Koan Advisory Group's Counter Comments for the TRAI Consultation Paper on "The Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023"

We thank the Telecom Regulatory Authority of India (TRAI) for the opportunity to submit our counter comments on the Consultation Paper on "The Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023".

Please see our counter comments below. We respond specifically to responses to Q17 and Q23. These highlight stakeholder views seeking licensing frameworks for OTT communication services and supporting mandatory registration and/or regulation for Content Delivery Networks (CDNs) respectively.

At the outset, we believe that OTT communication services are not telecom services and should not be subject to licensing frameworks, to bring regulation in line with the government's intent of reducing onerous licensing mandates. Additionally, CDNs should not be subjected to registration mandates or consumer welfare regulation. There is no proof of market failure which warrants such intervention. CDNs are a competitive segment which undergoes constant innovation to enhance consumer experience. Onerous regulation can stifle this growth and in turn lead to more harm to consumers.

In the table below, we highlight key comments made by stakeholders, our counter comments to those comments, and finally an explanation for why we make them.

Q17. Whether there is a need for introducing certain new authorisations or subcategories of authorisations under the Telecommunications Act, 2023? If yes, -

(a) For which type of services, new authorisations or sub-categories of authorisations should be introduced?

(b) What should be the respective scopes of such authorisations?

(c) What should be the respective service areas for such authorisations?

(d) What terms and conditions (general, technical, operational, Security, etc.) should be made applicable for such authorisations?

Kindly provide a detailed response with justifications

Comments	Counter Comments	Explanation
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Bringing out a licensing framework for OTT communication services will align with the principles of 'same service, same rules' and the definition of 'telecom services' as enshrined in the Telecommunications Act,	The government removed direct references to OTT communication services from the definition of 'telecom services' within the final draft of the Telecommunications Act, 2023. At present, the telecom law has separate definitions for 'message' and 'telecommunication service' which makes an implicit network and application layer distinction. Therefore, it becomes clear that it is not the government's intent	Telecom service providers, in their responses to the Consultation Paper, have made a case for bringing over-the- top (OTT) communication services within the authorisation/licensing framework. They argue that bringing out a licensing framework for OTT communication services will align with the principles of 'same service, same rules' and the definition of 'telecom services' as enshrined in the Telecommunications Act, 2023.
2025	This must be respected and OTT communications services not be conflated with telecom services.	We believe that the Telecommunications Act, 2023 does not make direct references to OTT communication services. These were a part of the draft bill which was consulted upon in 2022 and later edited to purposely exclude OTT services from the definition of a 'telecom service' within the law. ¹ An implicit network and application layer distinction is evident due to the inclusion of separate definitions for 'message' and 'telecommunication service' within the Telecommunications Act, 2023. Therefore, a suggestion to regulate OTT communications services under telecom law is misplaced and runs contrary to the government's intention.
		The government's intent to reduce onerous licensing mandates is also clear. The government has removed licensing and regulatory constraints from several areas including telecom since liberalisation. The government has consistently held the view that competition facilitates innovation in the sector and leads to benefits like better coverage and access to high-quality services. Since 1992, the government has relaxed licensing conditions for networks and exercised forbearance in case of services. The DoT has regulated networks and not services. This policy approach has enabled access to a wide

¹ Kamya Pandey, "Conscious decision to indicate that OTTs are excluded from the telecom act: DoT," *Medianama*, January 10, 2024, <u>https://www.medianama.com/2024/01/223-dot-conscious-decision-ott-exclusion-telecom-act/</u>.

