THIRD FINAL DETERMINATION

THE IMPLEMENTATION OF FIXED NUMBER PORTABILITY IN THE BAHAMAS PURSUANT TO SECTION 80 OF THE COMMUNICATIONS ACT, 2009 - COST ALLOCATION AND RECOVERY

ECS 17/2013

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1 Introduction

This document contains the Utilities Regulation and Competition Authority's ("URCA") Third Final Determination providing for the implementation of Fixed Number Portability (FNP) in The Bahamas, issued pursuant to section 99 of the Communications Act, 2009 (Comms Act) for the purposes of carrying into effect the requirements of section 80 of the Comms Act. Number portability (NP) allows subscribers to keep their telephone numbers when they change operators. The ability to transport a number from one service provider to another is thought to break down a barrier to switching - which if left in place would inhibit sustainable competition. URCA's vision is to ensure that number portability becomes a part of the standard service offered by all licensees to all subscribers.

On 30 July 2013, URCA released for public consultation, a Preliminary Determination (ECS 11/2013) entitled *"The implementation of Fixed Number Portability in The Bahamas pursuant to Section 80 of the Communications Act, 2009"*.[1] The objective of the exercise was to obtain input from licensees and interested third parties on URCA's preliminary views on various matters relating to the implementation of NP in The Bahamas, including proposals on NP cost allocation and cost recovery.

The Consultation Document (ECS 11/2013) outlined URCA's proposals on cost allocation and cost recovery for FNP, as follows:

- operators absorb or internalize their own internal set-up costs with no option to pass-through these costs directly to subscribers when they port out;
- common industry system costs should be equally divided between portability operators;
- cost per porting should be borne by recipient operators with no option to directly recover these costs from subscribers porting to their networks and services; and
- given the Number Portability (NP) solution adopted in The Bahamas, additional conveyance costs for portability are likely to be negligible.

The Consultation Document required the submission of representations by no later than 2nd September 2013; further, BTC and CBL were required to submit information to inform URCA's review of the costs per successful porting transaction to URCA within three (3) weeks of publication of ECS 11/2013, that is, by 21 August 2013. CBL submitted its costing information to URCA within the stipulated timeframe; however BTC applied for and URCA granted an

[1] Available at http://www.urcabahamas.bs/download/070746500.pdf.

extension to the timeframe for submission of costing information to 19 October 2013, based on the period of time required by BTC to extract the required information from its cost model.

On 29 October 2013, URCA issued a Final Determination (ECS 15/2013) in respect of ECS 11/2013. Given the extension granted to BTC, URCA did not make a final determination in ECS 15/2013 in respect of NP cost allocation and cost recovery. Instead, at Section 3.4 of ECS 15/2013 URCA issued the following interim determination:

i) Donor operators are not allowed to impose a porting charge on customers porting their numbers to other service providers;

ii) in the event that FNP is launched before URCA's final determination on NP cost allocation and cost recovery BTC and CBL shall settle common industry system costs as they arise in equal shares; and

iii) operators offering FNP shall each recover their own internal set-up costs and shall maintain records of all porting transactions.

This current Final Determination on "Cost Allocation and Recovery" is supplemental to ECS 15/2013 and sets forth URCA's final decisions on how the costs of implementing FNP in The Bahamas will be allocated and recovered.

1.1 Regulatory Framework of this Consultation

Section 80 of the Comms Act requires URCA to issue a consultation and make a determination on NP, and further mandates that licensees shall provide to the extent technically feasible, operator-to-operator number portability when required to do so in accordance with the requirements prescribed by URCA.

URCA's powers and processes for making determinations are contained in sections 99 through 102 of the Comms Act. These sections of the Comms Act require that URCA first issue and consult on a Preliminary Determination, allowing at least one (1) month for the submission of representations by interested persons, and thereafter, having taken into account any representations made, URCA may issue its Final Determination.

1.2 Submissions on Number Portability Cost Allocation and Recovery

The relevant submissions on URCA's cost allocation and recovery proposals are:

- CBL's[2] Response to URCA's Request for Cost Data on Number Porting Charges for Fixed Number Portability in The Bahamas dated 20 August 2013;
- CBL's response to URCA's preliminary determination on the implementation of Fixed Number Portability in The Bahamas (ECS 11/2013) dated 2 September 2013;
- BTC's response to URCA's preliminary determination on the implementation of Fixed Number Portability in The Bahamas (ECS 11/2013) dated 2 September 2013; and
- BTC's submission on Tariffs for Local Number Portability dated 18 October 2013.

The full text of all non-confidential submissions is available at http://www.urcabahamas.bs.

1.3 Structure of the Remainder of this Document

The remainder of this document is structured as follows:

Section 2 - Background to the Consultation;

Section 3 - Submissions on the Consultation and URCA's Responses; and

Section 4 - URCA's Third Final Determination on Fixed NP Cost Allocation and Recovery.

[2] Cable Bahamas Ltd., for and on behalf of Caribbean Crossings Ltd. (CCL) and Systems Resources Group Ltd. (SRG) (hereinafter collectively referred to as, "CBL").

