To,
Mr. Akhilesh Kumar Trivedi,
Advisor, (Networks, Spectrum and Licensing),
Telecom Regulatory Authority of India.

Date : November 18, 2024

Subject: Response to the Consultation Paper on The Terms and Conditions of Network Authorisations to be granted under the Telecommunications Act, 2023

Dear Mr. Akhilesh Kumar Trivedi,

Greetings from DeepStrat, a think-tank specialising in public policy and technology policy. Thank you for inviting comments from stakeholders on the consultation paper "Terms and Conditions of Network Authorisations to be granted under the Telecommunications Act, 2023" dated October 22, 2024. We are sending out our inputs in response to the consultation paper. We look forward to hearing back from you.

Thank you.

Warm regards,
Aarti Singh
Programme Associate,
DeepStrat.
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SUBMISSION

TRAI has solicited comments from stakeholders and referenced prior recommendations of TRAI on CDNs and IXPs amongst other telecommunication networks in the consultation paper. It is understood that the Department of Telecommunications has not accepted these recommendations by TRAI.

Part H. Authorisations for CDNs and IXPs

In the light of these considerations, we would like to make the following submission on Question 5 which is as follows:

Whether there is a need to make any changes in the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) of the Content Delivery Network (CDN) authorisation, as recommended by TRAI on 18.11.2022? If yes, what changes should be made in the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) of the CDN authorisation? Kindly provide a detailed response with justification.

We support TRAI's findings on its recommendation on 'Regulatory Framework for Promoting Data Economy through Establishment of Data Centres, Content Delivery Networks and Interconnect Exchanges in India', dated 18.11.2022, wherein it emphasized that CDN's should not be subject to any licensing, authorisation or registration regime in India. Such an approach would benefit CDN providers, users and the growth of the digital economy alike.

Licensing, Registration and Mandated paid peering would be detrimental to the CDN market

In its report dated 18.11.2022, TRAI rightly stated that a licensing regime for CDNs and IXPs is not precedent in most developed nations like Australia, USA, South Korea and Singapore. CDN providers are important enablers of online businesses and the digital economy, both domestically and internationally. A free regime means lesser market entry barriers, thereby providing greater access and reduced costs to users. It would resolve issues around latency and redundancy, and enhance performance, availability and security of networks. Any entry barrier, including the requirement of registration will prohibit small and local CDN providers from entering the market, impacting smaller players. While TRAI's recommendations for registration are stated to have no repercussions, a requirement for registration is just as prohibitive as a licensing regime.

TRAI has also proposed a recommendation to submit peering agreements to regulators in India. This recommendation seems to be without any basis or justification and will prove to be a significant intervention in the commercial market. Peering agreements are typically negotiated between the telecommunication network and telecommunication provider as a commercial transaction with proprietary terms based on specific conditions. The disclosure of such propriety information is unwarranted, unless the government plans to introduce mandated paid peering.

However, mandated paid peering is also against the global precedent of unregulated and settlement-free peering. Mandating paid peering would make access to content significantly more expensive and reduce the speed of content for the users. It would also be against the Central Government's commitment to net neutrality. There are global examples that prove that mandated paid peering is harmful. For instance, Korea (one of the only nations in the world which mandates paid peering) has significantly higher costs than most countries, including the USA. The increased high bandwidth costs have prompted several international companies to leave Korean Markets. It is also reported that Korea's Internet latency rates are amongst the worst performing among all OECD countries.[1]

A higher CDN adoption is primarily linked to a good concentration of users, reduced costs of space and power at data centres and an affordable network connection. India, with the largest concentration of internet users in the world would benefit from the abovementioned factors. A higher CDN adoption would help CDN providers to make infrastructure investments that enhance the speed for Internet users in urban and rural areas and help lower prices.

As TRAI has noted in the consultation paper dated 18.11.2022, India's CDN market is set to grow over 700% between 2018 – 2027. Any regulation, registration or authorisation will directly hinder the targeted growth of the market.

Improved Access to dark fibre infrastructure

TRAI should also consider facilitating a comprehensive policy on dark fiber which allows the use of dark fiber for captive purposes by CDN players. Currently, CDN services need to obtain Telecom licenses to procure and use dark fibre due to the assumption that dark fibre is used to sell or resell connectivity. However, the assumption is false, since most CDN services use dark fibre for internal business use. Thus, if CDNs are allowed to procure dark fibre without a license, the costs to operate and scale CDNs would be significantly lower. When CDN entities are not allowed to procure dark fiber directly, ISPs leverage by monopolizing the market and charging exorbitant fees to CDNs for managed dark fibre wavelengths. Notably, the costs for operating dark fibre are significantly higher in India than other regional markets, including Australia and Singapore. This hinders the growth of CDN players in India. The lower costs and subsequent greater access to dark fiber infrastructure due to lesser market entry barrier will also benefit startups and encourage rapid proliferation of digital services in India.

Focus on growth of the CDN Market instead of imposing "light touch" regulations

Finally, TRAI should reconsider its recommendation for "light-touch" regulation of the CDN market. Since CDN players are regulated as intermediaries through various legislations such

[1] https://www.oecd-ilibrary.org/science-and-technology/broadband-networks-of-the-future_755e2d0c-en

as the Information Technology (Intermediary Guidelines and Digital Media Ethics) Rules, 2021 there should be no additional requirement for light touch regulations.

Instead of adding more regulations, TRAI should focus on facilitating the growth of the local CDN industry by focusing on promoting technology and providing incentives. It should focus on reducing barriers to entry and costs and thus increasing CDN adoption in India. Thus, we agree with TRAI's recommendation to implement policies which will encourage greater access to digital communications infrastructure and increase investment and not to introduce entry barriers by licensing, registration or other regulatory requirements to help accelerate the growth of India's digital economy.