



## ICT Decision 2012-1

Grand Cayman, 7 February 2011

### **Determination of a dispute on whether or not Operators should use and exchange Routing Numbers to route calls to a ported number.**

#### **Overview**

*In this Decision, the Authority determines that, until such time as Operators are either directly interconnected or have agreed an alternative solution, all Operators should use and exchange Routing Numbers to route calls to a ported number. Operators may do this for themselves or they may contract with another Operator to provide the service for them.*

#### **BACKGROUND**

1. In ICT Decision 2005-1 ("Decision 2005-1"), *Interim Decision and Further Process for Local Number Portability*, 29 March 2005, the Information and Communications Technology Authority ("the Authority") determined that there were significant benefits to Local Number Portability ("LNP") and that it would be appropriate to consider further the cost of implementing LNP in the Cayman Islands. Accordingly, the Authority established an LNP Consortium ("the Consortium"), consisting of major ICT Network Licensees with Authority Staff providing administrative support, to identify the most appropriate LNP model for the Cayman Islands and to investigate its costs.
2. In ICT Decision 2008-5 ("Decision 2008-5"), *Decision and Further Process on Local Number Portability*, 18 December 2008, the Authority determined, based on the evidence filed, that the benefits likely to arise from the requirement to provide LNP outweigh the likely cost of implementing. The Authority was also satisfied on reasonable grounds that such a requirement would not impose an unfair burden on any Licensee. Therefore, in accordance with section 71(3) of the Information and Communications Technology Authority Law 2006 ("ICTA Law", currently the 2011 revision), the Authority directed all operators licensed to provide telephony services (Type 1, 3, 4 and 5 Services) to implement LNP.
3. At its simplest, LNP is a process whereby customers can keep their existing telephone number when moving from their previous telephone provider (known as the "Donor Operator") to their new telephone provider (known as the "Recipient Operator"). This is often referred to as 'porting' the customer's telephone number.

4. The underlying process to allow for this number change, which is transparent to a customer, is far more complex. In the Cayman Islands, fixed line, fixed wireless and mobile Licensees are allocated number ranges by the Authority. The Licensees then allocate numbers to individual customers. The information in the number is typically used for two purposes: customer identification and call routing. The customer identification function allows billing and administration to be carried out by the customer's service provider. The call routing function permits the call to be directed to the switch of the called party's service provider (host switch) which in turn connects the call or sends the call to the called party's telephone.
5. If the called number has been ported then, although the ported number continues to identify the customer being called, it no longer correctly identifies the network on which the customer is located as it still directs to the Donor Operator's network. In order to effect LNP, additional information is required to ensure that the ported call is routed correctly. This additional information should identify that the customer's number is no longer the same as the network routing number. Therefore, some form of "number translation" needs to take place to identify the network of the ported number.
6. On 6 September 2011, the Consortium members (being Cable & Wireless (Cayman Islands) Ltd. (trading as "LIME"), Digicel Cayman Ltd. ("Digicel"), TeleCayman Ltd. and WestTel Ltd. (trading as "Logic") (collectively "the Operators" or singularly the "Operator") signed an agreement with Porting Access BV for it to implement a number portability administration system for the Cayman Islands ("the Porting Contract"). Under the Porting Contract, the Operators agreed that there should be a centralised reference database ("CRD") which would contain data on all ported telephone numbers in the Cayman Islands. The CRD will be configured such that it will allow Operators to 'request' a full data download into their own 'local' porting database in order to ensure that the calls of their customers can be properly routed.
7. On the 30 August 2011, the Consortium members agreed that the "Go Live" date for LNP, i.e. the date from which Cayman Islands' customers may apply for their number to be ported, would be the 31 January 2012. This date was subsequently deferred by the Authority until start-of-business 20 February 2012.
8. On 11 January 2012, pursuant to the Information and Communications Technology Authority (Dispute Resolution) Regulations, 2003 (the "Regulations"), LIME submitted a determination request to the Authority contending that a dispute had arisen between it and Digicel as to whether or not Operators should use and exchange an RN (as defined in paragraph 15 below) to route telephone calls to a ported number ("the Dispute"). Specifically, LIME stated that the Dispute has arisen because Digicel has in effect refused to provide such RNs in its routing messages with LIME. However, the determination request from LIME to the Authority was addressed to all Operators and the Authority has treated the Dispute as including all the Operators.
9. According to LIME, in reference to various Industry letters on the matter, it had made good faith and reasonable efforts to settle the Dispute directly with Digicel but had failed to do so. Based on the referred to Industry letters, the Authority accepted the Dispute under the Regulations and wrote to all Operators on 17 January 2012 seeking their submissions on the substance of LIME's determination request,