2 Background to this Consultation

"Number Portability" is defined by the Comms Act as "a facility whereby subscribers who so request can subject to the numbering plan retain their telephone number on a public network, independently of the licensee providing the service at the network termination point of a subscriber".[3]

URCA is committed to the introduction of number portability in the electronic communications sector in The Bahamas. Number portability is a key issue in the introduction of network competition. There is clear evidence that customers are reluctant to change network operators if this means that they have to change their phone number. The absence of number portability therefore gives incumbent network operators a significant competitive edge. Portability between operators promotes full competition in the market. As well as substantial direct benefits (e.g., customers do not have to incur costs of changing stationery; fewer wrong numbers are dialled), portability provides very significant indirect benefits, assisting greatly in the creation of genuine competition for all categories of customers, driving down prices, encouraging innovation and raising quality.

URCA's vision is to ensure that portability becomes a part of the standard service offered by all licensees to all subscribers. In order to ensure the effective implementation of NP across fixed telephony operators, URCA is seeking to establish through the public consultation a cost recovery regime that promotes the objectives of number porting, compatible with the statutory framework of the Comms Act and relevant cost recovery principles, and consistent with best practices in the global market.

2.1 Relevant Costing Principles

Within Section 4.3 of ECS 11/2013 *("Preliminary Determination - The implementation of Fixed Number Portability in The Bahamas pursuant to Section 80 of the Communications Act, 2009")*, URCA described the relevant principles of cost apportionment in respect of NP as follows:

i) **Relevant costs** - This implies that only those costs directly incurred as a result of the provision of number portability should be recovered and should reflect the costs of an efficient operator using a least cost solution. This means that the cost recovery mechanism should have strong regard to relevant and efficient costs.

[3] See section 2 of the Comms Act.

ii) **Cost causation** - Costs should be borne by service providers whose actions cause the cost to be incurred. This means that the cost recovery mechanism should have strong regard to whose actions cause additional costs to be incurred.

iii) **Distribution of benefits** - Cost apportionment should reflect the distribution of benefits that accrue from a customer porting his telephone number. This principle recognizes that porting customers are not the only beneficiaries of number portability. Indeed, number porting generates direct and indirect benefits as everyone benefits from increased effectiveness in competition, not just porting customers. This means that those who derive indirect benefits from number portability should bear some of the costs.

iv) **Effective competition** - The objective to promote effective competition should not be weakened by the mechanism of cost recovery. In particular, the cost recovery mechanism should not be used to raise a competitor's costs nor weaken their ability to compete or weaken the benefits which number porting would bring to customers and the communications sector as a whole.

v) **Cost minimization** - The mechanism for cost recovery should provide strong incentives for service providers to minimize costs. In particular, those who are in a position to affect the size of the costs should face strong incentives to minimize costs.

vi) **Practicality** - Costs should be recovered in a way that is practical to implement and does not unduly raise administration costs.

vii) **Reciprocity** - Where number portability is provided on a reciprocal basis, it would be appropriate for charges to be reciprocal in each direction.

URCA reiterated that the economic principles are interdependent, in that in some cases promoting one objective will promote another, while in other cases the objectives may conflict. Nonetheless, the principles are considered best practice and have been applied by competent and respected regulatory and competition authorities in jurisdictions that have successfully implemented NP.[4]

2.2 Costs for Number Portability Implementation

At Section 4.3 of ECS11/2013 URCA also identified the cost elements associated with NP implementation in The Bahamas, as follows:

i) **Internal Set-up Costs** – These are the one-off costs incurred by FNP operators for Information Technology (IT) and other networks/systems upgrades, the costs of training

[4] The EU, Caribbean and elsewhere.

staff to enable number portability, as well as the costs incurred in creating an agreed porting procedure and determining commercial terms and procedures. BTC commented that internal set-up costs are likely to be larger for a long established operator than for a new entrant.

ii) **Common Industry System Costs** – These relate to the common costs of the equipment/system for the Number Portability Administration Service (comprising a centralized database solution [for porting numbers between operators] and ancillary services). It is worth stressing that operators will incur these costs irrespective of the number of customers who port their numbers, the number of NXXs assigned to licensees or the potential number of ported numbers. URCA considers that these are the necessary costs of participating in a competitive electronic communications market in The Bahamas for services that rely on numbering resources and for meeting customer requests, in order to take full advantage of the ability to switch between service providers.

iii) **Cost Per Porting** – This comprises the per order handling or administrative costs incurred in implementing FNP for individual subscribers and involves the cost of complying with the agreed porting procedures, activating ported numbers, testing, and communicating the necessary call routing information to other participating operators.

iv) **Additional Call Conveyance Costs** – These involve the additional incremental costs incurred in routing a call to a subscriber with a ported number relative to the costs involved in routing a call to a subscriber with a non-ported number.

In the next Section, URCA responds to comments made by BTC and CBL on how the four cost elements identified above should be allocated and recovered.

