

TELECOMMUNICATIONS REGULATORY COMMISSION
VIRGIN ISLANDS

TELECOMMUNICATIONS CODE - _/2010:

INTERNET TRAFFIC EXCHANGE

CONSULTATION DOCUMENT

June 8th, 2010

Reference Number: C/1/2010

The address for responses to this document or enquires regarding this document is:

Consultation – Internet Traffic Exchange
Telecommunications Regulatory Commission
P.O. Box 4401 or 27 Fish Lock Road, 3rd Floor
Road Town, Tortola, British Virgin Islands VG 1110
Fax: (284) 494 6786; E-mail: consultations@trc.vg

The deadline for responses is **June 22nd, 2010**



Instructions for submitting a response

The Telecommunications Regulatory Commission of the Virgin Islands (“TRC”) invites comments on this consultation document from all interested parties.

Comments should be submitted by **June 22nd, 2010**.

Preferably responses to this document should be sent by email to consultations@trc.vg (indicating the subject: “Consultation – Internet Traffic Exchange”).

Alternatively, the responses may be sent to the address (or the number) below:

Consultation – Internet Traffic Exchange
Telecommunications Regulatory Commission
P.O. Box 4401 or 27 Fish Lock Road, 3rd Floor
Road Town, Tortola, British Virgin Islands VG 1110
Fax: (284) 494 6786

Responses should include:

- In the case of responses from corporate bodies (legal persons):
 - the name of the company/institution/association/other organisation;
 - the name of a principal contact person; and
 - full contact details (physical address, postal address, telephone number, fax number and email address).
- In the case of responses from individual (natural) persons, name and contact details (including email).

In the interest of transparency, the TRC will normally make all submissions received available to the public, subject to confidentiality of the information received. The TRC will evaluate requests for confidentiality according to relevant legal principles.

Respondents are required to clearly mark any information included in their submission which they consider to be confidential, and provide reasons why that information should be treated

as such. Where information claimed to be confidential is included in a submission, respondents are required to provide both a confidential and a non-confidential version of their submission. The TRC will determine whether information claimed to be confidential is to be treated as such and, if so, will not publish that information. In respect of information that is determined to be non-confidential, the TRC may publish or refrain from publishing such information at its sole discretion.

Once the TRC has received and considered responses to this consultative document, it will issue a report on the consultation and the final version of Telecommunications Code – (2010: Internet Traffic Exchange).

1. Introduction and Background

Access to, and use of, the Internet has become indispensable to our lives and economy and the TRC considers it important to ensure that such access is of high quality, reliable, secure and affordable. These attributes, however, are often affected by the routing of Internet traffic intended for local destinations to international locations before being routed to their final local destinations. Internet Exchange Points (IXP) provide the means to avoid sending such traffic internationally by having the local Internet Service Provider (ISP) exchange traffic intended for local recipients locally.

The Virgin Islands IXP project was initiated in September 2009 with a workshop on IXPs and a lot has been done to date on the way to full implementation of a local IXP. An IXP working group comprised of local ISPs, Department of Information Technology personnel, TRC personnel and other interested parties has been formed and has been meeting on a regular basis since February 2010. Much of the work surrounding the technical design and rules of operation has been completed and the working group is committed towards an end of June launch date. Because so much of the work has already been completed and the proximity of the completion date, this document is up for public consultation for only two weeks instead of the usual four weeks allowed for consultation and completion of implementation requires only one month.

The benefits of an IXP are as follows:

- 1) *Increased resiliency of the national Internet network.* An IXP will ensure that even if international connectivity for some reason is lost or restricted, local Internet users can still access the Internet content hosted in the Territory.

- 2) *Increased quality of the Internet services.* As the domestically bound data traffic will no longer need to travel overseas and back, the quality and speed of delivery of such traffic will see clear improvement. Furthermore, this would also reduce the load on international links; therefore even the quality of international traffic will see improvement. This is further strengthened by incentives for certain international content providers to host their content closer to their users (as described below). Having an IXP is normally a precondition for such hosting.
- 3) *Improved protection of privacy and business secrets.* When data traffic passes through other countries, it may be subject to interception by the authorities of such countries. It also makes traffic more susceptible for illegal access (because there are more points for potential attack). Therefore keeping domestic traffic locally clearly reduces risks to privacy and confidentiality. This is especially important for the Virgin Islands as an international finance center.
- 4) *New innovative services.* As cost to deliver traffic/content domestically will drastically decrease, operators will be incentivized to offer new services that would make use of these new benefits. Such services could include much cheaper and faster delivery of domestic traffic. This may appeal to businesses, exchanging a lot of information locally (e.g., registered agents – Financial Services Commission), local content providers (see below) as well as recreational Internet users (e.g., gaming community).
- 5) *Incentives for content providers to bring their content to the Virgin Islands and invest here.* At the moment it is potentially more attractive for content providers to host their content overseas (e.g., in the US) than in the Virgin Islands. This is because hosting there is potentially cheaper (because of economies of scale) and quality of service is potentially better (as traffic has to travel only one way – from the US to the Virgin Islands, whereas locally hosted content may potentially need to travel to the US and then back to the Virgin Islands). An IXP, especially taking into account benefits and potential new services described above, makes hosting local content within the Virgin Islands much more attractive. Furthermore some international content providers (such as Google) tend to have multiple points of presence to enhance quality of experience for their users. However these points of presence are normally located at IXPs in order to ensure the maximum possible reach.
- 6) *The territory becomes more attractive for providers of international capacity.* An IXP means that there is a clear facility within the territory, from which providers of international connectivity can sell services to all local providers (aggregation of demand). This makes the Territory more attractive for these types of investments.
- 7) *Provides a platform for further strengthening of the Internet and telecommunications infrastructure.* Being a central facility, which is accessed by all Internet service providers, an IXP is an important element in bringing the registry of the territory's domain names .VG to the territory. It also allows for better monitoring of the Internet quality (as an IXP

can be used to locate quality monitoring equipment/software). Furthermore it would make implementation of such facilities as central database for number portability, if it was decided to implement them, easier.

- 8) *Puts the Virgin Islands on the Internet map.* Having an IXP means an entry into various databases of the IXPs that are widely used by the Internet community. This signals to potential investors in the Territory that the local Internet infrastructure is more developed.

2. Proposed Measure

The aim of the measure proposed is to implement the Internet Traffic Exchange framework. Once it is implemented, the TRC will separately consider (and, where appropriate, consult the public on) the implementation of any additional measures as required.

Based on the above, the TRC proposes to issue the Internet Traffic Exchange Document (Telecommunications Code – /2010). It is proposed that this Document will be implemented as part of the Telecommunications Code, in the exercise of the TRC's power under sections 6 (d), 26 (1), 26 (2) and 91 (3) of the Telecommunications Act, 2006.

3. Consultation

The TRC hereby consults on the draft Telecommunications Code – /2010: Internet Traffic Exchange, implementing the Internet Traffic Exchange Document. Comments from all the interested parties are welcome. Responses should be submitted as per the instructions above.