Annexure

Key Strategies and Recommendations for Digital Inclusion and Broadband Infrastructure in Revision of Mumbai Development Plan (2014-34)

1.1  Mumbai as a Digitally Inclusive and Connected City

The revised Development Plan for Mumbai (2014-34) should incorporate a Digital Vision for the city regarding the future of its Information and Communication Infrastructure. This Digital Vision should be based on the concept of Universal Access to Broadband for urban marginalized populations in Mumbai to address the purpose, beneficiaries and the medium for intervention. To remediate the disparity in human development through universal access, the plan should target broadband penetration of 100% households in Mumbai. It should also aim at achieving the affordability of this access.

The MCGM should state a goal of making Mumbai as a Digitally Inclusive and Connected City in its Development Plan (2014-34).

1.2  Policy Approach To Broadband Infrastructure

MCGM should recognize a citywide broadband infrastructure as an essential part of communications network that will need planning as an integral part of the revised Development Plan for Mumbai (2014-34). The successful implementation of this strategic plan should provide an impetus to its replication throughout the State of Maharashtra by an amplifying amendment of Section 22(d) of the MRTP Act, 1966. Equally, making adequate provision for the development of broadband infrastructure should, to begin with, be considered for inclusion in the list of obligatory duties of the MCGM and of the other Municipal Corporations in the State. These amendments formally recognizing broadband as part of communications network and an important component of a city’s civic infrastructure will give a replicable model for installing and deploying broadband infrastructure across cities in Maharashtra. The policy should recognize the need for limited and well justified public spending for broadband infrastructure in areas where accessibility and affordability is an issue.

1.3  Universal Access to Broadband

All households, especially the lower income and urban poor households should be connected to the broadband infrastructure within 5 years. The city will integrate ‘universal’ access (all persons are covered) and ‘inclusiveness’ (access irrespective of socioeconomic variation) in its planning for broadband infrastructure. Universal access need not imply broadband connected to each and every home, but must provide for a combination of private, municipal and public access points to broadband infrastructure.

Universal access to broadband and communication infrastructure should be every Citizen’s Right. The infrastructure should be a combination of fiber to the curb (FTTC) + In building solutions and small cellular Cell technology in dense areas where FTTC may not be possible.
1.4 Connectivity to all Municipal Facilities

All municipal facilities such as municipal schools, municipal libraries, municipal medical and health facilities, municipal markets, fire stations, municipal parks, sewage treatment and water installations, pumping stations, transportation facilities and network, Ward offices etc. should be connected 24*7 to broadband infrastructure. Equally, police stations and other similar public service institutions should also be connected. There should be sufficient redundancy built into the infrastructure to keep these facilities integrated and connected for efficient disaster management and quick emergency response and rescue.

1.5 Role of Municipal Corporation of Greater Mumbai (MCGM)

The MCGM will have to play multiple roles to play for effective deployment of broadband in the city.

- **Owner of municipal broadband network that will connect to municipal facilities.** The access points at municipal facilities are key to overcoming the digital divide between high income and low income and slum households for broadband access.

- **It should resolve any right of way issues for fibre optic deployment** over the middle mile network by developing standard practices to follow for digging up of the roads if any, before broadband infrastructure gets installed by telecom companies. This can also be achieved by creating telecom corridor by MCGM. The telecom corridors can be used by public and private service providers.

- **It should estimate land-use requirements for small cell towers and switching infrastructure required for broadband deployment in the city over the next 20 years.** The MCGM should identify these land-use requirements in the Proposed Land Use under the current Revision of Development Plan (2014-34).

- **It should incorporate broadband infrastructure in the building code through modifications to the Development Control Regulations (DCRs).** The specific modifications are mentioned in Section 1.6

1.6 Modification of Development Control Regulations (DCRs) for Broadband

The following changes are recommended for building code changes to the DCRs:

- **All new development/redevelopment proposals including SRA will incorporate in-building design provisions** for fiber optic network, indoor fiber distribution network and indoor fiber distribution hub.

- **All koliwadas, gaothans, agripadas, adivasi-padas and other informal settlements** will demarcate/list community spaces for public access points’ provision of broadband network.

- **All public open spaces, parks, parking lots, transportation facilities should have broadband connectivity and municipal wifi.**
• All municipal developments, buildings, facilities such as schools, hospitals and ward offices should have fiber optic connectivity.

1.7 **Programs and Open Data**

The program areas such as Education, Healthcare, Transportation and Governance should be immediately adopted by MCGM for delivering content, data and programs to its citizens.

This would mean that the MCGM would upload its data related to these areas as well as the service offerings (e.g. school registrations, birth/death certificate registrations, number of beds in hospitals, bus schedules, reporting of problems in the Ward) on to the internet. MCGM should move ALL its citizen services online to improve efficiency of service delivery and reduce and ultimately wastage and corruption and improve the internal working and integration of services within the MCGM.

1.8 **Funding Options for Universal Access**

In order for MCGM to implement an inclusive network and access to Broadband for Urban poor, the following options to sustainable funding can be considered:

- Set up a City level Universal Access Fund comprising of fund to be earmarked for extending the access infrastructure to the low income areas which are otherwise considered commercially unviable. Appropriation from existing or additional cess (eg. Education cess) and contributions (eg CSR funds from local service providers/operators – part of the obligatory 2% CSR funds could be asked for here).
- Set up municipal owned wireless broadband access networks in a public private partnership mode
- A common agency (Mumbai Digital Inclusion Agency) to be set up which will manage and operate this fund, plan, implementation and provision of Citywide Universal Access to Broadband.

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