



## DoT Updates Definition of Broadband

### Why in News?

The **Department of Telecommunications (DoT)**, on **recommendation of [Telecom Regulatory Authority of India \(TRAI\)](#)** has updated the definition of broadband for telecom operators, increasing the minimum speed requirement to **2Mbps** from 512Kbps which had been in place since 2013.

- By the previous definition, there were 825.38 million broadband users in India in November 2022, according to TRAI data.

### What is the New Definition?

- **Broadband** is a **data connection that can support interactive services including Internet access** and has the capability of the **minimum download speed of 2 Mbps** (Megabits per second) to an individual subscriber from the point of presence (POP) of the service provider intending to provide Broadband service,
  - Wired broadband and wireless broadband will both be subject to this 2Mbps limit.
- Update of definition **was overdue as The National Telecom Policy 2012** which was replaced by [The National Digital Communications Policy 2018](#), had set a goal of updating the definition of broadband to 2Mbps by 2015.

### What is the Current Status of Broadband Speeds?

- According to Ookla's Speed test Global Index (December 2022):
  - **Median Wired Broadband Speed** in India is over **75Mbps**.
  - **Median Wireless Broadband (mobile) Speed** is over **36Mbps**.
- Broadband speed is **expected to further increase as [5G network](#) expands**.

### What is the Industry's Viewpoint?

- **Industry resisted** the definition update as **4G networks may not be able to sustain 2Mbps speed due to too many devices connected to single tower or user being far from nearest base location**.
- The actual speed available to or experienced by the customer will vary depending upon several dynamic factors.
- With focus towards **affordability and availability**, the previous definition of 512 Kbps for broadband should have been continued.

## UPSC Civil Services Examination Previous Year Questions (PYQs)

### Prelims

**Q.1 WiMAX is related to which one of the following? (2009)**

- (a) Biotechnology
- (b) Space technology
- (c) Missile technology

**(d)** Communication technology

**Ans: (d)**

- Worldwide Interoperability for Microwave Access (WiMAX) is a family of wireless broadband communication standards. It stands for “Worldwide Interoperability for Microwave Access”. It is a wireless communication technology based on Wireless Metropolitan Area Network (MAN) technology that is optimized for the delivery of IP centric services over a wide area.
- WiMAX is a standardized wireless version of ethernet, intended primarily as an alternative to wire technologies (such as cable modems, DSL and T1 or E1 links) to provide broadband access to customer premises.
- WiMAX would operate similar to WiFi, but at higher speeds over greater distances and for a greater number of users. WiMAX can provide service even in areas that are difficult for wired infrastructure to reach and can overcome the physical limitations of traditional wired infrastructure. **Therefore, option (d) is the correct answer.**

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