



Pan-Channel Island Spectrum Awards in the 2.1 and 3.6 GHz Bands

Statement of Intent

Channel Islands Competition and Regulatory Authorities

Document No: CICRA 14/61

December 2014

*Guernsey Competition & Regulatory Authority
Suites B1 & B2, Hirzel Court,
St Peter Port, Guernsey, GY1 2NH
Tel: +44 (0)1481 711120
Web: www.cicra.gg*

*Jersey Competition Regulatory Authority
2nd Floor Salisbury House, 1-9 Union Street,
St Helier, Jersey, JE2 3RF
Tel: +44 (0)1534 514990
Web: www.cicra.je*

CONTENTS

1. Introduction..... 3

2. Allocations in the 2.1 and 3.6 GHz bands 4

CICRA’s objectives and principles4

Consultation responses5

3.6 GHz spectrum5

2.1 GHz spectrum6

3. Next Steps 8

Annex A – Spectrum Allocation in the Channel Islands – July 2013..... 9

1. Introduction

CICRA¹ (the Channel Islands Competition and Regulatory Authorities) issued a consultation in April 2014 (CICRA 14/21) in response to a request from Clear Mobitel for spectrum in the 2.1 GHz and 3.6 GHz bands. It received responses from the three existing providers of mobile telecommunication services in the Channel Islands (Airtel, JT and Sure).

Responses indicated the 2.1 GHz band was attractive to existing mobile operators, in particular to Airtel who requested 2 x 5 MHz of spectrum in this band. There was no particular interest in the 3.6 GHz band that could not be accommodated within the available spectrum.

In parallel with this consultation, CICRA also conducted an extensive process of spectrum allocation that culminated, in July 2014, with the award of spectrum (800 MHz, 1,800 MHz and 2.6 GHz) to Airtel, JT and Sure. This spectrum will enable them to build networks capable of providing LTE/4G services to their Channel Islands customers.

As the pattern of future spectrum use by telecommunication operators is becoming clearer, and as both Airtel and Clear Mobitel have now submitted business cases indicating how they intend to use the spectrum for which they have applied, CICRA has come to the conclusion that it does not need to engage in a competitive process to allocate the 2.1 GHz spectrum provided it takes steps to optimise its use. Such optimisation – or re-organisation – of the 2.1 GHz band will ensure that current demand, including that from Airtel and Clear Mobitel, can be accommodated while creating room to satisfy potential future demand. As a consequence, CICRA believes it can now recommend to Ofcom a way forward for the allocation of spectrum in the 2.1 GHz and 3.6 GHz bands.

Before recommending spectrum allocations to Ofcom, CICRA is inviting comments on its intentions with this document. Following an assessment of responses, CICRA will then consider making recommendations to Ofcom.

Disclaimer

This document does not constitute legal, technical or commercial advice; CICRA is not bound by this document and may amend it from time to time. This document is without prejudice to the legal position or the rights and duties of CICRA to exercise regulatory powers generally.

¹ The Jersey Competition Regulatory Authority (JCRA) and the Guernsey Competition and Regulatory Authority (GCRA) are together referred to as CICRA and, unless otherwise stated, all references to CICRA in this Decision are to each of the JCRA and GCRA

2. Allocations in the 2.1 and 3.6 GHz bands

This section describes some of the principles CICRA used in determining a way forward in responding to Clear Mobitel's and, later, Airtel's applications for spectrum in the 2.1 GHz band and Clear Mobitel's in the 3.6 GHz band. The section then briefly reports the responses CICRA received to its April consultation and describes CICRA's intentions for both spectrum bands.

CICRA's objectives and principles

CICRA's objectives and the legislative background for its work were described in the April consultation document and are not repeated here. In addition, in order to ensure that spectrum is allocated to operators that will use it for the benefit of the Channel Islands, CICRA distinguishes between actual demand – manifested by a formal application for spectrum and supported by a business case explaining how the spectrum sought will be used to provide valued services – and what it calls 'putative' demand, which is an as yet unsupported intention to expand spectrum use some time in future.

In the pursuit of its objectives, CICRA recognizes the importance of technological developments and their impact on the optimal allocation of spectrum. In the same way as it uses the process of allocating 4G/LTE spectrum to reorganise various parts of the spectrum into blocks of at least 5 MHz, CICRA also appreciates that contiguous blocks of, say, 15 or 30 MHz may enable operators not only to handle more traffic but to provide a service of a higher quality. CICRA is therefore seeking to allocate, where possible, contiguous blocks of a sufficient size to enable operators to make optimum use of the spectrum they are allocated.

As with other spectrum bands and, in particular, with the spectrum allocated for 4G/LTE services, CICRA intends that all spectrum allocated to Channel Island operators should be technology neutral, meaning that operators can choose the services they provide by means of each spectrum band.

CICRA therefore intends that its recommendations to Ofcom for the optimisation and allocation of the 2.1 GHz band and for allocations in the 3.6 GHz band should be technology neutral.

