



## Response to “Draft Direction on Delivering Broadband Services in a Transparent Manner” from SaveTheInternet.in

The SaveTheInternet.in coalition welcomes TRAI’s initiative to ensure transparent pricing for broadband consumers in India by issuing “Draft direction on delivering broadband services in a transparent manner” on January 20, 2016, and seeking stakeholder comments. Towards our continuing engagement in policy processes concerning the Internet we are making this submission.

The present directions suggested by TRAI have the potential to help customers make an informed decision about the broadband services while ensuring that they continue to receive high quality service. Based on these touchstones, we would also like to bring to your attention as part of our submission the key issue concerning the definition of broadband services.

### 1. Proposed revision for the definition of “Broadband”

We believe that there is an urgent need for TRAI to revisit the definition of “broadband”. We appreciate that the authority is already alive to this concern. Based on TRAI recommendations, the Department of Telecom raised the minimum broadband speed from 256 Kbps to 512 Kbps in July, 2014<sup>1</sup>. It is our submission that further revision needs to be carried out raising broadband speed to a minimum of 4 Mbps download/upload speed. Further, this speed should be revised every two years. Our reasons for this proposal are contained below.

#### Comparison of broadband speeds in India to the world

According to Akamai (one of the world’s largest content delivery networks, responsible for serving between 15 and 30 per cent of all web traffic<sup>2</sup>), **India has one of the slowest internet speeds, in comparison to other countries across the World.**

Akamai publishes “[State of the Internet](#)”, a quarterly report on internet adoption with various statistics, based on data collected by their CDN. Some relevant highlights from [Akamai’s State of the Internet - Q3 2015 report](#)<sup>3</sup> are:

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<sup>1</sup> *Telecom Consumers Complaint Redressal (Third Amendment) Regulations, 2014*

<sup>2</sup> Source for the statistic:

<http://www.telegraph.co.uk/travel/travelnews/11798027/Mapped-The-world-according-to-Internet-connection-speeds.html>

<sup>3</sup> Akamai’s State of the Internet - Q3 2015 report

<https://www.akamai.com/us/en/multimedia/documents/report/q3-2015-soti-connectivity-final.pdf>



- India ranks 51st among 55 countries surveyed in terms of average connection speed, with an average connection speed of 2.5Mbps, less than half the global average of 5.1Mbps. (Sec 10, p55)
- India has the lowest average and peak connection speeds among all surveyed countries in Asia Pacific region. (Sec 5.1, p32; Sec 10, p55)
- India has the highest average web page load time of 7.4 seconds on mobile. (Sec 8, p48)
- India has 4th highest disparity in mobile and broadband connection speeds among all surveyed countries as measured by “Mobile Penalty” - the ratio of average page load times on mobile connections versus average load times on broadband connections . (Sec 8, p49)

## Other considerations

**Any regulation that defines “broadband” should, in addition to minimum speed, address the following concerns.**

1. The minimum guaranteed speed must be specified separately for uploads and downloads. Specification of upload speed is especially important because users are content/service creators on the internet.
2. Latency to point of presence (PoP) of the service provider is also an important measure of network quality, and thus must be specified as well. Further, latency must be individually defined for each kind of last-mile connectivity (xDSL, cable, fibre, 3G, 4G/LTE etc.) that an ISP provides.
3. As network outages are still commonplace, minimum uptime must be specified as well.

## Proposed definition

Due to the reasons set out above we suggest the authority consider the following definition of “broadband”

*“Broadband is a data connection that is able to support interactive services including Internet access and has the capability of the minimum download speed of 4 Mbps and upload speed of 4 Mbps to an individual subscriber from the point of presence (PoP) of the service provider intending to provide broadband service.”*

## 2. Specific suggestions to the proposed regulation

### Transparency in fair usage policy(FUP)

1. Customers should be notified via SMS/E-mail/USSD when they have consumed 50%, 75%, 90% and 100% of the FUP/Data Limit. Last date of current bill cycle (postpaid) or expiry date of active internet pack (prepaid) must be included in all such notifications.



