

To

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Telecom Regulatory Authority of India (TRAI)
Mahanagar Doorsanchar Bhawan,
Jawahar Lal Nehru Marg,
NEW DELHI-110002.

Ref. No.: GRNL/TRAI/IBA/16-17/01

Date: 17th June, 2016.

Subject: Consultation Paper Number 10/2016 , on In Building Access by telecom service providers .

Dear Sir,

This is with reference to the Telecom Infrastructure Consultation paper issued by TRAI on the 6th of June, 2016.

Global Rural Netco Limited (GRNL) is a registered IP-1 provider which has been in the business of providing telecom infrastructure services to various telecom service providers, since its formation in 2009.

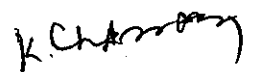
We are pleased to provide our comments & views on the various aspects of consultation paper.

To add, today we are in position to submit our views after building a strong reputation and relationship with major developers by providing them value based shared telecom infrastructure which is satisfying their retail and corporate client's communication needs in the premises with wide range of services available from TSPs. We have also ensured that the end user's choice of service provider is met. We have an established business model in place.

We once again, sincerely hope to draw the merit of our submission for your kind consideration.

Thanking you

Yours sincerely,


Authorized signatory



Submission on Issues for Consultation

With the rapidly expanding reach of the Internet into most aspects of everyday life communication via email became a principle reason people use the Internet. Using email leads people to spend more time online, encourages their use of the Internet for information, entertainment, and shopping, and discourages them from dropping Internet service. As new Internet communication services rise—instant messaging, chat rooms, multiple-person games, auctions, and myriad support groups—they become instantly popular.

If communication is so important to Internet users, there is good reason to expect that the Internet will have a positive social impact. Communication, including contact with neighbors, friends, and family, and participation in social groups, affects people's level of social support, their probability of having fulfilling personal relationships, their sense of meaning in life, their commitment to social norms and to their communities, and their psychological and physical well-being.

Through its use for communication, the Internet could have important positive social effects on individuals, groups, organizations, communities, and society at large. Broad social access could increase people's social involvement, as the telephone did. It also facilitates the formation of new relationships, social identity and commitment among otherwise isolated persons, participation in groups and organizations by distant or marginal members, and political mobilization.

Besides communication, the Demand for digital security and surveillance (DSS) solutions is also growing manifold, fueled in by large part by security concerns and government spending.

Some of the many ways DSS solutions are required in society today:

- Traditional building surveillance: Providing security for public and private facilities continues to expand and now includes setting up site surveillance temporarily.
- Mobile surveillance: Watching over the actions in and around vehicles and transportation systems, including police vehicles, emergency response equipment, cars, buses, planes and trains.
- Intelligent traffic control: Proactively and reactively responding to traffic related events, devices such as highway, toll collection systems, red-light traffic cameras and other "intelligent" traffic control devices are part of a growing usage model for DSS systems.
- Business intelligence: DSS systems can now intelligently gather and analyze business operational data as well anonymous information about customer traffic patterns, demographics, and sales conversion rates.

The advent of affordable interconnected, high-definition flat digital displays & high speed internet connectivity has enabled content providers, including advertisers, to replace static screens by timely targeted content delivered to the audience, through centrally located servers. This in-turn stimulates demand growth fueling economy in general.

With the forgoing, achieving higher growth in broadband penetration along-with common platform provided by Neutral Hosts (IP1), would ensure invent of "smart cities", to make success of the initiative taken by our Government on "Digital India" program.

What Developers are looking for their common telecom infrastructure for Real estates and SEZ/NSEZ zones?

Developers are looking for a neutral host IP1 provider, to owned and operate single telecom infrastructure capable to deliver, on demand, multiple services from multiple operators for the retails, enterprise and corporate customers of their choice.

Nationwide real-estate boom has created opportunities for telecom infrastructure to be built for mobile and broadband last mile access.

The following are some advantages offered by IP-1's/NHP's to Developers by providing common telecom infrastructure solutions for mobile voice & data and fixed line services

- Avoids Duplication of infrastructure
- Removes the threat of the incumbent creating entry barriers for other Operators
- Aesthetics of the property are maintained
- Avoids Multiple and unstructured wiring inside the building, that could result in it being a fire hazard.
- Avoids Multiple agencies to deal with in case of any Network issue
- Single agency for O&M and upgrade
- Eases the Coordination and security threat by eliminating the need to provid access to premises to staff of multiple operators
- Reduces chances for Sabotage / damage to other' Operators infrastructure, interrupting services
- Assists in Compliance to building norms
- Optimum Floor space utilization

Considering the common telecom infrastructure for both Mobile Voice/data and fixed line services, it should also meet minimum following requirements:

- System should be scalable to accommodate any surge in demand
- Should be able to accommodate any service introduced in the future
- Should have Redundancy and reliability
- Should have the ability to scale up to accommodate increased throughput requirements
- Should Support high density deployments
- Should be Standardized and future proof
- Must be Suitable for delivery of multiple services over a common network
- Must be capable of handling enterprise connectivity requirements with Stringent SLA parameters

- Should be capable of Supporting synchronized TDM services such as voice and E1 lines
- Should be Suitable for IP connectivity to Base Stations and/or Small Cells (Femtocells)
- Should be capable of supporting value added services such as HS broadband, IPTV, Video on demand, HD video streaming, internet leased line, MPLS data circuits etc.