CICRA also intends to align spectrum allocations in Jersey and Guernsey so that each operator is able to use the same frequencies in either Island. In the particular case of the 2.1 GHz and the 3.6 GHz bands, existing allocations already satisfy this principle except for the 2 x 5 MHz block allocated to Marathon in Jersey only.

Consultation responses

CICRA received responses to its April 2014 consultation (CICRA 14/21) from the three existing mobile operators in the Channel Islands, Airtel, JT and Sure.

In its response, JT noted that it could use some additional 2.1GHz spectrum if it was available, on top of its existing 2 x 10 MHz allocation. This would enable it to improve its 3G service. JT does not have an immediate requirement for 3.6GHz spectrum but indicated it might require it later to cater for increased LTE traffic. It recommended that CICRA assess the spectrum requirements of interested operators, including scrutiny of the business cases of the interested parties, before making any recommendations to allocate spectrum. It also suggested CICRA should insist on roll out conditions within a set time frame (say 12 – 18 months) and verify these conditions have been satisfied.

Airtel's response – which is partly confidential – confirmed its application for some additional 2 x 5 MHz spectrum in the 2.1 GHz band. It had made its submission to CICRA – which was for spectrum contiguous to the 2 x 10 MHz block it already had in this band – in response to Clear Mobitel's application. Airtel also re-stated its opposition to spectrum hoarding and its support for the promotion of competition in the Channel Islands telecoms markets.

In its partly confidential response, Sure said CICRA needed to assess the demand for spectrum from other telecom operators before it allocated spectrum to Clear Mobitel. If it was confirmed there was excess demand, a competitive allocation process might be more appropriate.

3.6 GHz spectrum

As CICRA noted in its April consultation document, a 2 x 70 MHz band is currently unallocated in the 3.6-3.8 GHz range.

Clear Mobitel requested the specific frequency band of 3630-3660 MHz (matched with 3730-3760 MHz) in this band, a block adjacent to that currently allocated to Sure. None of the responses CICRA received to its April consultation indicated a definite demand for 3.6 GHz spectrum. Putative demands for this kind of spectrum might easily be accommodated in the 2 x 40 MHz of spectrum that would remain after Clear Mobitel received the spectrum it requested. Further spectrum is likely to become available in due course in the 3410-3600 MHz band, in line with the spectrum that is being released in the UK for civil use.

CICRA is therefore proposing to recommend to Ofcom it gives Clear Mobitel a spectrum licence for the 2 x 30 MHz band it requested.

2.1 GHz spectrum

The 2.1 GHz band consists of 2 x 60 MHz with two guard bands at each end of 0.3 MHz. In this band, Clear Mobitel asked for the specific frequencies of 2130-2140 MHz (matched with 1940-1950 MHz). This 2 x 10 MHz block is adjacent to that held by Airtel (2120-2130 MHz matched with 1930-1940 MHz) and Airtel wishes to expand its allocation by adding 5 MHz to its existing 10 MHz in order to have three wideband channels. Airtel cannot expand its holding in the other direction as Marathon already holds a licence for a 2 x 5 MHz bloc in Jersey adjacent to Airtel's existing allocation.

Wideband (UMTS or LTE) channels may be either 5 MHz or 4.8 MHz in bandwidth. The centre point of each channel must be 5 MHz away from the centre point of an adjacent channel used by another operator. So, in practice, if an operator has 2 channels of 5 MHz each, it needs the full 10 MHz to keep at a sufficient distance from the next operator. However, if an operator has 3 or more channels, the internal channels in its allocation may be 2 x 4.8 MHz.

The solution CICRA is proposing takes the form of a two-stage process. The final stage will see the 2.1 GHz band divided between five operators as follows and as shown below (in no particular order except for the guard bands at the ends of the 2.1 GHz band):

- One operator with 14.8 MHz worth of spectrum, equivalent to 3 wideband channels (Airtel)
- Three operators with 2 x 10 MHz (Clear Mobitel, JT, Sure), two of which might expand to 14.8 MHz worth of spectrum, like Airtel
- One operators with 2 x 5 MHz in Jersey only (Marathon)

Guard band	Mara- thon	Airtel	Clear Mobitel, JT or Sure	Clear Mobitel, JT or Sure	Clear Mobitel, JT or Sure	Guard band
0.3 MHz	5	14.8	10	14.8	14.8	0.3

The arrangement proposed above would satisfy all current demands – actual or putative – for the 2.1 GHz spectrum that were expressed in response to the consultation we issued in April 2014. It would leave 5 MHz of unused spectrum in Guernsey as Marathon's spectrum licence is for Jersey only. And it would enable most of the operators to have a contiguous group of three channels.

To achieve this arrangement of spectrum allocation, it is likely that all existing users of the 2.1 GHz band would need to move somewhat, particularly Marathon who now sits in a blocking position 5 MHz from the bottom edge of the band. CICRA believes that such re-

allocation of spectrum could be justified by spectrum management objectives – spectrum is a scarce resource and must be used as efficiently as possible.