3 Submissions to Consultation and URCA's Responses

In this Section of the Final Determination, URCA summarizes and responds to the main arguments and concerns raised by CBL and BTC in their submissions. URCA's lack of response to a particular comment should not be taken to mean that URCA agrees with the comment, has not considered the comment or that it considers the comment is unimportant or without merit.

3.1 Internal Set-Up Costs

<u>BTC's Comments</u>

BTC did not object to URCA's reasoning that allowing donor operators to charge customers a porting fee in order to recoup internal set-up costs would weaken the competitive and switching effects of number portability. However, BTC stated that its significant internal set-up costs should be taken into consideration and when compared to larger operators in other countries, BTC's internal set-up costs are not symmetric. BTC commented that it would have to absorb huge internal costs relative to its competitors while BTC's competitors will benefit from the introduction of number porting. In BTC's view, other operators should bear part of BTC's internal set-up costs. BTC referred to the case of British Telecom ("BT") in which a portion of BT's set-up costs were recovered from other operators.

<u>CBL's Comments</u>

CBL, in its comments favoured URCA's proposal that each operator absorb their own internal set-up costs with no option for them to recover these costs from subscribers porting their number to other networks.

<u>URCA's Response</u>

URCA considers that if BTC were allowed to recoup a portion of its internal set-up costs from other operators this would undermine the cost minimization principle as BTC would have little or no incentive to deploy the most cost efficient FNP solution within its network. This potential result would be incompatible with the core objectives of the Comms Act specifically those relating to promoting efficiency of the Bahamian electronic communications sector and the productivity of the Bahamian economy.

Further, URCA understands that the approach to cost allocation and recovery taken in the United Kingdom (UK) is out of step with international mainstream and is not best practice. In most of the markets where porting services have been successfully deployed, the approach has been for operators to absorb or internalize their own set-up costs (i.e., with no option to either pass on those costs directly to subscribers when they port out or to recoup such costs from other operators). This means that operators generally recoup their internal set-up costs in the same way they recover other costs that they incur in developing their network. URCA considers that this approach is similar to and no different from the current practice in The Bahamas wherein each licensed operator recovers the costs of providing free emergency call services by their retail customers from the operator's general revenues.

For the above reasons BTC's proposal is denied. URCA reaffirms its preliminary view that FNP operators must bear their own internal set-up costs with no option for them to recover these costs from either consumers or other operators.

3.2 Common Industry System Costs

<u>BTC's Comments</u>

In its comments, BTC supported an equal division of common industry system costs from participating portability operators, as proposed by URCA.

<u>CBL's Comments</u>

CBL opposed an equal division approach and highlighted a number of concerns regarding URCA's proposal. URCA has categorized CBL's comments into five areas:

i) Potential impact of equal apportionment of common industry system costs
CBL argued that an equal division approach:

- would create an unfair and disproportionate burden on smaller operators having regard to their non-SMP status in the voice market for fixed and mobile services;
- ignores and compounds the historical advantages held by BTC due to its dominance of the fixed and mobile phone market;
- would be inequitable and distort the "distribution of benefits" principle by ignoring the asymmetric position currently held by BTC in the fixed and mobile voice markets;
- is not consistent with the "effective competition" costing principle adopted by URCA; and
- creates a substantial barrier to entry for any potential investors in the market and would pose a risk for the existing smaller operators.

CBL added that the use of NXX codes or active subscriber figures as a basis of sharing costs would accommodate CBL's concern over fixed voice operators bearing the costs of a number portability system designed for fixed and mobile use.

URCA's Response

For context, in 2009 the fixed voice telephony market in The Bahamas was further liberalized. URCA considers that CBL is hardly a new player in the fixed voice telephony market. Prior to the 2009 reforms Systems Resource Group Ltd. (SRG) an affiliate of CBL provided fixed line services in direct competition with BTC. URCA is cognisant that CBL is also an incumbent operator in its own right and presently enjoys SMP in other important sub-markets. In view of BTC's status in the broader voice market, URCA imposed several ex-ante or preventative measures on BTC. URCA is satisfied that the measures imposed have served to curtail any abuse of BTC's historical position in the market or its current position in the broader voice market.

URCA does not readily accept CBL's reasoning that an equal payment approach would create an unfair and disproportionate burden on non-SMP operators in the voice market. URCA also assures the industry that in its review of various cost distribution methodologies it has not ignored BTC's status in the broader voice market. Significantly, CBL did not present any relevant case studies or other evidential information in support of the various points raised. URCA understands that equal division of common industry system costs is the approach taken in various jurisdictions with profiles similar to or smaller than The Bahamas (e.g., Isle of Man, Gibraltar, and Channel Islands). Based on the international experience, URCA was unable to establish any link between equal division of common industry system costs and the negative impacts identified by CBL.

Having regard to the above, URCA remains steadfast in its view that the adverse impacts identified by CBL are grossly overstated, without merit and remain unsubstantiated.

ii) NP solution adopted for The Bahamas

CBL expressed an unwillingness to pay an equal share for the number portability system approved by URCA. CBL opined that the NP solution adopted is unnecessarily expensive for fixed portability and was selected for its ability to accommodate Mobile Number Portability once the mobile phone market becomes competitive.

