Consultation Paper On the “Proliferation of Public Wi-Fi Networks in India”

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Consultation Feedback → Report

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Executive → Summary

The **Telecom Regulatory Authority of India (TRAI)** has placed the **Consultation Paper on the "Proliferation of Public Wi-Fi Networks in India"** in the public domain for consultation, with the objective of **examining the existing public Wi-Fi ecosystem and identifying measures to accelerate the deployment, accessibility, and sustainability of public Wi-Fi infrastructure across the country**. The consultation seeks to strengthen the policy and regulatory framework governing public internet access by addressing challenges relating to infrastructure deployment, stakeholder coordination, authentication mechanisms, roaming arrangements, revenue models, and digital inclusion.

The consultation process received responses from a diverse range of stakeholders, including technology experts, civil society organisations, industry associations, and individual citizens. Participants examined issues relating to **affordability, access in underserved areas, implementation of the PM-WANI framework, commercial viability of public Wi-Fi networks, security and authentication requirements, infrastructure bottlenecks, and the role of governments and private entities** in expanding public connectivity.

Below are the key recommendations for strengthening the design and implementation of the proposed framework, with a view to promoting widespread, affordable, secure, and sustainable public Wi-Fi access across India:

- **Expand public Wi-Fi deployment through public institutions**, community spaces, and underserved areas to promote meaningful and equitable internet access.
- Strengthen the **financial sustainability of public Wi-Fi networks** by addressing backhaul connectivity challenges and supporting viable business and partnership models.
- Improve **user adoption** through seamless authentication, interoperability across networks, and minimum standards for service quality and reliability.
- Build **trust and inclusion** by incorporating strong privacy safeguards, digital literacy initiatives, and targeted interventions for underserved communities.

Introduction

Public Wi-Fi networks play an important role in expanding internet access, bridging the digital divide, and enabling affordable connectivity for citizens across urban and rural areas. As digital services become increasingly central to education, healthcare, governance, commerce, and civic participation, the availability of reliable and accessible public internet infrastructure has emerged as a key component of India's digital inclusion agenda. However, **challenges relating to infrastructure deployment, affordability, commercial viability, user awareness, interoperability, and security** continue to limit the widespread adoption and sustainability of public Wi-Fi networks.

In this context, the Telecom Regulatory Authority of India (TRAI) has issued the **Consultation Paper on the "Proliferation of Public Wi-Fi Networks in India"** for public consultation. The consultation builds upon existing initiatives, including the PM-WANI framework, and seeks stakeholder inputs on issues relating to **network deployment, backhaul connectivity, authentication mechanisms, roaming arrangements, business models, regulatory support, and the roles of various public and private actors** in strengthening the public Wi-Fi ecosystem.

The effectiveness of public Wi-Fi networks depends not only on the availability of supporting infrastructure but also on the **development of a policy and regulatory framework that promotes affordability, ease of access, interoperability, security, and long-term sustainability**. The consultation therefore presents an important opportunity to assess existing barriers, evaluate the effectiveness of current initiatives, and identify reforms that can support the growth of a robust and inclusive public connectivity ecosystem capable of meeting the evolving digital needs of citizens.

This report analyses the Consultation Paper through public consultation feedback and expert insights. It highlights key concerns, implementation challenges, and opportunities for strengthening the public Wi-Fi ecosystem, with the objective of promoting affordable, accessible, and sustainable internet access. The report aims to assist the Authority in systematically analysing consultation feedback and advancing transparent, inclusive, and evidence-based policymaking.

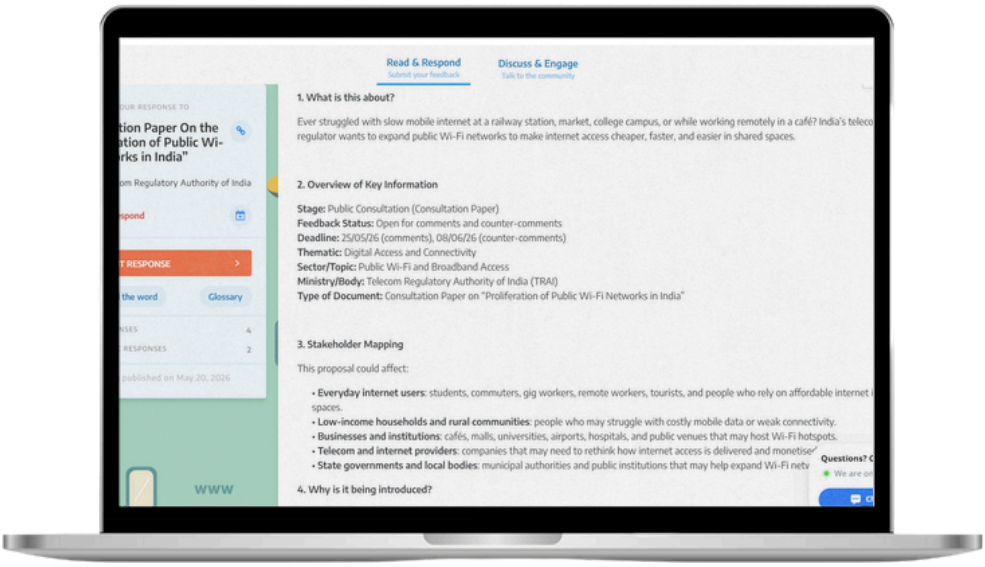
Methodology

The analysis presented in this report is based on a structured, multi-channel consultation process aimed at ensuring broad and meaningful engagement with the Consultation Paper on the "Proliferation of Public Wi-Fi Networks in India". This section describes the tools and approaches used to communicate the consultation paper and gather stakeholder feedback.

