



**C&WJ's Response to the OUR's
Local Loop Unbundling for Cable & Wireless Jamaica
Consultative Document**

Executive Summary

1. Cable & Wireless Jamaica (C&WJ) fully supports the objectives of the Government of Jamaica and the OUR to improve broadband penetration in Jamaica to ensure that 40% of Jamaicans have access to the internet within five (5) years. We believe that ICT technology generally, and broadband specifically, are key facilitators for growth and efficiency. C&WJ is committed to working in partnership with the government, the OUR, our customers and other industry players to deliver and improve on government targets for broadband penetration and uptake.
2. Broadband provision in Jamaica is a competitive industry and will become increasingly so. Technology development has now reached a point where widespread availability of broadband on wireless platforms – fixed and mobile - will soon be a reality. Cable infrastructure also provides a delivery network for broadband. With competing network technologies, and the ability of service providers to purchase wholesale services, the opportunities for competitive provision of broadband are growing.
3. In this competitive environment, the OUR must be very careful not to skew efficient investment signals for broadband development through inappropriate regulation. The cost benefit exercise for LLU is therefore critical, not just for C&WJ but for the entire industry, including prospective new entrants, customers and the economy. Put simply, an over-reliance on unbundling of C&WJ's network will dis-incentivize further investment in our network and in alternatives – resulting in less choice and diversification for customers – and raise the cost of network investment to reach unserved areas of Jamaica.

I. Introduction

4. C&WJ welcomes the opportunity to respond to the OUR's Consultative Document titled "*Local Loop Unbundling for Cable & Wireless Jamaica*". C&WJ supports aggressive government policy objectives for expanding Internet access to Jamaicans and has already begun implementing its own very ambitious plans for broadband roll-out, which we believe will contribute to these objectives.
5. Issues of local access are of critical interest to our business. So, although the Office has asked a number of specific exploratory questions in Appendix I, we find that they may be too narrowly focused or, in some cases, examples of "putting the cart before the horse". We, therefore, have attempted to respond to them by adding more context to the issues raised.
6. We begin by discussing the key enablers for broadband roll-out and the relative value of Local Loop Unbundling (LLU). We then discuss the legal requirements for a

determination on the mandate of LLU. Those requirements include a definition of the market and determination of dominance as well as a cost-benefit analysis and unfair burden test of implementing LLU to address any dominance found. We then turn to the specifics of the cost-benefit analysis and comment on the OUR's proposed approach with reference to the specific forms of LLU that the OUR has outlined in the document. Then, we address additional regulatory issues that any LLU determination would have to treat with.

II. Creating the Enabling Environment for Broadband

7. It is clear that the policy objective of the OUR is encouraging broadband development in Jamaica. Although from time to time, in the consultative document, the OUR makes references to the fact that the narrowband, voice services market will be impacted by LLU, it is not the central policy concern here. This is important to note for two reasons. Firstly, it focuses the discussion on what the hoped-for benefits of LLU policy may be. Secondly, the various types of LLU may be more or less appropriate for the objective of encouraging broadband. In this context it is critical to acknowledge that the future of broadband provision is not dependant on LLU or any form of access over existing networks. The development of broadband access over new technology platforms – for example wireless fixed and mobile (3G) platforms will increase the scope and reach for broadband services in the near future. It is also important to recall in this context that LLU was initially implemented in some markets economies to encourage *voice* competition, not broadband.
8. In responding to the OUR's first question of whether LLU would be “a key enabler of competition in the telecommunications sector”, we restrict ourselves to addressing the broadband market. We also note that “encouraging competition” and encouragement of broadband development” are not necessarily the same. As will be discussed further, in the short-term, the various forms of LLU may achieve more choice in service providers but to the detriment of more lasting facilities-based competition.
9. While the objective of achieving a “Broadband Jamaica” is fully supported by C&WJ, it is necessary to place the likely effectiveness of LLU in context. There are many other determinants to the degree of broadband roll-out in any country. These include:
 - personal computer penetration
 - price of broadband services
 - income levels
 - infrastructure alternatives (Cable, DSL and wireless)
 - service competition facilitated by wholesale service provided by infrastructure providers.

