Intel Corporation's Response to the GSR-21 Consultation on "Regulatory Uplift for Financing Digital Infrastructure, Access and Use"

Importance of High-speed Broadband and ICT Infrastructure

Intel's purpose is to create world-changing technology that enriches the lives of every person on earth. Intel's global broadband objectives are the same as that of most governments and consumers: we want to enable high-speed and high-quality, widespread, affordable broadband in all countries extending computing technology to connect and enrich the lives of every person on earth. High-speed and high-quality intelligent broadband networks can provide digital equity for SDGs to close the gaps, for example in education, health, etc.

The Global COVID-19 pandemic further highlights the importance of high-speed broadband technologies. 5G and Wi-Fi are both essential and complementary to provide high-speed broadband connectivity, and both technologies see continuous growth in data traffic and usage. Coverage of mobile broadband networks have reached 93% of the world's population[i], and 5G networks are expected to reach 60% of the world's population in 2026[ii], and is considered the Fastest Growing Mobile Technology in History[iii]. Despite the global pandemic and economic challenges, 5G powered ahead at four times the speed of subscriber growth as 4G LTE. The pandemic has also accelerated Wi-Fi data growth. By 2022, 60% of global mobile traffic will be offloaded to Wi-Fi[iv]. Transitioning to Wi-Fi 6E networks can help accommodate increasing Wi-Fi data traffic and to enable new advanced services.

We can further accelerate the benefits of 5G and Wi-Fi 6 networks for digital equity and the SDGs with the right policies and regulations, including financing mechanisms.

Enabling Policies and Regulations

Operators worldwide have already invested trillions of US dollars for the existing terrestrial wireless broadband networks[v]. Society would benefit from complementing these existing terrestrial wireless networks with high-speed and high-quality intelligent networks through 5G and Wi-Fi 6. There are different approaches to accelerate the adoption of high-speed broadband networks, with the most important financing mechanisms listed below;

-Political support across all parts of government, including the President and/or Prime Minister.

-Development of a national high-speed broadband and ICT strategy including integration into national digital development plans.

-Inclusion and prioritization of high-speed broadband infrastructure investment in annual government budgets.

-Coordination between Ministries, especially between Ministries of ICT, Economy/Finance, and Planning but also other Ministries (e.g. Education, Health, Agriculture, Transportation, Energy, etc.).

-Discussions between Finance/Economy Ministers and Development Banks such as participating in the same panel of important development conferences. For example, ITU may organize a dedicated

thematic finance event during the ITU WTDC 2021 for a panel discussion to increase the investment for the broadband infrastructure.

-Integration of new ICT technologies and applications in annual budgets of Ministries and Municipalities for smart applications (e.g. smart education, smart health, smart transportation, smart agriculture, smart energy, smart cities, etc.)

-Effective use of Universal Service Funds. Many countries are effectively using Universal Service Funds for high-speed broadband and ICT deployment to underserved populations. For example, India, Malaysia, Morocco, Pakistan, and Turkey are among the many countries that have created successful ICT/broadband programs[vi].

-Allocation of sufficient amount of licensed and unlicensed frequency bands for new high-speed broadband technologies (5G, Wi-Fi 6). Operators need access to spectrum for investment.

-Development of public private partnership projects/initiatives for high-speed broadband connectivity.

-Implementation of sound tax policy strategy will help to foster digital economy and increase the revenue of governments[viiviii].

- Effective use of economic recovery programs for the high-speed broadband infrastructure. Governments have launched economic recovery programs due to pandemic globally[ix].

-Collaboration with Development Banks to increase investments for high-speed broadband networks. According to the Alliance for Affordable Internet (A4AI), multilateral development banks are only investing 1% of their total commitments in ICT projects.

-Implementation of demand creation programs for high-speed broadband connectivity and ICT. According to UNESCO, 826 million students were kept out of the classroom by the COVID-19, and do not have access to a household computer and 43% (706 million) have no internet at home. Costa Rica's ITU WSIS awarded "Connected Home Program"[x] is a good example how the homes of these students can be connected and equipped to support at home learning.

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[i] https://www.gsma.com/r/wp-content/uploads/2020/09/GSMA-State-of-Mobile-Internet-Connectivity-Report-2020.pdf
[ii] https://www.ericsson.com/en/press-releases/2020/11/more-than-1-billion-people-will-have-access-to-5g-coverage-by-the-end-of-2020
[iii] https://www.5gamericas.org/5g-is-the-fastest-growing-mobile-technology-in-history
[iv] https://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/white-paper-c11-738429.html
[v] https://www.statista.com/statistics/671785/global-telecom-service-provider-capex
[vi] https://www.intel.com/content/dam/www/public/us/en/documents/white-papers/usf-support-ict-broadband-programs-paper.pdf
[vii] https://www.broadbandtax.org/downloads/Katz%20Study%20-%20Generic%20Talking%20Points%2012%202%202019.docx
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[ix] https://www.imf.org/-/media/Files/Publications/fiscal-monitor/2021/April/English/foreword.ashx
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