CANTO POLICY PAPER 2013/2/No.1

***Executive Summary***

**Title: IncentivisingInvestment in Broadbandin the Caribbean**

**Objective: To Support Governments in Facilitating Economic Development through Connecting its Citizens.**

1. **Desirable Characteristics of BroadbandIncentives**
2. All broadband networks eligible
3. Time Bound
4. Geographically focused to the extent possible
5. Capable of supporting innovation and new services
6. Targeted at initial capital costs in particular
7. **Specific Possible lncentives**
8. Import Duty Relief

b) Consumption Tax Relief and Tax Credits

c) Reduced Licence Fees or Licence Fee Waivers for a specific period

d) Use of Universal Service Funds

e) Resourcing

f) More Government Services Online

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**Title: IncentivisingInvestment in Broadband in the Caribbean**

**Objective: To Support Governments in Facilitating Economic Development through Connecting its Citizens.**

**Introduction:** At the Caribbean Association of National Telecommunication Organisations (CANTO) conference in July 2012, the Ministerial Panel requested that the industry provide guidance on how Caribbean government could incentivize operators to accelerate investment in broadband networks.

The request of the Ministers is timely in the context of global acceptance of the transformational effect of broadband and the findings of the recent[[1]](#footnote-2)*Global Information Technology Report 2012*’ (the Report) in which several CANTO member countries were included and ranked out of a total of one hundred and forty two (142) countries.

The rankings were as follows:

**Ranking of CANTO Members in the Global Information Technology Report 2012**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **COUNTRIES** | **NETWORKREADINESS INDEX** | **SUBINDEXES** | | | |
|  |  | **Environment** | **Readiness** | **Usage** | **Impact** |
| **Barbados** | 35 | 29 | 51 | 34 | 36 |
| **Trinidad & Tobago** | 60 | 76 | 43 | 52 | 91 |
| **Jamaica** | 74 | 62 | 62 | 79 | 82 |
| **Guyana** | 90 | 86 | 81 | 92 | 101 |
| **Belize** | 119 | 121 | 112 | 123 | 124 |
| **Suriname** | 121 | 131 | 114 | 114 | 131 |

With regards to the Caribbean, the Report summarises that[[2]](#footnote-3)’*… Latin America and the Caribbean continues to suffer from an important lag in adopting ICT and technology more broadly. This is reflected in the rankings, as no country manages to reach the top 30 ….three shared reasons for this lag can be identified: these countries all exhibit an insufficient investment in developing their ICT infrastructure, a weak skill base in the population because of poor educational systems that hinder society’s capacity to make an effective use of these technologies, and unfavorable business conditions that do not support the spur of entrepreneurship and innovation. Addressing these weaknesses will be crucial for improving the region’s competitiveness and shifting its economies toward more knowledge-based activities…*’

The ITU Report [[3]](#footnote-4)*Impact of Broadband on the Economy* published April 2012 states that:

‘….*according to Koutroumpis' research, in countries with low broadband penetration (under*

*20%), an increase of 1 per cent in broadband adoption contributes to 0.008 per cent of GDP growth, whilein countries with medium penetration (between 20% and 30%), the effect is of 0.014 per cent and in countries with penetration higher than 30 per cent, the impact of 1 per cent adoption reaches 0.023. Theimplication of this finding for developing countries is quite significant. Unless emerging economies do notstrive to dramatically increase their penetration of broadband, the economic impact of the technology willbe quite limited……The economic impact of broadband manifests itself through four types of effects ...The first effect results from the construction of broadband networks. In a way similar to any infrastructureproject, the deployment of broadband networks creates jobs and acts over the economy by means ofmultipliers. The second effect results from the “spill-over” externalities, which impact both enterprisesand consumers. The adoption of broadband within firms leads to a multifactor productivity gain, which inturn contributes to growth of GDP. On the other hand, residential adoption drives an increase inhousehold real income as a function of a multiplier. Beyond these direct benefits, which contribute toGDP growth, residential users receive a benefit in terms of consumer surplus, defined as the differencebetween what they would be willing to pay for broadband service and its price. This last parameter, whilenot being captured in the GDP statistics, can be significant, insofar that it represents benefits in terms ofenhanced access to information, entertainment and public services*.’

