMA) in collaboration with the ICT Division within the Ministry of Science, Technology, Energy and Mining (MSTEM). The information provided herein are for those parties currently providing or are considering providing mobile services to the public in Jamaica. The paper outlines the proposed mobile spectrum holdings policy which recommends the establishment of a maximum limit on the aggregate holdings of spectrum (spectrum cap) in the listed frequency bands: 700MHz, 850MHz, 900MHz, 1800MHz, and 1900MHz. Comments are being sought on:

- a) general policy considerations related to this issue;
- b) the proposed spectrum cap; and
- c) the duration of the proposed cap.

All comments in relation to the Position Paper must be addressed **in writing** to:

**The Managing Director
Spectrum Management Authority
13-19 Harbour Street
Kingston
info@sma.gov.jm**

The deadline for submission of comments is **2013 September 06**

The SMA will publish in whole or in part, all comments received in relation to this Position Paper. The identity of those making the comments will not be published and requests for confidentiality of subject material will be considered in accordance with the need for transparency. It will be the responsibility of each interested party to check the SMA website for updates.

1.0 Background

The Information Memorandum – Licensing the 700MHz Band, issued by the SMA on 2013 April 15, proposed the imposition of an aggregate spectrum cap and the imposition of an in-band spectrum cap. Initial queries/comments were received from stakeholders with respect to the caps being contemplated and as far as possible responses were provided to these queries/comments. The foregoing notwithstanding, this medium will be used to continue the consultation on the aggregate spectrum cap, based on the policy objective of the Government of Jamaica (GoJ).

2.0 Policy Objective

Mobile telephones have become a common product with a penetration rate of more than 70% in most developed countries. With rapid diffusion of wireless telecommunications, mobile markets have been transformed into the most competitive part of the telecommunications sector.

Competitiveness however may be impacted in part by the scarcity of available spectrum which may limit the number of mobile operators in the market. In recognition of this, the GoJ proposes to further promote and strengthen a competitive telecommunications marketplace and encourage new entrants into the Jamaican market, through, among other things, the imposition of an aggregate spectrum cap. This is consistent with the GoJ's ICT Policy, specifically, section 2.4, (IV), of the ICT Policy which states that "Competition within the ICT Sector" is one of the fundamental principles that the GoJ will promote.

3.0 Spectrum Cap (Aggregation Limit)

The proposed spectrum cap relates to the maximum amount of spectrum that any operator will be allowed to hold, in aggregate, within the following bands: 700MHz, 850MHz, 900MHz, 1800MHz, and 1900MHz. Internationally, the imposition of spectrum caps has been introduced from the 1990s in an effort to help to ensure the development of effective competition in mobile markets by providing new entrants access to sufficient spectrum resources and to preclude spectrum hoarding. The goal is to prevent operators from gaining positions, through large holdings of spectrum, which they might then exploit anti-

competitively. Several countries have imposed spectrum caps; however there are diverse approaches towards its use, given the wide national and regional variations in:

- a. institutional arrangements in the political, legal and commercial spheres;
- b. histories of telecommunications development;
- c. internal social, cultural and economic pressures; as well as,
- d. current status of competition, supply, and demand in mobile communications.¹

4.0 International Market Trends

As previously mentioned, spectrum caps have been introduced from the 1990s in order to bolster competition. However, starting in about 2000, regulators in many countries eliminated the spectrum caps imposed after achieving the desired level of competitiveness. Instead of bright-line rules limiting the amount of spectrum to preserve competition, regulators opted to analyze the competitive effects of transactions involving mobile telephony service providers on a case-by-case basis. Notwithstanding, spectrum caps continue to be considered by regulators where there is a concern about the competitive landscape and potential harm to consumers.

United Kingdom

In December 2010, Ofcom was asked by the British Government to assess how the release of spectrum (in the 800MHz and 2.6 GHz bands) to facilitate the rollout of 4G services would affect future competition in the mobile market. In a Press Release dated March 2011, Ofcom indicated that it considered that there would be risks to future competition if bidders were free to acquire any amount of spectrum in an open auction. This is because access to new spectrum is scarce but essential for providing the higher speed data services demanded by consumers, such as web browsing and video streaming. Ofcom noted that the combination of these two factors – scarcity and demand – could create incentives for bidders to bid strategically and reduce the amount of spectrum available to other bidders.

¹<http://www.gsma.com/spectrum/wp-content/uploads/2012/07/Spectrum-Mobile-broadband-competition-and-caps-report-2009.pdf>

As a result Ofcom, proposed, among other things, to put in place safeguard caps to guard against longer term risks to competition from any one licensee holding a disproportionate amount of spectrum. Two safeguard caps were proposed:-

- A sub 1GHz safeguard cap of 2×27.5 MHz, which will mean that no one competitor can obtain more than this amount of sub 1 GHz spectrum, and
- An overall spectrum holdings cap of 2×105 MHz, which will mean that no one competitor can obtain more than this amount of spectrum overall.

United States

Spectrum Caps were introduced in the United States at a time when the level of competition that existed, if any, was in the form of a duopoly. Subsequently, with the mobile market becoming more competitive, the Federal Communications Commission (FCC) eliminated, ‘per se’, its limit on the aggregation of Commercial Mobile Radio Services (CMRS) spectrum effective January 1, 2003. The spectrum caps limited wireless carriers from controlling more than 45 MHz of spectrum across urban markets, which was later increased to 55 MHz. At that time six (6) nationwide mobile telephone operators existed: AT&T Wireless, Sprint PCS, Verizon Wireless, T-Mobile, Cingular Wireless (“Cingular”), and Nextel. Today, as a result of mergers and other transactions, there are four (4) nationwide providers: Verizon Wireless, AT&T, T-Mobile, and Sprint Nextel.

