

CIS Submission to TRAI Consultation on Differential Pricing



Background

ICT regulation and policy should seek to further the following goals:

1. achieving universal, affordable access;
2. ensuring and sustaining effective competition in an efficient market and avoiding market failures;
3. protecting against consumer harms — like privacy violations — and maximising user choice;
4. promoting openness of the network by ensuring maximum utility of the network by ensuring the greatest extent of interconnection and interoperability, and thus lowering barriers to entry and promoting innovation; and
5. addressing state needs (taxation, collective security, etc.).

Generally, all these goals go hand in hand, however some tensions may arise. For instance, universal access may not be provided by the market because the costs of doing so in certain rural or remote areas may outweigh the immediate monetary benefits private corporations could receive in terms of profits from those customers. In such cases, to further the goal of universal access, schemes such as universal service obligation funds are put in place, while ensuring that such schemes either do not impact competition or very minimally impact it.

The best and most important defence against violations of Net neutrality is the same as the best way of providing long-term sustainable access to the Internet to all Indians: ensuring effective competition in the ISP markets, in both mobile and in wired access.

In India, to ensure effective competition in the ISP markets there are a number of steps that need to be taken:

- lowering switching costs (which are low in the mobile market in India, but are high in the wired-line market);

- seeking to ensure local loop unbundling / unbundling the infrastructure from the services provided on it, especially at the last mile;
- engaging in extensive reform of our spectrum management practices to increase spectral efficiency and also increase unlicensed and innovative usage;
- using policy levers to improve the interconnection market such that transit costs decrease, and peering levels increase;
- urgently removing the policy of not allowing content providers to interconnect at NIXI and radically revising NIXI's pricing model (or else cost of transit will never go down, roundtripping of IP traffic will continue, and peering levels will remain abysmally low, leading to low levels of content hosting in India at higher prices).

However, just as access cannot solely be reduced to a competition issue, Net neutrality cannot either. The Internet has led to the blossoming of non-commercial technological innovations which do not operate in competitive markets, like peer-to-peer protocols like BitTorrent and traffic anonymising technologies like I2P. These forms of permissionless innovation too need to be protected from unjust discrimination by ISPs.

If we have very strict Net neutrality regulations (for instance, a regulation that requires treating “all bits equally”, without regard to traffic management needs, or differential QoS needs of customers, etc.), technological and business innovation will suffer, as will consumers, as has been attested by numerous network engineers, computer scientists, and economists.

However, in the absence of any Net neutrality regulation whatsoever, the same might happen as dominant ISPs may seek to turn the Internet into something resembling current-day cable and satellite television networks with the kinds of business deals and restrictions present there. We must adopt a middle path that incorporates the range of services and the needs of the players that are emerging today without compromising on access, innovation by all and rights of users.

For that reason, we recommend the following definition of Net neutrality:

It is the principle that gatekeepers — all ISPs are gatekeepers — should not use their gatekeeping powers to unjustly discriminate between similarly situated persons, content or traffic.

We believe that ISPs should be prohibited from any form of negative discrimination — whether in the form of increased price / lower data cap, or lowered quality of service — on the basis of content or application.

However, **ISPs may engage in positive discrimination in those cases where such discrimination does not harm user choice, competition, or access.** (Positive discrimination will equal negative discrimination in a zero-sum game, but in most cases that we discuss below, the circumstances are not of a zero-sum game.)

Through the answers to the questions posed by TRAI we seek to provide a set of regulatory tests as to when certain forms of positive discrimination may be allowed, and when they should not.

Answers to TRAI's Questions

Question 1: Should the TSPs be allowed to have differential pricing for data usage for accessing different websites, applications or platforms?

