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Shri Asit Kadayan Advisor (QoS) Telecom Regulatory Authority of India Mahanagar Doorsanchar Bhawan Jawahar Lal Nehru Marg New Delhi - 110 002

Ref: Verizon Response to TRAI's Consultation Paper on Net Neutrality dated 4th January, 2017

Dear Sir,

We appreciate the opportunity to provide input on this important TRAI Consultation Paper. Like all major ISPs in India, we support an open Internet. As a provider of services in India and across the global Internet ecosystem, we are engaged and share innovative and sustainable ideas in a number of the government Internet policy inquiries and hope that our input will be helpful in this context.

In line with our presence in India as a provider of communication products and **enterprise solutions**, predominantly **to large business and government customers**, we have focused our response pertinent to our activities, rather than responding to all the questions individually. In addition to our response to specific issues, we also would like to provide our support to the response filed by industry association Association of Competitive Telecom Operators (ACTO)

We hope that our comments attached as Annexure – I will merit the kind consideration of the Hon'ble Authority.

Respectfully submitted,

Yours sincerely,

For Verizon Communications India Private Limited

Priya Mahajan AP Regional Regulatory & Policy Head

Encl: As above

ANNEXURE-I Verizon Comments on TRAI Consultation Paper on Net Neutrality

Introduction:

During the last decade, India has witnessed rapid growth in its telecom sector. This growth could not have happened without investment from the private sector. The investment from the private sector similarly was only possible through the current process of liberalization of the regulatory regime in India. Although this growth has been rapid, we believe that there is still much potential waiting to be unlocked in the Indian market. This is because investment to-date has been hampered by regulatory burdens and uncertainty within the telecom sector. The Government of India has a unique opportunity to set the policy agenda in a way that will support telecom sector growth and add to India's overall economic development. To see continued and accelerated investment and development in this market, India's regulatory regime must keep to its current approach of liberalizing and moving towards the creation of a light-touch regulatory environment. The telecom market in India is the second-largest in the world after China, and has great potential for further investment and growth provided. However, market size alone cannot be solely relied on if the desired outcome is a competitive, innovative, developed and thriving Indian telecom sector: it is critically important that the policy settings are right as well.

- There is a need to create an environment in which communication providers in all parts of the Internet ecosystem continue to have the incentives to invest and innovate.
- Policy makers should adopt where necessary a principles-based framework based on industry best practices focused on consumer choice, competition, innovation, sustainable growth and transparency.
- For net neutrality, policy makers should consider principles rather than prescriptive, detailed regulations, as principles will achieve consumer protection without the risk of incurring unintended harmful consequences for investment and innovation.
- Enterprise Services should be outside the scope of open Internet rules as it has been followed in other countries and the recent report on Net Neutrality by Department of Telecom (DoT) reinforces this point.
- We favor adoption of light handed approach to regulate internet access if at all a need arises due to failure of the existing regulatory & legal framework. We believe that in such cases, the Government's intervention should be minimalistic, any attempts to over regulate the sector, for example, through firm guidelines or legislations, will have a direct impact on the innovation and investments. Care should be taken to avoid that our country lags behind digital revolution especially with the speed at which internet; internet technologies, innovations and consumers engage and innovate in the internet eco-system.

Verizon fully supports an open Internet and has publicly committed to ensuring that consumers can access any lawful content, services, and applications, regardless of their source.

http://www.verizon.com/about/news/no-question-about-an-open-internet

https://vzweb2.verizon.com/node/28654

We support an open Internet which by its nature benefits consumers and the Internet ecosystem generally and creates a virtuous circle of incentives and investment. And investment is what India needs to meet its goals for market development and broadband penetration. This is why we support the open Internet principles but not prescriptive rules. Indeed, a broadband provider that blocked lawful content, applications, or services would quickly harm its reputation in the marketplace and lose customers. The

market provides effective discipline in this regard, and where a provider is truly misbehaving, the competition and consumer protection laws serve as potent reminders.

Additionally would also like to highlight that the DoT's Committee on Net Neutrality has very rightly recommended that the framework/ guidelines of Net Neutrality should not be applicable for Enterprise services provided by the TSPs.

