



Digicel

Digicel's Response to the Notice of Proposed Rule Making on Infrastructure Sharing

26th May 2017



We thank you for providing this opportunity for Digicel to share its views on the responses to the Notice of Proposed Rule Making on Infrastructure Sharing. Digicel is of course available, and would be happy, to discuss our submission further.

The comments as provided herein are not exhaustive and Digicel's decision not to respond to any particular issue(s) raised in the consultation document or any particular issue(s) raised by any party relating to the subject matter generally does not necessarily represent agreement, in whole or in part nor does any position taken by Digicel in this document represent a waiver or concession of any sort of Digicel's rights in any way. Digicel expressly reserves all its rights in this matter generally.

Please do not hesitate to refer any questions or remarks that may arise as a result of these comments by Digicel to: -

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Comments on the Notice of Proposed Rule Making
on Infrastructure Sharing

CHAPTER 3 – QUESTIONS:

- 1. Do you agree with the definition of passive and active infrastructure outlined above? If not, please provide alternative definitions.**

Digicel considers that the descriptions of passive and active infrastructure sharing set out in Chapter 3 represent a comprehensive overview of the main classes of infrastructure sharing.

- 2. Are there any other infrastructure (passive and active) that you consider essential for sharing?**

Digicel considers that any other forms of infrastructure sharing that might be relevant for the Jamaican market are variants or subsets of the categories identified in Chapter 3.

- 3. Given the various forms of passive infrastructure sharing described above, which ones do you think are most suitable for Jamaica? Please provide reasons for your choice.**

In the case of mobile Digicel does not believe that mandatory passive infrastructure sharing is necessary. The fact that there are commercial co-location agreements in place demonstrates that such sharing is achievable on the basis of normal market operation. The limited extent of such sharing is also indicative that:

- 1) The barriers and costs relating to the construction of tower infrastructure do not represent a barrier to entry.
- 2) There is limited demand for such sharing based on the different radio network and coverage designs of different operators.
- 3) There may be physical limitations as to tower capacity which limits the pool of infrastructure suitable for sharing

Digicel also notes that there are third party actors in the market offering access to rooftop sites etc. removing the need for regulatory intervention in respect of mobile infrastructure sharing.

In terms of the wider fixed market the situation is not the same as the mobile market. Some portions of this wider fixed market are characterised by bottleneck control. There are a number of distinct “markets” for telecoms services within the telecoms sector in Jamaica. One such market is the market for the provision of wholesale (or carrier) trunk connectivity service. This service consist of high bandwidth connectivity between the major urban centres and can be used to support a variety of downstream retail services including internet access (fixed and mobile), voice services (fixed and mobile), IPTV services etc. serving both consumer and enterprise



customers. The immediate upstream bottleneck for this market dark-fibre connectivity and upstream from this is access to poles and ducts.

The Wholesale Trunk Connectivity market is distinct and separate from the Wholesale and Retail Access Transmission markets which comprises connections between end user premises and distribution points within individual urban areas.

The upstream bottlenecks are characterised by high barriers to entry and lack of substitutable products/services on either the supply or demand side. Since the Columbus/Cable & Wireless merger it is also characterised by being a monopoly.

Technically the provision of the connectivity between the urban centres is effected using transmission systems carried over fibre optic cables. In the case of the Jamaican market these cables are either above ground on poles or are in the form of subsea cables which loop in and out of landing points around the island.

The aerial cable is subject to frequent damage given their exposed and unprotected nature. This in turn gives rise to frequent disruptions in the transmission service. Subsea cables are much less prone to cable breaks but are also more expensive to install. The effect on down-stream retail services which only have access to wholesale transmission service carried on aerial cable is to render them significantly lower in quality to retail services which are carried solely on festoon cables or which have access to both and can switch from aerial to subsea in the event of a cable break. This quality deficit is sufficient to render retail products based on the lower quality input uncompetitive.

The merged Columbus/Cable & Wireless entity (Flow) self-supplies wholesale trunk connectivity services to its downstream retail arm and services which can access both aerial and subsea fibre optic cables. By contrast it will only supply 3rd party operators wholesale trunk connectivity services which are carried over aerial cable.

Further it appears that the pricing of such wholesale services is above the competitive level indicating that the merged entity is leveraging its market power by both discriminating in terms of the quality of the service it offers to third parties and also by sheltering the margin in the pricing of wholesale service. This allows it to compete aggressively at the retail level while at the same time forcing excess costs into its competitors' retail pricing.

One of the effects of this is to artificially maintain prices to end users at levels which are higher than one would expect in fully competitive markets. The retail services affected include all of



those carried over wholesale trunk transmission services i.e. internet access (fixed and mobile), voice services (fixed and mobile), IPTV services etc.

