

## **Abstract**

This Determination Notice contains the Office's decision regarding mobile termination charges for domestic and incoming international traffic. As indicated in our March consultation document (Document No: TEL 2002/02), C&WJ submitted to the Office in confidence a Modern Equivalent Asset (MEA) valuation study. The Office analysed this study and made a number of recommendations as to how various portions of C&WJ's plant account should be treated for regulatory purposes. C&WJ has asked the Office for additional time to provide a response. The Office has agreed to allow the Company to submit a response no later than May 17, 2002. Consequently, the rates set in Reference Interconnect Offer (RIO-3) will remain in effect for all services affected by the MEA analysis, until a Determination Notice is issued on June 28, 2002. The outstanding MEA issues do not affect mobile termination charges for domestic and incoming international traffic so there is no need to delay a decision regarding these matters. At the same time, imminent changes in international settlement rates, which could have adverse implications for the revenues of mobile operators, have also made it important to have an early determination on these matters.

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## **CHAPTER 1: INTRODUCTION**

- 1.0 Cable and Wireless Jamaica (C&WJ) submitted a revised Reference Interconnect Offer (RIO-4) on August 28, 2001. After receiving comments from interested parties, the Office issued a Determination Notice on February 7, 2002, addressing a number of non-pricing issues contained in the RIO. At that time, the Office indicated it would extend the consultation on pricing issues and would issue a determination on these on May 3, 2002. To this end, a Consultative Document on the pricing issues was issued on March 15, 2002 inviting comments from interested parties.
- 1.1 This Notice provides the Office's response to the issues raised by interested parties in their responses and its Determination regarding rates for fixed to mobile calls and international to mobile calls.

### **Regulatory Work Programme**

- 1.2 Both C&WJ and Digicel have requested the Office to publish a schedule of the issues it intends to address over the next twelve to eighteen months. C&WJ asks that this be done annually. The Office will consider these suggestions and determine if it is able to publish such a schedule.

### **Regulatory Regime**

- 1.3 The Office does not directly regulate the termination rates of mobile carriers other than Cable & Wireless Jamaica (C&WJ). The Office's concern in regulating the termination rates of C&WJ Mobile is to ensure that those rates are cost-oriented as per the requirement of the Telecommunications Act.
- 1.4 The Office also regulates the retail rates that C&WJ fixed (the wire-line portion of C&WJ) is allowed to charge its customers for fixed-to-mobile (FTM) calls. These rates are a separate basket in C&WJ's price-cap plan. The price cap is cost-oriented. The regulations that the Office imposes on C&WJ, through price-cap and interconnection regulation, also affect other mobile carriers. Additionally, the Office, through its regulation of interconnection, limits the portion of FTM charges that C&WJ fixed is allowed to retain. Retention is limited to a cost-oriented level. The remainder of FTM charges are distributed to the mobile carrier—whether C&WJ Mobile or some other mobile carrier.

- 1.5 The Office believes that charging retail FTM rates above the cost-oriented cap would reduce overall economic efficiency and the welfare of C&WJ's fixed customers. The Office, therefore, does not permit C&WJ to collect FTM rates above the cap from its fixed lines customers.
- 1.6 The Office does not regulate the rates that C&WJ Mobile or any other mobile carrier charges its own customers. In particular, any mobile carrier can impose airtime charges on its own customers for terminating calls, in addition to the amounts it receives in termination charges.

#### **Determination 1.1**

**C&WJ Mobile is required to participate in this FTM calling regime and may set any non-predatory price for mobile termination up to the cost-oriented maximum rate. Other mobile carriers may also set prices up to this same maximum rate, and C&WJ fixed is required to interconnect with all mobile carriers that choose to participate. Other mobile carriers may set a higher rate than the maximum allowed for C&WJ Mobile, but C&WJ fixed cannot charge a higher retail rate to its customers than the maximum determined by the Office, and shall not be required to pay any mobile carrier more than the maximum rate that applies to C&WJ Mobile.**