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		variety of services on top of robust connectivity infrastructure. India's policy stance on content-carriage separation, separation of network licenses and service delivery, and forbearance on OTT regulation should continue.
OTT communication service providers should be brought under the authorisation/licensing framework.	The regulatory rationale underpinning the regulation of legacy telecommunications networks does not apply to OTT apps and OTT services are already subject to regulatory obligations and compliances under the existing laws. The government has removed licensing and regulatory constraints from several areas including telecom since liberalisation. It has consistently held the view that competition facilitates innovation in the sector and leads to benefits like better coverage and access to high-quality services. Since 1992, the government has relaxed licensing conditions for networks and exercised forbearance in case of services. The DoT has regulated networks and not services. This policy approach has enabled access to a wide variety of services on top of robust connectivity infrastructure. India's policy stance on content-carriage separation, separation of network licences and service delivery, and forbearance on OTT regulation should continue.	Regulating frameworks in telecommunications stem from the rationale that spectrum is a scarce natural public resource that countries must regulate in public interest. Judgements by the Supreme Court of India recognise the government's trusteeship over natural resources. ² The government licenses TSPs as the public trustee of spectrum and TSPs obtain the right to acquire spectrum when they obtain a license. OTT communication applications have no such right. Conversely, TSPs can decide the services that may operate on their network and essentially gatekeep an OTT application's connectivity. The government imposes obligations on TSPs in the form of license conditions which we cannot divorce from the right to acquire spectrum. For the same reason, the 2018 ACCC report found that there is "no basis for requiring equivalent regulatory treatment". ³ TRAI had also recognised the separation of the network layer and the content or application layer in its 2020 Recommendations on 'Regulatory Framework for Over-the-Top (OTT) Communication

² M.C. Mehta v. Kamal Nath and Ors. (1997) 1 SCC 388 para 116; Reliance Natural Resources Ltd vs Reliance Industries Ltd. (2010) 7 SCC 1 para 114. ³ Communications sector market study: final report, available at: <u>https://apo.org.au/node/139446</u>.

	Services'. ⁴ This is consistent with the telecom regulator's position in its 2015 Consultation Paper on OTT Regulation ⁵ .
	The Indian government has progressively liberalised regulatory frameworks since 1994. Since the National Telecom Policy, 2012, ⁶ the government has held the view that network licensing is separate from service delivery to endusers, and that licensing frameworks must not extend to content regulation.
	In the National Digital Communications Policy, 2018 the DoT committed to "remove regulatory barriers and reduce regulatory burden that hampers investments, innovation and consumer interest". ⁷ TRAI had also recommended forbearance on OTT regulation in 2020. TRAI's 2020 Recommendations on a Regulatory Framework for OTT Communication Services noted that "any regulatory intervention may have an adverse impact on the industry as a whole" and market forces should be allowed to operate. ⁸ The CP does not demonstrate reason or evidence to track back on this approach which has led to organic sectoral growth, and protected consumer interest. Thus, there is no need to discuss or bring out authorisation mandates for OTT
	communications at this stage.

⁴ Telecom Regulatory Authority of India, Recommendations on Regulatory Framework for Over-The-Top (OTT) Communication Services, available at: <u>https://trai.gov.in/sites/default/files/Recommendation 14092020.pdf</u>.

⁵ Telecom Regulatory Authority of India Consultation Paper on Regulatory Framework for Over-the-top (OTT) services, available at: <u>https://www.trai.gov.in/sites/default/files/OTT-CP-27032015.pdf</u>.

⁶ National Telecom Policy, 2012, available at: <u>https://trai.gov.in/sites/default/files/NTP_2012.pdf</u>.

⁷ National Digital Communications Policy, 2018, available at:

https://www.meity.gov.in/writereaddata/files/National Digital Communications Policy%E2%80%932018.pdf.

⁸ Telecom Regulatory Authority of India, Recommendations on Regulatory Framework for Over-The-Top (OTT) Communication Services, available at: <u>https://trai.gov.in/sites/default/files/Recommendation_14092020.pdf</u>.

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.

Comments	Counter Comments	Explanation
Mandatory registration of CDNs is imperative to foster competition, drive down costs, improve service quality and ensure alignment with international best practices and evolving global standards for CDNs.	CDNs have been a historically unregulated market, with negotiations between networks carried out at will. This enables them to innovate and grow. No mandatory registration or licensing requirements should be imposed on CDNs in the absence of any market failure necessitating it. CDNs are a competitive industry with efficient ex- <i>post</i>	The CDN market is competitive and there is no evidence of market failure: In the 2021 TRAI Consultation Paper on the Regulatory Framework for Promoting Data Economy through Establishment of Data Centres, Content Delivery Networks, and Interconnect Exchanges in India (2021 CP), TRAI recognised that India's CDN market will witness a growth of over 700% between 2018 and 2027 (i.e., from USD 435.2 million in the year 2018 to USD 2846.8 million by 2027). ⁹
	laws in place to regulate consumer or competition- related issues. Restricting CDN operations to only registered networks will disable the Indian CDN market from keeping pace with global standards and hinder efficient content delivery. It will also be against global best practices.	At present, the country's CDN market is also competitive. Several companies offer commercial CDN services and some companies have successfully implemented their own CDN solutions, which has benefited local content delivery to global audiences and consumers in remote parts of India alike. High competition is evidenced by the constantly dropping prices for CDN services. These prices continue to decline at a pace corresponding to increase in IP traffic, due to competitive