In general, differential pricing by telecom or Internet service providers for accessing different websites, applications, or platforms, **should not be allowed**, as that, for instance:

- allows ISPs to discriminate between competing content services, and that would harm competition between them;
- allows ISPs to discriminate in their own favour by lowering the prices for Internet services from a related party (e.g., Reliance Communications lowering prices of Reliance Entertainment or NDTV);
- allows ISPs to discriminate in their own favour or in favour of related parties by increasing prices for services like voice-over-IP or messaging or video streaming that compete with other non-Internet services that the ISP offers, like voice calls, or SMS, or video-on-demand, etc.;
- allows ISPs to gain an unfair competitive advantage over other ISPs if they have exclusive tie-ups with dominant Internet-based services like Facebook or Google to lower the price of those services;
- allows ISPs to enter into exclusive agreements with specific services to get paid to exempt them from data caps / 'fair usage policy' limits or to lower the costs for subscribers (note: increasing data caps or bypassing 'fair usage policies' for specific traffic also constitutes a form of price discrimination).

If such instance of harms to competition are allowed, then consumer choice suffers and the innovative potential granted by the Internet suffers.

However, not all cases of differential pricing by ISPs have the same negative consequences on consumer choice, innovation, and competition. Hence, the government should not adopt a complete ban on all differential pricing. For instance, the following kinds of differential pricing are not as harmful as those described above:

- ISPs charging lower prices for locally-peered content; since it costs the ISP less to transport locally-peered content, an ISP may choose to pass the benefits of lower costs to its customers.¹
- ISPs, without any collusion with Internet services or content providers, offering service-specific ‘data packs’, which customers are free to purchase;
- ISPs providing Web access — as opposed to Internet access — for free, in exchange for ads;
- ISPs subsidising content from a platform that has content-neutral technical criteria;
- ISPs offering “telemedicine-optimization” or “MMORPG-optimized” for extra charge, which are applications that require lower latency for specific destinations;
- ISPs charging lower prices, or removing data caps / fair usage policies for access to an entire class of applications or services (such as for all peer-to-peer traffic, or for all services identified as video streaming), as long as the contention ratio for the ‘neutral’ parts of their service doesn’t drop, nor the costs for that increase;
- Content providers purchasing data units from an ISP to offset against their customers’ data usage, as long as the same terms are available to all content providers.
- The government may wish to subsidise access to governmental services, such as the RTI portal.

These might even have some benefits:

- enabling the right to freedom of expression, and the freedom of association, especially when access to communication and publishing technologies is increased;
- increased competition by enabling product differentiation, can potentially allow small ISPs compete against market incumbents;
- increased access (sometimes to a subset of the Internet) by those without any access because they cannot afford it,
- increased access (sometimes to a subset of the Internet) by those who don’t see any value in the Internet,
- reduced payments by those who already have access to the Internet especially if their usage is dominated by certain services and destinations.
- Providing users who need greater quality of service for particular uses a means of achieving that without needing to roll out physically separate physical infrastructure;
- Providing access to basic governmental services for free

¹ This acts as a market correction mechanism as long as transit rates in India are high, and peering levels are low (as is currently the situation in India), but would be distortionary when hosting in India becomes much cheaper. So at some point in the future, market forces will stop this, and if they don’t then the regulator should step in to disallow it.

What distinguishes the set of harmful instances from the other set? In the latter set:

- There is no 'negative' discrimination against any specific service or application or platform, meaning cost of access to a specific service (like VoIP) or application (like WhatsApp) or platform isn't being increased;
- There are no exclusive agreements between any content or platform provider and the ISP.
- If the ISP is charging a lesser amount for specific content being paid by the content provider, then every content provider (whether within a specific class, or more generally) is being provided non-discriminatory access to the same deal.
- If a platform exists, then non-discriminatory access is provided for every content provider to be part of that platform, with facially content-neutral and reasonable guidelines.
- In situations where governmental services like RTI are positively discriminated against (being made cheaper), it is being done in the public interest to make governmental services more freely accessible, and there is no harm or minimal harm to competition.

Question 2: If differential pricing for data usage is permitted, what measures should be adopted to ensure that the principles of nondiscrimination, transparency, affordable internet access, competition and market entry and innovation are addressed?

