Net Neutrality

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How can Net Neutrality be categorised?

- All the data on the internet flows in the form of bits of zeroes and ones.
- The components of net neutrality say that all these bits of traffic are equal, so internet service providers (ISPs) should not differentiate these bits of data based on their content; usage, the users, or based on the website.
- Which means there should not be any discrimination from the service providers by differentiating one set of data or one set of bits and pieces from the other.

This explains the entire concept of net neutrality for IAS Exam and its three stages – Prelims, Mains & Interview.

What does net neutrality stand for?

The system of net neutrality is in place since the beginning of the internet and is followed in time and in different parts of the world. It stands for:

- Equal access to all sites
- Same data cost to access a site(there should be no price differential)

- **No zero-rating** (Read about it below)

What is Zero-rating?

Zero-rating (also called toll-free data or sponsored data) is the practice of mobile network operators (MNO), mobile virtual network operators (MVNO), and Internet Service Providers (ISP) not to charge end customers for data used by specific applications or internet services through their network, in limited or metered data plans. Ex: Some service providers build bulk websites, bulk content and application allows users to access for free of cost but when the other service provider charges to get access to the same data then it is obvious that users will opt the service that is available for free of cost.

This affects the other service provider and disturbs the founding principle of net neutrality which says every traffic on a website should be treated equally and should be given a level-playing field and one should not be discriminated at the cost of the others. Also, it also throws the very possibility of the Internet of Things (IoT) concept to a certain extent

Debate on the role of Telecommunication companies/internet service providers

There have already been a few violations of net neutrality principles by some Indian service providers. This is what will happen when service providers have control:

1. They (internet service providers) can control what a user can and cannot access (ex: a user can access only those particular websites that a service provider allows to)
2. How fast can a user access a website (upload/download time)
3. Payment to access the website and its content or service i.e., that all sites must be equally accessible (ex: For a similar service the payment may differ from one website to the other which means it is within the power of the service providers that they can treat differently the same service for a different website which makes one website more advantageous over the other and thus the net neutrality concept is violated.)

These conditions by the service providers will lead to a dilution in net neutrality, which is nothing but violating the net neutrality principle.

Why and how did the issue on Net Neutrality start?

Even before the debate on net neutrality gathered public attention, there have already been a few violations of net neutrality principles by some Indian service providers. It (started in the year 2014 when Airtel announced to charge its subscribers who use over-the-top (OTT) like Skype, Viber, Whatsapp and etc. that led to criticisms and ultimately Airtel had to budge and the plan was put on hold.

This is when TRAI released a formal consultation paper on the "Regulatory Framework for Over-the-Top (OTT) services in March 2015 asking for public opinions on net neutrality.

Why was net neutrality in the news again?

This time, it all started with the internet.org or Free Basics. **internet.org or Free Basics** internet.org launched on August 20, 2013, by Mark Zuckerberg, founder of Facebook is a collection of various websites that are made freely available only to the users and subscribers of the Reliance customers in India and they will not be charged extra for any data usage and it violates the principle of net neutrality and this is how it happens.

Suppose if internet.org, which was later changed to **Free Basics** give free access to web applications for only to subscribers of Reliance then the competitors who charge a certain amount to access the same web applications will be at a loss as they will be losing many subscribers and their business will come down, as obviously people will choose the service that is available for free.

However, there was not much furore on the internet.org as FB founder said this will improve internet access for people around the world and also added that "connectivity is an individual's fundamental right. The actual rage started when Airtel started Airtel Zero – in this plan certain websites and applications will be made available for free which is against net neutrality.

Back to TRAI's 20 questions to the public in a recent consultation paper, which can be summarized in one line as "Should the internet be touched or is it perfect the way it is?" Apparently there was an argument on this which was in favour and against net neutrality which is discussed below.

Stand of Internet service providers

- Telecom companies/internet service providers (ISP) say that they pay millions of dollars to the government to get the spectrum license. Thus one can argue safely, to an extent, why the internet is not free.
- They pay a certain amount to the government as subscription charge for the spectrum allocations as well.
- Invest billions of dollars to dollars to build the infrastructure for the network and salary for their employees, come up an advertisement to create a vast network called the internet that allows us to access the internet many websites
- But, the over-the-top services companies like Skype, Viber, WhatsApp use their network for their services and generate more revenue and there are thousands of apps that ride on such service providers network for free which the service providers cannot bear.
- These OTT services using the internet service providers(ISP) network directly compete with the voice and message services of the ISP for which the OTTs don't pay anything to the ISP.

