



**CONSULTATION ON PROPOSED CHANGES TO THE
REFERENCE ACCESS AND INTERCONNECTION OFFER
PUBLISHED BY THE BAHAMAS TELECOMMUNICATIONS
COMPANY LTD.**

PRELIMINARY DETERMINATION

ECS 09/2016

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Table of Contents

1	INTRODUCTION	1
1.1	PURPOSE OF THIS CONSULTATION.....	2
1.2	CONSULTATION PROCESS.....	2
1.3	RESPONDING TO THIS PRELIMINARY DETERMINATION.....	3
1.4	STRUCTURE OF THE REMAINDER OF THIS DOCUMENT	4
2	URCA'S PRELIMINARY DETERMINATION.....	5
3	BACKGROUND TO THIS PRELIMINARY DETERMINATION.....	7
3.1	URCA'S 2010 FINAL SMP DECISION	7
3.2	URCA'S 2013 SMP ASSESSMENT OF CALL TERMINATION MARKETS.....	8
3.3	SUMMARY OF ACCESS AND/OR INTERCONNECTION OBLIGATIONS	9
3.4	IMPACT OF MOBILE LIBERALIZATION ON THE DEMAND FOR WHOLESALE SERVICES.....	10
4	RATIONALE FOR URCA'S PROPOSED CHANGES TO BTC'S RAIO.....	11
4.1	TERMINATION RATES FOR DOMESTIC MOBILE CALLS.....	11
4.2	DIRECT CONNECTIVITY TO BTC'S MOBILE SWITCH.....	13
4.3	INTERCONNECTION VIA IP/SIP INTERCONNECTION LINKS	14
4.4	SMS/MMS TERMINATION SERVICE.....	15
5	CONCLUSION AND NEXT STEPS	17

1 Introduction

In this Preliminary Determination, the Utilities Regulation and Competition Authority (“URCA”) presents for consultation its review of the Reference Access and Interconnection Offer (RAIO)¹ published by the Bahamas Telecommunications Company Ltd. (BTC), and the changes it now proposes to require BTC to make to the RAIO. The outcome of this consultation is, in URCA’s view, critical to the development of sustainable competition in the electronic communications sector in The Bahamas.

The obligation to prepare and publish a RAIO was imposed on BTC as a consequence of URCA’s 2010 findings in respect of the *ex-ante* remedies applicable to specified licensees presumed to have SMP² in the provision of key communications markets in The Bahamas. The RAIO sets out the URCA-approved terms and conditions upon which BTC must offer access and/or interconnection to other licensees in The Bahamas and therefore supports transparency and non-discrimination in access and/or interconnection between BTC and other licensees.

This Preliminary Determination builds on the recently concluded Government process, conducted in accordance with section 114 of the Communications Act, 2009 (“Comms Act”)³ to identify the successful bidder for the second cellular mobile licence, and is intended to satisfy the requirement of the Government, as set out in the Electronic Communications Sector Policy⁴ (“ECS Policy”) for URCA:

“to ensure that all regulatory measures necessary for cellular liberalisation, are met and fulfilled in accordance with the timetable set for such liberalisation.”⁵

The ECS Policy further mandates URCA to *“take steps to equip itself with the necessary regulatory tools required to effectively regulate a competitive cellular mobile market in the best interests of The Bahamas, after the expiry of BTC’s exclusivity period.”*

This Preliminary Determination supports the goals URCA has espoused in its 2015 Annual Plan to *“ensure that all participants in the market have a level playing field while being guided by high level principles of fairness, non-discrimination and transparency”*.⁶ Further,

¹Available at <https://files.btcbahamas.com/2015/10/07/final-btc-urca-approved-raio-revised-july-2014-rev.pdf>.

²Significant Market Power

³As amended by section 8 of the Communications (Amendment) Act, 2011 (Act No.5 of 2011).

⁴Extraordinary Official Gazette published on 23 April 2014.

⁵ Paragraph 89

⁶“URCA 2015 Annual Plan” (ECS 21/2014 issued on 31 December 2014) and available at <http://www.urcabahamas.bs/download/028983400.pdf>.

the changes under consideration supplement the other work areas and projects that were identified in URCA's 2015 Annual Plan⁷ and its proposed 2016 Annual Plan⁸ on the key regulatory issues that will need to be addressed in light of the introduction of cellular mobile competition in The Bahamas.

It is internationally recognised by industry analysts and experts that access to essential wholesale (including interconnection) services or inputs on pro-competitive terms is a key enabler of competition in a competitive communications environment. Given this and its legislative mandate in section 4 of the Comms Act to facilitate competition, URCA is issuing this Preliminary Determination on the changes that it proposes to require BTC to make to its RAIO. In carrying out this review URCA proposes to ensure that BTC's RAIO services remain appropriate and fit for purpose now that the cellular mobile sector has been liberalised and so will support the entry of a second cellular mobile operator in The Bahamas.