Specific to the issues presented in the consultation paper we submit our response as below:

Q.No.1 What could be the principles for ensuring nondiscriminatory access to content on the Internet, in the Indian context?

Verizon Response:

We support the policy and principles of an Open Internet, which to us means an entire Internet ecosystem that enables users to exchange ideas and communicate freely, gives them freedom to access the lawful applications and content they wish to use, and affords them the ability to choose and assemble packages of services and equipment that meet their needs.

When supporting an Open Internet, the following core standards/ principles should be taken into consideration when addressing the needs of our customers in approaching new Internet-related business opportunities, designing new services, and managing our network:

- Freedom Consumers should be able to openly exchange ideas, content, and information across the Internet.
- **Innovation** Consumers are entitled to a robust and highly secure network that enables new services, applications, and devices.
- **Competition** Consumers have the power to choose the best possible services and innovations.
- **Transparency** Consumers should have clear and concise information about speed, cost, and traffic management.
- Affordability –Consumer should have an affordable tariff.

Q.2. How should \Internet traffic" and providers of \Internet services" be understood in the NN context?

- (a) Should certain types of specialised services, enterprise solutions, Internet of Things,etc be excluded from its scope? How should such terms be defined?
- (b) How should services provided by content delivery networks and direct interconnection arrangements be treated?

Please provide reasons.

Verizon Response:

In response to the specific question as to whether certain types of specialized services, enterprise solutions, Internet of Things, etc be excluded from its scope & how should such terms be defined, we would like to highlight that the debate around the Open Internet typically focuses on consumer protection and consumer access to the Internet. We believe that is the appropriate place for it to unfold and not in the enterprise or large business market.

The specificities of enterprise services (e.g., differing contract provisions and business needs) means that net neutrality provisions serve little purpose if at all. More importantly, they create the substantial risk of disproportionately impacting innovation and investment if applied to business service providers. The reasons for exclusion of enterprise services from the net neutrality discussion are multi-fold:

First, the marketplace for these services is well-functioning and highly competitive.

- Second, enterprise services are typically sold and contracted on an individual case basis.
 Consumer services are standardised and are not offered through customized or bi-lateral negotiated agreements.
- Third, the nature of the services themselves is radically different in the enterprise space. Unlike
 mass-market consumer services, large business and enterprise services present various
 specificities that differentiate them from mass-market services which are significantly more
 complex (e.g., telecom services provided and multiple locations across countries, different access
 technologies, bundles of services, demanding Service Level Agreements (SLAs), to name just a
 few).
- Fourth, enterprise customers can take care of themselves and they typically have sophisticated knowledge of the technology and economic implications of the services they are buying.
- Finally, from a consumer protection perspective, terms relating to the required quality levels, detailed service transparency, technical characteristics, and penalties for noncompliance, are already addressed in large part under a contract. Thus, the extension of net neutrality obligations to the high-end enterprise market is unnecessary and could be harmful.

Most of these distinctions between "mass market" and "enterprise" services were captured by the FCC when it explicitly excluded enterprise services from the scope of its 2010 Net Neutrality ruling. Notably, the FCC defines the scope of the Order's rules as any broadband Internet access service provided to the mass market, and states: "The term ("mass market") does not include enterprise service offerings which are typically offered to larger organisations through customized or individually negotiated arrangements.²

A similar approach was taken in the UK where the voluntary code of practice as well as **Ofcom's** statement on **Net Neutrality**, both refer to consumers only. ³

For all these reasons, Verizon urges TRAI to recommend that enterprise services be excluded from any net neutrality framework that is developed.

The recent DoT's report on Net-Neutrality had also recommended for exclusion of Enterprise services from the scope of open internet rules. The recommendations stated

"The Committee is of the considered view that managed services are a necessary requirement for businesses and enterprises, and suitable exceptions may be made for treatment of such services in the Net Neutrality context."

