COAI's Counter Comments to TRAI Consultation Paper on "Proliferation of Public Wi-Fi Networks in India"

We thank the Authority for providing us the opportunity to share the counter comments to **TRAI's Consultation paper on "Proliferation of Public Wi-Fi Networks in India".** COAI reiterates its primary submission that the case for large-scale Public Wi-Fi expansion in India is significantly weakened by the widespread availability of affordable, seamless and secure mobile broadband services. The limited adoption of PM-WANI is not a market failure but a rational consumer choice; consumers prefer affordable mobile broadband over paid public Wi-Fi given its convenience, reliability, mobility, and security. This reflects a well-functioning market, rather than a regulatory deficiency. Accordingly, attempts to artificially boost public Wi-Fi through subsidies or preferential regulatory treatment risks distorting, rather than correcting, market outcomes.

Accordingly, COAI reiterates that any support mechanism intended to promote broadband connectivity should be extended in a fair, proportionate, technology-neutral across telecom ecosystem.

Regulatory Restrictions

1) **Some stakeholders have stated that past several years of regulatory restriction prevented the development of a Public Wi-Fi culture in India.**

COAI counter comments:

a) In this regard, it is pertinent to note that the Government has, over the years, introduced several policy measures, incentives, and regulatory interventions to promote the growth of the Public Wi-Fi ecosystem in India, including the recent amendment issued by the Department of Telecommunications (DoT) on 16 September 2024. These initiatives were intended to facilitate ease of deployment, improve operational viability, and encourage broader participation in the Public Wi-Fi framework. However, despite these sustained efforts and policy support, the adoption and uptake of Public Wi-Fi services have remained limited. This suggests that the challenges affecting the growth of the ecosystem are largely structural and demand-side in nature, and may not be addressed solely through additional policy or regulatory interventions.

b) The above indicates that the primary constraints to adoption of public Wi-Fi lie beyond the regulatory framework and are linked to factors such as user demand, availability of alternative connectivity options, business viability, and operational considerations. Therefore, any future policy initiatives should be carefully assessed in light of the

limited impact that previous interventions have had on driving widespread adoption and sustainable growth of the Public Wi-Fi ecosystem.

A. Surge in Mobile Broadband

1) **One of the stakeholders has stated that "A particularly important structural issue emerging from the CP is the excessive dependence of India's broadband ecosystem on mobile broadband. TRAI explicitly notes that India is a "mobile-first country" with among the highest per-capita mobile data consumption globally. However, the CP simultaneously acknowledges that mobile broadband inherently faces capacity constraints, congestion sensitivity, indoor coverage limitations, variable speeds, latency challenges and higher per-GB delivery costs compared with fixed broadband-supported Wi-Fi."**

2) **A few of the stakeholders have stated that "Given that Public Wi-Fi has been in existence for more than two decades based on the centralised ISP and TSP model, and thereafter for six years using the decentralised and unbundled PM-WANI model, the number of Public Wi-Fi hotspots generated so far in the country remains severely inadequate, thereby signifying a clear instance of market failure"**

COAI counter comments:

a) We submit that the widespread adoption of mobile broadband in India is a reflection of the fact that mobile technologies are far superior, seamless, ubiquitous, affordable, aligned with consumer choices and have consistently evolved over time. India's telecommunications sector has progressed seamlessly from 2G to 3G, 4G and now 5G networks, delivering affordable, high-quality, and ubiquitous connectivity to consumers.

b) The history of telecommunications demonstrates that multiple technologies often co-exist during periods of transition, with markets ultimately determining the most efficient and sustainable solutions. For example, in the early years, GSM and CDMA technologies operated alongside each other. However, over time, GSM emerged as the dominant platform as device ecosystems, international roaming requirements, economies of scale, and operator strategies converged around it, resulting in the gradual shutdown of CDMA networks.

c) This experience brings out the fact that the success of any access technology is ultimately determined by its ability to deliver value to consumers. Technologies that offer better performance, affordability, device availability, and ecosystem support naturally attract investment and adoption, while other technologies gradually fade out, irrespective of prior expectations or policy support.

d) Accordingly, the same principle should guide the present consultation. The scale, relevance, and sustainability of Public Wi-Fi, like any other connectivity platform, should be determined by market demand, consumer preferences, and commercially sustainable business models.