## **Asset Valuation Study**

- 1.7 C&WJ has submitted, in confidence, an analysis of its plant accounts using a Modern Equivalent Assets (MEA) approach. The Office subsequently asked C&WJ for additional information supporting its MEA analysis. After receiving responses to these queries, the Office had a number of concerns about various aspects of this evaluation, in addition to those that were outlined in the March Consultative Document (Document No: TEL 2002/02). The Office has therefore, made specific recommendations as to how various portions of C&WJ's plant accounts should be treated for the purpose of regulation. C&WJ has in turn requested additional time to respond to the Office's recommendations. The Office has agreed to this request with the proviso that such response will be supplied no later than May 17, 2002. Discussions on these issues and the attendant comments by interested parties as well as C&WJ's final submission are, therefore, deferred. The Office now intends to issue its Determination Notice on the rates affected by the Modern Equivalent Asset (MEA) valuation no later than June 28, 2002.

### **Determination 1.2**

**For all services affected by the MEA analysis, the rates set in RIO-3 shall continue in effect until the Office issues a further determination.**

## CHAPTER 2: MOBILE TERMINATION CHARGES

- 2.0 The March 15, 2002 Consultative Document (Document No: TEL 2002/02) contained a detailed discussion of the issue of mobile termination charges and the responses thereto. That discussion will not be repeated here. The Office's position with respect to the determination of costs and pricing remains as set out in the March 15, 2002 document and is summarised below.
- 2.1 Subsequent to issuing that Consultative Document the Office has also received additional information from C&WJ concerning its mobile termination costs and finds them to be reliable. The Office has also found the results to be in general agreement with international benchmarks (UK). Even though certain aspects of the principal international benchmark are being contested, the fact that the costs are close provides additional support for the Office's conclusion that the estimates are reasonable.
- 2.2 The Office has previously proposed that a spectrum charge based on a return on capital of 34.5% per annum (pre-tax) be added to all mobile traffic for which such costs can be assessed —specifically all calls except incoming international calls. The Office is also persuaded by the proposal (made by C&WJ) that the traffic levels used to calculate the charges should be forecasted levels for the year beginning July 2002. The Office has also taken the position that no additional charge for “network externalities” should be levied, since fixed subscribers are already seeing an increase in their charges because of the reduced subsidy from incoming international traffic due to the increased amount of calling to mobile customers.
- 2.3 C&WJ has requested a copy of the Cost of Capital Study performed for the Office by Charles River Associates where the cost of capital used for spectrum cost determination was derived.<sup>1</sup> C&WJ further believes that all mobile traffic forecasted for a three-year period should be used to calculate the spectrum costs. It also wishes to be sure that the rate for mobile termination will not be

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<sup>1</sup> Copies of the cost of capital calculation are available.

fixed at a level that could be greater than the difference between the US settlement rate and the authorized fixed retention.

- 2.4 With regard to incoming international calls, the Office had also proposed that a single rate be charged, rather than a differential between peak, off-peak and weekend rates, since these charges would not affect the prices that the calling party actually pays. This would apply to both mobile termination and fixed retention.
- 2.5 In view of the delay in providing mobile operators with direct connection to the international gateway, the Office has taken the position that there should be no charge for transit across the fixed network. C&WJ should be allowed, however to retain the costs associated with its international network.
- 2.6 The Office had also proposed in the March 2002 Consultative Document that in the event that the international settlement rate dropped below the sum of the costs of fixed retention and mobile termination, the mobile carrier would be paid the difference between the international settlement rate and the fixed termination rate. At the same time, the Office repeated its concern that such an outcome was less than satisfactory, because mobile carriers would not recover their full costs and indicated that it would address this issue if that outcome actually materialised.
- 2.7 On the question of incoming international calls, Digicel contends that the terminating carrier should provide the value of the service and that all revenues less the fixed retention (which it would prefer to call "international transit") should go to the terminating carrier. This payment should then become a proxy for international to mobile terminations. Digicel further argues that if the international settlement rate falls below the proxy, then C&WJ should agree to move immediately to Phase 3. The Office has drawn attention to the fact that the timing of international liberalization is outside of its purview and authority.