⁹ Telecom Regulatory Authority of India Consultation Paper on the Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023, available at: <u>https://trai.gov.in/sites/default/files/CP_16122021_0.pdf</u>.

	pressures as well as technological progress. CDN prices witnessed a decrease of over 300% during the period between 2017 and 2020. ¹⁰ Thus, the CDN market, although nascent, is witnessing a wholesome upward trajectory. In the absence of any market failure, TRAI should not stifle its growth by introducing excessive regulations and creating barriers to entry.
	Restricting CDN operations to only registered networks will slow down content delivery and stifle innovation in the CDN space: Introducing a registration process for CDNs will slow down processes, thereby adversely impacting the ability of CDN providers to respond to evolving market needs and stay competitive. Mandatory authorisation requirements can hinder adaptability of CDN architecture by putting them in pre-decided boxes they must limit their operations to. This adaptability is essential to accommodate diverse content delivery requirements in the modern digital landscape. ¹¹ The same CDNs cater to different kinds of network capacity demands that may stem from video streaming, e-commerce, e-learning or online gaming. In such a scenario, CDNs need to have flexible operations. Customisable architecture can enable them to adapt to different levels of traffic and demand, depending on the kind of content they are delivering.
	Authorisation or registration should not be introduced as a precondition as this goes against the commonly accepted and global practice of unregulated peering (direct exchange between two providers without any contractual agreements).

¹⁰ Dan Rayburn, "CDN/Media Pricing See's Big Drop for Largest Customers: Pricing Down to \$0.0006," *StreamingMediaBlog.Com*, May 11, 2020, <u>https://www.streamingmediablog.com/2020/05/q1-cdn-pricing.html</u>.

¹¹ "The Importance of Flexibility and Scalability in CDNs," CacheFly, accessed August 16, 2024, <u>https://www.cachefly.com/news/the-importance-of-flexibility-and-scalability-in-cdns/</u>.

The growth of CDNs enabled internet to thrive in India, by enabling localised exchange of traffic. Introducing a mandatory registration regime would stifle growth and hinder Indian networks from keeping pace with global trends.
Ex- <i>post</i> laws to regulate issues with CDNs are already in place: The Department of Telecommunications' Net Neutrality Committee Report, 2015 had noted that as making CDNs available is a 'normal business activity'. Issues such as discrimination in access or adoption of anti-competitive practices 'should best be covered under law related to unfair trade practice'. ¹² These laws can help address and seek redressal for deficiencies in service. The Competition Commission of India can deal with other competition related issues.
Replacing or supplementing these procedures with onerous ex- <i>ante</i> obligations can stifle innovation. The introduction of excessive bureaucratic red tape can slow down processes and hinder the much-needed agility of digital businesses. In an ever-evolving space, there is a constant need for scope of negotiations between the authorities and businesses. Opportunities to interact with regulators and find feasible and workable middle grounds are only available in ex- <i>post</i> regimes, which allow for settlements and commitments rather than lengthy legal proceedings or the threat of penalties. ¹³ Thus, TRAI should stick to and, if needed, advocate for strengthening ex- <i>post</i> regimes rather than introducing new, ex- <i>ante</i> ones.

 ¹² Net Neutrality DoT Committee Report, available at: <u>https://dot.gov.in/sites/default/files/Net_Neutrality_Committee_report%20%281%29_0.pdf.</u>
 ¹³ Vallari Sanzgiri, "Navigating The Debate Over Ex-Ante Regulation in India's Digital Market," *Medianama*, April 15, 2024, https://www.medianama.com/2024/04/223-debate-ex-ante-regulation-india-digital-market/.