B. Scalable Wi-Fi

1) Some stakeholders have stated that public Wi-Fi, should be recognised as a scalable Digital Public Infrastructure (DPI) capable of supporting India's future digital economy.

COAI counter comments:

a) A scalable and inclusive digital access infrastructure—mobile broadband— already exists and is functioning at a national level through telecom networks. Telcos have been the primary enablers of India's digital transformation, investing heavily to extend affordable broadband connectivity across the country, including rural and remote areas, as acknowledged by the Government in the Press Information Bureau (PIB) release titled "11 Years of Digital India: Building Digital Public Infrastructure for Inclusive Growth" (2026). In this context, the need for creating and promoting a parallel connectivity infrastructure under PM-WANI as a DPI requires careful examination.

b) Further, it is important to address the regulatory asymmetry whereby; despite delivering the same underlying digital access infrastructure, Telcos continue to bear significant spectrum costs, licence fees, regulatory levies and compliance obligations, while PM-WANI participants are extended various policy and financial incentives. Such differential treatment creates an uneven playing field despite Telcos being the entities that have made the foundational investments underpinning India's digital ecosystem.

C. Incentives for Public Wi-Fi

1) Some stakeholders have stated that Public Wi-Fi providers should be supported through licence fee and AGR exemptions, targeted subsidies from Digital Bharat Nidhi (DBN), tax rebates, spectrum-related benefits, and priority access to government fibre infrastructure, and other incentive mechanisms.

COAI counter comments:

a) We submit that any regulatory or policy incentive framework intended to support connectivity expansion should **not be** selectively designed only for the Public Wi-Fi ecosystem, but should be focussed on expanding overall broadband access.

b) It is important to note that Public Wi-Fi constitutes only one of several access technologies through which broadband services may be delivered. The objective of public policy should be to promote efficient and sustainable broadband expansion through measures that encourage investment, innovation, and infrastructure deployment across all segments of the sector. Selective incentives directed exclusively towards Public Wi-Fi providers may inadvertently divert resources away from broader network investments that deliver significantly greater coverage and capacity benefits.

D. Capping of tariffs

1) Some stakeholders have stated that the licensed ISPs should provide PDOs with published and capped wholesale bandwidth tariffs, not exceeding 1.5–2 times the retail FTTH tariff for the same capacity.

COAI counter comments:

a) We reiterate that the proposal to cap wholesale broadband tariffs for Public Data Offices (PDOs) constitutes an unwarranted regulatory intervention in a competitive broadband market and is inconsistent with the Authority's long-standing policy of tariff forbearance. The provision of wholesale bandwidth to PDOs is a business-to-business (B2B) commercial arrangement and pricing thereof should continue to be determined through commercial negotiations between service providers and customers based on market dynamics.

b) Wholesale broadband services are offered in the B2B segment and cater to different requirements and bilateral contracts. These are also associated with distinct cost structures, service commitments, network utilisation patterns, operational responsibilities, and business risks. Therefore, benchmarking wholesale tariffs against retail FTTH tariffs for equivalent capacity would be inappropriate and would fail to reflect the underlying commercial and operational realities.

c) Licensed Telcos and ISPs make substantial investments in spectrum, network infrastructure, fibre deployment, operations, maintenance, cybersecurity, regulatory compliance, and quality of service obligations. Any regulatory restriction on the pricing flexibility available to such operators may adversely impact cost recovery, investment incentives, quality of service standards and future network expansion.

d) Accordingly, commercial arrangements between licensed operators and PDOs should continue to be governed by market-driven negotiations and competitive forces, without regulatory prescription of pricing structures.

e) In any case, TRAI has already implemented a cap of 2 times the retail tariff for tariffs for PDOs. Thus, no more intervention may be required.