URCA's Response

URCA reminds CBL that this issue has been finally determined in previous regulatory proceedings on number portability and is therefore outside the remit of this current exercise.

iii) CBL's proposals on cost apportionment

CBL presented new proposals on cost apportionment, as follows:

- under an equal payment approach BTC should pay two equal shares of common industry costs from the outset since it is the only licensee authorized to provide both fixed and mobile voice services;
- new mobile entrants should pay their fair share of these costs retroactive to its inception;[5] and
- cost sharing methodology should include all assignees of numbers.[6]

URCA's Response

URCA disagrees with the proposal that BTC should pay two equal shares of common industry costs from the outset. URCA advises that:

- number portability is only introduced in markets that are open to competition;
- the Bahamian mobile market is closed to competition at this time;
- mobile subscribers on BTC's mobile network derive no benefits from the implementation of fixed number portability; and
- URCA could not find any supportive precedent in the global market for CBL's proposal.

URCA was surprised by CBL's proposal on retroactive charging for mobile entrants given CBL's long-standing opposition to this issue generally. Nevertheless, URCA considers that retrospective charging, as contemplated by CBL, is not only outside the international mainstream but if adopted:

- could delay mobile market entry and the deployment of mobile number portability to the detriment of customers;
- may result in a legal challenge with significant cost implications for URCA;
- might be incompatible with one or more of the costing principles adopted by URCA; and

[5] CBL explained that provision should be made for at least one additional payer into the system from its initiation and the costs apportioned accordingly to the second mobile operator as soon as that operator is licensed.

[6] URCA notes CBL's urging that URCA should make it clear that all licensees (including IPSI) that continue to operate in The Bahamas using assigned NXXs must pay into the system or else forfeit their access to numbers (or their licence).

- would be manifestly unfair and contrary to the charging method used for other regulatory fees applicable in The Bahamas.

The suggestion that the cost sharing methodology include all assignees of numbers raises additional issues that are outside the remit of this current proceeding. URCA highlights that the mere assignment of a number to a licensee is no indication that any service is provided on any or all of the numbers. Further, URCA's decisions in previous determinations clearly delineate that only those operators who are currently providing a fixed telephone service are subject to number portability.

iv) Equal apportionment versus NXX or subscriber numbers

CBL explained that it did not understand URCA's concern over the challenges to administer a usage-based approach to costing and added that it does not foresee any issues related to apportioning the costs in the first year of number portability deployment, as URCA is responsible for administering NXXs.

CBL's position is that the common industry system costs should be borne in proportion to the size of the operator's subscriber base as measured by either a periodic active subscriber count or the relevant NXX assignments. CBL reiterated that the charges can be calculated based on the number of NXX codes allocated or the number of active subscribers at the start of the year then at year end; necessary adjustments can be made to the following year's charges.

It is CBL's position that the use of NXX codes or active subscriber numbers would be an approximation but can be reasonably used as a proxy in the first year of number portability's implementation. CBL argued that the use of actual subscriber numbers as collected by URCA to be the optimal solution as number portability takes hold and customers port their numbers from one operator to another thus distorting the viewpoint provided by the use of NXXs as the basis for apportionment.

CBL acknowledged that NXX assignments would present a distorted snapshot of the market if significant customer switching occurs over time. However, it noted that in the event of customer switching due to number portability, CBL stated that the use of active subscriber figures can provide a more robust basis over time and referred to URCA already possessing much of this subscriber data or being in a position to request it from the operators. CBL considers the administrative effort to collect this data to be minimal and justified.

Regardless of whether NXXs or subscriber numbers are used as a basis for calculation, CBL estimates that it should bear no more than 18-20% of the common industry costs.

URCA's Response

URCA offers no comment on CBL's statement that CBL should bear no more than 18-20% of the common industry costs. This is because CBL's estimates are vague and the basis of those estimates has neither been presented by CBL nor verified by URCA.

Both BTC and CBL agreed that fees payable to a third party vendor to host a centralized database and ancillary services should be shared but remained divided on how this should be implemented. BTC strongly favoured an equal division of common industry system costs (i.e., common costs divided by number of licensees), whilst CBL preferred the use of subscriber numbers or NXX assignments, arguing that BTC's position in the broader market justifies this approach. URCA notes that equal apportionment is the preferred approach in the global market, including jurisdictions with profiles similar to or smaller than The Bahamas.

As explained in the consultation, URCA's position is that the fees payable to a third party vendor to host a centralized database solution and ancillary services as the necessary costs of participating in a competitive electronic communications market in The Bahamas and for meeting customer requests, in order to take full advantage of the ability to switch between participating operators. URCA remains of this view.