requiring such submissions to be provided to the Authority by no later than 5 p.m. 24 January 2012.

10. Under Regulation 6 (3) of the Regulations, the Authority considered it appropriate to expedite the procedural timetable allowed for due to the "Go Live" date being at the end of January 2012. Although as mentioned the Authority has subsequently extended the "Go Live" date until the 20 February 2012, the Authority considers the timetable still reasonable, and that an expedited process is appropriate.
11. On 24 January 2012, Digicel wrote to the Authority requesting an extension to the above submission date, which was granted by the Authority via e-mail on the same date. The Authority revised the process timetable and directed that any submissions be filed with the Authority by 5 p.m. 26 January 2012.
12. The Authority received submissions from TeleCayman (18 January 2012), Logic (24 January 2012) and Digicel (26 January 2012).
13. On 1 February 2012, LIME sent in a reply to Digicel's response which was not provided for in the above procedure. The Authority has considered that reply only so far as it comments on factual issues. The comments received by all Parties are summarised in the text below.

#### **SUBMISSIONS (in date order)**

#### **LIME (including LIME's letter to Consortium members, dated 2 December 2011, and LIME's letter to Digicel, dated 13 December 2011, both as referenced in LIME's determination request)**

14. In summary, LIME submitted that the Authority should rule in favour of the requirement of the Operators to use and exchange RNs in the LNP environment for the reasons set out below.
15. LIME stated that the exchange of RNs is a basic and necessary feature of an All Call Query ("ACQ") environment such as will be implemented in the Cayman Islands following the introduction of LNP. Once LNP is implemented, the Central Office Code or "NXX" of a telephone number will no longer be sufficient information to enable an Operator to determine where a call should be terminated. The "solution" to this is to set the "nature of address indicator" to 8 and to identify each network with a unique set of 3 digits. This combination of the "nature of address indicator" and the network identification digits is referred to as the "Routing Prefix" or "Routing Number" ("RN").
16. LIME stated that this would work as the LNP databases attached to each Operator's networks associate an RN with each telephone number so that the Operator knows where to route a call. If an Operator does not know the RN associated with a given telephone number, it cannot be sure that it could successfully route a call to the terminating network.
17. Further, LIME stated that the Operators have agreed that the most appropriate form of LNP for implementation in the Cayman Islands is the ACQ solution whereby all Operators originating calls must "query" [also referred to as a "*lookup*"] a database to determine the network to which a given telephone number is associated. [As

explained at paragraph 49 below, an Originating Operator is, in the case of a local originated call, the Operator on whose network the call originates or, in the case of a terminated International call, the first Operator receiving that call in the Cayman Islands.] LIME noted that all Operators agreed to this when they signed the Porting Contract. LIME stated that "this agreement" that the originating Operator does the "query" makes sense, from a policy and logic perspective, as it ensures the party responsible for starting a call is also responsible for making sure it gets to its final destination.