- 2.8 Digicel also expressed concern about the proposed increase in Fixed termination (Mobile to Fixed) charges. The charges also contain provisions for access deficit contributions, a matter on which the Office has already made a ruling in a previous Determination Notice<sup>2</sup>. The basic charges are also affected by the MEA study, which the March 15 consultancy addressed. Since these proposed prices will not go into effect until after completion of the review of the MEA valuation, they will not be discussed further here.
- 2.9 With regard to the mobile termination rate for incoming international calls, C&WJ is in agreement with Digicel that the interconnect (to mobile) rate be the US settlement rate less the international retention, although C&WJ asks that a weighted average of international settlement rates be used.
- 2.10 C&WJ also reiterated its need for cost-based fixed termination rates, and again states the opinion that an Access Deficit Charge (ADC) is needed. The Office in a previous Consultative Document and a Determination Notice addressed the issue of ADC<sup>3</sup> and its position remains the same.

#### **Determination 2.1**

**The Office has determined that a spectrum charge based on a return on capital of 34.5% (pre-tax) be added to all mobile traffic for which such costs can be assessed —specifically all calls except incoming international calls. It has also determined that the traffic levels used to calculate the charges shall be forecasted levels for the year beginning July 2002.**

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<sup>2</sup> See Modification to Existing Interconnect Regime (RIO-3, Determination Notice), November 22, 2001.

<sup>3</sup> See Proposed Modification to the Existing Interconnect Regime and Determination Notice cited at 2 above.



#### **Determination 2.2**

No additional charge for “network externalities” shall be levied, since fixed subscribers are already paying a penalty because of the reduced subsidy from incoming international traffic due to the increased amount of calling to mobile customers.

#### **Determination 2.3**

For incoming international calls, a single rate shall apply rather than a differential between peak, off-peak and weekend rates. This determination applies both to mobile termination and fixed retention.

#### **Determination 2.4**

There shall be no charge for transit of mobile international traffic across C&WJ’s fixed network. However, C&WJ shall be free to retain the costs associated with its international network.

## **Mobile Termination Rates For Domestic Calls**

- 2.11 The costs of mobile termination are the most significant component of the overall maximum FTM termination rates. As was previously noted, the Office has determined that this charge shall be the sum of C&WJ's mobile termination costs plus an imputed charge for spectrum. The imputed spectrum charge shall be the capital cost of a US\$50 million investment based on a 34.5% cost of capital, or US\$17.25 million per year. The per-minute costs of this element shall be determined based on traffic levels exclusive of incoming international traffic expected for the year beginning in July 2002.
- 2.12 C&WJ submitted, on February 22, 2002 an estimate of its costs and prices for mobile termination. Its mobile termination costs are:-  
J\$6.222 per minute peak,  
J\$4.977 per minute off-peak, and  
J\$3.733 per minute weekend
- 2.13 It is necessary to add to this the cost associated with spectrum. As noted above, the annual cost of spectrum is US\$17.25 million, or J\$819 million (using an exchange rate of US\$1=J\$47.5).
- 2.14 On April 30, 2002, C&WJ submitted estimates of its mobile traffic, exclusive of incoming international traffic, for the years ending March 2001, 2002, and 2003. It estimated 859 million minutes of use for the year ending March 2002, and 1,219 million minutes of use for the year ending in March 2003. Extrapolating the exponential trend between these numbers leads to a value of 1,330 million minutes of use for the year commencing in July 2002.
- 2.15 Dividing the annual cost of spectrum by this traffic estimate leads to a cost per minute for spectrum of J\$0.616. This amount should be added to the mobile termination costs, leading to the following maximum mobile termination rates for domestic FTM calls:-  
J\$6.838 per minute peak,  
J\$5.593 per minute off-peak, and  
J\$4.349 per minute weekend

### **Determination 2.5**

The price of FTM calls shall continue to be set by participating mobile carriers, subject to a cap. The cap for domestic FTM calls shall be the sum of the C&WJ's mobile termination costs plus the imputed cost of spectrum plus the retention for the fixed network costs, which includes an allowance for bad debt.

### **Determination 2.6**

The following maximum termination charges shall be applicable as of July 1, 2002:

**J\$6.838 per minute peak,  
J\$5.593 per minute off-peak, and  
\$4.349 per minute weekend**

### **Fixed Retention**

2.16 The amount due to C&WJ to cover the cost of using its fixed network is another important component of the FTM charge. This charge also includes a provision to cover bad debt. As indicated earlier, a further determination on the fixed retention will be made once the Office has completed its analysis of C&WJ's MEA submissions. In the meantime the rate determined in RIO-3 will continue to apply.