2. In addition to the above, prepaid users should also be warned of their data plan expiry at 75% and 90% of the plan duration. Data remaining in the currently active pack must be included in all such notifications.
3. Estimated duration for which the FUP/Data limit will last at the promised speed must be made available. For example: 20 days at one hour per day of usage at peak speed.

## Minimum speed guarantee

4. Broadband services on mobile should only be sold as such if there is a minimum guaranteed broadband speed available to the user. In particular, a broadband connection must satisfy the condition wherein 80% of the connectivity should be at the minimum defined speed and above.<sup>4</sup>
5. In case of services such as 3G and 4G, packs should come with a minimum guarantee of provisioning of 3G or 4G, with clearly defined speeds. The user must be compensated when these speeds are not achieved as discussed in 3.14.
6. At the end of the billing cycle, customers should be notified by service providers of the average daily speed. This should not fall below that prescribed by the data pack for at least 80% of the time as required by pre-existing TRAI regulation.

## Subscriber alerts

7. Reminders from service providers must have information on both data and days left (for prepaid subscribers) or last date of current billing cycle (for post-paid subscribers).
8. Reminders should also be given for the unused data from the previous data cycle of the user. This helps user get better understanding of their data usage patterns.
9. Special alerts on sudden spikes in usage and faster depletion of FUP limits should be provided.

## 3. Additional suggestions

### Standardized packs

1. Like in voice, data packs shall follow a monthly schedule for all plans with duration greater than 25 days. Data plans with validity of say, 28 days etc., are misleading for a consumer, and allows the broadband provider to charge for an extra month per year.

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<sup>4</sup> The number was chosen from a previous TRAI notice requiring that 3G operators provide the minimum download speeds 80% of the time. Source: TRAI notification dated 24th July 2014 - F. No.305-3/2014-QoS - The Standards of Quality of service for Wireless Data Services (Amendment) Regulations, 2014 (10 OF 2014) [http://www.trai.gov.in/content/VerReg/172\\_0\\_3.aspx](http://www.trai.gov.in/content/VerReg/172_0_3.aspx)



## Transparency

### Unit pricing

2. For ease of comparison to the consumer, each data plan should specify the cost
  - a. per Mb of data (before FUP in case of fixed broadband)
  - b. per day of usage.

### Misleading use of 'unlimited'

3. Multiple broadband providers use the word 'unlimited' while advertising data plans wherein the data speed is reduced typically to 512 kbps after a certain amount of data has been consumed. Thus, the use of the term 'unlimited' for plans with FUP or other restrictions is misleading to the user and such descriptions must not be allowed.

### Clearly specified upload and download speeds in all communication

4. If upload and download speeds are different, ISP/TSPs must specify both clearly in equal and largest used font size (this information must not be only in fine print).

### Standardized communication templates

5. TRAI should define minimalistic to-the-point formats for all and any informative communication from broadband provider to the user. Broadband providers should not be able to misguide users with play of words.

## Quality measurement

### Preliminaries

6. The current QoS regulations for service providers are the closest thing regular customers have to an SLA (Service Level Agreement) with the service providers but TRAI is relying solely on monthly/quarterly reports submitted by the providers themselves.  
QoS is not easily verifiable by the average user and neither is it possible for a user to initiate independent testing of the network conditions without advance notice being given to the service provider. This has allowed service providers to operate sub-par networks with high latency, heavy packet loss and excessive downtime without any repercussions.

### Service Level Agreement

7. TRAI must mandate that internet service providers enter into a Service Level Agreement with all their customers which details specifics of the service and processes of the ISP. All such SLA must be approved by TRAI to ensure that they are consistent with all relevant laws and notifications.



## Independent testing of QoS

8. TRAI must put in place mechanisms for independent testing and measurement of the performance of broadband services provided by various internet service providers.

## Crowd-sourced performance measurement

9. We request TRAI to introduce a crowd-sourced performance measurement application that broadband users in India may use to voluntarily upload performance data of their broadband connections to TRAI. Such applications have been introduced by other regulators around the world, such as [FCC Speed Test App](#)<sup>5</sup> introduced by the Federal Communications Commission, USA.

