

Views and comments on :-Consultation Paper on Digital Transformation through 5G Ecosystem (24/2023)

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Q.1. Is there a need for additional measures to further strengthen the cross-sector collaboration for development and adoption of 5G use cases in India? If answer is yes, please submit your suggestions with reasons and justifications. Please also provide the best practices and lessons learnt from other countries and India to support your comments.

Ans-The year 2021 and beyond is witnessing a new era, where working from anywhere has gained a significant traction. Almost every industry is embracing accelerated digital transformation. Organisations have very quickly adapted to the new ways of operating remotely and in a hybrid model. Mainstream use of Artificial Intelligence (AI), Internet of Things (IoT), Augmented/Virtual Reality (AR/VR) technologies in sectors such as education, healthcare, e-commerce has brought up a need of high speed and high bandwidth internet. 5G and beyond communication technologies have the potential to fulfil these requirements.

Q.2. Do you anticipate any barriers in development of ecosystem for 5G

Use cases, which need to be addressed? If yes, please identify those barriers and suggest the possible policy and regulatory interventions including incentives to overcome such barriers. Please also provide the details of the measures taken by other countries to remove such barriers.

Ans-i. Broadband Highways – include Broadband for all in Urban and Rural areas and National Information Infrastructure.

ii. Universal Access to Mobile Connectivity: Initiative is to focus on network penetration and cover the uncovered villages with project cost of USD 1900 million.

iii. Public Internet Access Programme: BharatNet project provides fibre connectivity to villages. For digital delivery of e-services, 535,000 Common Service Centres have been set up. iv. E-Governance: Government Business Process Re-engineering using IT to improve transactions and e-services.

Q.3. What are the policy measures required to create awareness and promote use of 5G technology and its infrastructure so that the citizens including those residing in rural and remote areas may benefit from the 5G use cases and services to create new economic activities and increase employment opportunities and thereby promote economic growth of the country?

Ans-5G has become mainstream in many pioneer markets (notably China, South Korea and the US) and is making considerable progress in other countries as well. A new wave of 5G rollouts in large markets with modest income levels (such as Brazil, Indonesia and India) could further incentivise the mass production of more affordable 5G devices to cater to consumers in lower-income brackets. It could also drive the development of new 5G applications for consumers and enterprises in emerging markets. This is significant as the majority of 5G applications and use cases to date have been focused on more advanced markets.

Q.4. What are the policy measures required to promote use of IoT technology and its infrastructure so that the citizens including those residing in rural and remote areas may benefit from these 5G enabled IoT smart applications and services to create new economic activities and increase employment opportunities and thereby promote economic growth of the country?

Ans-Operators around the world began their 5G deployment efforts with the non-standalone (NSA) version of the technology. However, after a slow start, 5G standalone (SA) deployments are beginning to ramp up. As per a GSA report , 112 operators in 52 countries and territories are investing in standalone 5G for public networks in the form of trials, plans, paying for licences, deploying or operating networks. At least 37 operators in 22 countries and territories are now understood to have launched public standalone 5G networks, with several more expected to go live in the coming years. The added functionalities enabled by 5G SA are key to delivering on the 5G promise of fully supporting enhanced mobile broadband (eMBB), ultra-reliable low-latency communications (URLLC) and massive IoT use cases.

Q.5. What initiatives are required to be taken by the Government to spread awareness among the citizens about IoT enabled smart applications? Should the private companies / startups developing these applications need to be engaged in this exercise through some incentivization schemes?

Ans-Various studies show that mobile infrastructure continues to have a stable impact on the world economy. The economic dividend of mobile broadband continues to be greater in countries with lower levels of economic development. 5G's faster speed, lower latency, and ability to connect huge numbers of devices than previous generations of mobile technology will certainly result in a more efficient and productive society. There are numerous innovative and promising use cases of the technology for various sectors, e.g., hospitals equipped with 5G devices that enable remote patient monitoring, and smart ambulances that communicate with doctors in real time; digital wallets that connect phones, wearables, autonomous connected cars and other devices to create seamless financial transactions; and 5G-enabled factories in which connections can be maintained among more sensors than ever before.