Summarisation and Dissemination

To support informed participation, Civis developed and published a clear and concise summary of the Consultation Paper On the "Proliferation of Public Wi-Fi Networks in India", highlighting key provisions on Civis' online platform, civis.vote in English and Hindi.

The summary **translated the technical and regulatory aspects of the consultation into easy-to-understand language**, enabling a wider audience to engage with the subject matter irrespective of their prior familiarity with telecommunications policy. By presenting the consultation paper in a simplified format, **Civis sought to reduce barriers to participation and encourage stakeholders from diverse backgrounds** to contribute their views on the future of public internet access in India.



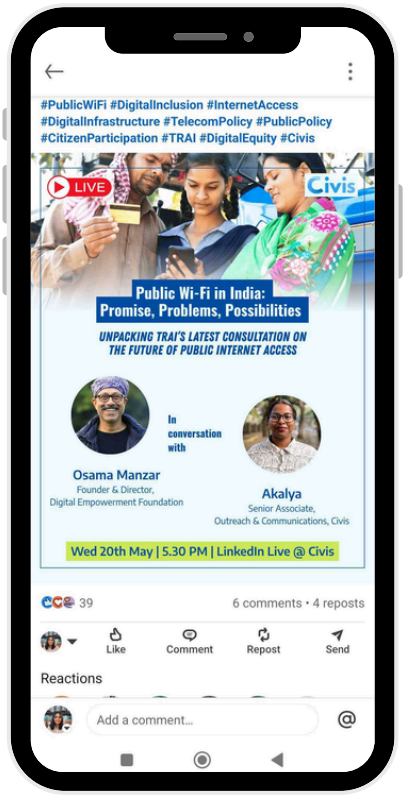
Civis's online Consultation Platform

Social Media Outreach

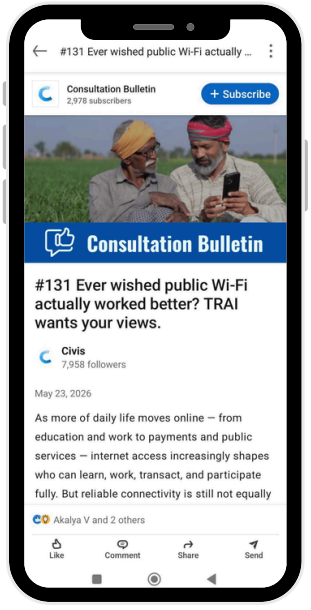
To increase awareness of the consultation and encourage wider public participation, Civis undertook a series of digital outreach and engagement activities focused on the importance of public Wi-Fi networks in promoting connectivity and digital inclusion.

As part of these efforts, Civis organised a **LinkedIn Live discussion featuring Mr. Osama Manzar, Founder and Director of the Digital Empowerment Foundation**. The discussion explored the current state of public internet access in India, challenges in expanding public Wi-Fi infrastructure, the role of initiatives such as PM-WANI, and the policy measures required to ensure affordable and accessible connectivity.

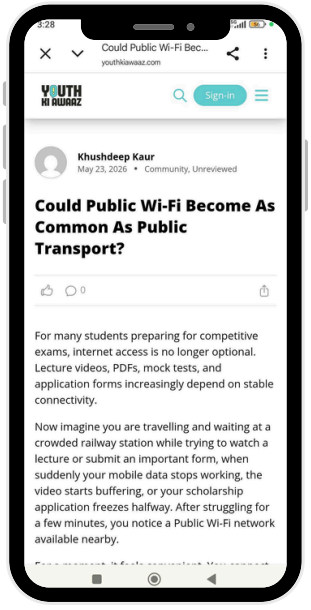
In addition, the consultation was featured in **Civis' weekly bulletin**, which is disseminated through both **email and LinkedIn** to a wide network of subscribers, policymakers, researchers, civil society organisations, and engaged citizens.



