



Consultation on the proposed changes to the Reference Access and Interconnection Offer published by The Bahamas Telecommunications Company Limited

Final Determination

ECS 15/2020

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1. Introduction

In this Final Determination, the Utilities Regulation and Competition Authority (“URCA”) sets forth its decision to approve the terms and conditions upon which The Bahamas Telecommunications Company Limited (“BTC”) will offer direct mobile interconnection for Other Licensed Operators’ (“OLOs”) traffic. Today’s decision requires BTC to incorporate the updated terms and conditions for direct mobile connectivity (at Section 3 below) into BTC’s Reference Access and Interconnection Offer (“RAIO”).

Direct mobile interconnection is a regulated wholesale service that OLOs must have to physically link their networks to BTC’s mobile switch and to route and exchange traffic. The availability of the service will increase efficiency and transparency and reduce transaction costs for networks.

1.1 Background to Preliminary Determination

The background to this Final Determination bears repeating. At the wholesale level, BTC is subject to Significant Market Power (“SMP”) obligations including the requirement to prepare and publish a RAIO and offer access and/or interconnection to its networks on fair, reasonable, transparent and non-discriminatory terms and conditions.¹ The BTC RAIO is intended as a living document and is periodically reviewed and updated to take account of changing circumstances (including new technologies, market liberalization) and ensure current practices are efficient and fit-for-purpose. One of URCA’s core mandates is to review and approve terms and conditions of reference offers to ensure compatibility with the Communications Act, 2009 (“Comms Act” or the “Act”) and other regulatory measures. The Act also requires URCA to consult with interested parties and stakeholders on regulatory matters of public significance.

In The Bahamas, the practice has been for OLOs to physically interconnect their networks to BTC’s fixed network and to do so on terms and conditions specified in BTC’s URCA-approved RAIO.² However, in support of cellular/mobile competition, URCA, in 2016, expanded the core set of services in BTC’s RAIO to include direct mobile interconnection for OLOs’ traffic using an IP-based signaling protocol. The decision contained the timeframe in which BTC shall make direct mobile links available to Be Aliv Limited (“ALIV”) and submit the proposed service terms and conditions to URCA for review and approval.³ That said, URCA’s decision was never implemented despite ALIV’s repeated requests and urging for the service. To be fair to BTC there were higher regulatory priorities imposed on the company by URCA to the end of effectively implementing competition in cellular/mobile market in The Bahamas. Amidst concerns about disruptive outages on ALIV’s network interconnection with BTC’s fixed network, in July 2019, URCA issued an Interim Order mandating BTC to implement the service for ALIV’s traffic. On 9 July 2020, BTC confirmed

¹See ECS 11/2010 – Final Decision on Obligations Imposed on Operators with SMP available at <https://www.urbahamas.bs/wp-content/uploads/2017/02/ECS-11-2010-Final-Decision-Obligations-Imposed-on-Operators-with-Significant-Market-Power..pdf>

² <https://www.urbahamas.bs/wp-content/uploads/2017/02/ECS-01-2011-Final-Decision-BTC-Draft-RAIO.pdf>

³ Section 3.3 of ECS 19/2016 available at <https://www.urbahamas.bs/wp-content/uploads/2017/02/ECS-19-2016-Statement-of-Results-Final-Determination-on-RAIO.pdf>

the availability of direct connectivity for ALIV's traffic and attached a copy of the proposed service terms and conditions. As already stated, URCA is tasked under the Comms Act and other regulatory measures to approve the attached service terms and conditions after consultation.

1.2 Consultation on Preliminary Determination

On 17 August 2020, URCA issued its Preliminary Determination (ECS 09/2020⁴) for this consultation process on BTC's terms and conditions for direct mobile connectivity. That document set forth:

- terms and conditions upon which BTC intends to offer the service to OLOs;⁵
- the details of URCA's review of BTC's service terms and conditions; and
- URCA's intended decision and next steps relative to its review and feedback received from interested parties.

BTC and Cable Bahamas Ltd. ("CBL")/Aliv submitted responses to the Preliminary Determination. URCA welcomed the companies' participation in the consultation process. The participation from the companies helped to inform URCA's final decision and next steps.

Publication of this Final Determination concludes the public consultation process in relation to the service. Copies of this Final Determination and related documents may be downloaded from URCA's website at www.urbahamas.bs.

1.3 Legislative Framework

This Section sets out the regulatory framework under which URCA has exercised its powers to issue this Final Determination.

Section 99 of the Comms Act sets out the processes for issuing this Final Determination. Specifically, sections 99(1)(a) and (b) of the Comms Act require that if URCA has reason to believe that a determination is necessary, it may make determinations relating to (amongst 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).

