



सत्यमेव जयते

सुधीर गुप्ता

**SUDHIR GUPTA**

सचिव / Secretary

भारतीय दूरसंचार विनियामक प्राधिकरण

महानगर दूरसंचार भवन, जवाहर लाल नेहरू मार्ग,

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**TELECOM REGULATORY AUTHORITY OF INDIA**

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**D.O. No. 7-3/2016-BB&PA**

**Dated: 24<sup>th</sup> May, 2016**

**Subject: VIP reference received from Shri K. Parsuraman, Member of Parliament (Lok Sabha) for redefining the definition of broadband speed/increasing the Broadband Speed.**

Dear *Sh. Deepak,*

DoT through their letter No. DTDDG/P/2015/00054 dated 23 November 2015 has referred TRAI letter dated 07.10.2015 wherein it was stated that reply of TRAI has only indicated the definition of broadband as per TRAI recommendations dated 08.12.2010 and Government Notification dated 18.07.2013. Hon'ble MP(LS) is already aware of these facts and has requested to redefine the definition of Broadband speed i.e. increase the broadband speed. It has been requested to submit complete conclusive report along with comments on redefining the broadband speed so that suitable reply may be given to Hon'ble MP(LS).

2. Authority after examination has finalized a report on need for Reviewing Definition of Broadband which is enclosed herewith (Annexure).
3. In keeping with practice, a copy of this letter, along with the report, is being placed on the website of TRAI [www.traigov.in](http://www.traigov.in).

This letter issues with the approval of the Authority.

*with Regards,*

Yours sincerely,

Encl: As above

**Shri J.S. Deepak,**  
Secretary,  
Department of Telecommunications,  
Sanchar Bhawan, New Delhi.

*(Sudhir Gupta)*

**Report on Need for Reviewing Definition of Broadband**

1. In India the Broadband policy was formulated in 2004 which defined broadband connection as an always-on Internet access with a minimum speed of 256 Kbps from the POP of service provider to the customer premise equipment. Through its Recommendations dated 8<sup>th</sup> December 2010 on National Broadband Plan, the Authority recommended the following:

“6.21:

*Broadband connection may be defined as*

*“A data connection using any technology that is able to support interactive services including Internet access and support a minimum download speed of 512 Kilo bits per second (Kbps)”.*

*6.22 It is to be noted that the upload speed will at least be half the download speed. This definition of broadband (Both Wireline and Wireless) given in para 6.21 above, will be effective from 1<sup>st</sup> January 2011. **The stipulated download speed of 2 Mbps will be effective from 1<sup>st</sup> January 2015.**” (emphasis supplied)*

2. The goal, **Broadband on Demand** as envisaged in the National Telecom Policy (NTP)-2012 aims at leveraging telecom infrastructure to enable all citizens and businesses, both in rural and urban areas, to participate in the Internet and web economy thereby ensuring equal and inclusive development. It provides the enabling framework for enhancing India’s competitiveness in all spheres of the economy. The targets and strategies as envisaged in NTP-2012 are

Target:

*“3. Provide affordable and reliable broadband-on-demand by the year 2015 and to achieve 175 million broadband connections by the year 2017*

*and 600 million by the year 2020 at minimum 2 Mbps download speed and making available higher speeds of at least 100 Mbps on demand.*

5. *Provide high speed and high quality broadband access to all village panchayats through a combination of technologies by the year 2014 and progressively to all villages and habitations by 2020.*”

Further, Point 1.5 of part IV strategies contained in the NTP-2012 states that:

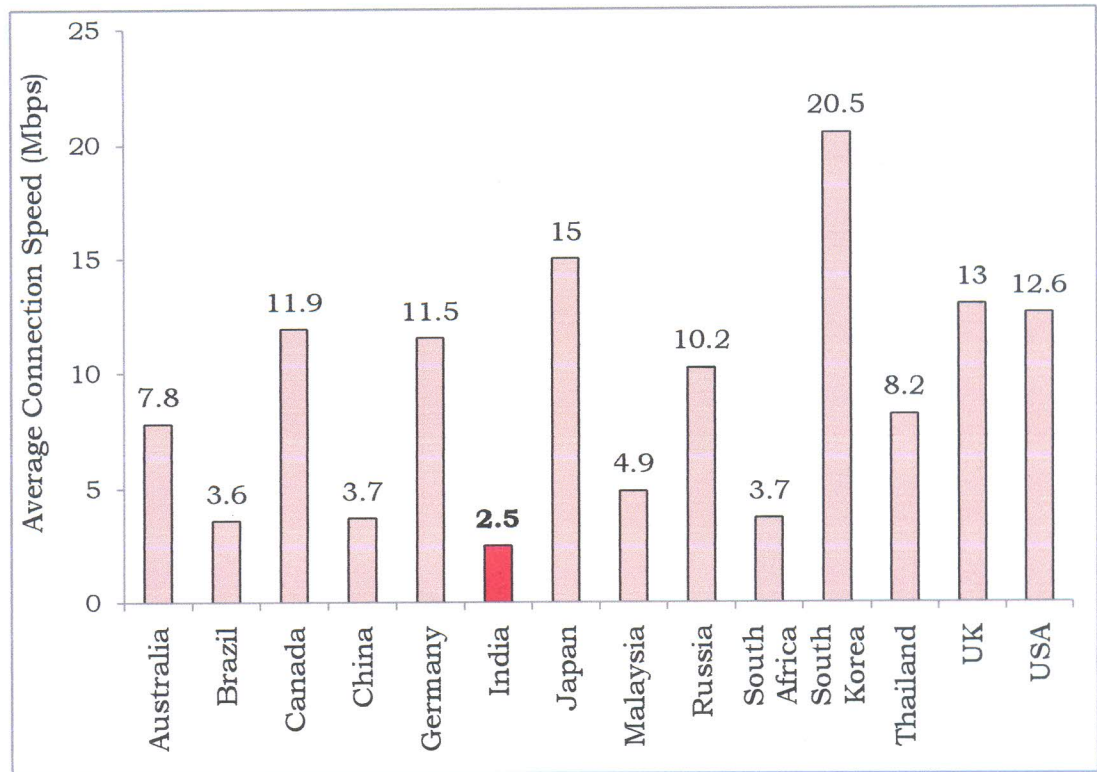
*“To revise the existing broadband download speed of 256 kbps to 512 kbps and subsequently to 2 Mbps by 2015 and higher speeds of at least 100 Mbps thereafter.”*