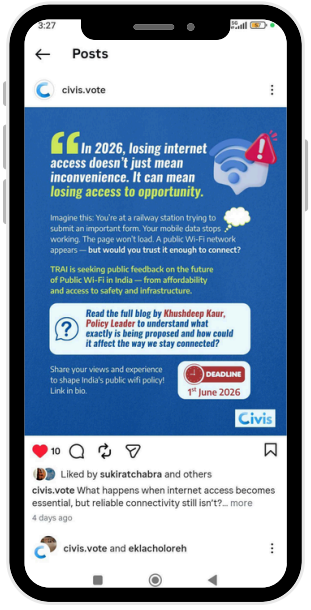
LinkedIn Live with Mr. Osama Manzar



Civis' LinkedIn Bulletin



Blog on YKA Platform



Social Media Outreach

Civis published an **explainer blog on the Youth Ki Awaaz (YKA) platform** discussing the role of public Wi-Fi networks in advancing digital inclusion and highlighting the importance of public participation in the consultation process. To support broader dissemination of the consultation, Civis also undertook **outreach through its LinkedIn and Instagram platforms**. These outreach efforts complemented other engagement activities and helped increase the visibility of the consultation among citizens, practitioners, and stakeholders interested in digital connectivity and public policy.

In-depth Interviews

Given the technical, regulatory, and implementation-oriented nature of public Wi-Fi policy, **Civis complemented public outreach efforts with targeted expert discussions** to gather detailed insights on the opportunities and challenges associated with expanding public Wi-Fi networks across India.

A series of **in-depth interviews (IDIs)** were conducted with stakeholders possessing expertise in **digital inclusion, telecommunications infrastructure, internet governance, and cyber policy**. Interviews were conducted with **Mr. Osama Manzar** (Founder and Director, Digital Empowerment Foundation); **Mr. Arun Mukarji** (Senior Director – Operations, Broadband India Forum) and **Mr. Debashish Bhattacharya** (Additional Director General, Broadband India Forum); and **Adv. Raj Pagariya** (Principal, The Cyber Blog India).

The interviews were conducted using a **semi-structured format**, allowing for both guided discussion around the consultation paper's key questions and the flexibility to explore emerging themes in greater depth. Discussions covered a range of issues, including **last-mile connectivity, digital inclusion in rural and underserved communities, economic viability of public Wi-Fi networks, infrastructure bottlenecks, regulatory barriers, security and authentication mechanisms, and the role of different stakeholders in scaling public internet access**. The insights generated through these discussions have informed the analysis, findings, and recommendations presented in this report.

Key →Recommendations

Recognise Public Wi-Fi as Digital Public Infrastructure

- **Shift the focus from connectivity to meaningful access**

Stakeholders emphasised that public Wi-Fi should not be viewed merely as a telecommunications service but as an enabling layer for digital inclusion. Policy frameworks should assess success based on citizens' ability to access services, information, livelihoods, and opportunities, rather than solely on hotspot deployment figures.

- **Align public Wi-Fi expansion with digital inclusion objectives**

Public Wi-Fi initiatives should be integrated with broader efforts to improve access to digital public services, financial inclusion, education, healthcare, and welfare delivery. This would ensure that connectivity investments contribute directly to social and economic development outcomes.

Leverage Public Institutions as Anchors for Public Wi-Fi Deployment

- **Prioritise deployment through trusted public and community institutions**

Stakeholders highlighted that institutions such as schools, colleges, anganwadis, post offices, primary health centres, self-help groups, and community organisations possess existing infrastructure, community trust, and a public-service mandate. These institutions should be encouraged to serve as PDOAs and connectivity hubs.

- **Expand public Wi-Fi in high-impact community spaces**

Deployment efforts should prioritise locations where connectivity can directly improve access to public services, education, healthcare, and livelihoods. Public institutions often offer more sustainable and socially beneficial deployment opportunities than stand-alone commercial hotspots.

Strengthen Last-Mile Connectivity Infrastructure

- **Ensure affordable access to backhaul bandwidth**

Several stakeholders identified access to bandwidth as a major barrier to PM-WANI expansion. ISPs should provide bandwidth access to PDOAs and PDOs on fair, transparent, and non-discriminatory terms to improve the viability of public Wi-Fi services, particularly in underserved areas.

- **Leverage BharatNet infrastructure for public Wi-Fi expansion**

BharatNet-connected institutions and public facilities should be systematically integrated into public Wi-Fi deployment strategies. Schools, health centres, panchayats, community centres, and government offices connected through BharatNet can serve as important last-mile access points.

- **Reduce operational barriers for local operators**

High connectivity costs and difficulties in procuring bandwidth continue to discourage small operators from participating in the ecosystem. Revisiting existing tariff structures and simplifying access arrangements could significantly improve sustainability.

Strengthen Financial Sustainability and Institutional Support

- **Develop viable business models for public Wi-Fi services**

Stakeholders noted that stand-alone pay-per-use Wi-Fi models are often commercially unviable. Public Wi-Fi services may be more sustainable when integrated into existing institutions, businesses, or public services where connectivity complements other activities and revenue streams.

- **Provide targeted support to local operators and entrepreneurs**

Small PDOs and local entrepreneurs often face financial, operational, and technical constraints. Government support through grants, subsidies, innovation programmes, public-private partnerships, or other financing mechanisms should be considered to strengthen the ecosystem.

Improve User Experience Through Seamless Access and Interoperability

- **Enable seamless authentication and roaming**

Repeated registration and authentication requirements discourage user adoption. Stakeholders recommended the development of mechanisms that allow users to authenticate once and access public Wi-Fi networks across multiple locations without repeated onboarding.