18. LIME stated that a necessary consequence of the originating Operator doing the query is that the originating Operator must include in its signalling messages exchanged with other Operators the RN that it determined from the query. If it does not do this, all Operators between the originating Operator and the terminating Operator must do their own queries, which would be a duplication of efforts and a waste of Operator resources.
19. LIME stated that it wrote to all LNP Consortium members on 2 December 2011 and expressed its expectation that the Operators would use RNs (the "nature of address indicator" set to 8, and with the three-digit RN placed at the front of the called Party number). It reserved the right not to convey or terminate the call if this was not done unless the Operator had contracted with LIME for it to do the '*lookup*'. LIME claimed that this position is consistent with and based on the various agreements of the Operators to date.
20. LIME stated that the Operators had previously agreed (in various Technical Committee meetings and as minuted in Consortium 15 February 2011 meeting minutes) the RN network identification numbers to be used in the Cayman Islands, as referred to in its 13 December 2011 letter to Digicel, as being:

421	LIME (Fixed)
422	LIME (Mobile)
431	Digicel (Fixed)
432	Digicel (Mobile)
441	TeleCayman
451	Logic

21. LIME stated that if an Operator has an obligation to ensure it does not send a call to a Donor Operator when the number has been ported, such an obligation being in the Porting Contract, the only way of doing so is if it has done a *lookup* first. Further, the only way of communicating to another Operator involved in conveying and terminating the call is to include in the signalling message a "flag" that a *lookup* has been performed and to include the RN. If either the flag or RN is not included, the other Operators cannot know that a *lookup* has been performed and must therefore perform another *lookup* which is duplicative and wastes resources.
22. LIME stated that Digicel's objection to using RNs is rooted in the inability of its mobile switches to handle the additional digit string, insisting that direct interconnection is the solution to routing calls. LIME stated that both TeleCayman and Logic at a meeting of the LNP Consortium on 10 January 2012 confirmed that they both would be able to send and receive RNs (albeit, TeleCayman would be

using LIME's *lookup* service to do this). LIME considered this as implicit or explicit acknowledgement that the exchange of RNs in signalling messages, in an ACQ environment, is "the most sensible approach to ensuring calls are conveyed and terminated efficiently and effectively".

23. LIME stated that, in accordance with the procedures set out in ICT Decision 2010-9, *Decision in Determination Request related to Allocation of Votes in the Number Portability Consortium*, a decision to this effect has already been arrived at by the Consortium. Further, in its view, consensus on the use of RNs is a sufficient basis, in itself, to proceed with the use of RNs in the LNP environment.
24. LIME challenged Digicel's assertion that its switches are not set up to process the additional digit string required by RN as the insertion or deletion of digits in the called party field is deemed standard practice for proper routing in a number of scenarios.
25. LIME also submitted that, given that Digicel asserted that it will comply with its obligation to ensure it does not send calls to ported numbers to the Donor network, Digicel must necessarily determine the appropriate terminating network for all calls that are not on-net. LIME gave as an example that Digicel is aware that calls to LIME's fixed network must be delivered over the "termination" trunk on the Joining Service, while calls to other fixed networks must be delivered over the "transit" trunk, and that failure to do this could result in breach of the Interconnect Agreement and call failure. If a LIME fixed number has been ported to another fixed Operator, Digicel could not rely on the NXX to know the trunk over which it must deliver the call.
26. LIME also noted that ITU recommendations allow a maximum of 15 numbers to be used (*ITU Recommendation E.164*). However, the most numbers that Digicel is likely to use in a national context like the Cayman Islands is 10 – three for the area code, three for the central office code, and four for the subscriber number (although it is far more likely that they use only 7). Therefore, LIME considered that there is room in the standard called party number fields in the signaling messages for Digicel to insert a three-digit RN.
27. LIME stated that, as Digicel is operating an Ericsson network and because LIME and its affiliates also operate Ericsson mobile switches in a number of countries, LIME has some knowledge of the "Flexible Number Registry" ("FNR") functionality which forms the basis for the Ericsson number portability solution. In particular, LIME is aware that the FNR is capable of allowing RNs to be processed and conveyed in signaling messages. In these circumstances, an Operator's FNR will "tell" the MSS where to route the call by sending the appropriate RN to the MSS. For example, LIME's and Digicel's sister companies in Panama are both required to exchange RNs in the signaling message (by inserting it at the front of the called party number, as would be done here). Both those companies in Panama operate Ericsson switches, and LIME has been advised that its sister company in Panama does so using the Ericsson FNR functionality.
28. Finally, LIME stated that Digicel's position, if adopted, would have a number of negative consequences, being:
  - a. it would make direct connection between each and every Operator mandatory. Operators would no longer have the ability to choose whether to interconnect