10. To assist in an initial evaluation of the relative importance of these determinants in Jamaica, C&WJ borrows heavily from the “*Jamaica Internet market Study*” published by Jamaica Promotions Corporation (JAMPRO) in 2003 and its own experience in the broadband market to date.
11. The JAMPRO study confirms that¹ “ *there is generally a very positive attitude towards the internet among the population studied. The vast majority is of the view that the internet is an important commodity that all Jamaicans should have access to. The sample is also of the view that the Government of Jamaica could be doing more to ensure internet access by Jamaicans*”
12. The Study further states that² “ *...The key to capitalizing on this potential will be the implementation of strategies that will encourage users who are non-subscribers to buy the service. This survey has highlighted very clearly the factors that have prevented persons from subscribing or buying internet service and concurrently the factors that will encourage purchase*”
13. Among these primary factors that JAMPRO finds inhibiting Internet subscription are a) PC penetration and b) price. JAMPRO found that the degree of PC penetration per 100 inhabitants was 4.68% and that the number of computers per 100 households was 18.74³. Further, the JAMPRO study indicated that 80%⁴ of non-users of the internet are interested in being on the internet but are precluded primarily by the unavailability of a computer at home. With respect to price, the JAMPRO study found that 44%⁵ of the respondents cited “*ability to afford*” as the commanding factor that could encourage internet users to obtain internet for their homes in the short term.
14. We note that respondents did not cite absence of alternative access providers or service providers as an obstacle to not choosing broadband.
15. C&WJ’s own experience indicates that the price elasticity for *Internet services* has been very low. Since 2004, C&WJ has introduced several ADSL packages that have made broadband access significantly more affordable moving from prices for entry level packages from US\$65/month to US\$45/month and now US\$29.95/month. In November 2005, C&WJ began upgrading all broadband customers from 128 kbps to 256 kbps for just US\$2 more. While this significant reduction in price and increase in speed has resulted in increased broadband subscription, the increase has been generally limited to existing internet subscribers upgrading from dial-up. There are now relatively few dial-up subscribers left in Jamaica, and responsiveness to price reductions has decreased.

¹Page 9, Jamaica Internet Market Study, JAMPRO, 2003

²Page 69, Jamaica Internet Market Study, JAMPRO, 2003

³Page 14, Jamaica Internet Market Study, JAMPRO, 2003

⁴Page 7, Jamaica Internet Market Study, JAMPRO, 2003

⁵Page 8, Jamaica Internet Market Study, JAMPRO, 2003

16. With respect to international developments and trends in larger and more developed countries, our observation is that the price/speed proposition offered by C&WJ is comparable to those in developed markets despite the benefits/advantages of economies of scale and scope that exist in larger markets. At the start of 2005 for example, OVUM's report on *International Broadband Market Comparison* showed that the average entry level (512 kbps) broadband prices averaged £17.99 (approximately US \$30). During the last quarter of 2005, Light Reading reported that entry level broadband prices have declined marginally to \$28.04, with prices declining by only 1.2% in the last quarter.⁶ This is consistent with other reports that although the prices of broadband services have declined, the rate of decline has slowed significantly.
17. Of course there are exceptional cases, such as Japan and South Korea, where the standard broadband offering ranges between 1.5 Mbps and 40 Mbps, but the general trend indicated a convergence in entry level prices just below US\$30. In addition, the key feature of competition was not steep reductions in nominal price, but operators offering higher bandwidth services to existing customers at no additional cost (hence the gradual increase in entry level offerings to 512 kbps).
18. Based on the data from the JAMPRO study and its own experience, C&WJ concludes that stronger "pull" factors would be the availability of PCs and making the broadband usage more compelling through e-government, e-learning and e-commerce such that the value and convenience to be delivered encourages Jamaicans to get on-line.
19. Further in C&WJ's view, in the absence of these conditions for significant additional broadband growth, the take-up of LLU is likely to fall short of the public policy objectives. Indeed, as will be discussed further below, an LLU mandate comes at a cost—not just the direct expense of implementing the mandate, but also in the form of the detrimental impact on another enabler of broadband development: infrastructure roll-out.
20. In summary, with respect to the OUR's question of whether LLU will be a key enabler of competition in the telecommunications sector, C&WJ believes that increased PC penetration and technology development will drive broadband availability and service diversity. It is questionable whether LLU will provide significant additional benefits.

III. Legal & Regulatory Framework

A. *Power of the Office to Make Rules*

⁶ http://www.lightreading.com/document.asp?doc_id=87064

21. The OUR has identified the statutory provisions in the Telecommunications Act 2000 (the Act) that governs Local Loop Unbundling as sections 30(1), 83(2) and 71(1). These provisions provide as follows:

Section 30(1)

Without prejudice to section 29, a dominant public voice carrier shall provide interconnection in relation to a public voice network in accordance with the following principles-

- a) *the terms and conditions under which it is provided shall be
 - i) on a non-discriminatory basis;
 - ii) reasonable and transparent, including such terms and conditions as relate to technical specifications and the number and location of points of interconnection; and
 - iii) charges shall be cost-oriented and guided by principles specified in section 33;*
- b) *no unfair arrangements for cross subsidies shall be made;*
- c) *where technically and economically reasonable interconnection shall be so diversified as to render it unnecessary for an interconnection seeker to pay unreasonably for network components or facilities that it does not require;*

Section 71(1)

The Office may make rules subject to affirmative resolution prescribing any matter required by the Act to be prescribed by such rules or any matter that it considers necessary or desirable for the effective performance of its functions under this Act.