- **Promote interoperability across public Wi-Fi platforms**

State-level initiatives, PM-WANI networks, RailTel services, and other public Wi-Fi systems should be interoperable wherever possible. A more integrated ecosystem would reduce fragmentation and improve user convenience.

Strengthen Privacy, Security, and User Trust

- **Establish clear privacy and data protection safeguards**

Many users remain hesitant to use public Wi-Fi because of concerns regarding data collection and misuse. Public Wi-Fi frameworks should incorporate data minimisation principles, transparency requirements, and safeguards against unauthorised use of personal information.

- **Adopt robust security standards for hotspot operators**

Security requirements should be developed to protect users from fraud, cybercrime, identity theft, and other online harms. Consistent standards can help build confidence in public Wi-Fi networks and improve long-term adoption.

Strengthen Governance, Monitoring, and Implementation Mechanisms

- **Establish clear accountability and coordination structures**

Stakeholders consistently identified implementation challenges as a key barrier to success. Dedicated mechanisms should be created to coordinate actions among government agencies, local authorities, telecom providers, PDOAs, and other ecosystem participants.

- **Measure outcomes beyond hotspot deployment**

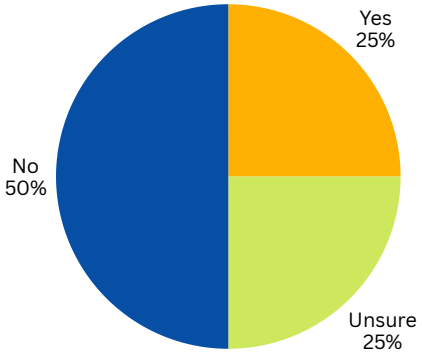
Evaluation frameworks should focus on indicators such as user adoption, service quality, usage by underserved groups, and successful access to digital services. Measuring meaningful outcomes will provide a more accurate assessment of the impact of public Wi-Fi initiatives.

Public Consultation → Feedback

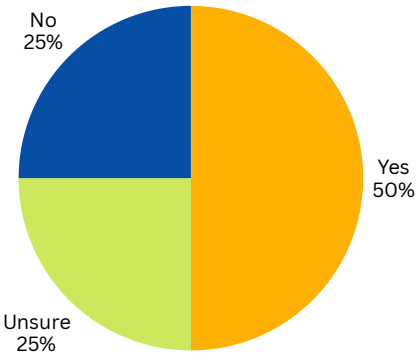
As part of the consultation process, citizens were invited to share their views on key aspects of the proposed framework for public Wi-Fi networks in India. The consultation sought to understand public perceptions regarding privacy and security, deployment priorities, and other considerations relevant to the expansion of public Wi-Fi infrastructure. This section presents a summary of the responses received through the consultation process.

Would you feel comfortable using public Wi-Fi if stronger privacy and security protections were introduced?

Responses to this question were mixed. Half of the respondents (50%) indicated that they would still not feel comfortable using public Wi-Fi even if stronger privacy and security safeguards were introduced, while 25% stated that enhanced protections would increase their willingness to use public Wi-Fi services. The remaining 25% were unsure. The responses suggest that while privacy and security remain important considerations, improving trust in public Wi-Fi networks may also require attention to factors such as reliability, usability, and overall user confidence in implementation.



Should public Wi-Fi be prioritised in rural and low-connectivity areas before cities with better internet access?



A majority of respondents (50%) supported prioritising public Wi-Fi deployment in rural and low-connectivity areas, reflecting recognition of its potential to address connectivity gaps and improve access to digital services in underserved regions. However, 25% of respondents opposed such prioritisation, while another 25% remained unsure, indicating that stakeholders differ on how deployment efforts should be balanced across geographies and user groups.

Additional Suggestions from Citizens

Respondents provided a range of suggestions regarding the future of public Wi-Fi networks in India. Key themes emerging from the feedback included:

- **Privacy and Security**: Citizens emphasised the importance of strong data protection measures, secure authentication mechanisms, and transparency regarding data collection and usage.
- **Digital Inclusion**: Several respondents highlighted the need to prioritise rural communities, economically disadvantaged groups, students, and other underserved populations.
- **Quality and Reliability**: Participants stressed that public Wi-Fi networks should provide reliable connectivity, adequate speeds, and consistent service quality.
- **Ease of Access**: Respondents recommended simplifying registration and login processes and enabling seamless access across multiple locations.
- **Awareness and Digital Literacy**: Some participants suggested complementing infrastructure deployment with awareness campaigns and digital literacy initiatives to encourage adoption and safe usage.

Overall, the consultation feedback indicates strong public support for expanding public Wi-Fi networks, provided that deployment is accompanied by adequate safeguards, quality standards, and measures to ensure equitable access.

In-Depth → Interviews

Mr. Osama Manzar
Founder and Director, Digital Empowerment Foundation

Date: 20th May, 2026
Time: 12:00-12:45 PM
Medium: Virtual

The interview begins with a quick round of introductions followed by questions.

