Internet And Mobile Association Of India

IAMAI Submission on TRAI Consultation Paper on the Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023

Established in 2004, the Internet and Mobile Association of India (IAMAI) is a not-for-profit industry body representing the digital services industry with over 600 Indian and multinational corporations as its members, which include established companies in diverse sectors of the digital ecosystem as well as start-ups. We firmly believe that India's digital industry is going to be a major driving force in the economic and social development of the country which includes job creation, innovation, contribution to the GDP, inclusion and empowerment of our citizens.

On 11 July 2024, the Telecom Regulatory Authority of India (TRAI) published the 'Consultation Paper on the Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023'. At the outset, IAMAI would like to thank the TRAI for the opportunity to submit our comments on the consultation paper. The decisions in front of the TRAI are likely to be very significant decisions which can hinder or enable high-value high-tech investment and innovation in the next generation digital transformation: CDNs and 'data centres', 'points of presence' and 'operations and control centers' (DCOCs). These are driving much-needed economic growth and employment in countries which have ensured a regulatory approach which enables them to flourish.

On behalf of our members, we would like to put forth the following submission. However, we note that our members Airtel and Reliance Jio Infocomm Ltd. have divergent views from those expressed in the document.

IAMAI Submission

Q23. In view of the provisions of the Telecommunications Act, 2023 and market developments, whether there is a need to make some changes in the respective scopes and terms and conditions associated with the following service authorisations, recently recommended by TRAI:

a) Digital Connectivity Infrastructure Provider (DCIP) Authorization (under Unified License)
b) IXP Authorization (under Unified License)
c) Content Delivery Network (CDN) Registration
d) Satellite Earth Station Gateway (SESG) License

If yes, kindly provide a detailed response with justifications in respect of each of the above authorisations

IAMAI Response

c) Content Delivery Networks ("CDNs") contribute to the development of the internet by improving performance, enhancing the ability to handle traffic loads and reduced bandwidth, load balancing and security. In the 2022 TRAI Consultation Paper on the 'Regulatory Framework for Promoting Data Economy through Establishment of Data Centres, Content Delivery Networks, and Interconnect

Exchanges in India', TRAI recognised that India's CDN market will witness a growth of over 700 % between 2018 – 2027 (i.e., from USD 435.2 million in the year 2018 to USD 2846.8 million by 2027).

The CDN market is competitive. Many companies offer commercial CDN services: some of them have been established for decades while others are relatively newer companies. Some companies have successfully implemented their own CDN solutions. Evidence of high competition is that the prices for CDN services are constantly dropping. In the absence of any market failure, TRAI should not stifle CDN growth in India by introducing excessive regulations and barriers to entry.

CDNs should be kept outside the scope of registration as CDNs are fundamentally different from telecommunication providers. CDNs require: (i) appliances for computing and storage; and (ii) connectivity. Depending on whether they build their own connectivity or not, CDNs are either a customer of telecommunications providers (for internet access) or a private network interconnecting with telecommunications providers (through transit and peering). As CDNs are not telecommunications providers, they should not be regulated as telecommunications providers or subject to any licensing requirements. CDNs do not require a license to operate in other countries and TRAI should not set this precedent.

Conditioning internet interconnection (peering) to an authorization or registration should not be introduced as it goes against the commonly accepted and global practice of unregulated peering. The internet has thrived, including in India, under an "innovation without permission" approach and efficient, localized exchange of traffic through the growth of CDNs. Introducing a mandatory registration regime would stifle this virtuous circle.

Moreover, IXPs utilize CDNs to manage local traffic exchange effectively. However, if interconnection in India were restricted to only registered networks, it would impede the ability to serve traffic locally resulting in a shift in traffic internationally. Introducing a registration process will also cause delays in both launching new services and expanding existing ones, thereby adversely impacting the ability of CDN providers to respond to evolving market needs.

b) To start IXPs, it only requires simple technology and small investment, so there should be minimal intervention in the market. Globally IXPs are not subjected to licensing requirements, TRAI should also refrain from doing it.