## Complaint redressal

10. We appreciate TRAI is a sectoral regulator and cannot look at the complaints of individual users; however, as has often been highlighted in the past, the existing redressal system is deficient and leaves users without a credible and effective remedy. We suggest a comprehensive review of this system to align it more closely with the Consumer Protection Act for individual complaints related to deficiency of services. In addition, TRAI may examine a proposal for levying penalties on licensees on the basis of consumer complaints received by it directly. As this is a wider issue we in addition make the recommendations below within the existing framework in the interim.
11. Customer Complaint Redressal information and timelines for complaints must always be specified in any communication<sup>6</sup> by a broadband provider including advertisements (where the information might be limited to URL and phone number). Same must be approved by TRAI. TRAI must specify means for customers to lodge their complaints regarding these issues directly to it.
12. Complaint tickets must not be automatically closed by the operator without the customer's explicit approval. (Many providers are automatically closing tickets irrespective of the problem being resolved and pushing the oldest complaints to the end of the queue to avoid exceeding the time limits specified vide Telecom Consumers Complaint Redressal Regulations, 2012).

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<sup>5</sup> FCC Speed Test App

<https://www.fcc.gov/consumers/guides/fcc-speed-test-app-tip-sheet>

<sup>6</sup> SMS/USSD communication can be exempt from this recommendation due to their content length limits and keeping in mind user convenience.



## Compensation mechanism

13. An internet service provider must provide a transparent refund and compensation mechanism in case of denial of service or poor service as defined by TRAI. TRAI must ensure that such a mechanism is consumer friendly, non-predatory and non-discriminatory.
14. While the current QoS regulations provide financial disincentives to the service providers offering deficient service, they do not offer any mandatory financial relief to the paying customers who are forced to suffer for no fault of their own. TRAI must mandate proportional refunds for short term QoS failures and full refunds for extended failure to adhere to the QoS regulations.
15. In case of a known disruption of service affecting customers the compensation process should be automatic and in the event of failure to do so, the broadband provider must be penalized.
16. In case of new customers faced with poor service and/or outages wishes to terminate the contract, the service provider must bear any disconnection charges and refund the initial setup/activation charges levied by the ISP for the new connection.
17. Disconnection, delays in pings & DNS resolution, and downtime impact the Quality of Service, and can have ramifications worse than call drops for voice connections<sup>7</sup>. TRAI should prescribe mechanisms to monitor these characteristics and to compensate the customer when QoS guarantees are not met.

## Ombudsman

18. Contact information of the Ombudsman must be provided to the consumer on a regular basis (say, every billing cycle for postpaid customer and once a month for prepaid customers). The same information must be made available on the provider website, through a toll-free Phone/SMS, Email and USSD (in case of a mobile provider).

## Privacy policy and user tracking

19. Unless otherwise required by law, user information should not be shared with or sold to other organizations for any purpose. If a third party makes such a request from a TSP/ISP or manages to obtain the said data, this must be intimated to the consumer

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<sup>7</sup> A low quality data connection can result in complete disruption for many data services. Research suggests that even small delay of 200ms has serious impact the experience of the users.  
<http://googleresearch.blogspot.in/2009/06/speed-matters.html>



within 24 hours.

20. The private data, which includes browsing behaviour of the users should not be used by ISP in anyway not required by law for its service as ISP, including monetization of user data for targeted advertising, analytics etc.
21. No tracking of user by a broadband service provider should be allowed, given privacy concerns. In the past, reports have shown Bharti Airtel inserting a tracker in user data connections<sup>8</sup>. This issue was raised in Parliament as well. At present, MTNL inserts code into user data connections to serve advertising.

## Renewal mechanism

22. There is a need for more sensible mechanism for renewal of data-plans. Presently, It costs about 10-15 rupees to recharge your data plan online if it expires.
  - a. Customers should be provided an option to renew their plan, add a add-on/booster pack and/or choose a different one immediately after expiry of their previous plan. Renewal and subscription to add-on/booster packs must require explicit user consent, preferably by sending an SMS to provider's toll free number.
  - b. Customers should be able to subscribe to any broadband/mobile data plan offered by the provider by SMS/USSD or via their customer service portal/website as long as they don't exceed their pre-paid balance or security deposit/approved credit limit (in case of postpaid customers).
  - c. Customers should be able to switch plans at any time in their billing cycles wherein the difference in pricing/data should be prorated and the user should only be charged the difference.  
Example: If a post-paid customer wants to switch to a different data plan at any point during their billing cycle or subscribe to a 1GB data pack with a 1 day validity they should be allowed to subscribe to it instantly and should be charged the difference in price from their existing plan.