Section 83(2)

The Office shall make rules in relation to the local loop referred to in subsection (1) only if it is satisfied on reasonable grounds that such rules are necessary in the interest of customers and that-

- a) the benefits likely to arise from the rules outweigh the likely cost of implementing them; and
- b) the requirement to comply with the rules will not impose an unfair burden on any carrier or service provider.

22. Section 83(1) refers to the OUR's power to make rules under sections 35(3) (which deals with competitive safeguards) or 37 (Number Portability) in relation to the local loop referred to in section 30(1). This reference is quite unclear as section 30(1) sets out the

principles by virtue of which a dominant carrier shall provide interconnection. In fact there is no reference to the local loop. Section 83 (2) goes on to provide the guidelines which for setting the rules in relation to the local loop referred to in subsection (1). As heretofore mentioned the reference to the local loop in section (1) is in regard to the statutory provision for interconnection. What we are left with is a provision that gives the OUR the power to make rules in regard to the local loop only in the context of its reference in a section to which it is not in fact referred. In light of this it may be argued that at worst the OUR's statutory power to make rules in relation to the local loop are non-existent or at best are not clearly defined. It is therefore C&WJ's view that as a starting point the OUR is required to clarify its statutory powers to make rules in relation to the local loop.

B. Subsequent required determinations

23. If it is found that these statutory powers clearly exist then as a precursor to rule making the OUR is mandated to
- a) define the relevant market(s) and assess dominance,
 - b) conduct a cost- benefit analysis ahead of a decision mandating LLU, and
 - c) determine whether LLU will impose an unfair burden.

We look at each of these in turn.

B1. Definition of Wholesale Local Access Market and Dominance

24. The OUR states at paragraph 2.8 that “*since the supply of the local loop is a bottleneck facility ...LLU would involve the provision of new entrants with C&WJ's copper local loop to be used for their own services...*” The Office then goes on to pose a number of exploratory questions in Appendix II, on the basis of a market for “wholesale local access” and presumed dominance in that market. These questions are:

Question 2: *Do you believe that C&WJ should be required to provide LLU services ?*

Question 3: *Do you consider that it is necessary and appropriate to regulate LLU to address C&WJ's market power in the wholesale local access market?*

25. C&WJ notes that the OUR has not defined the “wholesale local access market” in this consultation or in any other consultation or Determination. Having defined retail

markets in its *Determination on Dominant Public Voice Carriers*, issued August 2003, the Office is familiar with the process involved in defining a market. It is after defining the market that the Office would be able to further determine if an operator is dominant in the “wholesale local access market”. A finding of dominance is a necessary precursor for any competitive safeguard remedy contained in section 35 of the Act.

26. In addition to these legal requirements, there are a number of developments that necessitate that market definitions be looked at anew for this proceeding. Firstly the Office would be aware that Digicel has indicated that it will be rolling out a wireless broadband network across the Caribbean. Further C&WJ, itself, is trialling its own broadband wireless solution. It is worthy of note that for the retail market, Determination 2.0 of *the Determination on Public Voice Carriers* states that⁷ “*the telephony access and calling services offered by fixed wireless public voice carriers are close substitutes for the respective access and domestic calling services being offered by fixed wire telephony public voice carriers*”. While it is not always the case that the retail and wholesale markets are mirrors, C&WJ would expect that any “wholesale local access market” would also include fixed wireless.
27. Subscriber Television Operators (STVOs) popularly known as Cable Operators operate a local access network and as such should be included in the market defined as “wholesale local access”.
28. We acknowledge that, in the Determination titled “*Dominant Public Voice Carriers*”, the Office rejected C&WJ’s argument that STVOs are also in the same retail access market. The Office summarized that the one way transmission of Cable TV, the geographic licences issued and the capital investment necessary to upgrade the cable TV network to provide two way communication renders most Cable Operators ineffectual against C&WJ in the provision of retail telecommunications services.
29. However, many Cable Operators, which provide service in more homes in Jamaica than C&WJ’s fixed line network, are upgrading. Further C&WJ makes reference to the article titled “*Information Highway Revolution to Hit Jamaica*” on page 3 of the Financial Gleaner of Friday, March 3, 2006 where Fibralink has stated that its affiliate Company Flow “*..has all the requisite telecom licences, has applied for Cable TV licences from the Broadcasting Commission, and is in the process of closing several acquisitions of cable telephone operations...*”
30. In the article, Fibralink goes further to say that “*...we cannot get a return on our investment in fibralink. The bigger part of our investment will ultimately be retail broadband which is why we have established Flow...*” The article clearly indicates that Cable TV will be a major avenue of broadband deployment for Flow.