Duct and poles are not relevant to subsea cables and therefore a market intervention which mandates access to dark fibre is the only appropriate market intervention. Similarly where pole and/or ducts are full or otherwise not readily useable by third parties (for example because ducts are collapsed) requiring access to dark fibre may be the only appropriate market intervention to deal with the leveraging of dominance.

4. Are there any other forms of passive sharing that are possible between operators? If yes, please provide details.

Digicel does not believe that other forms of obligatory sharing are relevant or necessary.

5. In your opinion, should sharing of the core network be allowed? Give reasons for your answer.

Digicel believes that in all cases voluntary sharing of all forms should be permitted and encouraged unless it can be demonstrated that it has anti-competitive effects. Digicel believes that additional regulation is not necessary to deal with the potential of any such anti-competitive effects. This is because agreements which would adversely affect competition are already prohibited by virtue of Section 17 of the Fair Competition Act.

A separate and distinct question arises as to which forms of sharing should be obligatory and to whom the obligations should apply. In this regard Digicel does not believe that it is appropriate to require licensees to share their core networks.

6. Given the various modes of active infrastructure sharing described above, which ones do you think are most suitable for Jamaica? Please provide reasons for your choice.

Digicel does not believe that mandated forms of active sharing are appropriate for Jamaica. This is because mandating such sharing removes incentives for competitive differentiation based on use of different platform/network technologies and functionality. The active portions of networks are typically not bottlenecks and do not represent sufficiently large barriers to entry that would warrant such intervention.

7. Are there any other forms of active sharing that are possible between operators? If yes, please provide details.

Digicel does not believe that other forms of obligatory sharing are relevant or necessary.



8. What in your view accounts for the failure to attract the entry of MVNOs into the Jamaican market? Is the mandating of active infrastructure sharing a pre-requisite for the emergence of MVNOs? Do you consider MVNOs as a viable option in the Jamaican market?

Digicel believes that the absence of MVNOs is not a negative indicator but rather reflects the highly competitive nature of the Jamaican mobile market. Competitive markets are characterised by constrained margins. The limited margin gap in which an MVNO could operate due to competition, coupled with structural changes in the telecommunications sector arising from the growth of OTT providers limits the commercial attractiveness of Jamaica to prospective MVNO operators. The recent award of a third mobile license, albeit on favourable license payment terms, is an indication that the investor in the new licensee believed that there was sufficient scope for a third infrastructure based provider who could differentiate on the basis of network and who potentially would also have access to other value added revenue streams to create a positive business case. Digicel remains sceptical that such an economic space for a third operator does in fact exist in the face of the competition in the sector. The entry of the new operator at best will result in a limited coverage roll-out, cherry picking commercially viable areas. This will divert revenue from investment in a wider geographic deployment of high speed mobile services. The presence of a third infrastructure based operator further intensifies competition within the Jamaican mobile sector and consequently also undermines the business case for MVNO entry. Given the already competitive nature of the mobile sector, a policy objective of introducing MVNOs for the sake of introducing MVNOs does not advance consumer welfare nor the interests of the wider economy.

9. Please provide examples of how active and passive infrastructure is being shared in Jamaica.

Below are some examples of active and passive infrastructure sharing.

- There are existing site sharing agreements between network operators and a variety of third parties also provide access to infrastructure for mobile base stations.
- JPS provides access to its poles.
- Where operators have equivalent volumes of voice traffic to exchange on an interconnect the cost of the transmission systems is shared.

CHAPTER 4 – QUESTIONS:

1. Do you agree that infrastructure sharing will encourage faster deployment of broadband networks throughout Jamaica? If not, please provide the reason(s) for your answer.

There are two aspects to this question.

The first concerns mobile based broadband. Digicel believes that the major constraints affecting the deployment of mobile broadband networks do not relate to infrastructure sharing. Rather



they relate to issues such as capital available for investment in operators' the radio and core networks. The availability and cost of spectrum including point to point microwave spectrum, the availability of fibre backhaul to base stations to accommodate the data volumes associated with mobile data. Given these considerations together with the existing mobile infrastructure network and the availability of third party providers for rooftop and other sites offering access on commercial terms it is unlikely that mandating access to mobile passive infrastructure will have any material impact on the speed of deployment of high speed broadband networks.