Q28. What should be the broad framework including the specific terms and conditions that should be made applicable for captive authorisations, which are issued on a case-to-case basis? Kindly provide a detailed response with justifications.

IAMAI Response

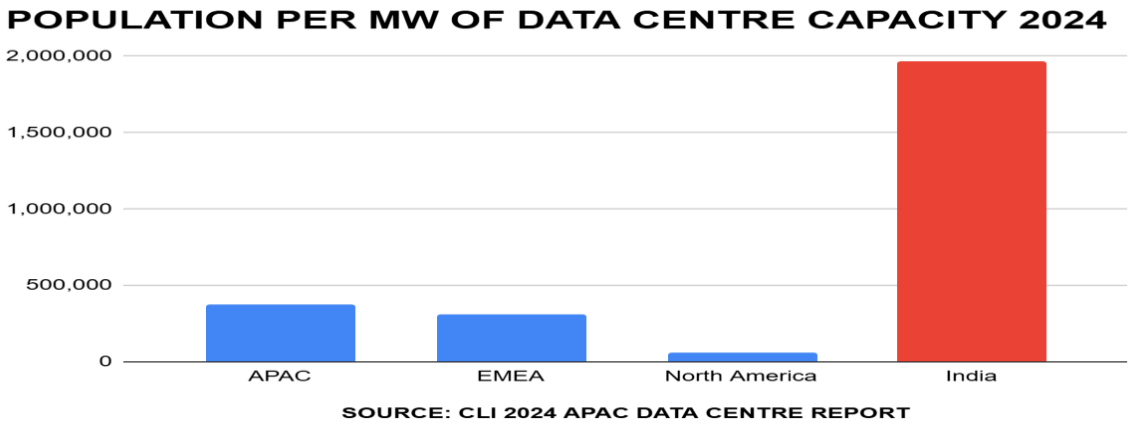
Digital services have become ubiquitous worldwide, noticeably enhancing 'ease of living' for end users. Governments across regions are also leveraging support from digital enterprises for their administrative outreach and consumer welfare initiatives. Meanwhile, the growing interplay between digital applications and technologies (like artificial intelligence (AI), the Internet of Things (IoT), etc has triggered a transformative phase for digital services. Although this evolution has led to advanced service delivery models, it has also resulted in exponentially growing computational demands. Consequently, multinational digital services providers (Digital Enterprises) are progressively relying on interconnected backend 'data centres,' 'points of presence' and 'operations and control centers'

(DCOCs) across jurisdictions (including India) to manage their backend processing and delivering critical application features.

For seamless operational control and to ensure the exponential capacity and ultra-low latency required for AI, IoT, etc., many Digital Enterprises now own and operate captive, non-public DCOCs (Private DCOCs), which are also interconnected through backend captive, non-public networks (submarine or terrestrial fibres and bandwidth) for exclusive use by Digital Enterprises and which do not directly interface with end users (Private Enterprise Networks). Traditionally, licensed telecom service providers (TSPs) have been providing and managing such networks for Digital Enterprises. However, rising consumer demands for 'feature enhancement' and 'real-time service delivery' have now necessitated leading-edge network architecture and quality, uninterrupted availability, control and scalability of Private DCOCs and Private Enterprise Networks for delivering uniform and world-class digital services to consumers worldwide. As a result, leading Digital Enterprises are pursuing ownership, control, and management of these backend systems and private networks.

Regulators in major economies such as Singapore, Japan, United States of America (USA) and the European Union (EU) were early to recognise the immense potential for industry growth and investments. A flexible regulatory approach allowing exemptions for Digital Enterprises to establish and manage their Private Enterprise Networks has turned those regions into global digital hubs. In contrast, India's UL framework prevents non-licensed Digital Enterprises from owning or managing Private Enterprise Networks. This limitation hinders 'ease of doing business' (EODB) for Digital Enterprises in India, leads to reliance on third-party TSPs and associated middlemen costs, delays proactive adoption of state-of-the-art technology for consumer services, and deters foreign direct investment (FDI) into India's digital sector.