⁷Page 12, Dominant Public Voice, Determination Notice , OUR, August 14, 2003

31. Unbundling is done on an exchange by exchange basis, not islandwide at once, even as it is now that ISP serve customers in select areas. Therefore, even with geographic licences the access network of Cable Operators should be in the same market as fixed access for as the zones in which they operate would be analogous to exchanges.
32. C&WJ believes that it is now timely for the OUR to review developments in the Cable TV market and recognize that the Cable TV access network should fall within the “Wholesale Access Market”.
33. It is worth noting, in this context, that in the USA there is greater broadband penetration through Cable Operators than there is from xDSL rolled-out by fixed line providers. In addition to the above, data on overall broadband take up shows that more than 55% of all broadband connection in the US is through cable modems and just about 35% is through DSL technology.⁸ This therefore means that as of June 2004, although data shows that 13.5% of all DSL lines were provided by LLU, in terms of overall broadband take up, less than 8% of all broadband lines were provided via LLU.
34. Moreover in its “*Review of Wholesale Local Access Market*” published in May 2004, Ofcom, the UK regulator, found that the Cable Operators access network is indeed a part of the “Wholesale Local Access Market”⁹.
35. It is difficult to see the OUR being successful in achieving the policy objectives for broadband when it has not defined all the means by which broadband service can be delivered. C&WJ recommends that the OUR implements the necessary steps to define the Wholesale Local Access market. Questions 2 and 3 are therefore premature.
36. Finally, with respect to the specific issue of collocation section 54 of the Act specifies the criteria for sharing facilities, which could be construed to include collocation. Subsection 54 (3) states the grounds on which entry can be denied and section 55 of the Act provides for recourse to the denied party. These sections of the Act are based on commercial negotiations and do not empower the OUR to enforce entry.
37. C&WJ is aware that the OUR has recognized that it is not empowered to compel collocation. In the Determination titled “*Dominant Public Voice Carriers*”, the OUR conceded that¹⁰ “...currently, the OUR is not able to order carriers to share their facilities or offer co-location since it has no explicit basis in law.”

⁸ www.fcc.gov/wcb/trends.html

⁹ <http://www.ofcom.org.uk/consult/condocs/rwlam/rwlam/rwlam.pdf#xml=http://search.atomz.com/search/pdfhelper.tk?sp-o=1,100000,0>

¹⁰ Page 17, *Dominant Public Voice*, Determination Notice , OUR, August 14, 2003

B2. Cost-Benefit Analysis

42. The Office indicated at paragraph 1.9 of Appendix I that it had commissioned a detailed study of the cost of LLU. The outcome of the study and the methodology used must of necessity be contained in a second Consultative Document along with the other costing issues.
43. C&WJ believes—as will be discussed below—that a fuller discussion of the cost-benefit analysis for LLU should be conducted in a second Consultative Document. However, C&WJ is concerned that this methodology as currently proposed will be in breach of the statutory provisions as the statute provides for the conduct of the analysis in order for the OUR to make rules.
44. C&WJ will therefore comment on the direction that the OUR has indicated it will take in conducting the cost / benefit proposal as contained in this consultation.
45. While C&WJ supports the rollout of broadband to as many Jamaicans as possible, it is important for the OUR to clarify the basis of the goal of 40% of Jamaicans having access to the internet in five (5) years because of the implications for the cost / benefit analysis.
46. Firstly, it is not clear whether and how this stated policy goal relates to the “end game” of the benefits that LLU is expected to deliver.
47. Secondly, the Office has produced a suite of LLU options but has not yet attempted to assess the suitability of any or all the options in achieving the policy objectives. This is a necessary analysis that the Office has to conduct. It is worth noting that the stated policy goals are geared to mass adoption of the use of broadband, however in practice LLU Operators tend to focus on serving the most profitable customers, being businesses and high end residential customers. Fibralink has already declared that the goal of its affiliate business, Flow, in Jamaica, is to¹¹ “..offer Jamaican businesses ultra high speed internet, digital landline service and digital Cable TV...”
48. Further extending LLU to rural areas is particularly challenging, and of course LLU will critically affect the economics of development of existing and new infrastructure, and will make new access investment riskier and hence more costly – and less likely.