The second aspect concerns the fixed network. Here unlike mobile there is not a competitive nationwide retail market for the provision of fixed broadband services. Digicel has deployed a fibre based broadband offering in the greater Kingston area. However it is not in a position to roll this out in other urban centres or rural areas as it cannot obtain cost effective, reliable fibre based inter urban connectivity. Currently this connectivity is controlled by Cable and Wireless on what is effectively a monopoly basis. The leveraging of this control acts as a foreclosure mechanism preventing competing fixed retail broadband services being deployed on an islandwide basis. The barriers to self-supply including those relating to time to deploy are significant. The upfront cost of such self-supply would limit the cash-flow available for deployment of the associated retail access networks in locations such as Negril, Montego Bay and Ocho Rios. Mandating cost effective fixed infrastructure access with strong and explicit requirements for speedy implementation would have a material and positive impact on the speed of deployment of fibre based fixed broadband.

2. In your opinion, how do you think infrastructure sharing will encourage service based competition?

As outlined in Digicel's response to the previous question, the mandating of fixed infrastructure sharing is a key enabler to the advancement of competition in the downstream retail fixed Broadband markets.

3. Do you feel infrastructure sharing will give rise any competition concerns among the operators? If yes, please identify the concerns and suggest how they should be addressed so as to ensure that there will not be any adverse impact on consumers' benefits regarding choice of service providers, availability of services, service variety, QoS and pricing.

Digicel notes that licensed operators now face significant competition in the provision of voice and messaging services from so called Over The Top (OTT) providers. Any commercially agreed sharing will be an attempt to reduce costs, increase efficiencies and improve quality in response to such competition. All of these improvements will be reflected in retail pricing. Normal market operation will therefore act to protect against any potential anti-competitive effects of voluntary sharing. Where concerns do exist the Fair Trading Commission has existing regulatory oversight to deal with these by virtue of the Fair Competition Act, and specifically Section 17 of the Act.



4. Should the sharing of active infrastructure beyond Level 4 in Figure 4-4 above be allowed? Provide reasons for your response.

As set out previously Digicel believes that in all cases voluntary sharing of all forms should be permitted and encouraged unless it can be demonstrated that it has anti-competitive effects. Digicel believes that additional regulation is not necessary to deal with the potential of any such anti-competitive effects. This is because agreements which would adversely affect competition are already prohibited by virtue of Section 17 of the Fair Competition Act.

CHAPTER 5 – QUESTIONS:

1. What measures could be introduced to incentivize network operators to voluntarily provide access to their infrastructure?

Digicel believes that in order to incentivize network operators to voluntarily provide access to their infrastructure some benefits should be set out which allow the revenues from such sharing to be offset against tax liabilities and to exclude such operator income from sharing from the calculation of any regulatory fees based on percentage of revenues.

In addition where such sharing is voluntarily offered on a non-discriminatory, open access basis, on prices which approximate to cost oriented pricing then the supplying operator should be explicitly exempt from being mandated to provide such access irrespective of its dominance status.

2. Are there particular telecommunications infrastructure in Jamaica for which you think sharing should be mandated? Please provide reasons for your answer.

Digicel believes that access should be urgently mandated to local duct and pole access to buildings for the purposes of enabling competition in the fixed Enterprise sector. This is required to overcome the bottle neck control exerted by Cable and Wireless.

3. Do you believe that requiring all operators to provide information to enable OUR to compile a detailed inventory of the nature, location and capacity of Jamaica's telecommunications infrastructure is necessary, or should the information only be required from operators on which sharing obligations have been imposed?

Digicel believes that a requirement on all operators to provide the OUR with information regarding the nature, location and capacity of their telecommunications infrastructure is unnecessary, unduly burdensome on all stakeholders and will yield no benefit. This is because such information in respect of operators who do not have a sharing obligation is not of practical use from a regulatory perspective.



To the extent that there might be practical benefits from some type of infrastructure database for the purposes of planning and executing roadworks and other construction projects the benefit of such a database could only be realised if it contained the information on all underground and overhead services including but not limited to power, water, sewerage, government owned telecoms infrastructure, traffic signals etc. The scale and scope of inputs needed to make any such wider database of use mean that the imposition of regulatory burdens solely on the telecoms sector in its absence is not justified and will force un-necessary costs into operators which ultimately must be passed in to consumers.

CHAPTER 6 – QUESTIONS:

- 1. What are the main bottlenecks (practical, behavioural, administrative, technical or legal) that operators wishing to deploy high-speed communication networks have been confronted with when attempting to access existing telecommunications infrastructure in Jamaica?**

The two forms of access which Digicel is having difficulty securing access to are:

- 1) building entry duct and pole access – in commercial localities where there are limited options in respect of overhead cable or where able entry rooms and chambers cannot be readily modified to accommodate additional carriers then this represents a “ransom strip”. The building access for telecoms infrastructure is often either in ambiguous ownership or is controlled by the fixed incumbent. This allows the incumbent to leverage its historical market power to limit the ability of new entrants into the fixed market to compete for corporate and large public sector customers.
- 2) inter-urban connectivity – following the merger of Cable and Wireless and Columbus Communications (Flow) an offer by Flow to provide such connectivity was withdrawn and subsequent discussions with the merged entity were in terms of a much higher price.