Question: What is your overall assessment of the issues identified in TRAI's consultation on public Wi-Fi? Do the consultation objectives adequately address current challenges in expanding public Wi-Fi access in India?

Response:
This is not a first-of-its-kind consultation. Well before COVID, PM-WANI was announced in the last quarter of 2020 as a scheme. It came out of previous consultations about creating large-scale Wi-Fi hotspots across the country. When RS Sharma was the TRAI chairperson, he was very enthusiastic about it and actually drafted the PM-WANI regulation and its implementation framework. Even before that, when the National Optic Fiber Network (NOFN) was the name of the movement before BharatNet became the buzzword for last-mile connectivity, the whole idea of last-mile Wi-Fi or last-mile access creation was already central.

So, this consultation is not the first of its kind. It is being initiated again because even after PM-WANI and other schemes, meaningful last-mile access is still not materialising in rural India at the grassroots level. Everyone is wondering why, even though licensing became zero through PM-WANI and regulatory ease was created, the proliferation of last-mile Wi-Fi is still not moving forward. That question keeps coming back to the government, TRAI, and most people working in this space. That may be why this consultation has been created.

Question: What is the major distinction between PM-WANI and the Proliferation of Public Wi-Fi consultation?

Response:
The reason this consultation has come up is precisely because PM-WANI was not successful. This consultation, as I read it, is intended to examine what kind of business model or methodology should be adopted for the proliferation of last-mile Wi-Fi hotspots. That is its core purpose.

The difference between PM-WANI then and now is that PM-WANI was launched as a scheme ready for implementation. After five years of being on the ground and open for implementation, this consultation is now trying to gather public input on what could account for its failure and what can be done to make Wi-Fi hotspots proliferate across the country.

It is more about the business model than any regulatory mechanism. Everything is already open. Anyone can become an internet service provider. Anyone can buy internet. Anyone can sell internet. But somehow it is not happening. The purpose of this consultation is to find out what can be done to make Wi-Fi hotspots more proliferated.

Question: How do you assess the current status of India's public Wi-Fi ecosystem, particularly in relation to PM-WANI and broader digital connectivity goals? What have been the key successes and limitations so far?

Response:
There are three or four parts to this. The reasons PM-WANI has not worked span regulatory issues, compliance issues, and business model issues. On the regulatory side, the PM-WANI implementation model requires two middle-layer entities before a hotspot can operate: the PDOA (Public Data Office Aggregator) and the PDO (Public Data Office). The PDOA is responsible for provisioning bandwidth to the PDO, who buys internet to sell as a service. The PDO also handles AAA authentication. While this was eased under PM-WANI, not many of these middle-layer entities came forward.

PDOs found it difficult to do business in last-mile access, largely because big ISPs like Airtel, Vodafone, Jio, and others were unwilling to provide bulk bandwidth to resellers. They did not want to enable someone else to capture a market they preferred to serve directly. At the same time, they themselves cannot reach those areas viably because the ARPU does not justify it. In rural India, there are more miles to cover than the number of people available after covering those miles, whether you are laying fiber optic or erecting Wi-Fi towers.

On the infrastructure side, the AAA authentication service itself requires significant infrastructure investment from PDOAs, which most could not sustain because the business case was unclear. Even where PDOAs became available, they could not sell enough bandwidth to PDOs. A tea shop buying bandwidth has no strong business logic for reselling connectivity when mobile-based internet is already available in many of those areas.

The PM-WANI model actually has better business logic in areas where connectivity is completely absent, so that selling access itself generates revenue. But it requires a very strong backend provision of bandwidth from BSNL, Airtel, Vodafone, Jio, or another large ISP available off the shelf. The government failed here because BSNL, as a public company, should have stepped up to provide bandwidth on demand to any aspiring PDOA, but has not been able to do so. The private sector has not provided it willingly because they see it as losing a business opportunity.

Finally, BharatNet promised to make over 100 Mbps bandwidth available at each of the 250,000 panchayat-level points. After five to six years, they have still not stably reached even 100,000 panchayats. And even where the internet does reach a panchayat, there is no easy mechanism for a local tea shop, school, kirana shop, or anganwadi to buy bandwidth from that point. Buying from BSNL or BBNL at that level is very difficult. It is not available over the counter the way you would buy an Airtel or BSNL connection in a city.

These are the core reasons PM-WANI has not delivered. The regulatory and methodological framework allows anyone to become a PDOA or PDO, but the last-mile nuts and bolts are not in place to support them in doing business.

Question: Does the current consultation account for the policy gaps with PM-WANI?

Response:
Over the last couple of years, as we have started discussing digital public infrastructure, a missing link has become apparent: the cohesiveness of the access pillar. Most discussions around digital public infrastructure focus on India Stack and UPI, but do not talk much about the access layer. Without access, no one can use India Stack, UPI, or any other service. And that means meaningful access, which requires robust last-mile bandwidth infrastructure through Wi-Fi or public institutions.