Details on how to respond to this consultation are in Section 1.3.

1.1 Purpose of this Consultation

In issuing this Preliminary Determination URCA is:

- setting out its rationale for requiring BTC to amend its RAIO;
- giving notice to BTC that URCA proposes to make a determination which will require BTC to amend its RAIO and inviting BTC to make representations thereon or provide objections thereto; and
- inviting comments from interested parties and members of the public on URCA's proposals.

URCA has issued this Preliminary Determination without prejudice to the outcome of any on-going negotiations between the Government of The Bahamas and Cable Bahamas Ltd. (CBL) as envisaged by Section 8.2.1 of the *"Request for Proposal To Operate a Cellular Mobile Network and To Provide Cellular Mobile Services in The Bahamas (RFP)."*

1.2 Consultation Process

The Bahamas' electronic communications industry is guided by the Comms Act which provides the legal framework for URCA's regulation of the electronic communications sector. URCA's role is to implement, monitor and enforce this legislation. URCA has wide-ranging powers under the Comms Act, especially as it relates to SMP licensees.

⁷ECS 03/2015 available at <http://www.urcabahamas.bs/download/045896500.pdf>.

⁸ECS 13/2015 available at <http://www.urcabahamas.bs/download/038195400.pdf>.

Section 99 of the Comms Act sets out the procedures for issuing this Preliminary Determination. In particular, sections 99(1)(a) and (b) of the Comms Act collectively prescribe that if, on its own motion, URCA has reason to believe that a determination is necessary, it may make determinations relating to (among other things):

- any obligations on a Licensee regarding the terms or conditions of any licence, including obligations in licence conditions and regulations;
- any activity set out in the Comms Act; and
- where the Comms Act provides for URCA to “determine” or “to make determinations” as is the case under sections 39(1) and 116(2).

According to section 99(2) of the Comms Act, in making any determination, URCA has to consult persons with sufficient interest under section 11 of the Comms Act and provide written reasons for its determination. Section 13(1) of the Comms Act prescribes that:

“A regulatory and other measure is likely to be of public significance if it relates to electronic communications services or networks and can lead to one or more of the following —

- (a) involve a major change in the activities carried on by URCA under this Act;*
- (b) a significant impact on persons carrying on activities in those areas where URCA has functions under this Act; and*
- (c) a significant impact on the general public in The Bahamas.”*

Under section 11(1) of the Comms Act, URCA shall afford persons with sufficient interest a reasonable opportunity to comment on URCA’s proposals.

URCA considers that the changes it proposes to make to the BTC RAIO are likely to have a significant impact upon the activities carried on by licensees in The Bahamas. As such, this Preliminary Determination constitutes URCA's formal notice to the affected licensees and the public under the terms of section 100, section 8(1)(d), (e) and (m) and section 5 of the Comms Act of URCA’s intention to require BTC to make certain changes to the current BTC RAIO.

1.3 Responding to this Preliminary Determination

Written representations or objections from BTC or members of the public are invited on the proposed determinations set out in this document. Written submissions are to be made to URCA by 5:00 p.m. on 6 May 2016. Interested parties will then have the opportunity to further comment on responses made by other respondents by 5:00 p.m. on 10 June 2016

Persons may send their written responses or comments to the Director of Policy and Regulation, either:

- by hand, to URCA's office at Frederick House, Frederick Street, Nassau; or
- by mail to P.O. Box N-4860, Nassau, Bahamas; or
- by fax, to (242) 323-7288; or
- by email, to info@urcabahamas.bs.

URCA is encouraging respondents to adhere to the deadlines for making written submissions on this Preliminary Determination. Having regard to the strict statutory timeframes imposed upon URCA in section 100(5) of the Comms Act, only in extreme circumstances will URCA consider accommodating any request for an extension to the deadlines for responding to this document.

URCA retains the right to make all responses available to the public by posting responses on its website at www.urcabahamas.bs. If a response is marked confidential, reasons should be given to facilitate URCA's evaluation of the request for confidentiality. URCA may publish or refrain from publishing any document or submission, at its sole discretion.

1.4 Structure of the Remainder of this Document

The rest of the document is structured in the following way:

- Section 2 - The determination URCA proposes to make.
- Section 3 - Background to this Preliminary Determination.
- Section 4 - Changes URCA proposes to require BTC to make to its RAIO.
- Section 5 - Conclusions and Next Steps.