¹¹ Page 3, Financial Gleaner , article titled “*Information Highway Revolution to Hit Jamaica*” March 3, 2006

LLU Benefits

49. C&WJ has several comments to the OUR's proposed approach to the benefits of LLU and their measurements.
50. Firstly, C&WJ agrees with the OUR that LLU will lower barriers to entry in the fixed metallic local loop. The degree to which greater entry will facilitate increased efficiency in the provision of broadband services is more questionable. We agree that competition improves efficiency through better customer services and quality of service. However, this is already happening as Internet Service Providers (ISPs) develop their service offerings in competition with one another and in response to the threat of new technology broadband platforms.
51. Secondly, in its proposal to estimate the total consumer benefit from LLU, the OUR stated that LLU will result in an increase in the level of competition in Jamaica's fixed line telecom sector and this competition will put downward pressure on prices and create wider economic benefits. As stated above, we believe that 1) the price for broadband in Jamaica is comparable to level of countries with multiple broadband providers and 2) international evidence shows that LLU take-up in most countries has been relatively low, and hence has not been strong enough to drive broadband take up and reduce prices.¹²
52. Thirdly, there are a number of difficulties with measuring/calculating actual consumer surplus in the broadband market. In theory, consumer surplus is defined as the difference between what a consumer is willing to pay (reservation price) for broadband services and what he actually pays for the services. The sum of the price differentials across all consumers is the total market consumer surplus. In practice, one potential difficulty to measurement is estimating the responsiveness of average broadband price to LLU implementation. We believe that prices are likely to respond to competition, but at a declining rate. In the context of cost- benefit analysis, over-exaggeration of potential price decline, and the responsiveness of overall broadband take up to price reductions could produce misleading results.
53. Fourthly, C&WJ is of the view that it will not be necessary to distinguish between type 1 and type 2 benefits since operators are likely to respond to price movements in the market. Therefore, price reductions will benefit all consumers equally and the potential impact on consumer surplus is likely to be the same.

¹² *OECD 2003 Working Party on Telecommunication and Information Services Policies* page 20 indicated that LLU take-up was highest in the US at 5.5% and as low as 0.0008% as in the case of Iceland. Although the OECD study reported up to 2003, the information shows that even countries where LLU has been implemented for many years, the take up has yet to achieve the inflated levels projected prior to LLU implementation.

54. Fifthly, in calculating the benefits, it is not the change in consumer surplus over time that should be measured, but rather the change in surplus that occurs because of price reductions from LLU. In other words, the baseline against which the OUR measures benefits of LLU is against what would occur if LLU is not implemented. The market for broadband will expand and prices are going to fall whether LLU is implemented or not. The change in consumer surplus will be over-estimated if these underlying factors are ignored.
55. Sixthly, we believe that a cost-benefit analysis must be conducted for each type of LLU and for mandates of more than one form of LLU. The benefits (and costs, as discussed below) will vary across different forms of LLU and the benefits of policies that combine more than one form of LLU will be less than the sum of the benefits from each of those individual forms.
56. Related to this, C&WJ believes that caution must be exercised in the interpretation of responses the OUR may receive to questions 10-12 in respect of estimates of expected take-up. Firstly, we do not think an opinion on demand for unbundled local loops will be useful without separate treatment for each form of LLU. The potential take-up will vary across service types. Secondly, C&WJ notes that historically new entrants in other jurisdictions have been over-optimistic about how much take-up there will be from LLU offerings. Furthermore, there are particular reasons to think that demand in Jamaica in particular will be less than expected because:
- a) the size of the broadband market is small. We are of the view that the market size and income levels are extremely important in driving LLU take up. In Jamaica, there is much room for growth in the market size, in terms of the number of direct exchange lines and this is further exacerbated by low PC penetration.
 - b) the price for broadband has declined significantly over the past several months in Jamaica and yet, as previously discussed, the number of Internet users has not significantly increased. This indicates that significantly more take up of broadband in general still awaits development of certain underlying demand preconditions such as, higher penetration of PCs and increased disposable income. In the absence of these preconditions for significant broadband growth, the take-up of LLU will fall short of the policy objectives.
 - c) recent developments in the Jamaican broadband market revealed that facilities-based operators are resorting to higher bandwidth, low cost alternatives to reach customers. Cable operators have started rolling out low cost internet service to residential customers in some areas. Additionally, we understand that some

operators, including Digicel, have plans to roll out high speed data wireless networks that are less costly than the local loop and potentially have wide geographic coverage. In this environment, it is unlikely that the take up of local loop unbundling will be high, or that LLU will drive broadband penetration in Jamaica.