The government should, as a matter of regulation and policy, insist on making India a digital public infrastructure-ready country. To enable the proliferation of services like UPI, Aadhaar, and India Stack, access must come first. That means making it mandatory and accountably required for ISPs to make last-mile infrastructure available to all PDOAs and PDOs without exception. That is where the government needs to apply pressure.

Second, the PM-WANI model should be opened up to be utilised first by public institutions. All schools, colleges, anganwadis, public health institutes, community health centers, post offices, rural post offices, and banking correspondents working on financial inclusion should be mandated and enabled to become PDOAs. When you allow schools, post offices, and NGOs to apply as PDOAs, it becomes much easier because you are asking existing institutions to use the PDOA framework as a systemic opportunity to become internet service providers for their local communities, buying bandwidth from large ISPs who then cannot say no.

The first right of refusal should go to NGOs, anganwadis, and similar institutions. Only if they are not participating should others be brought in. But for this to work, the government also needs to create a cadre of trained Wi-Fi engineers or technical support staff available at the village level, perhaps five people per panchayat. Without that, connectivity that does get set up will not be sustained.

PM-WANI can be made to proliferate by giving public institutions, private institutions, and civil society organisations the permission and support to use it as a hyperlocal internet service provider, either for their own institutes or for surrounding communities.

Question: Are there specific population groups such as rural users, women, students, migrant workers, or small businesses for whom public Wi-Fi can create significant benefits or address existing connectivity gaps?

Response:
Yes, there are many groups. Gram panchayats at the government institution level can become PDOAs. Community radio stations can become PDOAs. District-level and below registered active NGOs can become PDOAs. Self-Help Groups are eligible to become PDOAs. Banking institutions with a presence at the district level or below can become PDOAs. Government schools, public health centers, and community health centers can become PDOAs. GST-enabled micro and nano enterprises operating at the village level can become PDOAs. Cooperatives can become PDOAs. This is a whole list of existing, reliable, trustworthy, functional institutions. The government should define these as the eligible organisations to apply for PDOA status, and once they are granted a PDOA license, no ISP should be able to say no when they request bandwidth for further selling or utilisation.

These are already existing institutions. We do not need to create new enterprise-level or MSME-level entities. Empowering them will increase diversified, hyperlocal digital infrastructure and contribute to a better digital public infrastructure overall. It will make it easier for people to access the internet, exercise their entitlements, use banking services, and more.

Once these institutions are functional and connected, people will not need to go to the private market. Access will be easier to regulate, cheaper for users, and the business logic will also work for institutions because they are already sustaining themselves through other services. Bandwidth provisioning becomes embedded in their existing business rather than requiring a standalone revenue model. In fact, it strengthens their core service. It is a bit like a business that was already operating and now finds itself located next to a highway. More people come because access is better. Similarly, better bandwidth makes local services faster, saves people travel, and brings services closer to home.

Question: Are there any barriers which may discourage sustained user adoption of public Wi-Fi services, including issues relating to authentication, user experience, trust, quality of service, or awareness?

Response:
A few things could act as barriers or become preventive factors. First is quality. The technical infrastructure supporting a PDOA must be very strongly supported to ensure it actually works. If the quality is poor, adoption will not follow. Second, any model that relies entirely on Wi-Fi as its revenue stream will fail. Virtually no one pays separately for Wi-Fi anymore. Whether you go to a coffee shop, a hotel, or any establishment, internet is not billed separately. The cost of internet connectivity must be embedded in some existing service. That is the proven global business model. Unless bandwidth becomes as commoditized as a necessity, like petrol in a crisis, standalone pay-per-use Wi-Fi will not work as a business.

Third is trustworthiness of the connectivity itself. Are users safe? Are they secure? Are they protected from misinformation, fake news, hate speech, online fraud, and safety threats? This is where local institution-based providers have an inherent advantage. The trust people already have in their local school, anganwadi, or banking correspondent transfers to the connectivity they provide. It is very difficult for those institutions to lose that trust, which makes them more reliable service providers from a safety perspective. Beyond that, the more institutions brought in as PDOAs that have an educational orientation, such as schools, or a women-centric orientation, such as SHGs, anganwadis, or ASHA workers, the more naturally the adoption will spread and the more trustful the ecosystem becomes.

Question: Public Wi-Fi networks often raise questions regarding interoperability, cybersecurity, and privacy safeguards. How adequate are existing mechanisms for addressing these concerns?

Response:
This is more of an awareness and educational matter. If local institutions become stronger in providing digital access, you are simultaneously building better data literacy at the hyperlocal level. That question about data will arise in any case, for any service involving data collection. So building local institution-based meaningful access actually complements the creation of critically aware data literacy among the people using those services.

That said, it is important and necessary to invest in comprehensive data literacy among people, because the entire game of connectivity and access today is built on data. All service providers, whether government or private, are looking at the data of the people they serve. People need to be made strongly aware of what data they are sharing and to understand that they should not share more data than what is required for the specific service they are seeking.

Question: Do we have any suggestions, lessons, or recommendations from international frameworks where a framework for public Wi-Fi has put into practice effectively?