2 URCA's Preliminary Determination

This Section sets out the Determination which URCA proposes to make, subject to URCA's consideration and review of any representations and objections made by interested parties. URCA's Determination will be addressed to, and will be binding upon, the licensees referred to in the Determination:

"WHEREAS,

- (i) Section 5 of the Communications Act, 2009 mandates that *"All policy measures, decisions and laws to take effect in the electronic communications sector in The Bahamas shall be made with a view to implementing the electronic policy objectives ..."*;
- (ii) The electronic communications sector policy objectives at section 4 of the Communications Act, 2009 include furthering *"the interests of consumers by promoting competition"* and furthering *"the interests of persons in The Bahamas in relation to the electronic communications sector"*;
- (iii) Section 99(1)(a) and (b) of the Communications Act, 2009 empowers URCA to make determinations;
- (iv) The Government at Paragraph 89 of the Electronic Communications Sector Policy has urged URCA *"to ensure that all regulatory measures necessary for cellular liberalisation, are met and fulfilled in accordance with the timetable set for such liberalisation"*, and;
- (v) Pursuant to section 116(2), section 5 and sections 39 and 40 of the Communications Act, 2009, URCA issued respectively:
 - ECS 14/2010 *"Final Access and Interconnection Guidelines"*, containing, among other things, the procedures for making changes to Reference Access and Interconnection Offers; and,
 - ECS 01/2011 *"Obligations on Bahamas Telecommunications Company Ltd. Under Section 116(3) of the Communications Act, 2009: Draft Reference Access and Interconnection Offer – Response To Public Consultation and Final Decision"*; and,
 - ECS 13/2013 *"Assessment of Significant Market Power in Call Termination Services under Section 39(1) of the Communications Act, 2009"*.

(vi) Having conducted a review of the likely Impact of Mobile Liberalization on the Demand for Access and/or Interconnection Services at Section 3 below, URCA considered that it is appropriate and proportionate to make certain determinations regarding amendments to the Bahamas Telecommunications Company Ltd.'s Reference Access and Interconnection Offer (RAIO) to ensure that the expected increase in demand for Access and/or Interconnection Services can be met in a way which promotes efficient and effective cellular mobile competition.

URCA HEREBY DETERMINES as follows:

1. The Bahamas Telecommunications Company Ltd. (BTC) is directed to amend its Reference Access and Interconnection Offer to:
 - a) Include cost-based termination rates for calls originating on domestic fixed or cellular mobile networks owned by other licensed operators (OLOs) and terminating on BTC's cellular mobile network.
 - b) Include provisions for Other Licensed Operators to interconnect directly to a suitable point of interconnection on BTC's cellular mobile network.
 - c) Include provisions to enable OLOs to obtain interconnection at no less than two (2) diverse and discreet points on BTC's fixed and/or cellular mobile networks, using interconnection transport links based on Internet Protocol (IP) supporting Session Internet Protocol (SIP) technology.
 - d) Include a termination service and associated cost-based termination rate for domestic and inbound international SMS/MMS.
2. BTC is required to submit the amendments to its RAIO for URCA's review and approval within forty-five (45) calendar days of the date of this Final Determination.
3. Failure to comply with URCA's Final Determination may result in URCA imposing sanctions on BTC in accordance with Part XVII of the Comms Act.
4. All references to BTC shall, in accordance with section 21(1) of the Comms Act, be taken to include both BTC and any subsidiary undertaking of BTC listed in the application for a licence or notified to URCA from time to time in accordance with section 21(2) of the Comms Act.

3 Background to this Preliminary Determination

Below URCA provides the context to this Preliminary Determination. It first presents an overview of the prevailing access and/or interconnection obligations imposed on SMP operators under its 2010 SMP Decision and its 2013 SMP assessment of call termination markets. This is followed by a description of the likely impact of cellular mobile liberalization on the demand for access and/or interconnection services.

3.1 URCA's 2010 Final SMP Decision

Under the terms of section 116(1) and Schedule 4 of the Comms Act, BTC and Cable Bahamas Ltd. (CBL) were presumed to have Significant Market Power (SMP) in the following high-level markets:

- BTC in the provision of:
 - fixed voice, and
 - mobile voice and mobile data services; and
- CBL in the provision of:
 - high-speed data services and connectivity, and
 - pay TV services.

In April 2010, URCA, pursuant to the terms of section 116(2) of the Comms Act, issued (after consultation) its Final Decision on *"Obligations Imposed on Operators with Significant Market Power."*⁹ As part of this Final Decision, URCA specified the retail and wholesale services (and enabling components) that belong to the SMP markets identified for BTC and CBL, along with the *ex-ante obligations* or regulatory measures to which each of the SMP operators must adhere. In support of the Final Decision, URCA also published:

- *"Final Accounting Separation and Cost Accounting Guidelines for BTC"*¹⁰;
- *"Final Accounting Separation and Cost Accounting Guidelines for CBL"*¹¹;
- *"Final Access and Interconnection Guidelines"*¹²; and
- *"Regulation of Retail Prices for SMP Operators – Rules"*¹³.