E. DBN Viability Gap Funding

1) **Some stakeholders have submitted that the Digital Bharat Nidhi (DBN) should be utilised to provide viability gap funding for Public Data Offices (PDOs) in rural and underserved areas.**

COAI counter comments:

a) We reiterate that the Digital Bharat Nidhi (DBN) corpus is overwhelmingly funded through contributions made by licensed telcos. Therefore, it would be inequitable for funds substantially contributed by telcos to be utilised to support a parallel Public Wi-Fi ecosystem whose participants neither contribute to the corpus nor are subject to comparable licensing, infrastructure, security, quality of service, investment and regulatory obligations. Such an approach would effectively result in TSP-funded subsidisation of a competing connectivity model.

b) Further, the Digital Bharat Nidhi has been established primarily to support connectivity in underserved and commercially unviable areas. Any support from such public funds should therefore be guided by clearly defined public-interest objectives and demonstrable market failures, rather than being provided as a general subsidy mechanism for particular business models. Public resources should be utilised in a manner that maximises overall digital inclusion outcomes while ensuring efficient use of funds.

c) Accordingly, any support extended through DBN for broadband expansion should prioritise telco-led connectivity initiatives, which have demonstrated the ability to deliver reliable, secure and scalable connectivity across the country.

F. Network Security Risk

1) **Some stakeholders have stated that policymakers should allow LTE/5G spectrum and fixed infrastructure to be shared for Wi-Fi backhaul wherever possible. For example, spectrum in 2.3/2.5 GHz can carry rural broadband, or 5G small cells can be dual-purposed for public Wi-Fi.**

COAI counter comments:

a) We strongly oppose any proposal to allow LTE/5G spectrum and fixed infrastructure to be shared for Wi-Fi backhaul wherever possible. Spectrum in the 2.3 GHz and 2.5 GHz bands is typically licensed on a nationwide or regional basis with strict technical conditions to manage co-channel and adjacent-channel interference. Introducing uncoordinated Wi-Fi backhaul links will create unpredictable interference profiles. This

could degrade LTE/5G downlink and uplink performance. Thus, protecting primary licensed services must take precedence over secondary opportunistic sharing.

b) Mobile operators invest billions in spectrum licences and network rollout specifically to deliver guaranteed quality of service, including fixed-wireless access. Sharing of spectrum for Wi-Fi backhaul would dilute the value of those assets. If anyone can use the same airwaves for backhaul, the incentive to bid for spectrum and deploy costly rural 5G infrastructure diminishes, ultimately slowing rather than accelerating rural coverage.

c) The proposal to allow sharing of LTE/5G spectrum and infrastructure will create a blurred boundary between managed carrier networks and open internet access. This will introduce new threat vectors (e.g. rogue access points, unauthorised traffic injection) and will makes it difficult to enforce lawful interception, data protection, and network reliability obligations that apply to licensed mobile service providers.

G. Authentication Framework

1) Some stakeholders have stated that Public Wi-Fi networks should offer frictionless user access through automatic authentication, seamless roaming, and reduced dependence on OTP-based login processes.

COAI counter comments:

a) We submit that the existing OTP/KYC-based authentication framework has been prescribed in line with DoT security requirements and serves critical objectives relating to user traceability, accountability, and compliance with lawful interception and other security obligations. Any proposal to dilute or bypass these requirements in favour of frictionless access must therefore be approached with caution.

b) Public Wi-Fi networks are shared and open-access environments and are inherently more vulnerable to misuse, cyber threats, spoofing, and other unlawful activities than personal mobile broadband connections.

c) Moreover, even Government agencies such as CERT-In have consistently highlighted the security risks associated with Public Wi-Fi networks. Through various advisories and cybersecurity awareness campaigns, CERT-In has cautioned users against undertaking financial transactions, sharing sensitive personal information, accessing emails, or logging into accounts while connected to Public Wi-Fi networks. These advisories underscore the inherent vulnerabilities associated with shared and open-access Wi-Fi environments and reinforce consumer preference for secure and trusted mobile broadband connections.

H. Monetization

1) **Some stakeholders have stated that that the lack of sustainable monetization models is the primary reason past public Wi-Fi initiatives have stalled. Because cellular data in India is highly affordable, forcing consumers to pay premium rates for Wi-Fi (a purely B2C model) is no longer viable. Monetization must be diversified across B2C, B2B, and Government-to-Business (G2B) avenues, strictly tailored to the socioeconomic realities of the location.**

COAI counter comments:

a) In our view, the monetisation opportunities for Public Wi-Fi in India will remain extremely limited. Unlike in many global markets — where mobile broadband is either expensive or capacity-constrained—Indian consumers already enjoy affordable, high-volume mobile data plans with extensive coverage. This widespread availability significantly undermines the commercial viability of paid Public Wi-Fi offerings.

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