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Date: 21st July 2016

To,

Shri Sanjeev Banzal,

Advisor (Network, Spectrum and Licensing)

Telecom Regulatory Authority of India

Mahanagar Doorsanchar Bhawan

J.L. Nehru Marg, Old Minto Road

New Delhi - 110002

Subject: Consultation Paper on In-Building Access by Telecom Service Providers

Dear Sir,

This is with reference to your above mentioned consultation paper. In this regard, please find enclosed our response for your kind consideration.

Thanking You

Yours Sincerely

For Bharti Airtel Limited

A handwritten signature in blue ink, appearing to read 'Ravi P. Gandhi', with a horizontal line underneath.

Ravi P. Gandhi
Chief Regulatory Officer

**Bharti Airtel Response to Consultation Paper on
In-Building Access by Telecom Service Providers**

At the outset, we would like to thank the Authority for raising this important & critical issue, which is beneficial for the consumers at large. The issues raised in consultation paper have considered all the ground realities faced both by the consumers as well as by the telecom service providers while deploying in-building solutions.

Infrastructure is a crucial factor in the provisioning of telecom services and the present consultation paper deliberates on creating a flexible solution and a simplified environment for its deployment which will spearhead deeper proliferation of telecom services amongst the consumers. The efficient deployment of in-building telecom infra will also serve as a catalyst for increasing broadband access and provisioning of higher broadband speeds to the consumers. This in turn will strengthen the pillars of 'Digital India' and advance digital literacy rate as well as economic health of the country.

Communication is the lifeline of today's world and effective communication is a necessity. It should be treated at par with basic needs such as water and electricity and should be given the status of essential infrastructure. In line with the above mentioned views, our responses to the issues raised in the consultation paper are presented below:

1. Do you agree that there is a need to address the issues discussed in this consultation paper or the market is capable of taking care of these issues without having any policy intervention/guidelines in this regard?

Bharti Airtel's Response:

Yes, we agree that there is a need to address the issues as discussed in the aforementioned consultation paper. Broadly, we can classify these issues into three categories:

1. Development of Telecom Infrastructure in private buildings.
2. Commercial arrangements for private buildings.
3. Development of Telecom Infrastructure & Commercial arrangements in Public & PPP (public private partnership) buildings.

1. Development of Telecom Infrastructure in Private Buildings:

Broadly, buildings can be divided into two categories i.e. either existing or new buildings. The in-building solution/coverage can be provided through wireless and/or wireline network and the present framework prevailing in this regard is as below:

(i) Existing Buildings:

- ✓ Most of the existing buildings are wired with conventional copper wiring or Cat5/Cat6 copper cabling. The buildings are either residential or commercial and the access to this infrastructure is available to all the TSPs and ISPs for provisioning of their services. The broadband services in these buildings are provided by the

service providers by deploying their modems, routers, IBS etc. and the wireline up gradation of such buildings is considered based on business viability. As these buildings have already been passed by the Bureau of Indian Standards and telecom infrastructure has also been deployed therein, **creating a regulatory framework around this will not be of much help.**

- ✓ For the existing buildings which are not wired, an engagement model has been created by the TSPs with the Builder/Developer/RWA/Facility Owner (e.g. Five Star Hotels) wherein TSPs spend the Capex and Opex for provisioning of In-Building coverage based on their business viability. In this case, **TSPs are already sharing their passive infrastructure like DAS antennae and cabling with other TSPs based on their mutual agreements and hence regulatory intervention in this regard is also not required.**

(ii) New Buildings:

- ✓ The builder/owners/developers of the new buildings (commercial or residential) should be mandated to create a standardized telecom infrastructure through the National Building Code. A set of standards for Telecom Infra development can be prepared and released by the BIS with the help of TRAI/DoT/Telcos and the same can be published on their websites. Such standards should include creation of a Telecom Room, Horizontal and Vertical dedicated Trays for Cable/HDPE ducts laying, planned underground concrete ducts/pathways for cable/ducts, Power and backup Generator arrangements. The TSPs and other infra providers should be able to connect their fiber in their telecom rooms.
- ✓ The townships, which are larger than the specified benchmark set by National Building Code of India, should also be mandated to create passive telecom infrastructure like OFC cabling and ducting.
- ✓ Internationally also, the standards have been laid out by the competent authorities for creation of telecom infrastructure. One such example is of Public Works and Government services¹ Department of Canada which has created "*Commercial Building Standard for Telecommunications Pathways and Spaces*" for deployment of standardized telecommunication infrastructure across buildings in Canada.