A key obligation of the April 2010 Final Decision was the stipulation that BTC prepare and publish a Reference Access and Interconnection Offer (RAIO) inclusive of cost-based charges for the required access and/or interconnection services (as set out in the SMP Decision). The RAIO sets out the standard terms or conditions upon which BTC must offer

⁹ECS 11/2010 available at <http://www.urbahamas.bs/download/065805100.pdf>

¹⁰ECS 12/2010 available at <http://www.urbahamas.bs/download/071386200.pdf>

¹¹ECS 13/2010 available at <http://www.urbahamas.bs/download/007964800.pdf>

¹² ECS 14/2010 available at <http://www.urbahamas.bs/download/024581000.pdf>

¹³ECS 15/2010 (now ECS 06/2014) available at <http://www.urbahamas.bs/download/091501900.pdf>

access and/or interconnection to other networks in The Bahamas and therefore supports transparency and non-discrimination in access and/or interconnection between BTC and other licensees.

On 2 July 2010, BTC published its draft RAIO on its website. On 11 July 2011, URCA published (after consultation¹⁴) ECS 01/2011¹⁵ which set out URCA's Final Decision on BTC's draft RAIO. This approved the draft RAIO, subsequent to some further changes required by URCA, and required BTC to publish the same on BTC's website.

Subsequent to the publication of ECS 01/2011 URCA issued (after consultation) two further decisions relating to BTC's RAIO. In ECS 12/2011 ("*Charging for Interconnection Joining Circuits for BTC*"¹⁶), URCA set out the one-off and monthly recurring charges that BTC must apply for the joining services specified in BTC's published RAIO. The second decision, ECS 25/2012 ("*Setting Regulated Call Termination Charges for BTC Going Forward*"¹⁷), resulted in BTC having to reduce the termination rates specified in its RAIO.

3.2 URCA's 2013 SMP Assessment of Call Termination Markets

In 2013, URCA reviewed the wholesale markets for termination services in The Bahamas.¹⁸ In this review, URCA considered whether BTC, Systems Resource Group Ltd. (SRG)¹⁹ and IP Solutions International Ltd. (iPSi) held SMP in the market for terminating calls (and mobile messages) on their respective networks. Specifically, URCA found that BTC held SMP in the market for terminating calls (and mobile messages) on its fixed and mobile networks. URCA found that SRG and iPSi held SMP in the market for terminating calls on their respective fixed networks. Also the review reaffirmed the *ex-ante* obligations imposed in 2010 which are applicable to BTC's fixed and mobile call termination services. The review also established the need to introduce *ex-ante* regulation of SRG's and iPSi's fixed call termination rates. This price control regime was subsequently determined by URCA (after consultation) in June 2014 (ECS 12/2014).²⁰ Further, SRG and iPSi are also required to publish the standard terms or conditions upon which others can terminate calls on their respective fixed networks and adhere to the non-discrimination obligations of the Comms Act and relevant licence conditions. However, they are not required to prepare and publish RAIOS in the same manner as BTC.

¹⁴ECS 22/2010 and available at <http://www.urbahamas.bs/download/081835100.pdf>

¹⁵"Response to Consultation and Final Decision" available at <http://www.urbahamas.bs/download/000925600.pdf>

¹⁶Available at <http://www.urbahamas.bs/download/060969900.pdf>

¹⁷Available at <http://www.urbahamas.bs/download/084192400.pdf>

¹⁸ECS 13/2013 "Assessment of Significant Market Power in Call Termination Services under Section 39(1) of the Communications Act, 2009" available at <http://www.urbahamas.bs/download/067809100.pdf>

¹⁹SRG is a subsidiary of CBL.

²⁰"Fixed Call Termination Price Control for SRG and iPSi" available at <http://www.urbahamas.bs/download/085881400.pdf>

3.3 Summary of Access and/or Interconnection Obligations

Given the above, Table 1 summarizes the access and/or interconnection obligations imposed currently on BTC, SRG and iPSi.