directly or indirectly. This would have a chilling effect on competition. While a new entrant into the market today can choose to access all other Operators instantly through established transit agreements, Digicel's "solution" would have them interconnect directly with every provider in the market before launching commercial services (because they would have a substandard offering if their customers could not reach all other customers). Not only would this force each new entrant to invest in an even larger number of direct interconnections, "delay" in establishing just one interconnection would force a delay in that new entrant's launch.

- b. It would be administratively far more difficult to bill for calls that have no RN in the associated call detail record ("CDR"). Currently, it is possible to determine the appropriate wholesale or retail on-net or off-net rate to be applied to a given call by looking at the NXXs of the calling and called party telephone numbers. Once LNP is launched, that will no longer be possible, as the NXX will no longer be associated with a given network. Without an RN in the CDR, it will be extremely difficult to determine the network serving a given telephone number at any given time, making the job of rating calls extremely difficult. It is also not clear how traffic data in data warehouses could be reliably analysed if the CDRs stored in them do not include an RN. For example, if a CDR from the day before a number was ported looks for all intents and purposes like a CDR from the day after the number was ported, determining whether a call was on-net versus off-net, the carrier to which termination payments ought to be made, etc., will be very difficult if not impossible to determine or to audit. LIME submitted that the industry does not need this kind of disruption at this time.

### **TeleCayman**

29. In summary, TeleCayman explained that prior to the introduction of LNP, it sends all of its non-TeleCayman destined traffic to LIME for final termination. This traffic is sent over different trunk groups as required by LIME (LIME fixed, LIME International, 3<sup>rd</sup> Party, 411, 911). The only trunk group that requires LIME to screen the digits is the 3<sup>rd</sup> Party trunk group. At present, LIME screens the 3 digit NXX and determines which carrier to send the call to.
30. Under LNP, TeleCayman noted that LIME contends that all calls will need to be "screened" by the full 7 digit number (NXX-xxxx) if a routing code is not provided. TeleCayman agrees with that statement. In TeleCayman's view, with the use of the RN it should no longer be necessary to have individual trunks groups as the routing code provides the necessary information for routing and billing by LIME. TeleCayman proposed that the trunk groups be consolidated into a larger single trunk group.

### **Logic**

31. Logic stated that in the LNP Technical Committee meeting held on 15 February 2011 it was one of 3 parties to agree in principle to using RNs. In summary, Logic has decided to perform its own CRD query and will add the appropriate RN to all calls not terminating on its network before sending it to LIME for eventual routing or termination.

## Digicel

32. Digicel referred to LIME's submission and stated that LIME's claims about the technical difficulties it will face if Digicel does not attach RNs to calls that it passes to LIME post implementation of LNP are "bogus". Digicel stated that LIME had already made it clear in its 2 December 2011 letter that it is able to handle calls even if they do not have RNs. Digicel also stated that LIME must be able to handle inbound International calls without RNs otherwise it would not be able to terminate or transit International inbound calls.
33. Further, Digicel suggested that as International calls represent a "very significant portion" of LIME's total traffic, and that LIME cannot "force" International carriers to insert routing numbers, means that the "base case approach" must be to adopt a system which does not rely on RNs.
34. Digicel did not agree with LIME that all Operators had agreed to use routing numbers, referring to the note of the 15 February 2011 Consortium meeting which states that: "For calls to mobiles, Logic and TeleCayman would pass the calls to LIME, who would do the dip and determine the prefix." And "[u]ltimately, the issue was not resolved."
35. Digicel stated that the real issue for LIME appears to be that LIME is seeking an additional financial return specifically on domestic calls which are sent by local carriers and where RNs are not attached.
36. Digicel stated that it was carrying out the necessary work "on its side of the porting process" by forwarding on to the transit operator (LIME) the calls which are either bound for LIME's network or the network of a third party. Digicel considered that LIME should then carry out the necessary *lookup* to determine the eventual destination of those calls.
37. Digicel stated that if LIME is saying that it is unable to handle calls from Digicel alone, then LIME has either:
  - i) decided to disable its ability to do so for domestic calls from other local operators that are not providing a RN;
  - ii) has implemented a network configuration that enables it to route domestic calls from other operators but not domestic calls from Digicel; and is
  - iii) not applying the same rules for calls from their international interconnect partners for transit services to NXXs that terminate in the Cayman Islands.
38. Further, Digicel stated that if LIME had decided not to terminate domestic calls from Digicel in the absence of an RN contrary to the terms of the existing interconnect agreement, LIME should have raised this matter with the Operators prior to its 2 December 2011 letter, and with the Authority long before its determination request.

