

India Mobile Broadband Index 2015



About Nokia MBiT Index

Nokia Networks' MBiT Index is a report on mobile broadband performance in India. It aims to provide insights about mobile broadband traffic growth, co-relating these trends with changes in various ecosystem drivers such as subscriber usage patterns, devices and tariffs. This edition of the MBiT Index evaluates 2G, 3G and overall data traffic growth trends at a pan-India and circle category level, data consumption per user on 2G and 3G for 2014. It also highlights the developing devices ecosystem in India and the key shifts witnessed during 2014.

MBiT Index has been created based on Nokia Networks' analysis of data obtained from various sources. It analyses mobile broadband traffic trends only at a consolidated level and does not intend to provide any comparative analysis of data growth of different operators.

India high on 3G and ready for 4G

An upbeat 3G data usage (114% growth) drives momentum in the overall India Mobile data consumption.

3G is the key reason for the growth in overall mobile data consumption in India.

High usage of 3G data per user per month compared to 2G shows paradigm shift in the preference of Indian subscribers.

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Growth in the availability of affordable devices was pivotal in the 3G uptake.

Smartphone shipments exceeded forecasts in 2014 leading to the availability of increased potential mobile data users.

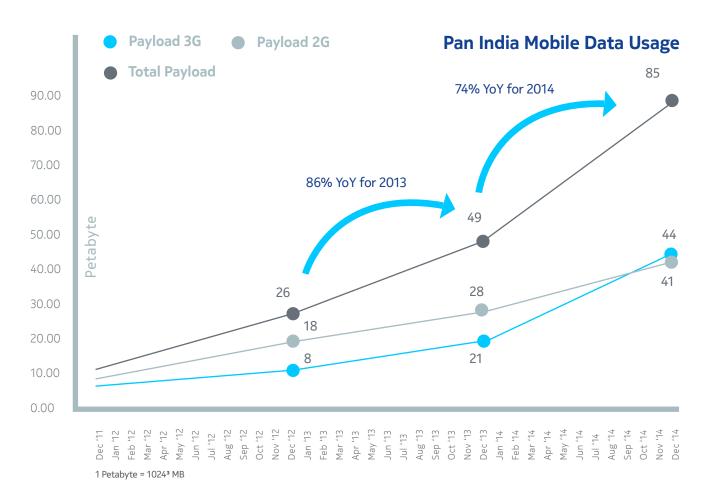
Aggressive 3G network reinforcement has resulted in higher data uptake.

Surge in data consumption across the country. Time to focus on Category C circle to push 3G migration.



B

India Mobile Data Trends

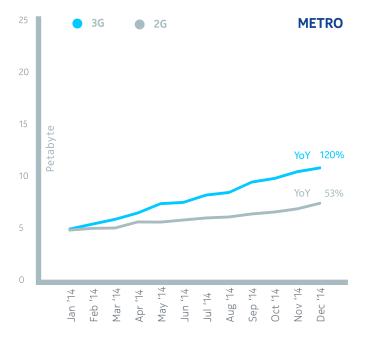


3G catalyses the data usage growth in India, whereas 2G data usage contributes consistently to the overall consumption.

- 52% of the total data consumed in December 2014 was 3G as against 42% in January 2014. Despite data tariff re-alignments by operators in 2014, the growth trend continues.
- Assuming the same growth rates for 3G and 2G, we predict that 3G will contribute around 62% of total data usage by December 2015.
- Overall data grew at 72% in 2014, catalysed by 3G growth. 3G data consumption grew at 114% while 2G was able to achieve 41% growth.
- 3G data usage is expected to grow further as operators continue to invest in expanding and strengthening 3G networks, coupled with a surge in the availability of smartphones priced below \$150¹.

September 2014 saw 3G data usage surpassing 2G data usage at an all India level

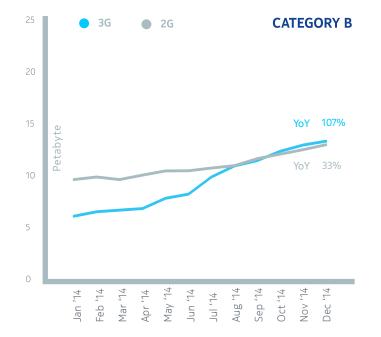
Monthly Circle-wise Snapshot



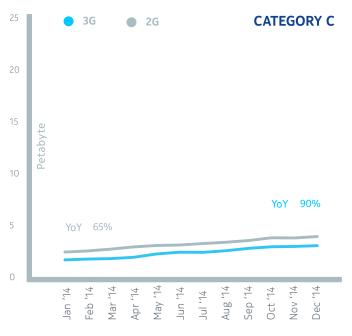
- Metro circle ranked 2nd in 3G growth in 2014. 3G data grew at 120% in 2014.
- At 20%, Metro circle ranked 3rd in terms of contribution to data usage.



- The highest 3G growth came from Category A circle, exhibiting a surge of 129% in data usage in 2014.
- Category A circle contributes the most (43%) to the overall mobile data consumption in India. This shows a positive correlation between the leading 3G category circle and the overall data category circle.



- Category B circle show a growth of 107% in 3G data usage.
- Category B circle were the 2nd highest contributor (30%) to the overall mobile data usage in India.