		Mandatory registration of CDNs is not a global best practice: Internet interconnections are negotiated freely between networks and this has been a long-serving norm. ¹⁴ This has fostered their growth and enabled innovation. As recognised by TRAI in its 2021 CP, leading jurisdictions like Norway, South Korea, and Australia do not recognise CDNs as licensable services. In the European Union, the Body of European Regulators for Electronic Communications (BEREC), regulates content application providers (entities which use an internet access service to provide content or applications to other end-users) are regulated. However, interconnection services provided by CDN companies and large content providers like who operate their own CDNs are excluded from the ambit of such regulation. ¹⁵
CDNs must be regulated by a light-touch framework, including obligations such as Quality of Service standards, performance metrics, and security standards	The need to level the playing field between CDNs and TSPs and ISPs does not arise as CDNs are not telecom services. They are merely facilitators which enhance user access to content and thus should not be saddled with obligations akin to those applicable to telcos. CDNs operate with the objective of maximising consumer welfare and constantly innovate to achieve this goal. Favourable regulations have made this	CDNs are not telecom services and should not be forcefit into telecom regulation:CDNs improve performanceand enhances the network's ability to handle traffic.CDNsrequire:(i)appliances for computing and storage; and(ii)connectivityDepending on whether they run their own delivery networks
	possible, and such regulatory environment must be allowed to continue, as onerous obligations can stifle their processes and upend status <i>quo</i> .	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). Moreover, internet access service

¹⁴ David Abecassis, Michael Kende, Guniz Kama, "IP interconnection on the Internet: a European perspective for 2022," *Analysys Mason*, September 22, 2022, <u>https://analysysmason.com/contentassets/25c2739a356a4740ab0ce2ba2308f9bd/ip-interconnection-on-the-internet---a-european-perspective-for-2022---2022-09-22.pdf</u>.

¹⁵ "Which end-users are protected by the Open Internet Regulation, and how?," BEREC, accessed August 16, 2024, <u>https://www.berec.europa.eu/en/all-topics/scope</u>.

	providers such as TSPs and ISPs operate "last mile" infrastructure that enables users to access the public internet. CDNs, in contrast, are merely "middle-mile" technology architecture, which are not regulated in mature markets such as the European Union ¹⁶ , and the United States ¹⁷ . That is, CDNs have no relationship with end users. CDNs rely on ISPs to deliver online content to end-users as they manage the complete network routing process end-to-end. Therefore, they are different activities which must be regulated by different rules and the question of levelling the playing field between them does not arise.
	CDN services enhance consumer welfare by reducing
	latency, decongesting traffic and making content
	available to consumers across the country: The objective
	of CDNs is to ensure that quality of service does not get
	impacted by traffic congestion. Today, many internet service
	providers (ISPs) also offer their own CDNs to other service
	providers to help decongest the internet delivery chain. Direct
	arrangements between CDNs and ISPs further enable the
	maximisation of service quality ¹⁰ . Additionally, CDNs
	continue to evolve to keep pace with the ever-evolving
	internet and the threats that come with it. For example, to
	address concerns around safeguarding online assets and user
	their offerings, which include web application former line
	time threat monitoring and distributed denial of corrige
	une unear monitoring, and distributed denial of service

¹⁸ Id.

¹⁶ Draft BEREC Report on IP-Interconnection practices in the Context of Net Neutrality, available at: <u>https://www.berec.europa.eu/en/document-categories/berec/public-consultations/draft-berec-report-on-ip-interconnection-practices-in-the-context-of-net-neutrality.</u>

¹⁷ Restoring Internet Freedom Order, available at: <u>https://docs.fcc.gov/public/attachments/FCC-17-166A1.pdf</u>.

