

## **Broadband in India: Without the right speed, term is a misnomer; see how**

**India needs higher broadband speeds to enhance socio-economic development. In fact, according to a 2012 study of 34 OECD nations, doubling of broadband speeds can lead to an increase of 0.3% of GDP over the base year**

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We hear the government is contemplating a change in the definition of 'broadband'—from current 512 kbps to 2 Mbps. This is good news, if true, and it's high time, too. In fact, experts might even term the proposed action 'too little, too late' for the nation, given its great ambitions as they relate to the creation of a Digital India and improved GDP growth rate. There is now little doubt amongst experts and policy-makers that broadband is one of the powerful and critical engines of economic growth. Many studies by reputed agencies like the World Bank, ICRIER and others have concluded that there is a strong positive correlation between broadband penetration and GDP growth—a 10% increase in penetration yielding a 1.4% increase in GDP growth rate. State-sponsored initiatives, whether fiscal or otherwise, designed to ensure the survival and progress of this industry is often predicated exclusively on this fundamental truth.

However, it is also true that access to mediocre quality broadband at inadequate speeds is probably more harmful than useful, and quite possibly a destroyer of value to the end-user; for example, through a wasted expense in a video facility. In 2011, our broadband definition was improved from 256 kbps to 512 kbps. The currently proposed near four-fold increase to 2 Mbps, however, pales into insignificance when considered from a global perspective. In 2015, the US telecommunications regulator (FCC) redefined broadband as an internet connection that delivers at least 25 Mbps downstream, up from the prevailing 4 Mbps and 3 Mbps upstream, up from 1 Mbps. That's 50 times our existing definition of broadband download speeds, and six times for uploads.

With 512 kbps broadband definition, we are currently having about 300 million broadband connections, i.e. 25% penetration. This number is already low and not much to write home about, but draws greater concern when we consider what happens when the definition is upgraded as required. A sharp decline of penetration to a fraction of the current value is entirely plausible. This, therefore, needs to be appreciated as the real state of our broadband. It is not that one is unfairly comparing with the more developed economies. This disparity with the Indian definition of broadband, though smaller when compared to other developing nations, is still quite significant. According to Kenya's Broadband Vision 2030 document, broadband is defined as "connectivity that is always-on and that delivers a minimum of 5 Mbps to individuals, homes and businesses for high-speed access to voice, data, video and applications for development." Indonesia, Malaysia, Bangladesh and Brunei

are the other developing economies that have prescribed higher minimum speeds than India.

### **The complete picture**

Any discourse over the health of broadband is incomplete and misleading without taking a holistic consideration of both the key metrics—penetration and speed. As little as five years ago, the total number of broadband subscribers in India stood at just under 15 million, roughly 1% of the population. As on June 2017, the number of broadband connections in the country has risen to a whopping 300 million, a 2,000% increase in a short span of five years. We have clearly made immense progress, but we have to remember that the number of unique broadband subscribers would be significantly lower and we have yet to take this access to probably more than a billion Indians. And, as pointed out earlier, with a better definition of speeds nearer to international best practices, the figures could be depressingly lower. The bright side is the tremendous potential for growth of true broadband. Indeed, “the best is yet to be...”

Interestingly, while the official definition of broadband in India is set at any connection that offers at least 512 kbps downstream and upstream, a recent study by Akamai indicates an average connection speed of 5.6 Mbps for the nation. However, there is no room for complacency since, of the 15 APAC nations studied; India had the second-lowest average connection speed.

Clearly, in addition to creating mechanisms that enable universal access to high broadband, we need to seriously reconsider our definition of broadband, and reassess its suitability for a modern digital economy. For the more developed broadband markets, the same report indicated average speeds well in excess of the Indian average.

It is also interesting to note what is driving this need for faster broadband speeds. Studies indicate that video already accounts for over 60% of the total global internet traffic, and this share is expected to increase to 80% by 2021. For India, with lower literacy levels in rural parts, the need and the expected impact of video communication would be significantly higher than in more developed economies. One thing is clear—there is a need for broadband, and a need for speed since video is a flopshow without adequate speeds.

### **The economic impact of speed**

The effect of broadband speeds on a nation’s economy is a widely studied subject. A 2012 study of 34 OECD nations found the relationship between broadband speeds and economic growth to be statistically significant. According to the study, a doubling of broadband speeds would lead to an increase of 0.3% of GDP over the base year. Assuming this modest factor of 0.3% to be consistent between developed and developing nations, even though the authors conclude that this effect would be magnified in developing nations, India can expect to add at least \$7.4 billion to its nominal GDP by doubling prevailing average speeds. The true economic effect of increasing broadband speeds would manifest as direct and indirect impacts. Deployment and retrofit of infrastructure would be directly bound by efforts to increase speeds, while other

sectors of the economy would benefit from indirect network externalities. Faster speeds will be critical for the development and success of modern digital applications and entire digital business models that require higher data transmission rates. An update to the definition of broadband ensures to a great degree that the many users of minimum broadband speed plans graduate to better services. Such a pursuit would create jobs, and have a cascading positive impact on economic productivity and wealth creation for all. In essence, without the right speed, the term 'broadband' is a misnomer.

(Research inputs by Kartik Berry)