## One-time subscription to data bundles

23. Both prepaid and postpaid mobile broadband subscribers must have access to one-time data subscriptions and not just data subscriptions that renew at every payment cycle. In many cases, post-paid subscribers are currently only able to buy data subscriptions with auto-renewal at the end of the subscription period; which means that customer must explicitly cancel these subscriptions before the auto-renewal in order to not be charged during the next billing cycle.

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<sup>8</sup> Privacy: Amobee user tracker found on some tests from Airtel Users, MediaNama, August 19, 2015  
<http://www.medianama.com/2015/08/223-privacy-amobee-user-tracker-found-on-some-tests-from-airtel-users/>



## Consent for auto renewal of data bundles

24. In favour of transparency, TSPs & ISPs should specify clear & ambiguous mechanism to obtain user consent for auto-renewal of all types of data plans
- There should be adequate measures to look deeper into methods and channels employed by TSPs & ISPs to collect user consent, so users are aware of the renewing nature of these bundles.
  - The methods and channels should have well-defined guidelines for service providers to follow.
  - If the TSP wants to offer auto-renewals on their data packs, such auto renewals should be opt-in only (auto-renewal should be disabled by default).

## Cap on plan choices

25. There must be a cap on the number of different data plans provided by a service provider, similar to the cap that exists for voice plans<sup>9</sup> in order to reduce confusion in the minds of consumers and prevent mistakes that arise out of unending choices.

## Billing

26. Billing statements and account summaries must be available by the ISP via their billing at all times. It must contain contact details of Ombudsman (see point 18).
27. Detailed usage records - duration of the session and amount of data transferred - should be viewable online for free for both prepaid and postpaid users, say through a billing portal. Hard copies can be provided at extra cost as is the case for postpaid users.

## Proxy/NAT

28. Due to IPv4 exhaustion many ISPs have started the practice of assigning RFC 1918 Private IP addresses to customers and placing them behind a NAT. This breaks/prevents many VoIP/VPN/P2P protocols from working. (The problems are especially acute when users have WiFi routers at homes/offices which also performs NAT, so they end up behind a double NAT).  
Such proxy/NAT implementations at the ISP level should only be permitted as a stop gap measure lasting no longer than 3-4 months. ISPs which fail to transition their customers to IPv6 after the grace period must be penalized.

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<sup>9</sup> As defined in the Explanatory Memorandum, point 7 of TRAI notification dated 7th July 2014 - F. No. 301-2/2004-Eco. The Telecommunication Tariff (Thirty First Amendment) Order, 2004  
<http://www.trai.gov.in/WriteReadData/UserFiles/mpci/notification.pdf>





## Emergency services

29. All broadband providers must provide access to emergency services<sup>10</sup> free of cost similar to 100 series emergency services over telephone. Special QoS requirements must be imposed on all broadband providers to ensure delivery of emergency services. This is especially important for users who are unable to access emergency services using a phone such as those with speech impediments or those who are hard of hearing.

## Advertising

30. ISPs must not be allowed to automatically redirect or tamper with traffic for any purpose, including mails and/or service advertisements.<sup>11</sup>

## Conclusion

Broadband services are the information backbone on which the development of Indian society, culture and economy will be based. The success of multiple government programmes such as Digital India, Startup India, Smart Cities etc. will depend directly upon the availability of high quality and reasonably priced broadband infrastructure.

We would again like to thank TRAI for giving us the opportunity to provide comments on this Draft for your kind consideration.

Sincerely,  
The SaveTheInternet.in Coalition

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<sup>10</sup> A detailed discussion on what constitutes emergency services is out of scope here, and needs to be dealt with separately.

<sup>11</sup> For instance: <http://www.medianama.com/2015/06/223-mtnl-isp-advertising-airtel/>