CANTO POLICY PAPER 2013/2/No.1

Executive Summary

Title: Incentivising Investment in Broadband in the Caribbean

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

1. **Desirable Characteristics of Broadband Incentives**

   a) All broadband networks eligible
   b) Time Bound
   c) Geographically focused to the extent possible
   d) Capable of supporting innovation and new services
   e) Targeted at initial capital costs in particular

2. **Specific Possible Incentives**

   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

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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] *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	NETWORK READINESS 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

[1] http://www3.weforum.org/docs/Global_IT_Report_2012.pdf

With regards to the Caribbean, the Report summarises that[2] *'… 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]*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, while in 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. The implication of this finding for developing countries is quite significant. Unless emerging economies do not strive to dramatically increase their penetration of broadband, the economic impact of the technology will be 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 infrastructure project, the deployment of broadband networks creates jobs and acts over the economy by means of multipliers. The second effect results from the "spill-over" externalities, which impact both enterprises and consumers. The adoption of broadband within firms leads to a multifactor productivity gain, which in turn contributes to growth of GDP. On the other hand, residential adoption drives an increase in household real income as a function of a multiplier. Beyond these direct benefits, which contribute to GDP growth, residential users receive a benefit in terms of consumer surplus, defined as the difference between what they would be willing to pay for broadband service and its price. This last parameter, while not being captured in the GDP statistics, can be significant, insofar that it represents benefits in terms of enhanced access to information, entertainment and public services.'

Note that '…'*…, broadband has a stronger productivity impact in sectors with high transaction costs, such as financial services, or high labour intensity, such as tourism and lodging.* and that *'…the economic impact of broadband is higher when promotion of the*

[2] http://www3.weforum.org/docs/Global_IT_Report_2012.pdf, pgs.22,81

[3] http://www.itu.int/ITU-D/treg/broadband/ITU-BB-Reports_Impact-of-Broadband-on-the-Economy.pdf
Pgs. 6,3,2

technology 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, both fiscal and regulatory (enabling environment) that governments should establish to encourage the rollout of broadband networks throughout the region.

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1. Desirable Characteristics of Broadband Incentives

a) 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 regulation will encourage greater competition among the technologies and spur investment.

b) Time Bound: Incentive Windows

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.

c) Geographic Targeting

It is usually more difficult for operators to make a business case to expand networks in the 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.

d) 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.

e) Targeting Capital Costs

The capital cost necessary for network development typically represents the 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:

2. Specific Possible Incentives

a) 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 are a range of ways in which such relief can be applied, from the administratively simple to the administratively complex.

- 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 more complex approach would 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.

b) 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.

c) Licence Fees

Licence fees, and especially spectrum fees, are an ongoing operational cost which raises the hurdle that operators must clear in 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 to anticipate and look to purchase what spectrum might be needed in the future. The continual need for network operators to enhance and improve their networks increases their 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.

d) 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 is a relatively small pool of engineers with deep experience in newly emerging technologies. Experienced engineers are needed to 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 hirings can, 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