Notwithstanding CBL's comments, it remains URCA's view that cost allocation based on NXX codes or subscriber numbers is fraught with administrative difficulties and risks, which far outweigh the benefits to be gained from doing so. In addition, URCA considers that BTC's position in the broader voice market does not warrant the use of NXX codes or subscriber numbers as the basis for allocation. URCA's position is that the use of NXX codes or subscriber numbers would not be equitable to all operators. URCA's proposed approach of equal apportionment ensures that non-SMP operators, who stand to benefit the most from lowering of switching barriers, pay a reasonable share of the common industry costs. Further and as discussed above in response to CBL, URCA is of the view that the adverse impacts identified by CBL are grossly overstated and remain unsubstantiated.

3.3 Per Porting Costs

BTC's Comments

In its comments BTC supported URCA's proposition that the Recipient Operator should pay the porting transaction costs of the Donor Operator and noted that this is the practice elsewhere.[7]

[7] Example Ghana, Georgia and Kenya.

In its last submission, BTC presented proposed reciprocal tariffs for three porting services, as shown in Table 1:

Table 1: BTC's Proposed Tariffs

Type	One-Off Charge per CLI (BAH$)
Unsuccessful ports	4.00
Successful single ports	14.00
Successful bulk ports	30.00

If approved, BTC proposed to introduce the proposed tariffs from the launch of FNP in The Bahamas and to conduct a tariff review 6 months later.

The proposed tariffs are based on the results of an internal BTC bottom-up costing exercise and supplemented by a benchmarking study. BTC asserted that its proposals reflect:

- relevant cost allocation and recovery principles of cost-orientation and URCA's instructions on the identification of relevant costs;
- efficient business practices relevant to the porting services in question;
- cost are attributed in a transparent and defensible manner; and
- based on the porting process adopted by URCA.

Within its analysis, BTC employed a number of assumptions based on local and external information, noting that because FNP is a new service to The Bahamas, international experience can be used to supplement local estimates to ensure they are not out of line with experience elsewhere.

URCA refers interested parties to BTC's submission dated 19 October 2013 for further information on BTC's proposal and benchmarking analysis.

<u>CBL's Comments</u>

CBL endorsed URCA's proposal that porting charges payable by recipient operators to donor operators should be:

- based on incremental costs;
- relate to an efficient porting process; and

- be reciprocal.

CBL's position is that portability should commence in The Bahamas with zero charges between the operators. CBL added that over time URCA could review the situation to determine whether any adjustments are justified on the basis of actual cost data and consider the incremental costs of an efficient Donor Operator.

Alternatively, URCA could adopt a one-year interim determination to provide:

- The application of porting charges with levels no higher than BSD $0.60 for successful single numbers personal and non-personal portings, and BSD $0.90 for successful multi-number portings.

- After the system has been in operation for a year, URCA should undertake to visit the operators to observe and evaluate their actual handling of portings. At that time, URCA should make its own assessment of how much work and time is involved, consider the relative efficiency of the operators and then adjust the charges accordingly.

CBL justified its proposal for a zero porting charge on the basis that the relevant costs of an efficient Donor Operator using an XML exchange to interface with a centralised database should be negligible or zero and will likely be exceeded by the costs of administering the charging mechanism.

In CBL's view, the centralized database system approved by URCA is unique for the size and demographics of The Bahamas and should materially reduce the time required for Donor Operators to complete number porting transactions through the elimination of most manual interactions. CBL considers that benchmark fees from most other comparable countries are not directly comparable and must be "discounted" substantially when being applied to The Bahamas.

CBL urged URCA to ensure that the type and level of costs imposed on non-SMP players are proportionate to their start-up position in the market when compared to the incumbent BTC. CBL stated that this approach is consistent with the costing principle adopted by URCA.

According to CBL, BTC will most often be the Donor Operator upon the introduction of Number Portability because BTC currently holds the majority of the fixed voice market and CBL feels this situation is likely to prevail for at least another two to three years. CBL stressed that the transitional charging arrangements should take full account of the highly asymmetrical situation at this stage of market opening and recognise the negative impact that an excessive porting charge along with the associated administrative cost burden can have on Recipient Operators. In support of its position, CBL presented an analysis of the incremental cost of an efficient porting process using the FNP solution adopted in The Bahamas. Based on its analysis CBL concluded that there are no or only negligible incremental costs in the case of an efficient Donor Operator using an automated interface with the central database. CBL also presented, under confidential marking, estimates of the maximum attendant's time it would take under a manual process and related costs for handling the porting approval request and porting deactivation response for single number personal, single number non-personal and multi-number.

CBL presented a benchmarking study of the porting process and related charges in the Caribbean and elsewhere.

URCA refers interested parties to CBL's submission dated 20 August 2013 for further information on CBL's proposals and analysis.

URCA's Response

URCA is very grateful for the respective tariffs proposals received from BTC and CBL.

Under the terms of the number portability regulations for The Bahamas, Donor operators (who will lose the customer) are allowed to recover the efficient porting transaction costs from Recipient operators (who will gain the customer). The costs to be recovered by the Donor from the Recipient can only be those that are directly attributable to the incremental activity required to support the porting service, namely:

- the validation of initial porting approval requests and the submission of the corresponding porting approval responses; and
- the deactivation of the ported out number on the donor's network.