Table 1: Summary of Wholesale Services and Obligations

Operators	Regulated Wholesale Services	Other Obligations
BTC	Call transit, fixed and mobile call termination, mobile messaging termination, entry into directory enquiries database & ancillary services, and enabling products or network components (e.g., joining circuits and points of interconnection)	<ul style="list-style-type: none"> • Publication of RAIO with Cost-based rates • Non-discrimination • Develop Separated accounts in accordance with URCA's Separation Accounting Guidelines
SRG and iPSi	Fixed Call Termination	<ul style="list-style-type: none"> • Cost-based symmetrical termination rates based on BTC's data and/or benchmarks • Publication of Terms and conditions of call termination • Non-discrimination

The corresponding URCA-approved wholesale rates for access and/or interconnection are specified in Table 2.

Table 2: URCA-approved Charges for Regulated Access and Interconnection Services

Operator	Wholesale Services	Approved Charges
BTC	Fixed Call Termination to Geographic Numbers (on-island)	0.75 c/minute
	Fixed Call Termination to Geographic Numbers (off-island)	1.13 c/minute
	Fixed Call Termination to Non-Geographic Numbers	2.01 c/minute
	Call Termination to Mobile Numbers: <ul style="list-style-type: none"> • Domestic Traffic • International Traffic 	Zero Termination Rate 4.61 c/minute
	Call Termination to Automated Assistance Numbers: <ul style="list-style-type: none"> • 915 (Weather) • 917 (Time of Day) 	No Charge No Charge
	Call Termination to Directory Enquiries	29.75 c/call
	Call Termination to Operator Assistance Service: <ul style="list-style-type: none"> • Person to Person • Station to Station 	51 c/minute 34 c/minute
	Charges for entry to Directory Number Inclusion Service	1.91 \$/number
	Call Termination to Emergency Service	2.33 c/minute
	Call Termination to Freephone Numbers	No Charge
	International Call Transit	0.75 c/minute
	National Transit Call Conveyance: <ul style="list-style-type: none"> • Transit Across one POI • Transit Across two POI • Transit Across one POI to BTC's Mobile Network • Transit across two POI to BTC's Mobile Network 	0.90 c/minute 2.45 c/minute 1.04 c/minute 2.59 c/minute
	Joining Circuits	See Table G.12 of BTC's RAIO
	SRG and iPSi	Fixed Call Termination to Geographic Numbers (on-island)
Fixed Call Termination to Geographic Numbers (off-island)		1.13 c/minute

3.4 Impact of Mobile Liberalization on the Demand for Wholesale Services

The proposed changes to BTC's RAIO (Section 4 below) are intended to ensure that the access and/or interconnection services currently provided by the vertically integrated operator (BTC) are fit for purpose given the recent liberalization of the mobile market and hence the increased demand for wholesale inputs that this will be likely to create. Although URCA appreciates that all the access and interconnection services currently offered by SMP licensees remain relevant, it is also of the view that BTC's RAIO can be enhanced to ensure that the expected increase in demand for wholesale services can be met in a way which promotes competition between service providers. Specifically, URCA considers that there are reasonable grounds to require BTC to amend its RAIO in order that the pro-competitive conditions that are needed for competitive mobile entry are in place. As an example, the current BTC RAIO does not include a termination service for SMS/MMS which is an essential input that the second cellular mobile operator must have in order to comply with the interconnection obligation of its licence. Overall and having regard to URCA's objective, URCA is minded to require BTC to amend its RAIO to:

- Include cost-based termination rates for calls originating on domestic fixed or cellular mobile networks owned by other licensed operators and terminating on BTC's cellular mobile network.
- Include provisions for OLOs to interconnect directly to a suitable point of interconnection on BTC's cellular mobile network.
- Include provisions to enable OLOs to obtain interconnection at no less than two (2) diverse and discreet points on BTC's fixed and/or cellular mobile networks, using interconnection transport links based on Internet Protocol (IP) supporting Session Internet Protocol (SIP) technology.
- Include a termination service and associated cost-based termination rate for domestic and inbound international SMS/MMS.

URCA notes that the issues set out in this document have received detailed treatment in previous consultations, which have established the need for regulatory intervention in the form of the measures set out herein, consistent with the requirements of section 5 of the Comms Act. URCA is satisfied that the measures set out herein are efficient and proportionate to their purpose.

4 Rationale for URCA's Proposed Changes to BTC's RAIO

The changes that URCA proposes to require BTC to make to its RAIO are further discussed below.

4.1 Termination Rates for Domestic Mobile Calls

BTC currently provides domestic call termination to its cellular mobile network at a zero-rated price (i.e., bill and keep). This is because BTC follows a Receiving Party Pays/Mobile Party Pays (RPP/MPP) regime for domestic fixed to mobile calls. Under this regime, a BTC mobile customer pays an airtime charge to BTC when receiving a domestic call on his or her mobile telephone where the call has originated from a fixed telephone line in The Bahamas.²¹ This practice has been in place since cellular mobile services were first introduced in The Bahamas.