Upside of the above telecom infrastructure for the Society/Property Owners

- Ready Connectivity for Integrated Building Management System avoiding parallel wiring
- Ready Infrastructure for running E-Community portals
- Capable of running Township Management Application
- Connecting schools in the community
- Ability to access Healthcare services
- Enabling Mobile Coverage inside homes (Femto), APs etc.

For developers, the provisioning of such telecom infrastructure at their premises and complexes, by IP-1's/NHP's adds substantial value to their property and increases the saleability of the project . It also provides plug and plays facilities to the Occupants of such properties.

Question-wise submissions:

Q1. 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?

Developers have a major stake in their projects and also have the responsibility of providing basic service infrastructure which also includes telecom networks to satisfy their client needs and maintain the same for extended periods of time. Developers and the market is capable of taking up the issues and resolving them

Basically developers have understood the trend of the market requirements, after having spent many years in the real estate industry, that the telecom needs are basically driven by their end clients and hence they cannot restrict the choice of services/service providers, but rather they need to plan for allowing common telecom infrastructure service providers who will provide multiple services from multiple telecom service providers. This will always ensure that the customer has the power of Choice.

Operator agnostic IP-1's/Neutral Host Providers should be encouraged by the government and industry to deploy both active and passive elements of Telecom infrastructure for major complexes, SEZ's, Townships, Smart Cities, Towns and city wide Municipal Public Broadband networks etc. In-fact these networks can be used by service providers for providing broadband

services in a wider area. Further the same network may be utilized by the local authorities, utilities, security department, which in turn will benefit the society and occupants of the Complex.

Building by- laws should cover Free access for deploying Neutral Host Telecom networks for all upcoming real estate projects. Also provisioning of infrastructure and connectivity for wired broadband should be mandatory within the buildings.

Q2. 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?

Yes. It should be made mandatory in the interest of saving of national resources and its Contribution to the eco system by reducing carbon emission. Deployment of Multiple telecom networks inside complexes, by multiple service providers is only wastage of valuable resources. Shared telecom network in premises and campuses, should be permitted for utilizing its fullest capacity. Shared telecom networks reduce CAPEX and OPEX substantially for obvious reasons, One of the ways to achieve this, is by making it mandatory, for a shared last mile Telecom Network to be deployed by IP-1's only as NHP's. The services delivery would always come from telecom service providers.

Q3. 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?

Member States shall ensure that all newly constructed buildings at the end-user's location are equipped with a high-speed-ready in-building physical infrastructure, up to the network termination points.

Authorities should enable IP-1's/NHP's licensees to have legal rights to install and provide in-building telecommunications systems (IBTS), which include telecommunications equipment, cables and relevant facilities in, over or upon any common parts of a building for the conveyance of telecommunications and broadcasting services to the occupiers of the building. The common parts include Equipment Room, telecommunications closets, rooftops, risers, ducts, conduits, etc.

'Code of Practice' for the Installation and Maintenance of In-Building Telecommunications Systems and In-building Access by Telecommunications Network Operators. This Code of Practice states the requirements and practice that the IP-1's/NHP's should comply with and adopt for the access to buildings and the installation works as well as the maintenance of IBTS. If the IP-1 is a sole block-wiring provider of a new building then it should use its reasonable endeavor to provide sufficient capacities of the IBTS. The provided capacities should meet the requirements of other Network Operators who intend to provide telecommunications services at the same building in the first 12 months from the issue of the Occupation Certificate.

Q4. Any other option, which in your view, which could resolve the issues discussed in this consultation paper?

GRNL is of the view that, with the huge requirement of infrastructure creation there is a strong demand from the industry for telecom infrastructure.

GRNL's initiative is a step forward to create an ecosystem to ensure setting up of a common platform for integration of various network services for providing non-exclusive and non-discriminatory access.

Apart from advancement towards converged networks, newer technologies are developing where the network infrastructure can be accessed by multiple service providers to bring down the cost and reduce the roll out time

The business models involving major stake holders i.e. Developers, NHP/ IP-1 providers and telecom service providers are already in place in the industry for smart cities, airports , commercial complexes which is fulfilling the need of the end users , which now should advocated through a directive to all. Some of basic advantages are :

- Reduced capital expenditure on network infrastructure by multiple service providers and multiple services through targeted build and better utilization of telecom network resources.
- Reduced OPEX through efficient planning/engineering of shared telecom Network infrastructure for Multi-Operator & Multi Services and increased workforce productivity.
- Significantly improved customer satisfaction by meeting demand for services and reducing network downtime.
- Green solution in access network as it reduces and saves power consumption of multiple operators' deployment and earned carbon credit by avoiding multiple copper /fiber cables, repeaters / boosters/ switches, power systems deployment across complex or townships.
- Saves, floor space /roof top space/ shaft level space etc. (very critical part for developers) across the premises and complex, which form a major saving for the developers.