39. In reference to suggestions that there could be an additional cost implication for LIME, Digicel contended that at most any such cost would be miniscule; it noted that all operators obtain revenues from which they finance porting and the Authority permitted a recovery of up to CI\$0.85 (Decision 2008-5). In Digicel's case, it must recover the cost from its mobile services alone. However, LIME benefits from "double payment" related to calls to ported mobile numbers: from both mobile termination and transit payments.
40. Digicel suggested that LIME is already "extremely well remunerated for the transit service it provides (way above cost by any measure)" and there is no financial justification for it to charge other operators additional amounts for checking its copy of the CRD for the transit calls it receives.
41. Digicel finally stated that there would be no need to consider the matter if Logic and TeleCayman had agreed to interconnect with Digicel directly as requested of them some time ago. Direct interconnection would also have the advantage of avoiding transit costs and therefore promoting economic efficiency.

### **LIME reply**

42. LIME suggested that Digicel was misrepresenting the facts and stated that the matter of routing incoming international calls from overseas operators is squarely addressed in the Business Process Rules set out in the Porting Contract: whereby the first operator in the Cayman Islands has the obligation to look up the proper destination network. Digicel has already agreed to this when it signed the Porting Contract, and it is a non-issue.

### **AUTHORITY ANALYSIS AND DECISION**

43. As noted in Decisions 2005-1 and 2008-5, the Authority considers that the Consortium members should take responsibility for choosing the most appropriate LNP solution for the Cayman Islands. How calls are routed to a ported telephone number would normally be a network routing issue for those Operators to agree upon.
44. However, the Authority considers that not determining the Dispute will likely delay, perhaps significantly, the 20 February 2012 LNP implementation date. In the Authority's opinion, failing to meet this implementation date will deny customers the benefits of LNP, and this is not in the public interest. As such, the Authority considers it appropriate in this case to make a determination on the Dispute.
45. In making its determination, the Authority is guided by Regulation 11 of the Regulations which states that:
  11. *In determining a dispute, the Authority shall act expeditiously, and in doing so may have regard to-*
    - (a) *the subject matter of the dispute;*
    - (b) *the need to inquire into and investigate the dispute;*
    - (c) *the objectives and functions of the Authority; and*
    - (d) *all matters affecting the merits, and fair settlement of the dispute.*



## *The Porting Contract*

46. The Porting Contract at Schedule 4, *Business Rules & Port Order Processes*, sets out the processes for the Operators to properly route a ported telephone number. It specifies those aspects of the porting process that either involve exchanges between the Operators via the CRD or involve actions by one Operator that have to be trusted by another Operator (for example, the customer order validation process).
47. As explained by LIME in its submission, once LNP is implemented, the NXX of a telephone number will no longer be sufficient information in order for an Operator to route that call – while the NXX denotes a specific Operator, that number could have been ported to a different Operator.
48. To ensure that the ported call is properly routed, the Operators have set-up a CRD which contains the data on all ported telephone numbers in the Cayman Islands. For example, the Porting Contract states at Paragraph 3.4 that calls should not be routed to the Donor Operator of a ported number. In order to ensure this, Operators need to know which Operator a call should be routed to and it is this information that is contained in the CRD.
49. All Operators will download the data from the CRD at the time of the launch of LNP to enable them to determine when a call originates on their network which calls are 'theirs' and which calls they need to route to the Recipient Operator (Paragraph 3.4.2 of the Porting Contract). Operators will then keep this 'local' copy of the porting database current by downloading the data regularly from the CRD which they can 'query' when they look to route a call. An "Originating Operator" is, in the case of a local originated call, the Operator on whose network the call originates or, in the case of a terminated International call, the first Operator receiving that call in the Cayman Islands.
50. When a call is originated on an Operator's network, the Originating Operator will *lookup* the number in its local porting database to see whether that number is with them or has been ported. For the reasons set out below, if the Originating Operator finds out that the number has been ported, the Authority considers that the Originating Operator then has the responsibility under the Porting Contract to route that call to the Recipient Operator.
51. The Authority considers that the routing obligation discussed above flows from the Porting Contract: in particular, from the following paragraphs in Schedule 4, *Business Rules & Port Order Processes*:

### **3.4 Technical & Operational Principles of FNP / MNP Service**

2. Individual Operators will initially (i.e. at time of launch of the service) take downloads of the data into their own networks/system (so called 'local downloads') in order to route calls originating on their own networks/systems to the Recipient Operator of a ported number.

3. Calls originating on their own networks/systems will not be routed to the Donor Operator of a ported number.

### 3.5.3 Additional conveyance costs

A centralised reference database will be implemented, with all Operators taking 'local' downloads of the routing data in order that all calls will be routed, in the first instance, directly from the originating network to the recipient network (via any applicable transit network).

Consequently the additional conveyance costs are limited to the cost of ensuring synchronization with the reference database.

Because this situation is the same for all Operators, individual Operators will not recover from the other Operators the cost of synchronisation with the reference database as an identifiable NP cost, but will bear their own costs (except where one Operator might provide reference database synchronization as a service to another).

Where calls are received from operators/ networks which do not have access to the Cayman Islands reference database, e.g. overseas operators, the first Operator receiving the call in the Cayman Islands shall be responsible for performing a look-up of the number on their reference database and, where the called number has been ported to another Operator, the first Operator will route the call to the Recipient Operator on whose network the called number is active.

(Emphasis added.)

52. The above wording in effect sets out that the Originating Operator will route the call to the Recipient Operator. The Authority considers that the reference in the paragraphs to the routing of the ported call is not limited just to the physical interconnection of each Operator's network but also includes ensuring that all the necessary routing information to ensure that the ported call reaches its intended destination, the Recipient Operator, is provided. Both are needed to ensure that the ported call is properly routed.
53. Therefore, and relevant to the Dispute, where Digicel is the Originating Operator, Digicel has the responsibility under the Porting Contract to route that ported call to the Recipient Operator. The current set-up of the Operators' networks on the Cayman Islands means that, as there is no direct interconnection between Digicel, Logic and TeleCayman, LIME acts as the transit Operator: in this case, carrying the non-LIME traffic between the Originating Operator to the Recipient Operator.
54. Digicel has stated that where it is the Originating Operator, it will do a *lookup* of its local porting database, as it has to do to determine whether or not the call is to a ported number. However, once it determines that the number being called is ported, Digicel considers that it has fulfilled its obligation under the Porting Contract by sending that ported call to LIME for either termination or transit without an identifier as to which Operator 'owns' the call.
55. The Authority disagrees with Digicel's view: in the above scenario, the obligation to route the ported call to the Recipient Operator is on Digicel as the Originating Operator. In such a case, the Authority considers that it is incumbent on Digicel

when routing a ported call to provide sufficient information to LIME to ensure that the call originated on its network is properly routed to the Recipient Operator. As to what is sufficient information, given that the other Operators are set-up to use RNs to ensure the proper routing of ported calls and the use of RNs is an effective way of identifying a call number has been ported, the Authority considers it appropriate for the Operators to use and exchange RNs to route calls to a ported number.

