

Optic fibre cable (OFC) networks provide a consistent quality of service and high speeds (100 Mbps/1 Gbps per customer). OFC is a future-proof technology as it can cater to the ever-increasing data demand and has scope for capacity enhancement through equipment upgrades. In an OFC network, each user's experience is independent of the usage of other users in the neighbourhood. Since it is used at fixed locations, OFC also significantly reduces the load on spectrum.

While OFC has several benefits, cable deployment is a major challenge due to issues related to right of way (RoW). The RoW pricing across municipalities is arbitrary and decided at the individual considerations of the bodies, none of which have a standardised and transparent process.

Suggested measures

Spectranet recently submitted a series of measures for resolving RoW challenges to the Telecom Regulatory Authority of India (TRAI). The company owns and operates a 3,500 km intra-city fibre network with over 4,000 on-net or near-net buildings and offers services in Delhi, Gurgaon, Noida, Bengaluru, Mumbai, Pune and Chennai. It has suggested the standardisation and simplification of the RoW issuing process and OFC roll-out charges. Builders or commercial building owners and resident welfare associations should be mandated to allow service providers to deploy OFC at zero cost or have nominal management charges with no arbitrariness involved. Customs duty, excise and other taxes like octroi on the equipment and optical fibre used in developing fibre access networks should be made zero for the next five years.

In addition, OFC networks should be given the status of essential services by including them in the Essential Services Maintenance Act, and fibre-based internet service providers (ISPs) should be awarded "critical infrastructure" status. The granting of permissions to install overhead fibre will be another enabler as this is far cheaper to install and maintain than a buried OFC network.

All local municipal corporations should be asked to include Universal Internet Access in their

city development plans. The government should frame guidelines to mandate the compulsory deployment of duct space for fibre/telecom cables in all major physical infrastructure construction projects like the building or upgrading of highways, inner city metros, railways or sewer networks. The National Highways Authority of India should be mandated to create a high-capacity (500+ fibre strand) long-distance network along highways and make this available to service providers on an annual lease or indefeasible right-of-use basis. Similarly, power discoms should build their own high-capacity optical fibre networks and offer them to service providers at transparent TRAI-regulated prices.

TRAI recommendations

In its recommendations dated April 17, 2015, TRAI has given action points for OFC deployment. It has stated that a single-window clearance mechanism is imperative for all RoW proposals at the state and central levels. All such clearances must be time-bound so that service and infrastructure providers can rapidly move on to project execution. In their construction design policies, all infrastructure sectors like road construction authorities and agencies must include a provision for a utility duct to enable the laying of OFC for all new infrastructure, and also adopt similar measures in existing projects in a “dig only once” policy. RoW agencies/authorities should mark the area for the laying of underground cables at a significant distance from roads, keeping in mind expansion plans for the next 10 years to protect investments in fibre infrastructure and avoid service disruptions. Strong administrative and legal provisions (even contractual) need to be put in place for the payment of compensations in case a cable is cut or damaged by any agency. A national RoW policy is required to ensure the uniformity of costs and processes.

In a bid to promote fixed line broadband, TRAI has recommended that the licence fee on fixed line broadband revenues should be exempted for at least five years. On February 23, 2015, TRAI removed termination charges on wireline voice, recognising the need to promote wireline infrastructure. It also recommended active network infrastructure sharing for ISPs and suggested that the infrastructure of unutilised PSUs be unbundled and shared.

Conclusion

The aforementioned measures can go a long way in establishing a vibrant ecosystem for the growth of high speed wireline and OFC networks. This will enable the success of programmes like Digital India and Make in India, along with other development initiatives, and bring India at

par with developed countries.

Based on a presentation by Brajesh C. Jain, President, Spectranet

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