

December ,19 ,2011

Mr. David Archbold  
Information Communications Technology Authority  
P.O. Box 2502 GT  
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Grand Cayman

Dear Mr Archbold

### **Number Portability: SS7 versus SMPP Signaling**

Thank you for your letter of 6<sup>th</sup> December asking Digicel and LIME to set out their rationale for the signaling methodology to be employed to enable the routing of SMS messages to ported mobile numbers.

The ICTA decision 2008-5 did not address post LNP SMSC interworking and therefore did not specifically state as standard for SMSC interconnection. Digicel upgraded its core switching network as per the established GSMA standard. Ericsson who is one of the world's leading supplier of GSM equipment installed and commissioned the new Main Switching Centre in compliance with GSMA specifications to accommodate full Number Portability.

At this stage the Digicel core network has been upgraded and is fully compliant with the GSMA standards and we are able to provide Number Portability based on this standard. Digicel understands that C&W's network is based on Ericsson's GSM architecture and therefore it would be reasonable to assume that their network would have the same functionality to accommodate SMSC interworking using SS7.

3GPP TS 23.066 version 10.0.0 Release 10, which you kindly forwarded to us, states the following within the definitions section (section 3):

*Non-call related signaling message: all signaling messages where the MSISDN is used to route the message on SCCP level except MAP SRI without OR parameter set (ie SMS\_SRI, SRI for SOR, Send\_IMSI, CCBS\_Request etc)*

This makes it clear to a technician that SS7 signaling is required for mobile number portability. Breaking down the above definition of "non-call related signaling message" we can see that in all cases for non-call related signals SMS\_SRI signaling is required.

I should explain that the text *"except MAP SRI without OR parameter set"* is a reference to call signaling. This makes it clear therefore that non-call related signaling message refers to "...all signaling messages where the MSISDN is used to route the message on SCCP level .....ie SMS\_SRI. SMS\_SRI is reliant on SS7 signaling.

We have also spoken to the Chairman of 3GPP meeting SP-51 at which the current release of document 23.066 was frozen. The Chairman was Stephen Hayes from Ericsson. He indicated that SS7 signaling was chosen because the existing telecommunications infrastructure followed Mobile Application Part (MAP) protocol which is the protocol used to support GSM switching requirements in the switching elements of GSM networks. We asked him whether, therefore that meant it was simpler to implement SS7 signaling to enable MNP. He agreed with that statement. We also suspect that it is likely to be more robust to use SS7 signaling, since all existing mobile infrastructure in the Cayman Islands is designed to work with SS7, rather than an alternative protocol like SMPP.

As usual Digicel is fully committed to the LNP process and will be willing to have the experts such as Mr. Hayes from Ericsson meet with the ICTA to provide additional technical information on the SS7 standard for SMSC interworking.

Yours sincerely



Victor Corcoran  
CEO