Response:
Honestly, there is no great lesson to draw from any other country. The scale of poverty, the scale of remoteness, and the rural landscape that exists in India is very difficult to find anywhere else. India has actually done better than most in digital access by proliferating wireless technology widely and making data packages extremely affordable. That is a strong model in itself.

What we need to figure out is how to make India's own last-mile public institutions work, because India is very strong in terms of that institutional presence, from schools to banking to health and beyond. This is a nuts-and-bolts issue. It is not a regulatory issue and not a policy issue. It is an implementation issue.

Question: What specific recommendations or safeguards would you suggest for the effective implementation of the consultation paper?

Response:
First, support PDOs regulation-wise, compliance-wise, and financially in building good digital infrastructure. On the supply side, they must be given strong and undeniable access to backhaul bandwidth from large ISPs, without exceptions.

Second, to make PM-WANI work and proliferate last-mile Wi-Fi access, the PDOA model must be propagated among all existing government, non-government, and private institutions that are already functioning. I have listed many of them already.

Third, the government must invest in creating a trained workforce of Wi-Fi engineers or technical experts at the village level. Connectivity that breaks and has no one to fix it will not be adopted or sustained.

Fourth, data literacy must be a parallel and mandatory effort alongside the rollout of access. People accessing connectivity through these local institutions must understand what data they are sharing, with whom, and for what purpose.

Mr. Arun Mukarji, Senior Director – Operations and Mr. Debashish Bhattacharya, Additional Director General, Broadband India Forum

Date: 20th May, 2026
Time: 3:00-3:45 PM
Medium: Virtual

The interview begins with a quick round of introductions followed by questions.

Question: What is your overall assessment of the consultation paper on the Proliferation of Public Wi-Fi? Does the consultation adequately address the current challenges in expanding public Wi-Fi access in India?

Response (Mr. Debashish Bhattacharya):
Public Wi-Fi first entered the policy arena in 2016 through a TRAI consultation in which BIF actively participated. That consultation led to the liberalisation of public Wi-Fi. Before that, public Wi-Fi meant only what telecom operators chose to provide to their customers. There was no liberalised or decentralised public Wi-Fi to speak of.

What TRAI set in motion in 2016 was a shift: taking service provisioning away from operators and opening it up to small-time entrepreneurs, MSMEs, and shopkeepers. That move was enabled by a unique architecture called WANI, the Wi-Fi Access Network Interface. WANI went through versions 0.5, 1.0, and 2.0 before being adopted by the Government of India on 9th December 2020 under the PM-WANI program. BIF was involved in the trial phase from 2016-17 all the way to 2020. It took the government three and a half years to accept the architecture after extensive trials.

PM-WANI has now spent about six years trying to generate enthusiasm for public Wi-Fi, and it has not delivered as expected. To put numbers to it: the National Telecom Policy 2018 set targets of five million public Wi-Fi hotspots by 2020 and ten million by 2022. The Bharat 6G Vision Document from DoT, released on 22nd March 2023, set a target of fifty million hotspots by 2030. With 2030 four years away, we have not even achieved half a million. We have not come close to the old NDCP targets, let alone the new ones.

What TRAI has done with this consultation is analyse the problem comprehensively, looking at it from the supply side, demand side, incentivisation, government policy at the centre and state level, local municipalities, the architectural angle, and critically, the business model. The business model is one of the biggest challenges because small-time shopkeepers cannot sustain a viable model to run PM-WANI. TRAI has examined all of this in a 360-degree manner.

Whether the consultation meets its objectives depends entirely on implementation. If the recommendations are acted on through a dedicated task force with clear authority, accountability, and responsibility, this is the way forward.

Question: What are the major distinctions between the PM-WANI scheme and the current consultation? Does the current consultation address the issues seen in PM-WANI's implementation?

Response (Mr. Debashish Bhattacharya):
TSPs and ISPs are fundamentally opposed to the growth of public Wi-Fi because they see it as competition. Reaching out to them and expecting a constructive response to this consultation is unlikely to yield results. They do not perceive public Wi-Fi as complementary to mobile coverage. They do not acknowledge that there are areas of poor or absent mobile coverage where Wi-Fi could fill the gap.

Ten years ago, walking through a place like Dharavi, you would not get a mobile signal. It was completely patchy. Public Wi-Fi could have supplemented mobile coverage in areas like that. But after ten years of trying to push that narrative, it has not worked. The operators are not going to change their position. So the better approach is to figure out how public Wi-Fi can stand on its own.

The core business model question is this: a tea shop or a Starbucks can offer Wi-Fi and build its cost into the price of the chai or coffee. That works in patches. But there is no universal, sustainable business model that works across the board for small-time business owners. That is the central bottleneck.