This is one of the major reasons which ISP complains about. ****This is why we(the users) pay extra to use data.****

Where does the Importance of Net Neutrality become apparent?

If there was no net neutrality, the telecom companies/ISP would act as a gate-keeper and can take some crucial decisions in choosing which OTT services can pass their gate (use their network), blocking some apps, ensuring the competitors' app run slow and their partnered OTTs apps run fast. This could put the

whole net neutrality concept in danger and create more dilemma in the country. **Let's take a look at the statistics of the telecom/internet users and non-users in the country.**

A study shows that:

- 40% of the population in the country doesn't have access to voice connection
- Only 12% of the population is using the data connection/internet

To make "Digital India", this 4 % (with no voice connection) and the remaining 88% (with no internet connection) should be brought on the board and this requires creating a vast infrastructure and of course a huge bulk investment.

For this investment, the private telecom companies and ISPs should participate as the government has liberalised them in accordance with new reforms relating to foreign direct investments (FDI) is flowing in. But, the private peers argue that they are losing from investing in this infrastructure and moreover, the OTTs using their network are generating vast revenue and do not take part in investing in such infrastructures.

With this argument going on, a **research was made by one of the organizations** (EY – Ernst & Young) on how much investment may require building such infrastructure that will bring all the people on the digital platform.

This study revealed that it requires 2.5 lakh crores to connect the people in India through voice and internet, thus making Digital India. Since the government wants the private peers to take up this project but the private peers argue that already they are giving 5% of their generated revenue in producing rural broadband.

But, the ISPs say their service is used by the OTT services who generate enough revenue from this and do not contribute much to the ISPs, which makes the telecom companies/internet service providers to contribute less(5%) to the rural broadband service. *Which brings us to the next question!*

What other sectors in India have net neutrality?

So, let's take a look at other sectors in the country. For example, the road infrastructure: Here, at some particular tolls, commuters pay toll tax and this is because the infrastructure is built through the private peers' investment.

Does this mean net neutrality exists here?

The answer would be no. Electrical Sector: Here a consumer who uses less than 300 units of electricity will pay the low tariff and different tariffs on the usage of units of electricity and this shows there is no net neutrality. Similarly, in the airline sector, the price of the tickets varies based on which category does a passenger choose (economy class, business class, premium economy and etc) again in this sector there is no neutrality. Now, this puts in a dilemma that when there is no neutrality in any other sectors across the globe or in India why the internet is singled out in this. Let's take the Global opinion regarding the net neutrality:

1. Chile: in 2014 it banned all the zero-rate schemes
2. While Barack Obama in the US supporting net neutrality asked the Federal Communication Commission to make strong rules that will ensure the following concepts:
    - No blocking

- No throttling (equally treated)
- No Paid prioritisation (zero-rate schemes

With the in-depth look at this net neutrality debate now let's take a look at the TRAI's decision on net neutrality which was ruled in favour of net neutrality that was declared on the 8th of February, 2016.

TRAI's Ruling Decision in Detail:

In a landmark judgement, the Telephone Regulatory Authority of India (TRAI) has ruled in favour of Net Neutrality.

- The country's telecommunications watchdog introduced a news release called the 'Prohibition of Discriminatory Tariffs for Data Services Regulations, 2016'.
- The Telecom Regulatory Authority of India (TRAI) barred telecom service providers from charging differential rates for data services, effectively prohibiting Facebook's Free Basics and Airtel Zero platform by Airtel in their current form.

Details (Prohibition of Discriminatory Tariffs for Data Services Regulations, 2016):

- No service provider shall offer or charge discriminatory tariffs for data services on the basis of content.
- It said the prohibition was necessary to keep the Internet open and non-discriminatory.
- No service provider shall enter into any arrangement, agreement, or contract, by whatever name called, with any person, natural or legal, that has the effect of discriminatory tariffs for data services being offered or charged by the service provider for the purpose of evading the prohibition in this regulation.
- TRAI said a fine of Rs. 50,000 would be levied per day, subject to a maximum of Rs. 50 lakh, for any violation of these regulations by the service providers. An exemption, however, has been made for offering emergency services.
- Ruling out case-by-case approval for plans that might be priced differently, the regulator said a clear policy should be formulated.
- TRAI has clearly backed Net Neutrality by referring to the ISP License agreement which reads, "The subscriber shall have unrestricted access to all the content available on the Internet except for such content which is restricted by the Licensor/designated authority under Law."
- TRAI has also exempted intranets or closed communication networks from this regulation but has added a caveat saying if a closed network is used for the purpose of evading these regulations then the prohibition will definitely apply.
- TRAI has stated that it may review the regulation after two years.