- 1. To sum up the needs of enterprise users differ from those of a retail consumer mass market and some of the important considerations are below:
 - The key difference is contractual in nature. High-end business services present various specificities that differentiate them from mass-market services which are significantly more complex [telecom services provided across multiple locations and across countries, different access technologies, bundle of services, very demanding Service Level Agreements (SLAs), etc.]
 - Further, high-end enterprise users typically have sophisticated knowledge of the technology and
 economic implications of telecommunications services. From a consumer protection perspective,
 terms relating to the required quality levels, detailed service transparency, technical
 characteristics, and penalties for noncompliance, are already addressed in large part under a
 contract.

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¹ Federal Communications Commission, Report and Order on Preserving the Open Internet (December 23,2010), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-201A1.pdf. ² Id. at ¶¶ 44-45.

³ BSG Open Internet Code of Practice (http://www.broadbanduk.org/wp-content/uploads/2013/06/BSG-Open-Internet-Code-of-Practice-amended-May-2013.pdf) which refers out to Ofcom's November 2011 statement on NN (http://stakeholders.ofcom.org.uk/binaries/consultations/net-neutrality/statement/statement.pdf).

Enterprise services should continue to be exempt from any open Internet rules. Enterprise services, however categorized ("specialized services", "business services" or other), are typically offered to larger organizations through customized or individually negotiated arrangements. Various jurisdictions that have reviewed open Internet policies have proposed to exempt such enterprise or specialized services from open Internet rules.

- Q.3. In the Indian context, which of the following regulatory approaches would be preferable:
- (a) Defining what constitutes reasonable TMPs (the broad approach), or
- (b) Identifying a negative list of non reasonable TMPs (the narrow approach).

Please provide reasons.

Verizon Response:

Traffic management practices play a key role in enhancing consumer experience and making networks more efficient. Generally, traffic management practices are used by operators to efficiently manage their network resources (e.g., to manage congestion) or for a variety of other circumstances, such as network integrity and delivery requirements. Considering the benefits of traffic management practices and given the fast pace evolution of our industry, defining what constitutes reasonable traffic management practices would be counter-productive.

Moreover and most importantly, with the enterprise services dimension in mind, the overlay of regulatory-driven traffic management requirements on top of negotiated commercial quality of service and SLA requirements would present a daunting – and unnecessary -- compliance challenge to service providers **and** their commercial customers. This further underscores the importance of excluding enterprise service from the scope of such rules.

- Q.4. If a broad regulatory approach, as suggested in Q3, is to be followed:
- (a) What should be regarded as reasonable TMPs and how should different categories of traffic be objectively defined from a technical point of view for this purpose?
- (b) Should application-specific discrimination within a category of traffic be viewed more strictly than discrimination between categories?
- (c) How should preferential treatment of particular content, activated by a users choice and without any arrangement between a TSP and content provider, be treated?

Verizon response:

Reasonable traffic management practices are application agnostic and are used for network optimization purposes.

Q.5 If a narrow approach, as suggested in Q3, is to be followed what should be regarded as non reasonable TMPs?

Verizon Response: No response Q.6. Should the following be treated as exceptions to any regulation on TMPs?

(a) Emergency situations and services;

- (b) Restrictions on unlawful content;
- (c) Maintaining security and integrity of the network;
- (d) Services that may be notified in public interest by the Government/ Authority, based on certain criteria; or
- (e) Any other services.

Verizon Response:

In our view, the Enterprise services should be exempt from any open Internet rules. Enterprise services are typically offered to larger organizations through customized or individually negotiated arrangements. Various jurisdictions that have reviewed open Internet policies have proposed to exempt such enterprise or specialized services from open Internet rules.

The market of enterprise services that merit different network performance requirements is expanding with Smart Grid, healthcare, emergency-response, and a variety of other services that may involve or require packet prioritization capabilities. These services are indispensable to key social objectives. Just as other jurisdictions have recognized the merit for keeping these services outside the scope of open Internet rules, our country should also not prescriptively regulate these services.

- Q.7. How should the following practices be defined and what are the tests, thresholds and technical tools that can be adopted to detect their deployment:
- (a) Blocking;
- (b) Throttling (for example, how can it be established that a particular application is being throttled?); and
- (c) Preferential treatment (for example, how can it be established that preferential treatment is being provided to a particular application?).