		protection. ¹⁹ The competitive landscape and favourable regulations drive innovation within the industry, resulting in more efficient and user-friendly CDN solutions. The United States' Federal Communications Commission also acknowledges this, finding that market dynamics, and not regulation, have allowed CDNs to thrive. ²⁰ At this stage, saddling CDNs with onerous obligations and regulatory requirements can stifle innovation in the segment, and upend <i>status quo</i> , which prioritises consumers. This will in turn be counterproductive to the intent of TRAI's proposed intervention.
CDNs must be mandated to set up their infrastructure in tier-2 and tier-3 cities	Systemic gaps such as lack of resources, infrastructure, skilled workforce and other barriers to entry keep CDNs from expanding to tier-2 and -3 cities. In such a backdrop, instead of casting a burden on CDNs to enhance their penetration, TRAI and the government must focus on enhancing ease of doing business and creating market friendly policies for them.	As per Recommendations on Regulatory Framework for Promoting Data Economy Through Establishment of Data Centres, Content Delivery Networks, and Interconnect Exchanges in India (TRAI's 2022 recommendations), services provided by CDNs require very high bandwidth, high reliability, and low latency for extremely high amounts of data, and achieving this will not be possible in tier-2 and -3 cities as they lack the requisite infrastructure for it. CDNs and other similarly placed entities like data centres cannot own, as they lack the build, or access their own passive telecom infrastructure like dark fibre, duct space, right of way, and towers and rely on TSPs and ISPs to fulfil these requirements. ²¹ Thus, telecom penetration across the country is one of the key essentials to enhance CDN connectivity.

¹⁹ "Europe Content Delivery Netwrork Market," TechSci Research, accessed on August 16, 2024, <u>https://www.techsciresearch.com/report/europe-content-delivery-network-market/3525.html</u>.

²⁰ *Supra* note 18.

²¹ Telecom Regulatory Authority of India Recommendations on Regulatory Framework for Promoting Data Economy Through Establishment of Data Centres, Content Delivery Networks, and Interconnect Exchanges in India, available at: <u>https://trai.gov.in/sites/default/files/Recommendations_18112022_0.pdf</u>.

		Other systemic challenges also pervade the CDN space, which may make it impossible to fulfil mandates around infrastructure deployment in tier-2 and -3 geographies at this stage. These include:
		 Limited infrastructure facilities and lack of resources like power, transport, water supply and fibre connectivity. Lack of availability of skilled resources in remote parts of the country. High real estate cost, operational costs, and capital requirements. Variations in central and state government policies, permissions, and compliance requirements. Unavailability of equipment and technical solutions at competitive prices.
		Without the institution of a multi-stakeholder approach and creation of a conducive ecosystem and business environment which accounts for the gaps listed above, it will not be possible for CDNs to expand their reach to remote parts of the country. Thus, instead of burdening CDNs with these obligations, TRAI and the government must focus on removing barriers to entry and enhancing ease of doing business.
There should be mandatory disclosure of agreements between CDNs and TSPs and ISPs.	CDNs and TSPs and ISPs have a mutually beneficial relationship, with equal bargaining power. These are grounded in agreements, which are confidential. They must be allowed to remain so, in the interest of privity of contract, and to safeguard the ability of businesses to negotiate terms freely without government intervention.' There is no need for a regulator-	The Department of Telecommunications' (DoT) Net Neutrality Committee Report, 2015 noted that CDNs are 'an arrangement for management of content as a business strategy. Making available one provider's CDN to others on commercial terms is a normal business activity.' To further this activity, CDNs rely on commercial agreements with TSPs and ISPs for their telecom requirements. These agreements are



prescribed collaboration or intervention into Business- to-Business conduct. It should be on the basis of market-based negotiation and voluntary commercial arrangements.	confidential. However, TRAI proposed the disclosure of interconnect agreements between CDNs and TSPs in its 2022 recommendations. It is our case that these agreements should be governed by market forces only, to uphold the principle of privity of contract, and allow businesses to reach innovative deals that can be lucrative for all parties involved.
	CDNs and ISPs and TSPs have a mutually beneficial relationship – one that is based on a balance of bargaining power and benefits all stakeholders. ²² These are voluntary negotiations that enable content providers to reach end-users and provide high-quality services, while reducing the cost of traffic for the ISP. CDNs help ISPs improve performance and reduce their dependence on long-distance backhaul networks. This may help make offering broadband services more attractive and more affordable, helping grow broadband penetration and digital readiness in India. As India's digital economy continues to grow, it is essential that the voluntary nature of the CDN-ISP relationship and negotiation on fair, reasonable, and non-discriminatory terms between various entities in the value chain is upheld as a principle that regulators do not derogate from. This will allow their arrangements to adapt to changes in the digital world and meet growing connectivity demands.

²² *Supra* note 14.