Within its 2011 Final Decision on BTC's draft RAIO (ECS 01/2011), URCA found that as long as retail fixed calls to mobiles are operated on a RPP/MPP basis then no mobile termination rate should be applied, except for inbound international calls to mobiles, which are currently charged at the URCA-approved per minute price of 4.6 cents.²² Such a charge was levied because BTC does not charge its retail mobile customers for receiving an international incoming call.

In its preparation for the introduction of competition in the cellular mobile services markets, URCA has engaged with both BTC and CBL to assist URCA in determining the key regulatory issues pertaining to the introduction of mobile competition that URCA would need to address. Among other issues, CBL (in its capacity as the winner of the auction) has informed URCA that it was evaluating the merits of instituting a retail tariff regime that differs from the RPP/MPP regime followed by BTC. BTC, however, has cited reasons to maintain the current RPP regime. BTC commented that URCA has not presented any evidence that a Calling Party Pays (CPP) regime would be appropriate for The Bahamas and recommended that URCA should be guided by the experience of Barbados in this regard. BTC added that symmetrical termination rates across cellular mobile networks should be implemented and referenced URCA's previous determination in support of its proposal.

URCA confirms that it has indeed not investigated the merits of CPP versus the RPP/MPP regime currently followed by BTC because it believes that such matters are best

²¹This contrasts with the calling party pays model employed in many other jurisdictions, including throughout Europe and most of the Caribbean. In a CPP system, it is free for a customer to receive a call on their mobile telephone.

²²In respect of the non-zero rated charge for inbound international calls this only applies where an overseas carrier delivers calls to an OLO (e.g., CBL) in The Bahamas which the OLO then wishes to terminate on BTC's mobile network.

considered by the industry. Moreover, it is not URCA's practice to dictate to its licensees the retail charging regime they should adopt on their networks, so long as all retail charges are consistent with the requirements of the Comms Act and relevant licence conditions. URCA considers that the market will determine the most appropriate pricing practice, given that where operators offer services with alternative charging principles then end-users might naturally select the preferred approach.

As to BTC's reference to Barbados, URCA acknowledges that with the arrival of mobile competition, Barbados maintained an MPP regime for domestic fixed-to-mobile calls but introduced CPP for mobile-to-mobile (off-net) calls. URCA understands that in most other Caribbean markets incumbents implemented CPP on their fixed and mobile networks when mobile competition was introduced. URCA also notes that the practice in Europe and elsewhere is for incumbent mobile operators to implement CPP for calls originated on their fixed networks once mobile competition was introduced.

While URCA does not here intend to dictate the retail pricing policies that licensees pursue, it does foresee a possibility that licensees will move, either immediately or over time, to a CPP arrangement. For example, this could happen if any or all of the following occur:

- BTC discontinues its policy of RPP/MPP for calls originated on domestic networks (including BTC's fixed network terminating on BTC's mobile network);
- SRG introduces retail charges (CPP) on its own fixed line customers for making fixed-to-mobile calls (i.e., CPP on SRG's fixed network); and/or
- The second cellular mobile operator implements CPP for its own cellular mobile customers for making off-net mobile calls and sending SMS messages to BTC's mobile customers (i.e., CPP on the second mobile network).

Given this possibility, URCA considers that it has a responsibility to ensure that mobile termination services are implemented which correspond to the different retail pricing strategies that licensees might pursue. That is, URCA considers it has a responsibility to ensure that BTC has cost-based mobile termination rates in place in the event that it chooses to no longer charge its own retail customers to receive fixed-to-mobile calls and/or mobile-to-mobile (off-net) calls.

URCA notes from its 2013 Final Decision on SMP in call termination services (ECS 13/2013) that it imposed an obligation on BTC to establish cost-based mobile termination rates for domestic calls when mobile competition is introduced. In fulfilment of this obligation, URCA is now inviting BTC to submit, as part of its response to this Preliminary Determination, BTC's proposed cost-based rates for domestic mobile call termination along with supporting information for URCA's review and final decision.

For the avoidance of doubt, URCA proposes that the licensee receiving the mobile call can either charge its own retail customer who receives the call, or it can charge the originating

network a mobile termination rate, but it cannot do both. Therefore, if BTC continues to charge its customers to receive off-net mobile-to-mobile calls or fixed-to-mobile calls then it cannot introduce a mobile termination rate, but it could do so if it moves away from this policy for each call type. Similarly, the second cellular mobile operator could choose to levy a mobile termination rate or to charge its own mobile customers who receive the call (i.e., a mobile termination rate of zero). If it chose to introduce a mobile termination rate (e.g., for off-net mobile-to-mobile calls from BTC mobile), then this would, in effect, require BTC to offer CPP for mobile-to-mobile off-net calls. Ultimately the choice of pricing model each operator faces will be driven by how each operator decides to price its retail services.