Note that ‘…‘…*, broadband has a stronger productivity impact insectors with high transaction costs, such as financial services, or high labour intensity, such as tourism andlodging.* and that *‘…the economic impact of broadband is higher when promotion of thetechnology is combined with stimulus of innovative businesses that are tied to new applications….’*

**Caribbean Industry Proposal**:Following is the proposed framework of the Caribbean telecommunications industry regarding the incentives, bothfiscal and regulatory (enabling environment) that governments should establish to encourage the rollout of broadband networks throughout the region.

**1. Desirable Characteristics of BroadbandIncentives**

1. All broadband networks eligible
2. Time Bound
3. Geographically focused to the extent possible
4. Capable of supporting innovation and new services
5. Targeted at initial capital costs in particular

**2. Specific Possible lncentives**

a) Import Duty Relief

b) Consumption Tax Relief and Tax Credits

c) Reduced Licence Fees or Licence Fee Waivers for a specific period

d Use of Universal Service Funds

e) Resourcing

f) More Government Services Online

1. **Desirable Characteristics of BroadbandIncentives**
2. **All broadband networks eligible**

Incentives should, as far as possible, be technology neutral. The prevailing thinking, on increasing the penetration of broadband services, is that all types of technology will have to be utilized to reach citizens. This however does not mean that governments are compelled to support, by way of incentives, any operator or any technology where such will not, cannot or does not deliver on the governments’ objective for broadband rollout.

Where it exists for any technology, there should be regulatory relief from having to offer broadband services under certain conditions or at certain prices. Competition from various technologies will cause broadband to reach more customers sooner and removing asymmetric regulationwill encourage greater competition among the technologies and spur investment.

1. **Time Bound:IncentiveWindows**

Operators should be given incentive windows. Time windows should be coherent with the schedule for the rest of the regulatory framework. For example if new spectrum is being made available from a certain date then the window for incentives should relate to the network rollout period required to utilize that spectrum.

1. **Geographic Targeting**

It isusually more difficult for operators to make a business case to expand networks inthe more rural areas.Therefore governments may want to focus incentives for investing in these areas including providing support for training persons to use the technology for social and business needs. This should facilitate driving demand for services. The proposed approach, in this respect, is to relate the total subsidy to the level of losses that risk being incurred in respect of rollout in rural areas.

Governments may be concerned about the possible incentives that operators may have to overstate costs and understate revenues in order to make the loss threshold appear lower than is actually the case. One approach to minimize this outcome is to determine the cost base required to achieve particular coverage targets by requesting quotes from the respective equipment manufacturers. Each quote would be provided on a confidential basis to respective governments. Revenues would be based on agreed forecasts which would be adjusted on a forward looking basis to take account of actual revenue.

1. **Capable of Supporting Innovation and New Services**

Operators should be allowed to test and trial new types of broadband services with minimal administrative process. It also means that where policymakers have to make decisions, the decision making process has to be accelerated to support innovation in the market so that the countries can enhance their ability to compete in the international market.

1. **TargetingCapital Costs**

The capital cost necessary for networkdevelopment typically representsthe largest potential barrier to network rollout. A commercial case has to be made for the investor to get a fair return in a reasonable timeframe. Incentives aimed at the initial capital costs would encourage more operators to upgrade their networks to deploy the latest technologies. For example LTE on mobile facilitates the provision of a wider array of broadband services and improved quality of service. These technological developments are fundamental for the diffusion of broadband usage throughout Caribbean societies. Specific possible incentives to encourage network development are:

1. **Specific Possible Incentives**
2. **Import Duty Relief**

Import duties can represent a significant barrier to potential investors especially where these are particularly high as they represent a large proportion of capital costs. It is therefore proposed that time limited exemptions from import duties on equipment required to deliver broadband services should be considered.

There arearange of ways in which such relief can be applied, fromthe administratively simple to the administrativelycomplex.