3. The Department of Telecommunications (DoT) revised the definition of Broadband through its notification dated July 18, 2013 which is as follows:

*“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 512 kbps to an individual subscriber from the point of presence (POP) of the service provider intending to provide Broadband service.”*

4. Speed is one of the key factors which attract potential users to become Broadband subscribers. Speeds must be above a certain threshold to enable use of desired applications such as video viewing or gaming. As Broadband connections have become faster and more widespread, website designers have taken advantage of the added bandwidth to offer richer and more complex websites. A variety of tariff offerings with different speeds provides greater choice to the users.
5. Higher electronic communication speeds are relevant in knowledge-based communities. This is because it spurs productivity, and hence increases competitiveness, which gives GDP the ability to grow. Increased broadband speed lead to more jobs. The main reason is the building of new infrastructure. In the long run, there are indirect effects that create new jobs, triggered by enhanced innovation resulting in new services.

6. As per Akamai's State of the Internet Q4 2015 Report, an international comparison of average connection speed (in Mbps) is shown in Figure:



7. The following table shows the definition of Broadband as prescribed by regulators in different countries:

Country	Broadband Definition
USA	The Federal Communications Commission (FCC) has revised the definition of Broadband service, from the previous definition of 4 Mbps down and 1 Mbps up to the new standard of 25 Mbps down and 3 Mbps up in January 2015.
Brazil	Minimum 1Mbps download speed is defined as Broadband speed.

Canada	The Canadian National Broadband Task Force (CNBTF) decided not to define Broadband in terms of information transmission rates, but instead defined it as “a high capacity, two-way link between end users and access network suppliers capable of supporting full-motion interactive video applications to all Canadians on terms comparable to those available in urban markets.” Based on the technology existing at the time, it concluded that a minimum two-way or symmetrical transmission speed of 1.5 Mbps per individual user was required to meet this standard.
Bangladesh	In a bid to ensure faster internet service to customers. The Bangladesh Telecommunication Regulatory Commission (BTRC) revised the definition of Broadband in April 2013. Presently internet service over 1 Mbps is defined as broadband and below 1 Mbps is called narrowband.

8. A number of countries have focused on setting ambitious minimum speed goals. Broadband speed goals in some of these countries include:
- Australia’s goal is to make connections with speeds of 100 Mbit/s available to 93 percent of homes, schools, and businesses by 2018.
  - Finland has the goal of making 100 Mbit/s connections available to every household by 2016.
  - Germany’s goal is 50 Mbit/s connections for 75 percent of households.
  - The EU’s “Digital Agenda for Europe” calls for all Europeans to have access to connections with speeds of at least 30 Mbit/s by 2020, with 50 percent or more of households having access to speeds in excess of 100 Mbit/s.
  - Korea, a country where Broadband connection speeds already average almost 50 Mbit/s, has set the lofty goal of 1 Gbit/s connections.
  - Sweden aims for 40 percent of households and businesses having access to 100 Mbit/s connections by 2015, and 90 percent by 2020.

9. As per the ITU's "Working Together to Connect the World by 2020" paper released during the World Economic Forum Summit 2016, **"Based on a significant body of research on the economic impact of broadband, it is generally accepted that broadband has a beneficial impact on economic growth. Moreover, some research suggests that broadband speed matters"**. The paper goes on to quote various studies which suggest that a 10% increase in Broadband penetration is likely to have a positive impact, and could raise economic growth by between 0.25%-1.4%. If Broadband speed is doubled, GDP may increase, potentially by up to 0.3%.
  
10. **In view of the above, Authority recommends that the current definition of broadband in the country be reviewed and minimum download speed be increased to 2 Mbps.**