Verizon Response: No response

- Q.8. Which of the following models of transparency would be preferred in the Indian con-Text
- (a) Disclosures provided directly by a TSP to its consumers;
- (b) Disclosures to the regulator;
- (c) Disclosures to the general public; or
- (d) A combination of the above.

Please provide reasons. What should be the mode, trigger and frequency to publish such information?

Verizon Response: No response

Q.9. Please provide comments or suggestions on the Information Disclosure Template at Table 5.1? Should this vary for each category of stakeholders identified above? Please provide reasons for any suggested changes.

Verizon Response: No response

- Q.10. What would be the most effective legal/policy instrument for implementing a NN frame-work in India?
- (a) Which body should be responsible for monitoring and supervision?
- (b) What actions should such body be empowered to take in case of any detected violation?
- (c) If the Authority opts for QoS regulation on this subject, what should be the scope of such regulations?

Verizon Response:

In our view light touch regulatory policy framework is the best approach to keep the momentum of growth and investments into the country. The regulatory intervention should be minimal unless there is a proven and demonstrable harm to the competition and consumer protection . The global trends indicate that the regulators worldwide are also leaning towards a light touch regulatory approach and may be reviewing the regulatory policies to align them with the realities of the digital market.

This policy approach should embody high-level principles: in general policies should be:

- Pro-investment and pro-innovation,
- Future-proof and flexible,
- Fit for purpose (proportionate),
- Technology neutral and service agnostic, and should foster comparable consumer protections across sectors, where appropriate.
- Regulatory Neutrality.
- Q.11. What could be the challenges in monitoring for violations of any NN framework? Please comment on the following or any other suggested mechanisms that may be used for such monitoring:
- (a) Disclosures and information from TSPs:
- (b) Collection of information from users (complaints, user-experience apps, surveys, questionnaires); or
- (c) Collection of information from third parties and public domain (research studies, news articles, consumer advocacy reports).

Verizon Response: No response

- Q.12. Can we consider adopting a collaborative mechanism, with representation from TSPs, content providers, consumer groups and other stakeholders, for managing the operational aspects of any NN framework?
- (a) What should be its design and functions?
- (b) What role should the Authority play in its functioning?

Verizon Response: No Response

Q.13. What mechanisms could be deployed so that the NN policy/regulatory framework may be updated on account of evolution of technology and use cases?

Verizon Response:

Public Private collaboration is the best mechanism for keeping abreast of the technological evolution. The rapid strides in the ICT industry and the way businesses are evolving makes it even more imperative for the government to collaborate with the industry and share industry best practices that are aligned with technological evolution as well as market realities.

Q.14. The quality of Internet experienced by a user may also be impacted by factors such as the type of device, browser, operating system being used. How should these aspects be considered in the NN context? Please explain with reasons.

Verizon Response: No Response

Final Recommendations/Conclusions

- Implement policies that create an environment in which providers in all parts of the Internet ecosystem continue to have the incentives they need to continue to invest and innovate.
- Recommend adoption of a principles-based framework based on industry best practices focused on consumer choice, competition, transparency, and effective multi-stakeholder processes.
- Recommend a high-level principle based approach as opposed to a prescriptive, detailed set of regulations.
- Exclude the enterprise services from the purview of NN rules as the needs of enterprise users differ from those of a retail consumer mass market. As noted in the response to Question no.2 above, the key difference are both contractual and in the nature of the requested services. High-end business services present various specificities that differentiate them from mass-market services which are significantly more complex [telecom services provided across multiple locations and across countries, different access technologies, bundle of services, very demanding Service Level Agreements (SLAs), etc.
- Further, high-end enterprise users typically have sophisticated knowledge of the technology and economic implications of telecommunications services. From a consumer protection perspective, terms relating to the required quality levels, detailed service transparency, technical characteristics, and penalties for noncompliance, are already addressed in large part under a contract.
- Consult with industry and other stakeholders to develop a set of high-level, self-regulatory principles and establish mechanisms to identify and address any anti-competitive behavior that might occur in the market (to supplement existing enforcement mechanisms).
- Create multi-stakeholder entity to examine these issues over a multi-year period and observe developments in India and elsewhere.
- Take note of the jurisdictions in which co-regulatory approaches have been successful, & adopt global best practices in this regard