In ECS 11/2013 (Section 4.3) , URCA put forward the following proposals:

i) Donor networks shall not charge the porting subscriber for requesting number portability.

ii) Donor operators may charge the recipient operator for successful porting transactions.

iii) The donor charge must reflect relevant incremental costs directly related to an efficient porting process, and must be reciprocal (i.e., each operator pays the other operator the same amount of money for the same service).

iv) The donor charge will be subject to URCA's review and final approval. In determining the level of charging, URCA will first seek to obtain relevant costing information from operators in The Bahamas to inform its decision on the matter. However, absent relevant local information, URCA will make a determination based on charges in comparable markets where number portability has been successfully implemented.

v) URCA will not permit recipient operators to charge customers for porting their services.

Neither BTC nor CBL raised any objection to URCA's proposals in their comments. Thus, URCA reaffirms its preliminary views on cost allocation and recovery in respect of the above proposals.

Having carefully reviewed both documents against the objectives of implementing number porting in The Bahamas, relevant costing principles, and other considerations, URCA has determined that a fair application of relevant cost allocation principles supports a non-zero porting transaction charge for The Bahamas. URCA has further determined that the non-zero porting transaction costs to be recovered is $4 per transaction. URCA understands that in an automated porting environment, the incremental donor cost recovery for automated operators is usually in the region of $1 to $4 per porting transaction. As such, URCA considers that a $4 porting fee is a reasonable compromise between the two proposals.

URCA further advises that under the circumstances it would not be reasonable for URCA to adjust this charge (including discounts) to off-set BTC's historic or present position in the voice market and/or to reflect differences between the NP solutions adopted in The Bahamas versus the solutions used elsewhere.

URCA accepts the need for future reviews of the porting charge but notes that such reviews should take account of the actual experience of NP locally, changing market conditions locally, ensure the charge remains relevant and fit for purpose on a going forward basis, consistent with the economic principles adopted by URCA, and new economic thinking.

URCA’s reasoning for this determination is set out in the following paragraphs.

URCA notes that in some jurisdictions the recovery of donor porting costs from recipient operators is not permitted under the terms of the number portability regulations. However, in most countries such cost recovery is permitted but the cost recovery methodology is typically determined by the following key requirements:

- the costs to be recovered by the donor from the recipient can only be those which are directly attributable to the incremental activity required to support the porting service (i.e., (a) the validation of initial porting approval requests and the submission of the corresponding porting approval responses; and (b) the deactivation of the ported out number on the donor network); and

- such costs should be determined and set on the basis of the most efficient operator approach (i.e., operators whose inefficient porting systems or approaches should not be rewarded or remunerated for such inefficiencies).

URCA analysed both proposals against the aforementioned best practice principles.

Typically, when operators make a decision whether to adopt manual or automated porting processes they are required to balance the capital investment required to automate the interworking of their Customer Relationship Management systems with the central NP Administration Service against the additional incremental operating costs that would be required to operate the porting service using manual resources (i.e., people and the NP Administration Service's web based Graphical User Interface (GUI).

For operators who adopt automated porting approaches, there is usually an additional and quite significant capital investment upfront before the launch of the number portability service. However, this additional capital investment is offset by minimal porting operating costs since minimal additional human and process resources are needed to support the day-to-day operation of the porting service (because porting is performed on a machine-to-machine basis).

On the other hand, for operators who adopt manual porting approaches, while they would not have had to make the significant capital investment to automate their systems and processes, in order to support the ongoing porting service these operators incur additional human and process resource costs going forward forever.

URCA notes that BTC has adopted a fully automated porting approach (although BTC has indicated that it may in the very early stages of number portability be required to adopt certain manual processes as an interim approach). As such, BTC's ongoing incremental porting operating costs should be minimal. Typically, in an automated porting environment, the only incremental costs that automated operators incur are the management and occasional intervention when their automated porting systems fail or there is a need to manually intervene to progress or resolve problems with individual porting transactions. URCA has been advised that in some countries the assumption is made that such intervention is only required in less than 10% of porting transactions, and thus the actual incremental donor cost recovery for automated operators is very low, usually in the region of $1 to $4 per porting transaction. For this reason, URCA is surprised at the size of the porting recovery costs that BTC has reported since this is inconsistent with BTC's automated porting systems and the experience observed with automated operators elsewhere.

In contrast, CBL has opted for a manual porting process. As such, when CBL is a donor the level of costs incurred would be higher than BTC. This is because in a manual porting environment the level of costs to be recovered is directly driven by the additional human and process resources required to manually complete the incremental porting activities.

URCA considers that given the international experience, the situation reflected by comments received from operators in response to this consultation is contradictory in that the automated operator (BTC) proposed a high donor recovery charge versus a very low donor recovery by the manual operator (CBL). Based on the "efficient operator" approach, URCA considers that it would be reasonable for URCA to set porting transaction charge at the lowest level (i.e., that proposed by CBL). However, URCA cannot be certain about the assumptions underlying CBL's proposals, in particular, URCA was unable to validate the estimates of attendant's time and manual labour costs proposed by CBL with BTC, given CBL's request for confidentiality and, to a lesser extent, the desire to avoid any further slippage in the agreed launch date for the service.