Consultation Question - Termination Rates for Domestic Mobile Calls

Q1. Do you agree that the BTC RAIO should be amended to include cost-based charging for domestic mobile call termination? If not, why?

At this stage, URCA does not consider it appropriate to examine the merits of requiring the second cellular mobile operator to charge the same mobile termination rates as BTC. This is because this current consultation is considering changes to BTC's RAIO and BTC's RAIO cannot impose obligations on the terms and conditions of interconnection services offered by other licensees to BTC. URCA, does however, plan to conduct a separate SMP assessment to determine if the second cellular mobile operator has market power for call termination on its network. Depending on the outcome of that assessment, URCA may consider if mobile termination rates should be symmetric across cellular mobile operators with SMP.

4.2 Direct Connectivity to BTC's Mobile Switch

Under the terms of BTC's current RAIO BTC does not allow other licensees to establish direct points of interconnection with BTC's mobile switch. Instead, OLOs must buy national transit services from BTC to terminate calls on telephone numbers assigned to BTC's cellular mobile network.

In its 2011 Final Decision on BTC's draft RAIO, URCA determined that direct connectivity to BTC's mobile switch was not critical to fixed line competition. URCA, however, noted that it had taken a pragmatic approach in its assessment of BTC's draft RAIO and also recognised the need for further revisions to BTC's RAIO terms and conditions to, among other issues, address the changing needs of the sector, issues encountered during implementation and further liberalisation of the sector.

With the advent of a second cellular mobile operator in The Bahamas, URCA is now of the preliminary view that direct connectivity to BTC's mobile switch may be appropriate and required to achieve fair and efficient entry in the cellular mobile market. CBL commented that BTC has been dismissive of previous requests by SRG for this particular service. URCA is not aware of any barriers that would render it unfeasible for BTC to fulfil

such a service request from other licensees. Indeed, URCA is of the view that access to BTC's mobile switch would be a reasonable obligation placed on BTC pursuant to Condition 11 of BTC's IOL and section 40 of the Comms Act. Furthermore, URCA understands that it is commonplace for an entrant to be able to connect directly to an incumbent's mobile network and believes that the situation should not be any different in The Bahamas. As part of its 2011 Final Decision on BTC's draft RAIO, URCA did not mandate BTC to provide direct interconnection with BTC's mobile switch because, in part, it anticipated there would only be relatively low interconnection traffic volumes, thus making direct interconnection less economically attractive. URCA, however, is now of the view that the increase in interconnection traffic likely to arise from mobile competition means that it is now likely to be economically feasible for BTC to offer direct connectivity to its mobile switches, and appropriate for URCA to require BTC to do so. URCA also recognises that BTC has direct interconnection links between its fixed and cellular mobile networks and so to ensure a level playing field, other fixed and/or cellular mobile licensees should have the same opportunity.

As such, in order to ensure suitable conditions for efficient mobile competition, URCA considers that it is now an appropriate time for BTC to amend its RAIO to include direct points of interconnection between the mobile switch of BTC and other licensees providing fixed and/or mobile communication services in The Bahamas.

Consultation Question - Direct Connectivity to BTC's Mobile Switch

Q2. Do you agree that the BTC RAIO should be amended to include direct Points of Interconnection (POI) between BTC's mobile switch and other networks providing fixed and/or mobile communication services in The Bahamas? If not, why?

4.3 Interconnection via IP/SIP Interconnection Links

Under the terms of BTC's current RAIO, OLOs are interconnected to BTC's fixed network using the TDM/SS7 interconnection links for the transport of traffic between their respective networks. However, the RAIO provides that, subject to technical and economic feasibility, IP interconnection links could be made available to OLOs upon request. CBL, however, has commented that despite repeated requests for the new service, no existing licensees providing fixed line services, including its subsidiary SRG, has successfully negotiated IP interconnection links with BTC. This declination notwithstanding the fact that SRG has complied with the ordering processes specified in BTC's RAIO.²³

CBL also commented that the physical interconnection links offered by BTC must be technology neutral and must include IP Interconnection or SIP upon request.²⁴ It is CBL's view that the legacy Time Division Multiplexing ("TDM") interconnection is out-dated,

²³ See B.8 of Annex B – Ordering Processes for New Interconnection Services of BTC's RAIO.