57. Finally, the OUR must be aware that the LLU operators are going to target the higher margin customers who are already likely to be purchasing broadband. Therefore, the benefit analysis must be sure to distinguish what demand is actually an increment to the broadband market through LLU as opposed to simply substitution of service providers. Failure to recognize this will overestimate the benefits of LLU.

LLU Cost

58. On the cost side, C&WJ believes that the costs are more numerous and significant than suggested by the OUR. Firstly, the OUR lists only those costs that are related to the provision of LLU. They do not include the negative impact on investment. C&WJ notes and supports the OUR's objective of enabling the continued roll-out of the fixed network. Therefore the OUR must factor into its cost, the detrimental effects on fixed network investment, in its proposed cost-benefit analysis.

59. There are four aspects to this disincentive effect:

- a. there is the damage done to cost-recovery on existing fixed services by permitting service providers to cherry pick the most profitable access customers.
- b. there is damage done to plans to roll-out network to underserved areas. Again, because of cherry-picking, C&WJ will not be generating the same margins to finance development in this areas. C&WJ is particularly concerned because it had made recommendations to the OUR regarding the Universal Service Obligation (USO) that would have encouraged the rollout of the fixed network and increased household penetration but which the OUR rejected. The Office rejected both C&WJ's proposal that the USO be used to fund the rollout of the fixed network to high cost areas where it is uneconomical for the Company to extend its fixed network, which primarily would be to rural areas, and its proposal that the USO also be used to subsidise low income customers who could not afford to stay on the fixed network.
- c. with respect to C&WJ investment in new facilities, LLU could have a very serious effect. C&WJ is currently implementing plans that run fibre to cross-connect cabinets and installing multi-service access nodes at those cabinets.

C&WJ would have to completely revisit these plans if it were to know that an LLU operator could purchase some or all of these facilities. It is worth mentioning that regulators in various jurisdictions have sought to encourage these sorts of investments by the incumbent by disallowing LLU mandate on such facilities. For example, in the USA next generation, fibre based loops are excluded from unbundling in order to provide the right economic incentives for facilities based carriers to invest in deploying new broadband applications.

- d. It is important to note that the disincentive effects exist not only for C&WJ's investment, but also for other existing or potential infrastructure-based operators. Mandated access of C&WJ facilities reduces the incentive for rivals to invest in new facilities of their own.

60. In more developed countries, like the USA and the OECD countries, fixed line penetration of households is practically 100%¹³. In Jamaica household penetration is approximately 50%. It therefore means that one-half of households remain unserved by the fixed network. The Company is therefore unlikely to make further significant investment in rolling out its network to unserved customers if the OUR mandates that the Company implements any or all forms of unbundling in these "Greenfield" investments as such a mandate would not allow the Company to recoup its investment.

61. The list of LLU specific costs that the OUR does specify in its document is incomplete. The OUR lists:

- one off costs for line connections
- charges for access to telecommunications facilities i.e. monthly line rentals
- collocation charges including the cost of renting space, site preparation, site surveys, power usage and security

62. But depending on the type of LLU required, there may be, inter alia, additional costs:

- OSS and Process modifications for Wholesale offerings
- preparation costs
- loop qualification, testing and conditioning

63. Further, there is the central question of what can be expected to happen with the price of the wholesale and retail local loops. Exchange lines are currently supplied

¹³ http://www.itu.int/ITU-D/ict/WTIM99/PDF/PartVIFinalR_e.pdf

below their true economic costs (C&WJ's) cost model indicates that at March 2005 the true economic cost of a line was J\$1800 while line rentals are J\$1250 and J\$550 for business and residential customers respectively). C&WJ is able to maintain a profitable fixed-line business, not through line rental, but on the basis of margin created from additional services provided over these lines. LLU could force up the retail price of C&WJ's line rental in one of two ways: by facilitating cherry-picking of higher margin access customers by new entrants, depriving the cost-subsidy to access and/or directly forcing up the price of these lines to prevent a margin squeeze on LLU competitors. Increased rental charges could result in more persons falling off the fixed network and stymied fixed service development .