There is clear evidence that this is holding India back with investment and innovation in high-value, high-tech DCOC services is simply flowing to other countries which ensure the flexibility which these services require to flourish. For example, India's total data centre capacity in 2024 is estimated at only ~730 MWs. The standard benchmark for proportionate data centre capacity is population per MW. On this basis India has exponentially less data centre capacity than other destinations competing for data centre investment. As the following chart shows, India has less than one fifth of the proportionate data centre capacity available in competing destinations for data centre investment across the Asia Pacific, one sixth of the capacity available in rival destinations across EMEA, and only ~3% of the proportionate data centre capacity available in North America:



Unfortunately, this situation is leaving India at a comparative and competitive disadvantage in precisely the area which should be a major competitive advantage for India, and which is likely to be a key driver of economic growth and employment.

In addition, there is no separate set of 'eased-out' license conditions applicable for TSPs providing Private Enterprise Networks to Digital Enterprises. On the contrary, the UL requires such TSPs to comply with various technical and security conditions and limitations meant for public networks. This is generally argued to indicate that all license conditions apply to TSPs equally for public as well as private networks, even though several technical, security and other conditions in the license may not be commensurate with the 'captive, non-public' nature of Private Enterprise Networks. Moreover, such conditions applicable to 'public networks' are increasingly becoming incongruent with technological advancements and prevent India from benefiting from best-in-class technology, network architecture and business models in the digital sector. Additionally, the costs and operational limitations of such conditions ultimately impact services and end users, and investment, innovation and growth of the Indian digital ecosystem.

Due to the above, Digital Enterprises in India lack clarity on the particular regulatory requirements (and relaxations, if any) that would realistically apply when working with a UL holder for availing Private Enterprise Networks, or if they opted to take a license to develop the network themselves. Digital Enterprises obtaining a license and having to comply with all license requirements – for the limited purpose of establishing and managing their own Private Enterprise Networks – is counter intuitive and prohibitive of associated investments.

Given the challenges above, and in order to promote EODB, making India a digital hub, and promoting exponential infusion of FDI into the IT and telecom sector in India, DoT should consider exemption from 'authorization' under the Telecommunications Act 2023, allowing Digital Enterprises incorporated in India to own, establish and manage Private Enterprise Networks.

Providing clear exemptions such as an 'Captive Use Exemption' for private and exclusive use by Digital Enterprises will further India's connectivity / digital economy priorities and will attract significant investments. The Telecom Act 2023 clearly anticipates that some services could and should be excluded from the telecom authorisation approach as follows as we therefore recommend that this approach be taken for such services:

- *s3 (3) provides that "(3) The Central Government, if it determines that it is necessary in the public interest so to do, may provide exemption from the requirement of authorisation under sub-section (1), in such manner as may be prescribed."*
- *and s56 2 (b) provides that "The Central Government may, by notification, and subject to the condition of previous publication, make rules not inconsistent with the provisions of this Act, to carry out the purposes of this Act... (2) In particular and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely... (b) the manner of exemption for providing authorisation under sub-section (3) of section 3."*

This will significantly enhance the backend datacentre business, overall growth of the digital ecosystem in India and further the vision of the Government of India to transform India into a digitally empowered

society and knowledge economy. This also aligns with the approach taken in other major markets and will provide requisite clarity and flexibility to Digital Enterprises.

It will also facilitate the 'ease of doing business' initiative of DoT by reducing regulatory hurdles and encouraging private sector investment. It will also simplify processes and create a more predictable and business-friendly environment for the industry to grow. By adopting a framework that supports new technologies and offers flexibility in network operations, India can attract significant FDI in the digital sector and thereby economic growth and employment can flourish.