### **Determination 2.7**

**FTM calls, and fixed termination charges (and bad debt mark-up) shall remain at RIO-3 levels pending the completion of the MEA asset valuation.**

### **Mobile Termination for Incoming International**

2.17 The Office believes that a single mobile termination rate for incoming international calls is less complex and, therefore, preferable to a "peak load pricing" arrangement, particularly since a peak load pricing arrangement will not affect the retail prices for such calls. A single price per minute that would return the same revenue as the prices listed in Determination 2.6 above can be calculated based on certain assumptions about the proportion of traffic in each category. Assuming that 50% of the traffic occurs in the peak period, 30% in off-

peak and 20% on weekends, the average price per minute of mobile termination is J\$5.351.

- 2.18 As discussed earlier, the costs of spectrum shall not be included in mobile termination rates for incoming international calls, since the retail price for such calls cannot be adjusted to recover such costs.
- 2.19 The international settlement rates that have recently prevailed suffice to cover both the costs of mobile termination and the RIO-3 fixed-retention costs. It seems likely that the final RIO-4 fixed-retention costs plus the costs of mobile termination will continue to be less than recently prevailing international settlement rates.
- 2.20 Nevertheless, it is possible that international settlement rates will decline, so that they no longer cover the costs of mobile termination plus fixed-retention costs. Such a situation could arise only through C&WJ's negotiations with their international carriers. The Office urges C&WJ not to enter into settlement agreements where settlement rates do not cover the costs of mobile termination plus fixed-retention. The Office is willing to lend its full support to C&WJ to avoid this unfortunate outcome. The Office is therefore willing to support a proposal for separate settlement rates for calls terminating on mobile networks.
- 2.21 If C&WJ negotiated an agreement under which international settlement rates no longer cover the costs of mobile termination plus fixed-retention costs, the Office takes the position that mobile termination charges on incoming international traffic shall be equal to the lesser of the weighted average settlement rates (across all countries) and the weighted average cost of mobile termination estimated to be J\$5.351 per minute.
- 2.22 The above requirement ensures that C&WJ fixed will not have to pay mobile carriers more than it receives in settlement revenues on any call. At the same time, C&WJ fixed will also benefit from lower settlement rates on outgoing

international calls (which are *not* treated as exogenous changes under the price-cap plan) and through the Z adjustment factor in its price-cap plan<sup>4</sup>. C&WJ fixed will recover its costs on a mobile-terminated incoming international call only to the extent that it negotiates an arrangement under which settlement rates cover more than the costs of mobile termination.

- 2.23 The Office understands that it is obligated to ensure that C&WJ has the opportunity to recover its costs, including the cost of capital. At the same time, the Office cannot undertake to hold C&WJ harmless from the consequences of its own negotiations when doing so would cause substantial harm to the mobile telecommunications industry.

#### **Determination 2.8**

**In the event international settlement rates no longer cover the costs of mobile termination plus fixed-retention costs, mobile termination charges on incoming international traffic shall be equal to the lesser of the weighted average settlement rates (across all countries) and the weighted average cost of mobile termination estimated to be J\$5.351 per minute.**

#### **Bad Debt Surcharge for Fixed to Mobile Calls**

- 2.24 In the March 15, 2002 Consultative Document, the Office summarized the positions of the parties, and concluded that the previously determined 8% discount was appropriate at the time of its issuance, but would be reviewed if further information were made available. C&WJ's methodology, as described, appeared to be reasonable. The Office suggested, however, that it may be necessary to track bills for longer than six months to determine the final level of bad debt.
- 2.25 C&WJ has provided additional data, in confidence, to show that its bad debt experience on calls to Digicel is much higher than 8% and rising. It attributes this to the high charges on calls terminating on Digicel's network—much higher than

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<sup>4</sup> See Cable & Wireless Jamaica's Price Cap Plan, Determination Notice, August 2001.

the charges for calls terminating on other mobile networks. C&WJ has therefore, argued for a bad debt allowance of close to 13%. It also indicates that the apparent rapid drop in bad debt after six months that had prompted the Office to ask for a more extended period was due to a bookkeeping “artefact” and was not a real decrease in bad debt and that the Company should be compensated for the time value of money lost during the six month period.