In order to strike a reasonable balance between the two proposals, URCA considers that the charge should be set at $4 per porting transaction. The $4 porting charge is the average of the donors' recovery charges in Channel Islands and Isle of Man. URCA has selected these benchmarks as jurisdictions with profiles similar to or smaller than The Bahamas, where charges have been subjected to regulatory scrutiny by the respective national regulators. URCA is therefore reasonably comfortable that the cost allocation framework in both benchmark jurisdictions are reasonable proxies for The Bahamas, and their charges are based on a per porting transaction basis similar to that intended for The Bahamas.

URCA has considered but not used regional benchmarks for the following reasons:

- very limited experience with number porting across the various Caribbean jurisdictions; and
- there appears to be material differences in the regulatory provisions for number porting in these jurisdictions.

URCA considers that $4 per porting transaction charge is a reasonable compromise. The porting charge will be applicable on a per transaction basis, rather than on a per line basis, and applies to all three categories of porting services specified in Section 3.3.2 of the FNP Business Rules.[8]

Having considered the issue of applying a charge to unsuccessful porting, URCA has decided that due to practicality and materiality concerns, unsuccessful porting will not attract the URCA-approved non-zero porting transaction fee, or any transaction fee.

[8] See Annex C of ECS 11/2013.

3.4 Additional Call Conveyance Costs

Additional call conveyance costs are any additional incremental costs incurred in routing a call to a subscriber with a ported number relative to the costs involved in routing a call to a subscriber with a non-ported number.

BTC's Comments

BTC was of the view that the principles of effective competition and the distribution of benefits suggest that any additional conveyance costs should be borne by the recipient operator. BTC stated that making donor operators absorb a huge disproportion of costs associated with Local Number Portability creates distortion within the market and can lead to sub-optimal outcomes. BTC argued that FNP lowers the Recipient Operator's cost of acquiring a new subscriber by lowering the cost of switching and if a significant proportion of switching costs are shifted to the Donor Operator, then this leads to competitive distortion in the market.

BTC stated that after the completion of its FNP costing, it would be in a better position to comment on URCA's assessment of the costs of additional call conveyance, particularly URCA's statement that these costs are likely to be negligible. However, within its final submission dated 18 October 2013, BTC did not provide any further response on URCA's proposal.

CBL's Comments

In its comments, CBL did not raise any objection to URCA's preliminary view that additional call conveyance costs are negligible and should be waived.

URCA's Response

Within the consultation, URCA expressed the preliminary view along with supporting arguments that:

- there are no additional call conveyance costs associated with the routing of traffic originated and terminated (on ported numbers) in The Bahamas; and
- there are no additional conveyance costs associated with the routing of incoming international traffic that terminates in The Bahamas on ported numbers.

Given the absence of any further comments from BTC and/or CBL in respect of URCA's proposal, URCA reaffirms its proposal as a final determination.

4 URCA's Third Final Determination on FNP Cost Allocation and Recovery

This is a Final Determination issued by the Utilities Regulation and Competition Authority ("URCA") pursuant to section 99 of the Communications Act, 2009:

WHEREAS section 80 of the Communications Act, 2009 provides:

> *"(1) URCA shall issue a consultation and make a determination on number portability.*
>
> *(2) Licensees shall provide, to the extent technically feasible, operator to operator number portability when required to do so in accordance with the requirements prescribed by URCA so that subscribers who have been allocated a telephone number or telephone numbers may retain that number or those numbers when switching to the carriage services of an alternative licensee …";* and

WHEREAS on 15th April 2011, URCA issued a consultation on Number Portability by way of its consultation document *"Number Portability for The Bahamas"* – ECS 08/2011, received submissions from interested persons, and responded to those submissions by way of its *"Number Portability for The Bahamas – Statement of Results"* – ECS 20/2011 issued on 16th November 2011; and

WHEREAS pursuant to the consultation on Number Portability on 8th December 2011, URCA appointed a joint regulator/industry working group, the Number Portability Working Group (the "NPWG") to consider and make recommendations to URCA on various matters pertaining to the implementation of Number Portability in The Bahamas; and,

WHEREAS on 3rd August 2012, having received recommendations from the NPWG on 30th April 2012, URCA issued a Final Determination on the Implementation of Number Portability in The Bahamas Pursuant to section 80 of the Communications Act, 2009 (the *"First FNP Determination"*) signalling its intent to implement Number Portability on Fixed Telephone Networks in The Bahamas ("Fixed NP") and requiring Licensees to work toward that implementation; and

WHEREAS the NPWG conducted further deliberations on various matters relating to fixed Number Portability implementation and reached agreement on various matters, and URCA has considered those deliberations, matters and the accommodations reached; and