In the short term, it is not possible to issue spectrum to Clear Mobitel and Airtel for the frequencies they would eventually use. We have asked both organisations, as a condition of our recommendation to Ofcom, to confirm that they were prepared to receive a temporary block of spectrum that they could use until the 2.1 GHz band was optimised.

We therefore propose to recommend to Ofcom that Airtel be allocated 2 x 4.8 MHz of spectrum adjacent to its existing allocation, above 2130 (matched with 1940) and Clear Mobitel be allocated 2 x 9.7 MHz of spectrum adjacent to Sure, above 2160 (matched with 1980). Both these Wireless Telegraphy Act 2006 licences will be temporary, pending the re-organisation of the band, when Airtel will continue to have a contiguous block of 2 x 14.8 MHz and Clear Mobitel will have a full 2 x 10 MHz block.

3. Next Steps

Interested parties are invited to submit comments to CICRA in writing or by email on the matters set out in this paper to the following addresses:

Suites B1 & B2 Hirzel Court St Peter Port Guernsey GY1 2NH Email: info@bicra.gg	2 nd Floor, Salisbury House 1-9 Union Street St Helier Jersey JE2 3RF Email: info@bicra.je
--	--

All comments should be clearly marked "*Pan-Channel Island Statement of Intent on Spectrum Awards in the 2.1 and 3.6 GHz Bands*" and should arrive by 5pm on Monday 26 January 2015.

In line with CICRA's consultation policy, the regulators intend to make comments on this Statement of Intent available on the CICRA website, the combined website of the GCRA and JCRA. Any material that is confidential should be put in a separate annex and clearly marked as such so that it may be kept confidential. CICRA regrets that it is not in a position to respond individually to the comments it receives.

/ends

Annex A – Spectrum Allocation in the Channel Islands – July 2013

Frequency		J	G	Jersey					Guernsey						MHz
				MHz					MHz						
925.1 - 930.1	880.1 - 885.1			5					9.8	JT(G)					5
930.1 - 934.9	885.1 - 889.9			5		Airtel(J)				JT(G)					4.8
934.9 - 935.1	889.9 - 890.1														0.2
935.1 - 949.7	890.1 - 904.7			24.8	Jersey T				19.8			C&W(G)			14.6
949.7 - 952.3	904.7 - 907.3				Jersey T				5				Airtel(G)		2.6
952.3 - 957.5	907.3 - 912.5				Jersey T							C&W(G)			5.2
957.5 - 959.9	912.5 - 914.9				Jersey T								Airtel(G)		2.4
1810.1 - 1820.1	1715.1 - 1725.1								10	JT(G)					10
1820.1 - 1825.1	1725.1 - 1730.1								6.2				Airtel(G)		5
1825.1 - 1833.3	1730.1 - 1738.3			10											8.2
1833.3 - 1835.3	1738.3 - 1740.3			5		Airtel(J)		C&W(J)							2
1837.3 - 1838.5	1742.3 - 1743.5												Airtel(G)		1.2
1840.5 - 1842.3	1745.5 - 1747.3														1.8
1842.3 - 1845.3	1747.3 - 1750.3					Airtel(J)		C&W(J)							3
1850.7 - 1855.7	1755.7 - 1760.7								5			C&W(G)			5
1864.9 - 1876.5	1769.9 - 1781.5			11.6	Jersey T										11.6
	1900.0 - 1905.0			5				Marathon							5
	1904.9 - 1909.9								5	JT(G)					5
	1905.0 - 1910.0			5		Airtel(J)									5
	1910.0 - 1915.0			5	Jersey T										5
	1915.0 - 1920.0			5				C&W(J)							5
2115.0 - 2120.0	1925.0 - 1930.0			5				Marathon							5
2120.0 - 2130.0	1930.0 - 1940.0			10		Airtel(J)							Airtel(G)		10
2130.0 - 2140.0	1940.0 - 1950.0														10
2140.0 - 2150.0	1950.0 - 1960.0			10	Jersey T				10	JT(G)					10
2150.0 - 2160.0	1960.0 - 1970.0			10				C&W(J)							10
2160.0 - 2170.0	1970.0 - 1980.0								10			C&W(G)			10
3480 - 3500	3580 - 3600			20				Newtel(J)	20				Under consultation		20
3600 - 3630	3700 - 3730			30				C&W(J)	30				C&W(G)		30
3630 - 3660	3730 - 3760														
3660 - 3690	3760 - 3790														
10.125 - 10.165	10.475 - 10.515														
10.165 - 10.225	10.515 - 10.575								60	JT(G)					60
28.0525 - 28.1645	29.0605 - 29.1725								112	JT(G)					112
28.1925 - 28.3045	29.2005 - 29.3125														
29.3325 - 28.4445	29.3405 - 29.4525														