2. Commercial arrangements for Private Buildings

As TSPs are already sharing passive infrastructure amongst themselves and recently DoT has also amended the TSPs license to share active infra, therefore the commercial arrangements **amongst the TSPs and the builder/developer should be left open to mutual negotiation and market forces. In this regard, no regulatory intervention is required for setting up commercial arrangements.**

¹ <http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/bi-rp/tech/telecommunications/normes-standard-eng.html>

3. Development of Telecom Infrastructure & Commercial arrangements in Public & PPP (public private partnership) buildings:

- ✓ Presently, obtaining approvals for deployment of in-building solutions in public buildings is a cumbersome process. Hence, it is imperative and important to create a solution which facilitates time bound online clearances for installation of such infrastructure.
- ✓ We also emphasize for the creation of a policy framework around non-discriminatory access for transit hub establishments like airports, railways stations, metro rails, ISBT's etc.
- ✓ We also agree with TRAI's earlier recommendation on "Telecommunication Infrastructure Policy" dated 12th April 2011, wherein the Authority had recommended the following:

"1.95 DoT should advise all ministries to provide, within next one year IBS/DAS solutions in all Central Government buildings including central PSU buildings, Airports and buildings falling under their jurisdiction & control.

1.96 All State Governments should be similarly advised to provide/mandate, within next one year, IBS/DAS solutions in all buildings including hospitals having more than 100 beds and shopping malls of more than 25000 square feet super built area."

- ✓ We believe that implementation of the above recommendations will be key to deployment of in-building solutions and provision of services in public buildings.

2. How can sharing of telecom infrastructure inside a residential or commercial complex/airport/hotels/multiplexes etc. among service providers be encouraged? Should the sharing of such telecom infrastructure be made mandatory?

Bharti Airtel's Response:

For commercial complexes like hotels and multiplexes and in case of residential complexes, the TSPs are sharing their telecom infrastructure based on their mutual commercial agreements.

The sharing of telecom infrastructure should not be mandated as the same will infuse inefficiency in the current system and will hamper healthy competition as well as disincentivize the creation of infrastructure.

The sharing can be improved with creation of standardized guidelines for Architectural planning and mandating the developers to provide basic infrastructure like Telecom Room, Cable Trays, and Ducts etc.

3. In view of the international practices given in para 18-23 of Chapter-II of the Consultation Paper, what provisions should be included in the National Building Code of India to facilitate unhindered access for all the TSPs?

Bharti Airtel's Response:

Telecom Network Infrastructure should be accorded the same status as other essential services like electricity & water thereby mandating the builders & developers to include telecom infrastructure planning as a part of their basic deliverables to consumers. The Bureau of Indian Standards (BIS) should also include following enabling provisions similar to international practices while framing 'National Building Code of India':

- ✓ Standards & Guidelines including provision of Telecom Room (with specifications), Power Supply with a DG Set back up, Cable Trays, Ducts, Antennae Space etc. The Public works and Government Services of Canada has released specific standards and guidelines with reference to development of Telecommunications Infrastructure in Buildings.
- ✓ Right of Way for Telecom Service providers on a non-discriminatory basis for deployment of Telecom Network Infrastructure within the building with a reasonable commercial arrangement.
- ✓ Article 8 on "In building Physical Infrastructure" by European Commission in Broadband Cost Reduction Directive which is mentioned by Authority in its consultation paper and is reiterated below:

"Member States shall ensure that all newly constructed buildings at the end-user's location, including elements thereof under joint ownership, for which applications for building permits have been submitted after 31 December 2016, are equipped with a high-speed-ready in-building physical infrastructure, up to the network termination points. The same obligation applies in the event of major renovation works for which applications for building permits have been submitted after 31 December 2016.

2. Member States shall ensure that all newly constructed multi-dwelling buildings, for which applications for building permits have been submitted after 31 December 2016, are equipped with an access point. The same obligation applies in the event of major renovation works concerning multi-dwelling buildings for which applications for building permits have been submitted after 31 December 2016."

- ✓ Accordingly the right of way to TSPs and inclusion of standards & guidelines related to in-building infrastructure in National Building code of India will help in creating a flexible eco system for development of in-building infrastructure.

4. Any other option, which in your view, could resolve the issues discussed in this consultation paper?

Bharti Airtel's Response:

No comments.

Briefly summarizing, our submissions are as below:

- For public buildings, including transit hubs like Airports, Metro Stations etc., access should be on non-discriminatory basis.
- For existing private residential and commercial buildings, regulatory intervention is not required and commercial arrangements should be left to market forces and mutual agreements.
- Telecom Network Infrastructure both In-Building Wireless and Wireline should be given an essential infrastructure status and National Building Code should create a suitable category to cater to basic provisions mandatory in the Building specifications.
- No need of any neutral host. All arrangements should be left to mutual commercial agreements.