Digicel has attempted to negotiate duct and pole access on commercial terms with Cable and Wireless for over 18 months with no positive outcome.

On this basis Digicel believes that there is an urgent requirement for regulatory intervention to require Cable and Wireless to provide access to duct, poles and dark fibre.

CHAPTER 7 – QUESTIONS:

- 1. Do you agree with the basic infrastructure sharing principles outlined in Section 7.2?**

Digicel’s comments are set out below



1. The proposed Rules will be applicable to all Licensees who own or control telecommunications infrastructure and/or wish to get access to and make use of such infrastructure. Specific parts of the Rules, however, will apply only to certain Licensees and the infrastructure owned by them.

Comment: Digicel agrees that all Licensees should be susceptible to the rules but believes that no obligation to provide access should attach to any Licensee unless they have been found to be Dominant in a **relevant** economic market.

2. The Office shall not require a Licensee to make telecommunications infrastructure available where such Licensee does not also make such infrastructure available to itself or a connected company or otherwise use such telecommunications infrastructure in offering its own services.

Comment: Digicel agrees that this is an appropriate principle

3. Infrastructure sharing services shall be provided in a manner that:

- a. maximizes the use of telecommunications networks and infrastructure;*
- b. minimizes the potential for negative environmental impacts; and*
- c. enables or does not impede the development of competition in the provision of telecommunications networks and services in a timely and efficient manner.*

4. A Licensee on whom an obligation to share has been imposed shall not obstruct or in any way impede another Licensee in the making of any infrastructure sharing arrangement.

Comment: Digicel agrees that this is an appropriate principle

5. An Infrastructure Provider on whom an obligation to share has been imposed, shall not refuse to provide infrastructure sharing services, except where it is due to circumstances related to technical feasibility, such as: impairment of the security or reliability of the infrastructure or the infrastructure provider's (or third party's) network; a lack of currently available space; or future needs for space. Any such claim shall be subject to independent verification by the OUR on a case-by-case basis.

Comment: Digicel believes that this principle should be modified to state that any such refusal shall be on the basis of objective justification and that where access is to be refused the full reasons for any refusal shall be provided in writing within 30 days of a request for access.

6. Licensees shall provide capacity on its infrastructure to other Licensees on a non-discriminatory "first come, first serve" basis.

Comment: Digicel agrees that this is an appropriate principle

7. Each Licensee has an obligation to treat requests, to negotiate infrastructure sharing agreements and to provide infrastructure sharing services in good faith.

Comment: Digicel agrees that this is an appropriate principle



8. The terms and conditions on which infrastructure sharing is offered should be in compliance with the principles of neutrality, transparency, non-discrimination and fair competition. The infrastructure sharing agreement must not prohibit or frustrate the provision of a telecommunications service or facility that a Licensee is lawfully allowed to provide.

Comment: Digicel agrees that this is an appropriate principle

9. Infrastructure Providers shall endeavour to conclude infrastructure sharing arrangements within thirty (30) working days of receipt of a "complete" Access Request.

Comment: Digicel agrees that this is an appropriate principle

10. Every infrastructure sharing agreement shall be in writing and shall specify the contractual terms and conditions agreed on by the parties. All such agreements shall be registered with the Office.

Comment: Digicel agrees that this is an appropriate principle

11. All infrastructure sharing agreements shall address each of the following matters unless it is not relevant to the type of infrastructure sharing that has been requested:

- a. Objective of the agreement*
- b. The scope and specification of the infrastructure to be provided;*
- c. Access to all ancillary and supplementary services or access and use of premises or land that are required to support the provision of the infrastructure;*
- d. Service levels and the maintenance of infrastructure;*
- e. Charges for the infrastructure*
- f. Billing and settlement procedures*
- g. Ordering, forecasting, provisioning and testing procedure;*
- h. The provision of collocation for facilities and the terms and conditions in accordance with which such collocation is to be provided;*
- i. The provision of information regarding modernization or rationalization;*
- j. Information handling and confidentiality;*
- k. Effective date and duration of agreement and renegotiation and review procedures;*
- l. Grounds for termination*
- m. Dispute resolution procedures*

Comment: Digicel agrees that this list sets out the elements that should be included in an agreement

12. Licensees shall, in the first instance, attempt to reach an agreement on infrastructure sharing by negotiation. Any disputes relating to infrastructure sharing shall follow the dispute escalation



procedure outlined in the infrastructure sharing agreement and may ultimately be referred to the OUR.

