



Telecom Vanuatu Ltd

43915/CEO/1136

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Mr Ronald Box
Telecommunications and Radiocommunications Regulator
Port Vila

Dear Ron

Please find attached TVL's public response to the Consultation Paper on TRR's Draft Interpretation of UAP Broadband Internet Speeds. TVL is supportive of the Government approach. However, it is important that any baseline set is, as you state, practical and minimal.

I would be pleased to discuss this with you in greater detail.

Yours sincerely

Prakash Bheekhoo
Chief Executive Officer



TVL's comments on TRR's Draft Interpretation of UAP Broadband and Internet Speeds.

TVL is supportive of the work being undertaken by the Government, and implemented by the TRR, to develop a Universal Access Policy. The objective of the policy to improve access to telecommunications services for locations which are not adequately served or served at all by existing services is laudable. Clearly the goals need to be practical and effective for an environment such as Vanuatu. Services that are to be made available need to be cost effective and affordable. The TRR needs to look carefully at the impact on an operators cost base of setting specific design capacity speeds. Any baseline set, by the TRR, should be, as the TRR note, practical and minimal.

TVL's public comments are set out below. TVL would be pleased to meet with the TRR and go through these issues in more detail.

CONSULTATION QUESTIONS

Q1: Comments are invited on any aspect of TRR's draft interpretation of speeds and proposals regarding design capacity, practical and minimal speeds. (Section 4)

Although 3G Release 7 has a theoretical speed of 21.1Mbps, in practice, the speed of the packet data in the mobile environment depends on various factors such as number of subscribers browsing the Internet, coverage area, location of the customer, kind of device being used, and external factors which are dynamic in nature and which service providers do not have any control on them.

In addition, there are various reasons that would cause fluctuation in the bandwidth available for an end user such as:

- Activity Ratio - typically defined as the users who are actively using the connection at a given point in time;
- No of concurrent users logging onto the same base station;
- Time of the Day when usage happens; and
- Type of application and device (e.g., PC, mobile handset) that users are using.

The surfing experience may also be affected by the strength of radio signals at different locations. Different building structures may also weaken radio signals thus affecting users' surfing experience.

Q2: What are your views on TRR's draft interpretation of Service Quality and speeds for the purposes of the UAP? (Section 5)

Vanuatu is a fledgling market from the data perspective and its applications, utilities, content, proliferation of Smart phones and access are still to develop. Despite the introduction of 3G, the demand beyond some the major cities still has to take off. In such a scenario we have very limited experience available. The networks for mobile data are still to evolve and usage patterns still to emerge to determine where the demand exists. At this stage, to prescribe stringent standards such as minimum quality of service for mobile broadband on a predominant voice network would be premature and would impact the future development and growth of networks. We suggest at this stage that we should track the growth of data services to make a more informed regulation which will serve the consumers and protect the interest of all stakeholders including service providers.

The consultation paper on Universal Access Policy considers the QoS for mobile broadband for the entire country whereas even now, data roll-outs are limited to some areas only. Hence, applicability of these regulations for the entire country too would be incorrect and will force the operators to roll out the network in the areas where there is no demand/network or commercial viability.

Q3: What are your views as to what may constitute a reasonable definition of service that meet the broadband speed of 21/12 Mbps required under the UAP, and whether a practical baseline speed should be determined that is 'SMART' (Simple, Measurable, Achievable, Realistic and Timely)? (Section 5)

Internet service worldwide is commercialised at "up to" (maximum) speed. Regulators worldwide have not imposed any minimum speed.

TVL is deeply concerned that achieving a broadband speed of 21/12 Mbps would disproportionately increase cost to TVL and will lead to raising retail tariffs to end users. Content servers are located far from Vanuatu, mostly in US or in Europe. To access such contents and given the geographical location of Vanuatu, international bandwidth are heavily utilised by customers. In order to meet such baseline speed, this will require huge investments making the service unaffordable to most customers. The minimum speed of 21/12 Mbps is simply unachievable in practice.

The Regulatory Authority in India (Trai) has recently conducted a study and found that the average speed in the case of 3G network varies from 1.5Mbps to 2 Mbps¹.

As far as measurement of the minimum broadband speed is concerned, we believe that measurement of this parameter should be strictly based on test results using dedicated server

¹ Telecom Regulatory Authority of India (Consultation Paper No 3/2014): "Amendments to the Standards of Quality of Service for Wireless Data Services, Regulation 2012."

and dedicated bandwidth within the operator's Network. The tests should be conducted under controlled conditions by downloading a specified test file from a test server to a user's device. This will help to discard/ address any external factors which are not within the control of the service provider, including the user's behaviour related issues.

Q4: What are your views on TRR's proposal in respect of Service Quality and Speed Implementation? (Section 6)

As noted above, the concept of minimum download speed is not applicable in a multiple access scenario due to unknown behavior of the location/number of customers, behavior of radio signal due to interference, fading, etc which are not within the control of the service provider. Internationally, no regulator has set such benchmark.

A recent study by the European Commission² found that actual download speeds obtained in Europe were considerably lower than the advertised download speed.

We suggest that, at this stage, the Regulator should track the growth of mobile broadband to make a more informed regulation which will serve the consumers and protect the interest of all stakeholders, including service providers.

Q5: What are your views on TRR's preliminary view that the required broadband speed with availability of 21/12 Mbps should be contended for a minimum availability capacity of at least 2/1 Mbps with 99% success rate? (Section 6)

Contention Ratio, as defined today by ITU is based on the traditional method of delivering broadband abroad which was on DSL. In the DSL scenario, typically an E1 would be connected to the DSLAM and hence a direct contention ratio at the last mile would help in determining the speed delivered to the customer assuming sufficient provisioning has been done at the other legs

With wireless technologies, the subscribed speed of 21/12 Mbps is a theoretical maximum speed at ideal conditions and it is not technically feasible to specify an average speed for wireless data services given that there are many factors (as noted above) which are beyond the control of the service provider.

Another major problem in guaranteeing a minimum speed is that there many applications such as peer-to-peer downloads, WhatsApp which consume a lot of international bandwidth which service providers do not have any control.

² "Quality of Broadband Services in the EU." (March 2012). A Study prepared for the European Commission, DG Communications Networks, Content & Technology.

Given that it is a combination of various parameters as enumerated above, which leads to the final customer experience, it may not be prudent to define a specific contention ratio target.

It is worth noting that the Regulatory Authority in India (TRAI) has adopted a contention ratio of 1:50.