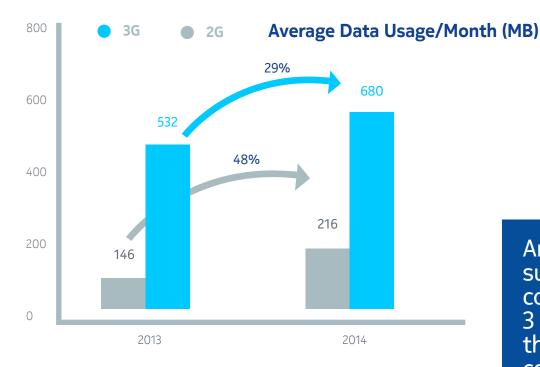


- Category C circle registered a growth of 90% and contributed to the growth in 3G data usage in 2014.
- Category C circle contributed 7% to the overall mobile data consumed in India.

Total 3G data usage crossed over the 2G data usage in 2014 across all circle categories.

Monthly Average Data Usage per Subscriber

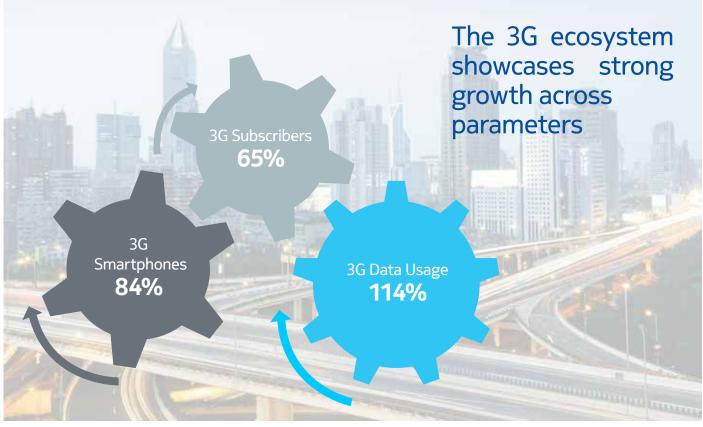
Data users profit from high speed networks and consume higher volumes of data.



An average 3G subscriber consumes over 3 times more data than his/her 2G counterpart.

 The average 2G and 3G data usage per user continues to increase along with the growing throughput capability of the devices.

The Ecosystem 2014



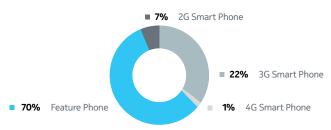
Sources: Data Usage – Nokia | Subscribers – TRAI/Operator Reports | Smartphones – CMR

2014 Devices Trend

The Smartphone shipments are growing exponentially.

Shipped devices

- Total smart phone shipped were 77M out of which 3G devices are 73%.
- Out of total devices shipped 2014 22% are 3G device.



22% 3G device shipped73% Smartphones are 3G capable

258m Devices Shipped in 2014

2014 has been tremendous growth in device penetration in India with staggering 258m shipped in 2014 with 56m 3G capable devices shipped. While ASP decline by 27% from Jan- Dec 2014. — Source: CMR

Active Device Insight

- In 2013 only 23% of devices were capable of peak data speed of 21 Mbps.
- The 3G device ecosystem has been showing strength with 54 % of devices supporting peak data speed of 21 Mbps on 3G network.

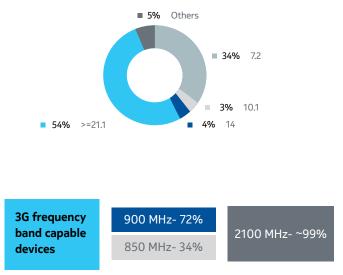
It signifies the maturity of device availability in Indian Market with High speed data connectivity capable handset availability.

Device Spectrum Band Eco-system



- In a small presence of LTE devices, 88% are equipped with 1800
 MHz band followed by 850 MHz at 75% and 900 MHz at 59%.
- 5.5 to 6 M LTE Capable Devices in India.

3G Device Download Speed (Mbps)



- 72% 3G devices are 900 MHz band equipped, reflecting a huge ecosystem around this band.
- ~130M 3G Capable Devices in India.

Time for faster Rollout of High Speed Data Network

- India has ~130 million 3G capable devices and only 69.9 million active 3G subscribers. A significant opportunity for further 3G penetration.
- Although early days, India already has 5.5 million to 6 million 4G capable devices and only about 85,000 active LTE subscribers opportunity for selective rollout of 4G network and services.
- Devices Ecosystem is moving faster than network maturity, pushing high potential to Data Traffic Growth.
- Data traffic growth is reflecting fast in mobile data revenue growth for telecom operators a sign of healthy growth in Indian telecom industry.



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Nokia invests in technologies important in a world where billions of devices are connected. We are focused on three businesses: network infrastructure software, hardware and services, which we offer through Nokia Networks; location intelligence, which we provide through HERE; and advanced technology development and licensing, which we pursue through Nokia Technologies. Each of these businesses is a leader in its respective field.

Nokia Networks is the world's specialist in mobile broadband. From the first ever call on GSM, to the first call on LTE, we operate at the forefront of each generation of mobile technology. Our global experts invent the new capabilities our customers need in their networks. We provide the world's most efficient mobile networks, the intelligence to maximize the value of those networks, and the services to make it all work seamlessly.

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