- 2.26 Digicel asserts that 8% is too high, and that operators should be responsible for their own bad debt. In its response to Digicel’s comments, C&WJ restates its position that the high bad debt levels are due to Digicel’s high prices, which are also causing C&WJ to be blamed for high retail prices, even though it is not responsible for them.
- 2.27 Although C&WJ has asked for 13% based on the most recent data, the Office believes that the level has not yet stabilized and could go down as well as up in the future. As people become accustomed to paying higher charges for calls to mobile subscribers, they may alter their calling patterns so as not to incur charges they cannot pay. In addition, prices for mobile termination may also drop in the future, which, if C&WJ’s rationale holds, should help to mitigate the problem. The Office will delay pronouncement on the current bad debt amount until it has determined what the level of fixed retention should be. At the same time, the Office does not share the view that C&WJ is entitled to compensation to cover the time value of money, as the Company already collects the money as a surcharge without delay.

## CHAPTER 3: OTHER ISSUES

### Wholesale Discount Rates

- 3.0 The Consultative Document contained a detailed discussion of the issues associated with wholesale discount rates for outgoing international calls and concluded that an avoidable cost measure is appropriate. It also sought the views of interested parties as to whether the cost of an inter-parish T1 should be treated as part of the unavoidable cost, and whether bad debt is an avoidable cost that should be included in the discount.
- 3.1 Digicel had a number of concerns, relating to (1) a perceived lack of clarity in the avoided cost calculation, (2) insufficient detail in the explanation of the methodology, (3) the smallness of the difference between the discount for carriers and the discount for resellers, (4) the lack of consideration of possible avoidable inefficiencies in C&WJ's operations, (4) the cost of the inter-parish T1 line, and (5) the lack of a volume discount, or even an acknowledgment by the Office that a volume discount is appropriate.
- 3.2 C&WJ responded that detailed data have been provided to the Office in confidence, and Digicel must rely on the Office to determine its adequacy. Since C&WJ Mobile leases a T1 between its switches, C&WJ argues that it is reasonable to charge Digicel and others the same price for a similar line. Finally, C&WJ states that there is no evidence to support volume discounts, and that the Office has no authority to order such in any event.
- 3.3 The Office has found C&WJ's submissions, both methodology and data, to be reasonable. Additionally, the Office sees no inconsistency in the small difference between the carrier discount and the reseller discount. Avoidable costs have much to do with billing and customer service, and these are borne by competitors whether they provide their own networks or not. The Office's objective of encouraging "economically efficient investment" does not extend to arbitrarily favouring one type of activity over another. It also appears that the inter-parish T1 will primarily benefit carriers with only one switch, and therefore is appropriate to be classified as "unavoidable." The Office also remains persuaded that the approach set out by C&WJ (sticking strictly to avoided costs) satisfies the legal requirement and that the Company is not obliged to provide volume discounts. C&WJ may, however, on its own volition, enter into any commercial arrangement that it chooses.

### **Determination 3.1**

**The Office, reaffirms its finding (set out in its March Consultation Document) that discounts on outgoing international calls of 16.31% for carriers and 15.2% for resellers are appropriate. These rates will become effective on July 1, 2002.**

### **Technical RIO Issues and Joint Working Manual Schedule**

- 3.4 Notwithstanding the Office's Determination Notice of March 7, 2002 on technical issues, Digicel has raised several points relating to direct connection to its international gateways and the Joint Working Manual. In particular, Digicel requests that the Office compel C&WJ to publish a schedule of its proposed international network upgrades. The Office sees no justifiable reason for making such an order. Moreover, with full liberalization less than a year away Digicel will shortly be in a position to carry its own international traffic.
- 3.5 Digicel again requests that C&WJ be required to provide Global Translations, since they now must get them from a third party. C&WJ claims it provides appropriate functionality and cannot meet Digicel's requests at this time. Since Digicel is able to get the required service from a third party, the Office reiterates its decision not to require C&WJ to support such translations. However, if Digicel is able to show that by obtaining this service from a third party, it is placed at a competitive disadvantage, the Company should make such submissions to the Office for further consideration.