64. Finally, the impact of LLU on WACC is outlined in the study by the economist Pindyck, Robert S. *'Mandatory Unbundling and Irreversible Investment in the Telecom Network'* NBER Working Paper Series 10287, February 2005. . The paper argues that since mandatory sharing obligation gives incumbents the option to rent small network increments for short duration with no long-term contractual obligation, the entrant does not bear the sunk cost from the irreversible investment in the fixed network. This leads to an asymmetric allocation of risk and returns. To compensate incumbent operators, the WACC/hurdle rate should be increased to compensate and provide an incentive to operators to invest. We believe that the OUR should take this into consideration in calculating the cost benefit analysis as well as subsequent analysis if mandatory LLU is implemented.

65. In summary, the OUR's analysis should take the following into consideration in assessing the general costs and benefits of LLU:

Benefits:

- a. projected price reduction for the services currently supplied to existing consumers
- b. expansion of existing services to consumers that were not previously served
- c. improvement of service quality
- d. increased choices for customers

Costs:

- e. the direct costs of undertaking unbundling, such as operational and support systems costs incurred by all operators
- f. dynamic efficiency losses resulting from the impact of LLU on the incentive to invest and innovate
- g. impact of increase in cost of capital on other services supplied by C&W
- h. impact of increases in fixed line tariffs (both business and residential) on existing customer's welfare

Additional Considerations with respect to specific types of LLU

66. The OUR has identified four (4) variations of unbundling. The Office does not elaborate on the merits or appropriateness of any of the forms of unbundling nor does the Office indicate that C&WJ currently offers “bit rate access” unbundling through its “Wholesale ADSL Ports” product. “Bit Rate Access” is considered to be an appropriate option for ISPs.
67. C&WJ has been offering bit rate access from 2004. ISP can lease from C&WJ DSLAM ports, Direct Internet Access (DIA) and frame circuits to create their own broadband service. ISPs can provide broadband service to any C&WJ fixed line customer.
68. The form of LLU required by a Local Loop Unbundled Operator (LLUO) is dependent on the service to be offered. There are real issues associated with LLU which are not the making of the incumbent such as technical issues with the finite size of the Main Distribution Frame (MDF) and the availability of collocation. The Office having visited the Carlton 1 and Carlton 2 exchanges in December 2005 would recognize that C&WJ does not have space in its major exchanges to facilitate co-location.
69. The following specific issues and cost should be taken into account when considering the various types of unbundling. These being:
 70. *Full metallic:*
 - Full metallic, line-sharing and subloop service provision requires the coordination of effort between the loop provider and the LLUO which impacts the loop provider’s planning and operations functions. For example, the provision of collocation facilities requires expertise in civil engineering, building facilities planning, equipment planning and installation as well as network planning and installation.
 - Maintenance is difficult because there is no direct connection to the loop provider’s MDF and line testing can only be facilitated by installing a test head on the MDF for this purpose. Line testing on fully unbundled loops temporarily affects broadband service provision on the line.

71. *Line-sharing:*

- Line-sharing involves coordination of efforts between loop providers and LLUO on particular issues associated with collocation.
- While remote line testing is possible with line-sharing exists as the customer line is still connected to the incumbent's MDF, testing will temporarily disrupt any broadband services provided on the line.
- Mixed responsibilities with the customer relationship may result in inefficiencies

72. *Sub-loop*

- Sub-loop also involves coordination between the loop provider and the LLUO on particular issues associated with collocation.
- Sub-loop unbundling presents the greatest potential for network interference. Sub-loop is an unbundled pair in the distribution network that connects the cross connection point to the customer premises. LLUO DSL equipment is usually closer to the customer and so facilitates greater bandwidth provision to the customer. Sub-loop unbundling introduces broadband transmission at power levels higher than would normally be present on the copper pair for DSL equipment at the MDF. This increased power level significantly increases the potential for interference.
- Effecting maintenance and repair on sub-loops requires technicians visiting the cross connection point and the customer premises to test for and locate any faults that may exist.

73. *Bitrate access*

- With increased volumes, significant complexities are involved in ensuring adequate logical partitioning of the access platform and in smaller deployments this could also prove to be uneconomical.
- Mixed responsibilities with the customer relationship may result in inefficiencies

IV. Other Regulatory Issues

A. Licencing of Local Loop Unbundle Operators (LLUOs)

74. In Chapter 3 of the consultative document the OUR stated at paragraph 3.3 that “*competitive operators in the market, including ISPS, will need to have valid carrier licenses to qualify for unbundled network elements.*” This position is of particular interest as over

three hundred and fifty (350) Carrier and Service Provider licences have been issued since March 2003. Accordingly, the country's recent experience with the international carrier licences is that, the large number of licences issued had a disastrous impact, as the rates fell way below international benchmarks which robbed the country of valuable foreign exchange.