⁴"Consultation on the proposed changes to the Reference Access and Interconnection Offer published by The Bahamas Telecommunications Company Limited", Preliminary Determination and available at <https://www.urbahamas.bs/wp-content/uploads/2020/08/ECS-09-2020-Preliminary-Determination-on-Proposed-Amendments-to-BTC-RAIO.pdf>

⁵ See Annex to Preliminary Determination

URCA must 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.

URCA shall afford persons with sufficient interest a reasonable opportunity to comment on URCA's review. URCA considers that the proposed changes to the BTC RAI0 are likely to have a significant impact upon the activities carried out by licensees in The Bahamas. As such, the consultation provides an opportunity for members of the public, licensees, and other interested parties to submit written comments to URCA.

In reviewing the proposed service terms and conditions, URCA shall have regard to section 40(4) of the Act:

"SMP licensees shall -

- a) not unduly discriminate against particular persons or a particular description of persons in relation to electronic communications services offered by them. Nothing done in any manner by an SMP licensee shall be regarded as undue discrimination if and to the extent that the licensee is required or expressly permitted to do such thing in that manner under this Act or any other enactment or any instrument issued pursuant to this Act or any other enactment;*
- b) provide technical specifications, or other relevant information about any interconnection, essential facilities or other mandated wholesale electronic communications services on a reasonable and timely basis, when the information is required by another licensee to provide its licensable services and when the information is not readily available from other sources; and*
- c) not adopt technical specifications for a network that prevents interconnection or interoperability with a network of a competitor."*

Relative to paragraphs 7 and 8 of URCA's Access and Interconnection Guidelines – ECS 14/2010⁶ ("the Guidelines"):

7.1 URCA may assess ... any proposed amendments to an existing approved RAI0, to ensure consistency with the Comms Act, relevant licence conditions and other relevant documents.

7.2 If URCA concludes that a RAI0, or any proposed amendments to an existing approved RAI0, is inconsistent with one or more of the documents mentioned in paragraph 7.1 above, then it will direct the SMP licensee to modify the RAI0, or the proposed amendments, accordingly.

⁶<https://www.urbahamas.bs/wp-content/uploads/2017/02/ECS-14-2010-Final-Guidelines-Access-and-Interconnection-2.pdf>

7.4 All earlier agreements for access and/or interconnection entered into under the RAIO must incorporate any approved amendments to the RAIO.

8.1 The RAIO is expected to change over time as the Bahamian electronic communications sector evolves. All agreements for access and/or interconnection should be automatically amended to reflect the published approved RAIO to ensure consistency with regulatory or other measures issued by URCA.

8.2 Where URCA has directed an SMP operator to modify the published approved RAIO, if the changes are relevant to the terms of an existing AIA (“Access and Interconnection Agreement”), the modification will be automatically incorporated into an agreement without the need for negotiation between the parties. Up-to-date RAIOS and marked up copies should be prominently posted on the SMP operator’s website so other licensed operators can track changes.

Condition 40.5 of BTC’s Individual Operating Licence (“IOL”) states:

The SMP Licensee shall ensure that Interconnection is available at all exchanges or other relevant Network nodes, unless Interconnection at any point:

40.5.1 is not feasible given the existing Network configuration; or

40.5.2 would compromise the Integrity or Interoperability of an Electronic Communications system (whether the SMP Licensee’s, Interconnection seeker’s or a third party’s system).

1.4 Structure of the Remainder of this Document

The remainder of this document comprises:

- Section 2 – Review of Submissions received to Preliminary Determination;
- Section 3 – URCA’s Final Determination; and
- Section 4 - Conclusion and Next Steps.

2. URCA’s Review of Responses Received to Preliminary Determination

In this Section, URCA summarizes and responds to the comments received, as follows:

BTC’s comments

BTC raised no objection to the contents of URCA’s Preliminary Determination. Says BTC: “BTC has reviewed the Preliminary Determination and without prejudice has no further comments regarding its contents.

BTC thanks URCA for their support in this regard and looks forward to the final determination in this matter.”

CBL/ALIV’s comments

In their submission, CBL/ALIV raised no objection to the contents of URCA’s Preliminary Determination in Section 4 of the document and confirmed BTC’s completion of direct mobile connectivity for ALIV’s traffic in New Providence and Grand Bahama. Adding that BTC completed direct mobile connectivity for ALIV’s traffic in New Providence in December 2019 and in Grand Bahama in July 2020. The companies then asked URCA to:

- Update paragraphs H3 and H4 of BTC’s RAIO with the new Quality of Service standards specified in Schedule 5 to Annex C (Clauses 1.4.1.5 and 1.6.4.2), and
- Add a reference in Annex A (Clause A.12.6) of BTC’s RAIO to Schedule 5 of Annex C.