1. When an ISP offers Internet access, it shall by default be to Internet access free from price discrimination. A customer must always have the choice to opt for this.
2. In no case may the ISP engage in negative discrimination by imposing a higher cost for access to any content or service or application or class thereof.
3. An ISP may differentially price traffic in a manner that is content-, service-, and application-agnostic.
4. An ISP may differentially price any specific content, service, application, or platform if and only if it meets the following criteria:
 - a. In cases where the ISP is wholly bearing the cost of the difference in pricing:
 - i. All deal shall be **non-exclusionary**: the subsidised content or platform providers shall be free to enter into such a deal with any other ISP, and the

ISP shall be free to enter into such a deal with any other content or platform provider.²

- ii. In no circumstance shall the ISP be allowed to provide preferential treatment to its own traffic or traffic of any related parties. Cross-subsidization between the ISP and a content/service/application/platform provider is strictly prohibited. All deals may only happen with content/application/platform providers at arm's length, and in no case may happen with a related party.³
- iii. If the subsidy is being provided without a deal, it may only be at the request of the government, or in a manner that is based on criteria that any content/service/application provider can meet.⁴
- iv. If a customer is being provided differentially priced access, the customer must be notified of that.

b. If the ISP is being paid or otherwise compensated by a content/application/platform provider, even if partially, for the difference in pricing:

- i. It must be governed by **fair, reasonable, and non-discriminatory terms, which are content-neutral**,⁵ whether as part of a third-party offered platform or otherwise.
- ii. These terms, including the price for data, must be openly published by the ISP.
- iii. A customer must actively request and choose to opt-in to any such instances of differential pricing, and it shall not be permitted otherwise.

² To help address the problem of division of the market if each ISP sets up its own platform, and the added costs this would impose on services and applications, the regulator may recommend that a single platform be set up jointly by all ISPs who wish to provide such a subsidized Internet. NASSCOM has also put forward a similar suggestion, though for different reasons.

³ This restriction is required since a market-set price cannot be used to judge whether it was an arm's length transaction or not, as no price is being charged in this case.

⁴ Distinguishing between classes of application or services, wherein all members of a specific class may avail the subsidy (for instance, removing data caps for all video streaming services, or providing only free Web access instead of full Internet access), shall not be regarded as discrimination as long as there is no intra-class discrimination, and that class is reasonably identifiable as a distinct market.

Further, purely technical criteria (such as "locally-peered traffic", or specifying specific low-bitrates for audio streaming) may be seen as content-neutral terms as long as all content that meet the criteria are treated equally. Thus, allowing low-bitrate audio streaming on a platform, but barring low-bitrate VoIP calls despite those being low-bitrate audio streaming, *would* count as discrimination.

⁵ Terms may be content-neutral even if they are application-specific: for instance, subsidizing all P2P traffic, or subsidizing all Web traffic is content-neutral, even if it isn't application-/service-neutral.

- iv. TRAI may recommend that a common marketplace/website be set up by ISPs to minimize the transaction costs for content/application/platform providers who wish to pay for subsidizing their customers' access across multiple ISPs. This marketplace will publicly disclose all such transactions in a fashion that is easy to understand for consumers.
 - v. If an ISP or ISPs colluding with each other unreasonably reduce(s) data caps / FUP limits, or unreasonably raise(s) price of the neutral Internet, TRAI shall step in and set a floor for data caps and a ceiling for price.
5. **An ISP may charge differentially for providing QoS-related optimizations in accordance with the tests we have previously laid down for specialised services,⁶ as long as it provides non-optimized service without any additional charge.**
6. **All differential pricing practices shall be disclosed to customers in an easy-to-understand fashion.⁷**

⁶ Provision of specialized services is permitted if and only if it is shown that:

- 1. The service is available to the user only upon request, and not without their active choice, and
- 2. The service cannot be reasonably provided with “best efforts” delivery guarantee that is available over the Internet, and hence requires discriminatory treatment, or
- 3. The discriminatory treatment does not unduly harm the provision of the rest of the Internet to other customers.

⁷ This would apply to all differential pricing, regardless of whether it has been done under a deal or not, and regardless of whether it is wholly subsidized by the ISP, subsidized by the content/platform provider, and regardless of whether the user pays for it.