75. It is important to note that C&WJ has pointed out on several occasions that the current licensing regime does not promote sustainable competition and investment. In several meetings with the Office, C&WJ reiterated its concern that where the licensed Jamaican carrier was operated by foreign principals they are able to easily close down their local operations and disappear, leaving millions of dollars worth of unpaid charges owing to C&WJ.
76. The Act provides that licence applications shall contain a statement evidencing that the *"applicant satisfies the financial requirements for the construction and operation of the facility or the provision of the services to which the application relates"*. Furthermore, that in deciding whether to make a recommendation to the Minister, the Office shall *"determine whether the applicant is fit and proper person to be granted a licence"*. The Office is deemed therefore to have a statutory obligations to carry out an exercise of due diligence in respect of each licensee. One has to question the Office's management of the licensing process and the system of due-diligence, follow-up and reporting by licensed operators when for the first time since full liberalisation the Office publishes a Public Notice on February 15th, 2006 titled "Update of Contact Information Telecommunications Licensees" in which it states that *inter alia "It has come to the Office's attention that some Telecommunications licensees have relocated or changed their telephone numbers or other contact information."*
77. C&WJ is concerned that the OUR may be creating another potential for inappropriate licensing and looks forward to proposals--if and when some form of LLU is recommended--that its concerns regarding the due diligence with respect to licensing and the number of licences are addressed.

B. Specific regulatory requirements and LLU Set-up Costs

78. The OUR poses a number of questions—in particular questions 4-9— that are simply premature given the exploratory stage of this proceeding. However, C&WJ has a number of concerns with question 8 that it feels are worth addressing now.
79. With respect to question 8 regarding the recovery of LLU set up costs. We have three concerns. First, the question appears to confuse two separate issues related to cost: a) what operators should contribute to the cost recovery for the LLU system

set-up costs and b) how should any shared LLU set-up cost be recovered by the incumbent. Second, the wording of the question belies a prejudgement on the question of what operators should contribute. Third, it is wrongly prescriptive of how the incumbent should recover any LLU set up costs, if those costs were imposed on it.

80. With respect to the issue of what operators should contribute to the cost recovery of LLU system set-up costs, there are generally two options: the cost is borne by the competitors using the LLU or the cost is borne by both the competitors and the incumbent. C&WJ supports the principle of cost-based pricing, and is of the view that relative prices should reflect relative cost in order to encourage the efficient allocation of scarce resources. Using this principle as a guide, and assuming some form of LLU is implemented, we are of the view that LLU system set up costs should be applied to the incremental service that generate the costs, that is the LLU services. We believe that if the incremental LLU set-up costs are pooled with the costs of any C&WJ access service then this has the potential to overstate C&WJ's average access service costs and understate new entrant LLU costs. This outcome is obviously inefficient, as it would result in C&WJ subsidising incumbent operators roll out efforts. This we believe is an undesirable outcome. To achieve efficiency, LLU system set up costs should be borne by the entrant operators that generate this incremental cost. This we believe will encourage efficiency in the market.

81. With respect to the second concern, the fact that the OUR does not simply ask “do you think the incumbent should share the set-up costs of LLU”, but rather asks about a specific means by which LLU set-up costs should be recovered by the incumbent suggests that it has already rejected this cost-causative argument. In other words, the wording seems to suggest that the issue is not whether the incumbent should have to bear these costs but which of its own services should be saddled with that cost recovery.

Conclusion

80 . C&WJ supports the policy of the Government of Jamaica and the OUR to rollout broadband service in Jamaica. C&WJ has been instrumental in pushing broadband penetration in Jamaica through its own retail ADSL service and through wholesale ADSL and bit rate access to ISPs.

81. In its discussion of the OUR's Consultation on Local Loop Unbundling for C&WJ, the Company, while supporting the objective of rolling out broadband to Jamaicans, questions the efficacy of Local Loop Unbundling as the policy tool for achieving that objective.

82. The Company has detailed for the OUR that the need for an enabling environment for broadband services, the adverse consequences of mandated LLU on the continued rollout of the fixed network and the growing competition in broadband provision across technologies and service providers makes LLU a questionable policy. Further all of these variables will impact on the cost –benefit of LLU.

83. C&WJ trusts that its response will assist the OUR to assess the appropriateness of LLU in Jamaica for achieving broadband rollout and even moreso that this response will create a framework within which the Office can consider other options for rolling out broadband service to all Jamaicans.

CABLE & WIRELESS JA MAICA
March 3, 2006