CBL/ALIV further told URCA to add a clause relating to Session Border Control (“SBC”) fail over testing into BTC’s RAIO. In the view of CBL/ALIV “the BTC SBC design (C.6.2 New Network Topology) ... must automatically fail over to the other SBC in the event the primary node (SBC) fails. It is imperative this SBC fail over test is performed and tested twice a year in coordination with CBL and ALIV, and a provision should be added to the RAIO in this regard.”

URCA’s review of comments/Final Determination

URCA appreciates the respondents’ feedback to the Preliminary Determination. URCA particularly notes CBL/ALIV’s no objection to its preliminary findings in addition to confirming BTC’s completion of direct mobile connectivity for ALIV’s traffic. As well, URCA notes and agrees with the changes put forward by CBL/ALIV in respect of Annexes A and H of BTC’s RAIO. In URCA’s view, the proposal represents two minor changes to BTC’s RAIO and URCA is satisfied that these amendments are not prejudicial to BTC.

In addition to the changes noted above, URCA’s own review identifies other minor points relating to the RAIO that BTC must address before submitting the document for final review and approval. The first is the need for BTC to update Annex I of its RAIO to include new definitions or terms associated with the new service that may be deemed necessary. Also, BTC must review and ensure all cross-referencing and

numbering of tables, figures/diagrams and clauses relating to the service terms and conditions are complete and accurately reflected in BTC's RAIO.

In relation to SBC testing, URCA has not found any good reason not to accept the CBL/ALIV proposal. In its 13 October 2020 response to the proposal, BTC told URCA it did not see the need to test a failure for calls to ALIV. Arguing that testing can only be done on the access seeker's side and it was not prepared to participate in the process.⁷ As a follow-up to BTC's response, CBL/ALIV believed it is good engineering practice that both networks carried out tests at different times.⁸ That is, if ALIV test a failure to BTC, then BTC should test a failure to ALIV. Testing will be done by ALIV blocking one of the interconnect routes and check if its subscribers can still call BTC's networks. BTC would apply the same procedure to test a failure for calls to ALIV. BTC in its 21 October 2020 response to URCA, reversed its initial position and advised that it is now happy to support ALIV's testing "but any intrusive testing must be done in a maintenance window and BTC reserves the right to pass on overtime costs."⁹

URCA thanks the companies for their timely responses to queries relating to the proposal. The testing regime, as explained, appears simple and straightforward to URCA. In particular, the specifics of the SBC testing process seem reasonable and proportionate to URCA and should not impose an unfair burden on BTC. As well, SBC testing is not in conflict with any license conditions applicable to BTC or technical standards for networks in The Bahamas. As URCA sees it, the intent of CBL/ALIV's proposal is to improve the quality of network interconnection while also protecting customers from the risk of foreseeable disruptive outages in addition to promoting performance reliability of communications services over time. In URCA's estimation, SBC testing is potentially beneficial to customers of communications services in The Bahamas regardless of service provider. In conclusion, URCA has not found any justifiable reason to reject the CBL/ALIV testing proposal and requires BTC to add it into its RAIO.

Overall, URCA finds BTC's terms and conditions for the dedicated mobile links complete and in line with URCA's guidelines for regulation and other measures under section 5 of the Act. On top of this, the service terms and conditions:

- in particular, the New Network Topology is technically sound and appropriate and ensure direct connectivity to BTC's mobile switch;
- support one or more of URCA's statutory objectives under section 4 of the Act;
- will align interconnection policy in The Bahamas with mainstream thinking;
- are sufficient and acceptable to OLOs including ALIV;¹⁰ and
- will ensure BTC's mobile switch is accessible to OLOs on a more efficient basis.

Having regard to the foregoing discussion and the compliance process in Section 4 below, URCA hereby approves BTC's terms and conditions for direct mobile connectivity.

⁷ BTC's email to URCA

⁸ CBL's letter to URCA dated 15th October 2020.

⁹ BTC's email to URCA dated 21 October 2020.

¹⁰ The proposed service terms and conditions have been incorporated into the amended BTC/ALIV Interconnection Agreement.

As a final point, URCA reminds BTC of its obligation to meet all future requests for mobile links using an IP-based signaling protocol from licensees in The Bahamas. BTC is similarly reminded that URCA's 2016 decision on SIP/IP-based links did not require BTC to discontinue provisioning of TDM/SS7 circuits from its RAI0. Rather, the interconnection or access seeker should have the option of choosing SIP/IP-based signaling or TDM/SS7 interconnection.¹¹

URCA will continue to monitor BTC's compliance in both areas.