Comment: Digicel believes that this requirement provides an incentive for the offering party to game the process by forcing disputes. The requirement to use the process within the agreement prior to referring the matter to the OUR effectively prevents OUR supervision of the agreement during the currency of any such dispute. The principle should state that although the parties will endeavour to use the dispute resolution procedures they are not precluded from referring the matter directly to the OUR for determination or such other action as might be appropriate. The use of dispute resolution procedures should not affect any other rights or remedies that parties might have in respect of the disputed matters.

13. Any Licensee that owns or controls any passive network infrastructure will be required to, within a timeframe to be specified, provide the OUR with a complete inventory of its passive infrastructure in order to facilitate the establishment and maintenance of a national database for passive infrastructure. Licensees will be required to provide updates on newly commissioned infrastructure.

Comment: Digicel believes that this requirement represents an undue burden on the Industry and in any event it should only apply to those Licensees and the infrastructure to which obligations to provide access attach. It also offers the scope for regulatory gaming as it allows an infrastructure provider to claim that they cannot begin to offer services and access to the market until this obligation has been met.

2. Do you agree with the proposed factors to be taken into account by OUR in considering when to impose an infrastructure sharing obligation on a Licensee? Should you disagree, kindly provide a detailed explanation for your views and suggest additional or alternative factors.

Digicel is in broad agreement with the factors that are proposed to be taken into account when considering whether to impose an infrastructure sharing obligation on a Licensee.

3. Do you agree with the considerations outlined by the OUR for assessing physical and technical impracticability? If you disagree, please suggest alternative principles which OUR should consider.

Digicel is in broad agreement with the considerations that are proposed to be taken into account for assessing physical and technical impracticability of providing access.

4. Do you agree with OUR's proposed costing principles for the setting infrastructure sharing charges? If you disagree, please suggest alternative principles which OUR should consider.



Digicel is in broad agreement with the proposed costing principles for the setting infrastructure sharing charges.

5. Do you agree with OUR’s proposal on the costing methodology for determining charges for infrastructure sharing? If you disagree, please suggest an alternative method of cost allocation along with evidence to support the same.

Digicel does not agree with the proposal to use a fully distributed cost methodology with a replacement value approach to asset values.

In the case of the assets relevant to this rule making the elements are sufficiently upstream from the telecoms services that they support to render any fully distributed cost distribution to these elements meaningless. These assets are highly decoupled from the retail market and technology changes in the provision of telecommunications services and as such should be considered on a standalone basis using a long run incremental cost approach.

The very long economic lifetime of the assets in question mean that the use of a CCA rather than HCA approach gives the access provider a windfall revenue from sharing and imposes a real cost on access seekers which are not borne through depreciate charges by the access provider. The effect non-replicable nature of the assets in question means that a CCA approach, which is usually used to promote market entry and construction of matching infrastructure is not appropriate. In a report by Oxera for the Irish regulator¹ it sets out the following approaches to treatment of costs.

Asset	Replicability	Potential costing approach
Duct	Non-replicable	HCA/renewals accounting
Copper loop (D and E-side)	Partly stranded	HCA or CCA
Active access electronics	Replicable	CCA
Fibre loop	Non-replicable	CCA/Rolling forward RAB

Digicel believes that the correct approach for non-replicable assets such as ducts is to use a HCA approach.

In order to ensure the prompt availability of an access offer in the market the OUR should set interim prices based on benchmarks until such time as a fully costed price can be determined.

Other comments

¹ http://www.oxera.com/Oxera/media/Oxera/news%20PDFs/eircom-s-next-generation-access-products_030412.pdf page 34



Digicel believes that the procedure for negotiating access set out in the proposed rulemaking is unworkable.

The requirement that an access seeker in effect fully specify the infrastructure to be accessed prior to reaching an agreement becomes a circular process. The access seeker cannot know the details of the infrastructure sufficiently to fully specify its requirements or construct a business case for the requested access without having a framework agreement in place but in the context of the proposed rulemaking cannot conclude such an agreement without having this information. Digicel proposes that access agreements are framework agreements which specify the processes dealing with the call down of specific assets to be shared. Detailed penalty backed Service Level Agreements covering these processes would reduce the level of regulatory supervision required. Digicel is in the process of negotiating such a framework with Cable and Wireless for markets other than Jamaica.