Differential rates for data services

- Anything on the Internet cannot be differently priced. This is the broad point that is highlighted in the regulation.
- The TRAI said tariffs for data services could not vary on the basis of the website/application/ platform/ or type of content being accessed. For example, a consumer could not be charged

differently based on whether she was browsing social media site A or B, or on whether she was watching videos or shopping on the Internet, it added.

- It, however, said that to bring more users on the Internet, this prohibition would not apply to other forms of tariff differentiation that were entirely independent of content.

TRAI and Facebook:

- The regulator and Facebook have been at loggerheads over the issue with the authorities terming the social networking giant's attempt to lobby for its Free Basics initiative a "crude" attempt at turning the consultation over differential pricing of data services into an "orchestrated opinion poll" on Free Basics. Facebook had partnered with Reliance Communications in India to offer a Free Basics service. However, the services were put in abeyance, post a TRAI order to this effect.

What the Government can Do?

- A part of spectrum auction proceeds can be used to provide free or low-cost internet services
- Free internet services are rarely free. Telecos make use of user data at some point in time to generate revenue. Explicit norms on data privacy and the use of customer data should be devised. User data (information pertaining to users) should be protected from misuse as data privacy is a fundamental right.
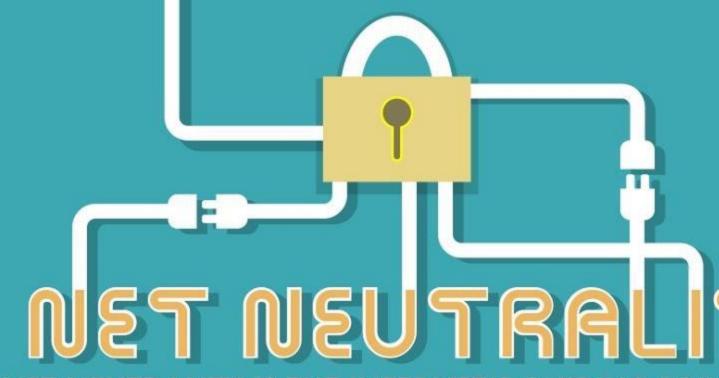
The Other Views

- Applications like Free Basics would have helped develop an online market in India where the internet penetration rate is only about 27%, one of the lowest in Asia.
- It wouldn't have been long before competitors entered the market for free and low-cost Internet service.

Net Neutrality and India

Technically, India still does not have a law that endorses Net Neutrality as a whole. Until the Parliament passes one, the latest order is the closest India has to a pro-Neutrality stand. Till a law is in place the debate rages on. Use the Net Neutrality Debate Infographic section to quickly and visually understand net neutrality in a gist.

NET NEUTRALITY

NET NEUTRALITY IS THE INTERNET'S GUIDING PRIN
PRESERVES OUR RIGHT TO COMMUNICATE FREELY

ORIGIN

The concept of Network neutrality was created in the 1860s however the actual term "network neutrality" was popularized in the early 2000s

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In 2003 Comcast and AT&T got sued for illegally interfering with internet traffic-for blocking BitTorrent and FaceTime

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By 2006 in US the internet freedom and nondiscrimination Act of 2006 made it a crime for broadband providers to refuse to connect to other providers, or block or impair content

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Questions related to Net Neutrality for UPSC

Has Net Neutrality been passed in India?

The regulatory framework over net neutrality was passed by the Department of Telecommunication in 2018. The framework restricts any form of discrimination, restriction or interference in the treatment of content, including practices like blocking, degrading, slowing down or granting preferential speeds or treatment to any content.

Which countries have net neutrality?

Brazil, Chile, Belgium, India, Russia, Japan are some of the countries that have enforced net neutrality provisions.