¹¹ See Section 3.3 of ECS 19/2020 available at <https://www.urbahamas.bs/wp-content/uploads/2017/02/ECS-19-2016-Statement-of-Results-Final-Determination-on-RAIO.pdf>

3. URCA's Final Determination

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

WHEREAS,

- (i) Section 4(a)(iii) of the Communications Act, 2009 affirms URCA's role within the Bahamian electronic communications sector is to *encourage, promote and enforce sustainable competition*.
- (ii) Pursuant to section 40(1)(b) of the Communications Act, 2009, The Bahamas Telecommunications Company Ltd. ("BTC") is obligated to publish a reference offer ensuring equivalence of access and/or interconnection to any of those services and/or facilities in which BTC has Significant Market Power ("SMP").¹²
- (iii) Pursuant to Guidelines document number ECS 14/2010,¹³ URCA assesses and approves any proposed amendments to an existing approved Reference Access and Interconnection Offer ("RAIO") and Interconnection Agreements ("IAs").
- (iv) In Final Determination number ECS 19/2016 "*Proposed Changes to the Reference Access and Interconnection Offer (RAIO) Published by the Bahamas Telecommunications Company Ltd.*", URCA required BTC, *inter alia*, to amend its RAIO to include details of direct interconnection for OLOs' traffic to BTC's mobile switch. This includes the service specification and parameters for Aliv and other licensees to interconnect directly to one or more suitable point(s) of interconnection on BTC's cellular/mobile network based on SIP technology.
- (v) Pursuant to section 96 of the Communications Act, 2009, URCA on 15 July 2019 issued an Interim Order for BTC to implement URCA's 2016 Final Determination in respect of direct interconnection and/or access for OLOs' traffic.
- (vi) In fulfilment of (v) above, on 9 July 2020, BTC confirmed that direct interconnection or access for Aliv's traffic was completed in New Providence and Grand Bahama and submitted to URCA for review and approval the resulting changes to BTC's RAIO and the September 2016 BTC/ALIV Interconnection Agreement.

¹²See ECS 11/2010 – Final Decision on Obligations Imposed on Operators with SMP available at <https://www.urbahamas.bs/wp-content/uploads/2017/02/ECS-11-2010-Final-Decision-Obligations-Imposed-on-Operators-with-Significant-Market-Power..pdf>

¹³Access and Interconnection Guidelines available at <https://www.urbahamas.bs/wp-content/uploads/2017/02/ECS-14-2010-Final-Guidelines-Access-and-Interconnection-2.pdf>

- (vii) On 17 August 2020, URCA invited comments on its Preliminary Determination ECS 09/2020.
- (viii) URCA, having reviewed and considered all written submissions made by BTC and CBL/ALIV to its provisional findings,
- (ix) now deems it appropriate and proportionate to make a Determination regarding BTC's compliance with the 2016 Final Determination (ECS 09/2016) and July 2019 Interim Order.

URCA NOW DETERMINES as follows:

In line with the process in Section 4 below, BTC is deemed compliant with its obligations to:

- a) implement direct mobile interconnection for ALIV's traffic in New Providence and Grand Bahama using an IP-based signaling protocol;
- b) make available copies of the proposed terms and conditions for direct mobile interconnection to ALIV, and URCA for review and approval; and
- c) amend the BTC/ALIV Interconnection Agreement to accommodate the terms and conditions for the service.

BTC shall incorporate the updated terms and conditions for the service into its RAIO and submit same to URCA for review and approval by no later than **November 30, 2020**. This includes the changes and fail over testing requirements explained in Section 2 above.

For the avoidance of doubt:

- BTC shall continue to meet all requests for direct mobile interconnection from licensees.
- BTC is still required to provision TDM/SS7 circuits in its RAIO.

URCA will continue to monitor BTC's compliance in both areas.

J. Carlton Smith
Chief Executive Officer
November 15, 2020

4 Conclusion and Next steps

In The Bahamas, the practice has been for OLOs to physically interconnect their networks to BTC's fixed network and route and exchange traffic. By contrast, direct mobile interconnection allows OLOs to physically link their networks to BTC's mobile switch and to route and exchange traffic. This "adds resilience and route diversity hence eliminating the need to transit mobile calls through the BTC PSTN network for completion and ensuring direct connectivity to the mobile switch", according to CBL/ALIV. URCA issues this Final Determination setting out its decision to approve BTC's terms and conditions for direct mobile interconnection. Amongst other conditions, BTC must make the service available to OLOs upon request and to do so on terms and conditions specified in BTC's URCA-approved RAIO. The full scope of URCA's Final Determination is set out in Section 3 above.

In terms of next step, BTC must incorporate the updated service terms and conditions into its RAIO and submit same to URCA for final review and approval by no later than **November 30, 2020**. The submission shall highlight all changes and additions made. URCA will confirm in writing BTC's full compliance with this Final Determination and specify the timeframe for BTC to publish the updated RAIO document on its website.

