



The Bigger, Better Network.

**Digicel's comments on the Public Consultation in respect of a Policy  
for the Assignment of 700 MHz Spectrum in the Cayman Islands**

**AUGUST 2011**

The succeeding comments are not exhaustive and Digicel's decision not to respond to any particular issue raised in the Consultation Document or any party does not necessarily represent agreement, in whole or in part with the Authority or other parties on these issues; nor does any position taken by Digicel in this document mean a waiver of any sort of Digicel's rights in any way. Digicel expressly reserves all its rights.

We thank you for inviting Digicel to provide its reply comments on this consultation and of course we are available for any questions you may have.

## Comments

**Question 1: Do you agree that the 700 MHz spectrum should be channelized in the Cayman Islands based on 18 channels of 6 MHz each as was done in ECTEL and if so, why? If not, what channelization method do you consider appropriate (e.g. the FCC 'method') and why?**

LTE represents the future wave of mobile services and if given the chance has the potential to deliver very significant improvements over other mobile technologies – tremendous download speeds of up to 150 Mbps currently and the higher speeds will offer great social and economic potential. In order to extend the full advantages in terms of what this technology can deliver it will mean doing two things:

1/ making prices accessible to as many people as possible;

2/ providing operators with sufficient spectrum to deliver the maximum level of service – most notably, the super high speeds – to consumers.

## Accessibility

In order to achieve the first of these objectives the Cayman Islands must adopt a channelization plan which is consistent with the plan in the United States. This is because LTE handsets are, and equipment is, being manufactured in mass quantities for the US market. As a consequence, if the Cayman and US band plans are consistent it has the potential to reduce and make more affordable the price at which handsets and equipment could be obtained to build a network and sell handsets to consumers in the Cayman Islands. It will also enable roaming to take place (between equipment and handsets corresponding to that used by a particular US operator in particular spectrum).

The US band plan, as the Authority knows, is consistent with the 3G PP band classes which are as follows:

Band 12

698 – 716MHz and 728 – 746 MHz

Band 13

777 – 787 MHz and 746 – 756 MHz

Band 14

788 – 798 MHz and 758 – 768 MHz

Band 17

704 – 716 MHz and 734 – 746 MHz

The US spectrum allocations fit within these bands.

But if the alternative ECTEL channelization was adopted in a way that resulted in the spectrum not being assigned in the contiguous blocks necessary to enable the use of US equipment and handsets, the Cayman Islands could be condemned to no LTE development or at best second best, fragmented, and extremely expensive LTE services, which only the wealthiest in society could afford. Indeed it is not apparent if there would be any equipment or handsets available if the spectrum were broken up in the manner that is possible if the ECTEL 2009 plan was used and depending on what contiguous blocks were enabled. Please also note that ECTEL is in any event reviewing the policy it proposed in 2009 and has told us that it is expecting to issue a revised statement within the next few months.

The Authority has suggested that “the 700 MHz equipment developed by the international telecommunications industry is likely to be digital and incorporate Internet protocols that can easily be adjusted for minor variations in bandwidth”. This is with respect a significant “reach” by the Authority and no evidence is supplied that this has been empirically proven. Indeed based on what Digicel has read the opposite may be true and equipment and handsets are being designed that may be very operator spectrum/band class specific.

A better test is for the Authority to see if any other jurisdiction in the world has used the kind of channelization it has suggested and also prevented contiguous channel allocation which would prevent manufacturing economies of scale from being relied upon. We are aware of no such jurisdictions currently.

We underline that this is a new and complex technology and non-standard implementations may lead to many unforeseen if not insurmountable problems financially if not technically. Moreover the Authority makes no suggestion that there are handsets available that could work in each of these 18 distinct channels either at all, or at reasonable cost. But without handsets that will sell, the technology is dead in the water.

Digicel is aware that it did not voice opposition to the use of 18 \* 6 MHz channels previously, but that is unsurprising given that was two years ago, that this is a rapidly changing industry and that Digicel had not spent as much time considering LTE at that time. Things have moved on since then as the Authority states itself. Moreover it is in any case not just a question of the channelization plan but also a question of the band plan that matters as indicated above.

### **Maximum Service Delivery**

The amount of 700 MHz spectrum that will be available for service delivery by an individual operator will be roughly proportionate to the data speeds that may be delivered by the technology. Therefore the consumer’s service experience is reliant on the Authority providing each operator with enough spectrum. The best experience for customers is dependent on 40 MHz of spectrum being made available per operator.

If there is too much demand for the available spectrum to make 40MHz allocations possible, then the Authority should enable operators to get as close as possible to that level of allocation, as well as making the allocations consistent with USA operator allocations, so that customers will get the full LTE experience and service and not a limited one.

**Question 2: Do you agree that the number of channels to be assigned by the Authority to each operator and how they should be assigned should be left to the discretion of the Authority after consideration of the operators' business and technical proposals?**

As indicated, the start point should be the FCC band plan so that handsets and equipment made for the US market can be used in the Cayman Islands and within and across the entirety of each operator's allocation. As long as the Authority works within those parameters Digicel is content for the Authority to consider exactly what to give to which operators based on their applications.

**Question 3: Do you consider that it is appropriate to reserve 24 MHz of the 700 MHz for use by public safety agencies and 24 MHz for future use?**

We think that if 24 MHz is reserved for future use it is more likely simply to undermine the development of the technology in the Cayman Islands by limiting what LTE services can deliver. In any event the Authority must not reserve spectrum which would result in an operator being unable to use equipment that was manufactured for the US market and handsets "out of the box".

We cannot see any basis for retaining as much as 24 MHz of the spectrum for public safety agencies. We think again that this is likely only to undermine development of the technology and service delivery in the Cayman Islands. The maximum that should be retained for public safety should be as determined by the FCC for the United States. In fact, it may make far more sense for public safety bodies to rely on public networks in the Cayman Islands to deliver the services they want delivered - albeit with prioritisation of emergency traffic.

Moreover it is not clear what event would determine when the "future" has arrived. Spectrum could lie fallow and wasted indefinitely unless the Authority can at this time indicate what that event could be. It seems to us that any wait time would be arbitrary.