56. However, the Authority notes that Digicel has claimed that it is currently unable to add the RN itself when it sends the ported call to LIME for termination/onward routing. Digicel could fulfil its responsibility to route the ported call to the Recipient Operator by other methods. For example, if it has a direct interconnect with the Recipient Operator, it can send the ported call straight to the Recipient Operator without needing an RN (though such direct interconnect relationships are not yet in place). An alternative is for Digicel to use LIME's *lookup* service, which LIME intends to provide to TeleCayman, while it either configures its system to provide RNs or arranges direct interconnection agreements with Logic and TeleCayman.
57. By not providing an identifier that is understood by LIME's network as to which Operator the ported number now 'belongs to', when the ported call reaches LIME in this scenario, LIME would not know if the ported call is to one of its customers or the customer of another Operator. Therefore, in order to properly route the ported call, LIME would have to do an additional *lookup* of its local porting database for LIME to determine which Operator to send the ported call to or whether it is to terminate the call on its network.
58. Where an Operator uses LIME's *lookup* service, the Authority considers it appropriate for LIME to recover its costs for providing such a service.

#### *Economic efficiency*

59. In any event, and separate from the above, the Authority considers that a routing system which in effect requires two *lookups* to be done each time a ported call is routed, in this case the first by Digicel as the Originating Operator and the second by the transit operator, LIME, is economically inefficient, and would add to the total Industry costs of providing LNP year-on-year, costs which would likely be passed on to the customer.
60. While this part of the total Industry costs of providing LNP may not be significant in the first year of porting, this '*double lookup*' cost may well become more significant as time goes by and customer porting numbers increase. This *double lookup* is unnecessary for the routing of the ported call, as it only needs to be done once where an efficient routing process is in place.
61. Therefore, to ensure the efficient routing of ported calls, and given that the other Operators are able to use RNs to ensure the proper routing of ported calls, the Authority considers that it is appropriate in these circumstances for RNs to be used by all Operators in a non-directly interconnected environment to avoid unnecessary routing costs that are likely to be passed on to the customer.
62. The Authority notes that the *lookup* service LIME is providing to TeleCayman does potentially incur double *lookup* costs. Though it appears to be inefficient for the

reasons explained above, TeleCayman has chosen to do this presumably as it seeks its own internal cost efficiencies.

63. Given the above, there is no need to consider whether, as LIME stated, a decision to use RNs has been taken by the Consortium in accordance with the procedures set out in ICT Decision 2010-9, *Decision in Determination Request related to Allocation of Votes in the Number Portability Consortium*; though the Authority disagrees with LIME that it had been agreed by all Operators to use RNs at the 15 February 2011 Consortium meeting (noting Logic's submission on this).
64. Finally, in reference to Digicel's comments about its attempts to negotiate direct interconnection with Logic and TeleCayman, the Authority notes that no determination request under the Regulations has been received by the Authority on this matter. Digicel can submit a determination request to the Authority at any time under the Regulations on this matter if it considers it appropriate to do so.

#### *The Decision*

65. Therefore, the Authority determines that, until such time as Operators are either directly interconnected or have agreed an alternative solution, all Operators should use and exchange RNs to route calls to a ported number. Operators may do this for themselves or they may contract with another Operator to provide the service for them.
66. In order to give effect to this decision, the Authority directs that, unless or until such time Digicel is either able to use and provide RNs itself or is directly interconnected with all Operators and does not need to use and provide RNs in order to properly route ported calls, Digicel shall contract with LIME for the provision by LIME to Digicel of its *lookup* service.
67. The Authority directs that LIME and Digicel should negotiate in good faith acceptable commercial terms for LIME's provision to Digicel of this service. If Digicel and LIME cannot reach acceptable commercial terms within a reasonable time period for the provision of this service, provided that there is evidence of good faith negotiations between the Parties, either Party can submit a determination request to the Authority for its consideration.
68. In order to ensure that negotiations for the provision of this service do not jeopardise the "Go Live" date, the Authority directs with immediate effect that Digicel and LIME contract for the provision of this service on an interim basis which shall be on the same terms and conditions, including charges, as those agreed between LIME and TeleCayman for LIME to provide TeleCayman its *lookup* service.