In response to market changes, the FCC in September 2012 issued a Notice of Proposed Rulemaking with respect to policies regarding mobile spectrum holdings. The Notice stated that “in light of the surge in consumer demand for mobile broadband services that require greater bandwidth, spectrum – a key input in the provision of mobile wireless services – is becoming increasingly critical for all providers.” As such, the Commission sought comments on retaining or modifying the current case-by-case analysis used to evaluate mobile spectrum holdings in the context of transactions and auctions, as well as, on bright-line limits advocated by some providers and public interest groups. In response, the Rural Telecommunications Group requested that the Commission limit licensees to 25% of all available and usable mobile broadband spectrum in any given county with no carrier permitted to hold more than 40% of all available and usable spectrum below 1 GHz in any

given county. In March 2013, the FCC took the decision to not impose spectrum aggregation limits. Therefore, in the alternative, some carriers requested that the FCC implement a spectrum screen that would trigger increased review of certain long-form auction applications for anticompetitive effects, similar to the screen applied to merger and acquisition transactions. In general, the spectrum screen prevents further acquisition once a company goes above 33% of the licensed airwaves in one market area. However, the screen is applied on a case-by-case basis, usually in the case of mergers and acquisitions, to ensure that one operator does not control a monopolistic portion of spectrum in a given market.

Aggregate Caps established by other Countries in the Region:

- Argentina – 50 MHz
- Brazil – 80 MHz
- Chile – 60 MHz
- Columbia – 40 MHz
- Mexico – 35 GHz
- Peru – 60 MHz

5.0 Local Market Assessment

Cognizant that spectrum is a finite resource, and having assessed the rationale for spectrum caps and as well as the rationale for the absence thereof in some jurisdictions and in the light of new spectrum up for offer, the GoJ (after consultation with the SMA) concurs with the principles underlying Ofcom’s assessment of their market. As such, the GoJ believes that similar if not more risks exist to the future of competition in Jamaica if operators are free to acquire any amount of spectrum, whether in an open auction or by some other mechanism. The two factors mentioned by Ofcom: firstly, that mobile spectrum is scarce and secondly, that such spectrum is essential for providing the higher speed data services increasingly demanded by consumers, are also true for the Jamaican market place. Therefore the combination of these two factors – scarcity and demand – could also negatively impact competition in Jamaica.

Specifically, the current Jamaican mobile landscape is a duopoly consisting of two operators, Cable & Wireless Jamaica Ltd (t/a LIME) and Digicel (Jamaica) Ltd. (t/a Digicel), which may be a significant risk to anti-competitive behaviour if any of the incumbents is able to amass a significant spectrum portfolio in the bands under consideration. The ability to amass significant spectrum holdings could preclude the possible entrance of a new operator, an overriding goal of

the GoJ. As competition is essential to maximising consumer benefits, it is proposed to introduce an ex-ante regulation that places a limit on the amount of spectrum that any one operator is allowed to hold to guard against the risk of anti-competitive situations. Additionally, the cap is also intended to preserve incentives for efficiency and innovation.

6.0 Proposed Spectrum (Aggregate) Cap for Jamaica

The proposed aggregate cap for mobile/broadband band spectrum (i.e. 700MHz, 850MHz, 900MHz, 1800MHz, and 1900MHz) is 80 MHz. The reasons influencing the proposed aggregate cap are *inter alia*: the necessity to ensure equity in the mobile market, the need to minimize the possibility for the entire or majority of the spectrum being available to only one service provider, and the necessity to have spectrum available for new entrant(s) in the market.

It is of note that low band access mobile spectrum is a scarce resource in any country which facilitates competition. In Jamaica, it has been demonstrated, based on global standardized mobile technologies (GSM, IMT-2000 *et al*), that for reasonable roll-out using access spectrum in the 850, 900, 1800, 1900 MHz bands an average of 2x10 MHz of access spectrum in each band is sufficient. Therefore, if a player has 2x10 MHz of spectrum in all the captioned bands, that is, 2x40 (80) MHz, then in order to preserve competition this is considered a reasonable benchmark for a cap in mobile access spectrum.

In the event that an incumbent wishes to acquire additional spectrum above the established cap, the incumbent may only do so if it relinquishes other spectrum with similar technical characteristics (that is, low band for low band or high band for high band). Such incumbent would only be required to relinquish spectrum if it takes part in the applicable licensing process and is a successful applicant. The general technical characteristics of the GSM bands are: (a) cell site coverage area per base station, (b) in-building signal strength and (c) robustness. Based on these, the low band spectrum referred to are the 850/900 MHz bands and the high band spectrum referred to are the 1800/1900 MHz bands. The determination of which spectrum will be relinquished if an incumbent exceeds the cap will be a joint decision between the SMA and the operator upon due consideration of its current network design, services offered and utilization of the spectrum.

Where frequencies are to be relinquished in accordance with the cap it is proposed that the pro-rated value of the spectrum being relinquished is offset against the spectrum price to be paid by the successful applicant. The pro-rated value would be based on the licensing fee paid at the time of acquisition of the spectrum being relinquished and the validity period remaining on the Spectrum Licence being relinquished.

It is proposed that the cap be revisited in three (3) years or at such earlier time as the Minister may determine, upon consultation with the SMA, to ensure that the ICT policy objectives are realized.