²⁴ See CBL's Response to Preliminary Determination on Proposed Revision on Access and Interconnection Framework (ECS 02/2015) available at www.urbahamas.bs

costly and inadequate for digital technology and would be counter-productive to URCA's timeframes for establishing physical interconnection links between networks.²⁵

URCA recalls from the responses received to its 2010/2011 consultation on BTC's draft RAIO that BTC was generally supportive of IP interconnection and even proposed to restrict its RAIO to IP interconnection only. In addition, although URCA was not opposed to BTC offering IP interconnection links within its RAIO, URCA concluded that the RAIO should not be restricted to SIP as not all interconnecting parties will use IP technology.

URCA considers that the enabling components in BTC's RAIO need regular updating to take account of technological changes in BTC's network architecture. BTC argues that its NGN deployment is incomplete and therefore it would be unfeasible for BTC to offer IP interconnection links on some islands. URCA has not verified this position, but further, it is URCA's understanding that BTC has deployed NGN infrastructure in some parts of The Bahamas including New Providence and Grand Bahamas. In view of this, it appears to URCA that at a minimum BTC has the capacity to offer IP interconnection on some islands (e.g., New Providence and Grand Bahama) and should now make such links available whenever requested and without undue delay. On any island where BTC maintains that IP/SIP interconnection is unfeasible and declines to offer the same, URCA considers that BTC should be required to demonstrate to URCA's satisfaction that such interconnection is technically unfeasible. For the avoidance of doubt, URCA is not requiring BTC to discontinue provisioning of TDM/SS7 circuits from its RAIO.

Consultation Question – Interconnection via IP/SIP Interconnection Links

Q3. Do you agree that BTC's RAIO should be amended to provide IP Interconnection links upon request and without undue delay? If not, why?

4.4 SMS/MMS Termination Service

In URCA's 2013 SMP review of call termination markets (ECS 13/2013), BTC was found to have SMP in SMS/MMS termination on its cellular mobile network. URCA further stated that when mobile competition is introduced BTC should amend its RAIO to include this service and associated cost-based rates.

In order to ensure suitable conditions for efficient mobile competition, URCA is now proposing BTC amend its RAIO to give full and complete effect to URCA's 2013 decision. The amendment should include a description of the termination service for SMS/MMS and the associated cost-based rate for domestic and inbound international SMS/MMS services which, for the avoidance of doubt, should be the same, assuming the domestic and inbound international services use the same network elements in the same

²⁵See ECS 08/2015 issued 30 December 2015 and available at <http://www.urcabahamas.bs/download/067476700.pdf>.

proportions. In its response to this consultation, BTC should also submit to URCA all information and evidential support for the proposed cost-based rate as well as a detailed description of the technical specifications for the service to be offered.

Consultation Question – SMS/MMS Termination Service and related rates

Q4. Do you agree that the BTC RAIO should be amended to include mobile message termination service and associated cost-based charging for the service? If not, why?

5 Conclusion and Next Steps

This Preliminary Determination presents the changes URCA proposes to require BTC to make to its RAIO. The document builds on the recently concluded Government process to identify the successful bidder for the second cellular mobile licence and is intended to satisfy the requirements of the Government, as set out in the ECS Policy. Furthermore, URCA is also satisfied that its proposals are consistent with the statutory framework of the Comms Act, relevant licence conditions and with URCA's general powers to safeguard the interests of persons in The Bahamas in relation to electronic communications services.

Given the background information as outlined in Section 4 above, URCA is of the preliminary view that it would be necessary and proportionate to amend the BTC RAIO to:

- Include cost-based termination rates for calls originating on domestic fixed or mobile networks owned by other licensed operators and terminating on BTC's mobile network.
- Include provisions for OLOs to interconnect directly to a suitable point of interconnection on BTC's mobile network.
- Include provisions to enable OLOs to obtain interconnection at no less than two (2) diverse and discreet points on BTC's fixed and/or cellular mobile networks, using interconnection transport links based on Internet Protocol (IP) supporting Session Internet Protocol (SIP) technology.
- Include a termination service and related cost-based termination rate for domestic and inbound international SMS/MMS.

URCA recognises it has a duty to balance the interests of its stakeholders and is satisfied that its proposals strike a reasonable balance between the commercial interests of operators and the customers they serve. Absent these changes being made, members of the public and interested third parties would not be assured that the regulatory tools for sustainable competition will be fulfilled in accordance with the planned launch date of mobile services by the second cellular mobile operator, and the benefits of competition would not accrue to the widest cross-section of the Bahamian public timeously.

URCA invites interested parties to comment on its proposals by responding to the consultation questions set out in this Preliminary Determination.

Upon consideration of written responses, URCA will publish a Final Determination on the results of this Preliminary Determination along with next steps. URCA looks forward to constructive engagements on the changes it proposes should be made to BTC's RAIO.