* The simplest approach is to permit complete relief from import duties for a time limited period. The relief would be provided in respect of any network equipment used to deliver broadband services. For example, the time limit could relate to the period required to achieve national objectives for broadband coverage.
* Another approach could be to make the relief subject to meeting specific rollout objectives.
* A morecomplexapproachwould be to provide relief on equipment after certain threshold coverage requirements have been met.
* Customers also face capital costs when they are adopting a new technology, in the form of handset prices, PCs and modems. Blanket relief from import duties might only appear to benefit some people who could afford the devices. Accordingly governments might wish to consider time limited exemptions in this regard and/or enabling relief for the most basic handsets, PC and modems which would still facilitate access to the newest, relevant technologies.

1. **Consumption Tax Relief and Tax Credits**

The ability of customers to afford handsets, PCs and modems is also affected by consumption taxes that are levied on these devices. The easing of consumption taxes would make it more affordable for customers to connect to broadband service.

Governments should also consider tax credits for operators where operators have met certain agreed targets.

1. **Licence Fees**

Licencefees, and especially spectrum fees, are an ongoing operational cost which raisesthehurdlethat operatorsmust clearin order to make an investment viable.Accordingly, any relief in terms of licence fees can lead to economic and consumer benefits. In this regard, governments are encouraged to employ administrative pricing in pricing spectrum allocated to broadband service.

With the rapid evolution of technologies operators are faced with a combination of uncertainties: which type of networks to invest in; when to invest in them; and how long they will have to maintain existing networks before they can move all customers fully onto new networks. Operators are also faced with having to maintain parallel networks for some period of time. Consequently operators are forced to seek multiple licences, pay for multiple sets of spectrum fees to run those existing networks, as well as toanticipateand look to purchase what spectrum mightbe needed in the future. The continual need for network operators to enhance and improve their networks increasestheir risk and dampens investment particularly when faced with high licence and spectrum fees for multiple networks. Consequently, it is suggested that Governments give consideration to phased in or reduced fees where multiple networks have to be maintained.

1. **Use of Universal Service Funds**

A universal service fund would be a potential vehicle through which to manage geographically targeted incentives. In this regard governments need to ensure that legislation expands the definition of universal service to include broadband services.

**e) Resourcing**

There isa relatively small pool of engineers with deep experience in newly emerging technologies.Experienced engineers are neededto deploy new technologies successfully and in a timely fashion. It may be necessary for operators to look internationally for such persons. Restricting the pool of people from which operators can draw, even if that includes several large countries, would stymie attempts to rollout networks as well as the ability to pass on those skills to local engineers. From time to time as well, other professionals are required.

A flexible resourcing policy which allows operators to initially employ persons from other Caribbean operations or from further afield is necessary.Approval of these hiringscan, of course, be made contingent on requirements to transfer knowledge and skills to local employees.This would effectively support the development of the competencies of local employees.

Governments could also consider approaching Caribbean tertiary institutions to develop relationships with some leading broadband network manufacturers so that the skills can be developed within the degree programmes.

**f) More Government Service Online**

Creating the demand to use broadband services is a critical element in incentivizing customers to want to connect to broadband services. This in turn stimulates demand for operators’ service and makes it more persuasive for operators’ to build an economic case to develop their networks. The slow rollout of government e -services was also highlighted in the Report. Governments are therefore encouraged to make more and more of their services accessible to the public online. This will fuel the diffusion of broadband services since most persons will need to access mandatory government services.

**CANTO Regulatory & Emerging Technologies Committee**

**February 4, 2013**

1. <http://www3.weforum.org/docs/Global_IT_Report_2012.pdf> [↑](#footnote-ref-2)
2. <http://www3.weforum.org/docs/Global_IT_Report_2012.pdf>, pgs.22,81 [↑](#footnote-ref-3)
3. <http://www.itu.int/ITU-D/treg/broadband/ITU-BB-Reports_Impact-of-Broadband-on-the-Economy.pdf>

   Pgs. 6,3,2 [↑](#footnote-ref-4)