WHEREAS on 30th July 2013, URCA issued a Preliminary Determination on "The implementation of Fixed Number Portability in The Bahamas pursuant to Section 80 of the Communications Act, 2009" (the "Preliminary Determination") proposing various matters pertaining to the launch of Fixed NP in The Bahamas; and

WHEREAS on 29th October 2013, having received and considered comments on matters set out in the Preliminary Determination, URCA issued its Second Final Determination on the Implementation of Fixed Number Portability in The Bahamas Pursuant to section 80 of the Communications Act, 2009 (the "Second FNP Determination") and accompanying Order addressing various matters necessary for the implementation of Fixed NP and requiring Licensees to work toward that implementation; and

WHEREAS the Second FNP Determination reserved certain matters in respect of the allocation and recover of costs of Fixed NP to be addressed in a further Final Determination; and

WHEREAS in response to the Preliminary Determination the Bahamas Telecommunications Company Limited (BTC) and Cable Bahamas Limited (CBL) have made representations to URCA on the matters set out in the Preliminary Determination pertaining to allocation and recovery of the costs pertaining to Fixed NP.

NOW URCA, having reviewed and considered:

- all recommendations made by interested persons in respect of the matters set out in the Preliminary Determination pertaining to the allocation and recovery of the costs pertaining to Fixed NP;
- The overarching objective of implementing Fixed NP in The Bahamas, which in URCA's view, is compatible with the statutory framework of the Comms Act in the most effective and efficient manner and without undue delay;
- The costing principles set out in the First FNP Determination;
- The approach taken by regulators in other jurisdictions, including markets with market profiles similar to, or smaller than, The Bahamas; and,

makes the following Final Determination pursuant to section 80 of the Communications Act, 2009 and in accordance with section 99 of the Communications Act, 2009:

1. Internal Set-up Costs

For the purpose of this Determination, "Internal Set-up Costs" are defined as the one-off costs incurred by Fixed NP operators for their network and systems upgrades, the costs of training staff to enable Fixed NP, as well as the costs incurred in creating an agreed porting procedure and determining commercial terms and procedures.

URCA has determined that each Licensee required to provide Fixed NP must bear its own internal set-up costs with no option for them to recover these costs from consumers or other operators.

2. Common Industry System Costs

For the purpose of this Determination, "Common Industry System Costs" are defined as the costs of the equipment/system for the Number Portability Administration Service (comprising a centralized database solution for porting numbers between operators, and ancillary services).

URCA has determined that the Common Industry System Costs:

i) shall be equally apportioned across Licensees offering Fixed NP; and
ii) going forward the costs will be equally shared among new and existing licensees offering number portability.

URCA reserves the right to review the approach on a going forward basis, to take account of actual experience.

3. Per Porting Costs

For the purpose of this Determination, "Per Porting Costs" are defined as the per order handling or administrative costs incurred in implementing FNP for individual subscribers including the cost of complying with the agreed porting procedures, activating ported numbers, testing, and communicating the necessary call routing information to other licensees.

URCA has determined that charging for successful porting transactions should reflect relevant incremental costs directly attributable to an efficient porting process, and must be reciprocal (i.e., each operator pays the other operator the same charge for the same service).

URCA has further determined that:

i) Donor operators (who will lose the customer) shall not levy any porting charges on subscribers requesting number portability.
ii) Recipient operators (who will gain the customer) shall not levy any porting charges on subscribers porting to their networks and services.
iii) Donor operators may levy a charge on recipient operators for each successful porting transaction. A porting transaction may comprise one or more numbers as provided for in the FNP Business Rules.
iv) The approved reciprocal porting transaction charge is $4.00 per transaction.
v) For the avoidance of doubt, the approved porting charge is applicable to successful porting transactions only.

4. Additional Call Conveyance Costs

For the purpose of this Determination, “"Additional Call Conveyance Costs" are defined as any additional incremental costs incurred in routing a call to a subscriber with a ported number, over and above the costs incurred in routing a call to a subscriber with a non-ported number.

URCA has determined that:

i) in respect of national traffic there are no Additional Call Conveyance Costs associated with the routing of traffic originated and terminated (on ported numbers) in The Bahamas; and

ii) in respect of inbound international traffic there are no Additional Call Conveyance Costs associated with the routing of incoming international traffic that terminates in The Bahamas on ported numbers.

This Final Determination (the “Third FNP Determination”) shall take effect in addition to the First FNP Determination and the Second FNP Determination, the provisions of which shall remain in effect *mutatis mutandis*. The provisions of this Third FNP Determination shall supersede the interim determinations regarding cost allocation and recovery made in the Second FNP Determination.

URCA has not issued any Order in connection with the matters set out in this Determination.

URCA reserves the right to conduct future reviews of its determinations but notes that such reviews should take account of the actual experience of NP locally, changing market conditions locally, ensure the charge remains relevant and fit for purpose on a going forward basis, consistent with the economic principles adopted by URCA, and new economic thinking.

Dated this 18th day of November, 2013.

Utilities Regulation and Competition Authority

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Kathleen Riviere-Smith
Chief Executive Officer