Question 3. Are there alternative methods/technologies/business models, other than differentiated tariff plans, available to achieve the objective of providing free internet access to the consumers? If yes, please suggest/describe these methods/technologies/business models. Also, describe the potential benefits and disadvantages associated with such methods/technologies/business models?

Some talk of “two-tiered” access being promoted by applications like Free Basics: one set of services for the poor and one set of services for those who can afford to pay for the full Internet, and criticise this as a form of discrimination against poor people. However, the current status quo: where those who cannot afford full Internet get no Internet, is an even worse form of discrimination against the poor.

ISPs will not provide free access to the Internet at the same quality of service as paid access to the Internet, as that would destroy the market. Hence, if increased access to the Internet for people who cannot afford current rates is desired, it has to come in one of the following manners:

1. The ISP subsidises Internet access; or
2. A private third-party subsidises Internet access;⁸ or
3. The government subsidises Internet access.

ISP subsidies

ISP subsidies of Internet access only make economic sense for the ISP under the following ‘Goldilocks’ condition is met: the experience with the subsidised service is ‘good enough’ for the consumers to want to continue to use such services, but ‘bad enough’ for a large number of them to want to move to unsubsidised, paid access.

⁸ Models like the service Gigato, which allows services to provide you with free data for having spent a fixed amount on their service, do not target those who cannot afford to pay for the Internet, since the person ends up paying in either case, but might get a larger quantity of data than what the ISP offers at that price.

ISPs do so in a number of ways:

1. Providing free Internet to all at a low speed.
 - a. This naturally discriminates against services and applications such as video streaming, but does not technically bar access to them.
2. Providing free access to the Internet with other restrictions on quality that aren't discriminatory with respect to content, services, or applications.

Private Third-Party Subsidies

1. Advertisement-supported access to the all of the World Wide Web or to the Internet.
2. Free access to Internet limited by time ("for 3 months") or by data units ("2 GB free") along with the purchase of the device.
 - a. Mozilla, Symphony, Telenor, and Grameenphone have been doing this in Bangladesh, offering 20MB of free data a day.
 - b. This naturally discriminates against services and applications such as video streaming, but does not technically bar access to them. In India, especially given our illiteracy rates, the ability to view and broadcast audio/video content is far more important than written content.
 - c. These don't provide continuous/permanent access to the Internet.

Government

1. The government may opt to require all ISPs to provide free Internet to all at a minimum QoS in exchange for exemption from paying part of their USO contributions, or the government may pay ISPs for such access using their USO contributions.
2. TRAI should recommend to DoT that it set up a committee to study the feasibility of this model.

If at some point in the future, full Internet access is available for everyone, with reasonable QoS, then the benefits provided by limited-access services like Free Basics will be minimal. At that point, TRAI may revisit the question of banning Free Basics.

Question 4: Is there any other issue that should be considered in the present consultation on differential pricing for data services?

Yes. The issue of differential pricing by TSP for access to the networks has not been addressed in the above questions, but is very important. There are some situations with “multihoming” (say, for customers with multi-SIM phones), but in most wired line broadband, this isn’t the case. Further, even when this is the case, it is impossible for the OTT to say whether any customer is multihoming or not. Given this, each ISP, effectively, has a termination access monopoly since they are the only route for an OTT to reach the customers using that ISP; each ISP is a gatekeeper. In markets without effective competition, this allows ISPs to charge content providers for access to its customers. This should be strictly prohibited.

However, this does not prohibit the ISP from having differential pricing agreements with different *networks* (discriminating on the basis of networks instead of discriminating on the basis of the content carried by the networks). However, to ensure that this does not result in an abuse of each ISP’s termination access monopoly, we need to first ensure transparency. Thus, every interconnection agreement — except for settlement-free peering — needs to be made available to the regulator.

1. **No termination charges or carriage charges may be levied by any ISP upon any Internet service. No Internet service may be negatively discriminated against with regard to carriage conditions or speeds or any other quality of service metric.**
2. **All interconnection agreements, when they involve settlement, should be deposited with TRAI.**
3. **TRAI should remind ISPs that so far it has been forbearing from regulating ISP interconnection and pricing, but that it has the power to do so if it finds ISPs abusing their termination access monopolies.**