Options on the table include government subsidies to help with both capex for setting up the infrastructure and opex for the ongoing backhaul costs from ISPs and TSPs. There is also the BharatNet angle. Wherever BharatNet fibre terminates, there should be a provision for a PM-WANI-based public Wi-Fi hotspot. Beyond the gram panchayat where the fibre lands, institutions in the surrounding area such as police stations, primary healthcare centres, municipal schools, small government offices, and community centres should also be able to access that fibre. We are also suggesting that BSNL, through its Bharat Udyami franchisee program targeting one and a half crore FTTH connections, should be required to attach a public Wi-Fi hotspot to each of those connections. Similarly, under BharatNet Phase 3, which is extending fibre to six and a half lakh villages, each of those endpoints should have a PM-WANI-based Wi-Fi hotspot.

Alongside all of this, backhaul costs need to come down. Currently they are set at 2x the FTTH cost under the TRAI tariff order. We are requesting that this be reduced to 1x or lower. That reduction alone would significantly improve the viability for small-time operators. These are concrete ways the consultation, if implemented well, can actually grow the number of public Wi-Fi hotspots in the country.

Response (Mr. Arun Mukarji):
There are just over four lakh public Wi-Fi hotspots registered on the central registry, whereas the targets are in the millions. We are not going to hit those targets in the coming years continuing on the current path. What the consultation has done is raise questions on every possible aspect, and that is the right approach.

We have had discussions with both DoT and TRAI on these issues. They are looking at it constructively, and there is a genuine sense that this has to succeed. That is why they are seeking feedback from industry stakeholders. The worry, however, is with the PDOs. Many PDOs are effectively nonexistent at this point. Some PDOAs are also nonexistent on the central registry. Some have remained positive, but a significant number have given up entirely and no longer want to continue.

Question: Does the existing regulatory architecture adequately support the growth of public Wi-Fi ecosystems in India? Are there specific licensing, compliance, or institutional barriers that may benefit from policy reform?

Response (Mr. Debashish Bhattacharya):
The area I want to highlight is funding and institutional support, which has been a consistent gap. Small-time PM-WANI entrepreneurs, the PDOs and MSMEs operating at the village level, need handholding in multiple ways. They are often not technically qualified to understand what an access point is, how the technology works, or how to navigate compliance obligations. Money is also a fundamental need

The government waived licensing requirements for PM-WANI, and credit should be given for that. However, the draft telecommunication rules have now introduced an authorisation requirement for PM-WANI under Section 3(1)(a) of the Telecommunications Act 2023. This signals a rethink by the government. The final rules have not been published yet, but the direction is concerning.

More critically, the Universal Service Obligation Fund, which was meant to promote connectivity in rural and remote areas, should have been used to support PM-WANI operators. BIF made a strong pitch to include PM-WANI support under the Digital Bharat Nidhi, the reconstituted USOF under the Indian Telecommunications Act 2023. The final rules published in 2025 explicitly excluded public Wi-Fi and PM-WANI from USOF support, restricting it only to cellular mobile infrastructure in rural and remote areas. That was an institutional choice against Wi-Fi as a technology, and it constitutes a major institutional barrier. The analogy I would use is this: you cannot tell someone who has not eaten for a month that free lunches are not sustainable. Give them one meal, help them get on their feet, and then ask them to be self-sufficient. These operators have never been given that first meal. The government put the Prime Minister's name on the scheme but provided no financial support to the people running it on the ground.

Response (Mr. Arun Mukarji):
On licensing, PM-WANI actually handled this well. There is no license required. All a PDOA has to do is register on the central registry, fill up a contract form, and submit their details. There is no fee. PDOs do not even need to register formally; their count is maintained centrally, but individual PDO details are not publicly listed.

The problem came on the backhaul side. When PM-WANI launched, telcos classified any connection used for a commercial hotspot as a commercial activity requiring a leased line. A leased line costs 40,000 to 50,000 rupees per month, compared to 300 to 1,000 rupees per month for a home broadband connection. That differential killed the business case entirely. TRAI addressed this through a tariff order that allowed FTTX home broadband to be used for public Wi-Fi at 2x the home rate. So a 500-rupee-a-month plan becomes 1,000 rupees. That was a step forward, but it still does not fully resolve the issue. The current consultation has also raised the question of whether this tariff should be revisited, which is a welcome and fair move. TRAI has been getting this right the vast majority of the time, and we believe they will continue to do so here.

One additional point on the ease-of-use side: the PM-WANI sign-in process is currently not seamless. Delhi University has recently mandated open roaming access points across sixty thousand-plus locations so that students automatically connect when they are on any campus within the network. That is exactly what PM-WANI should be doing. Once connected, you should automatically hook on to the next access point and the next without any manual action. TRAI has recognised this and discussions are ongoing on how to correct it.

Question: What barriers may discourage sustained user adoption of public Wi-Fi services, including issues relating to authentication, user experience, trust, quality of service, or awareness?

Response (Mr. Arun Mukarji):
One issue that came up repeatedly from PDOA partners is that when they approach gram panchayats or local government offices to install PM-WANI, those offices say they are willing but need an official government document instructing them to install it. Government offices do not act on the basis of a website or a scheme description alone. Until they have a piece of paper that says this is required, nothing moves. PDOAs are stuck because they cannot even supply to government offices that want the service.

In some cases where installations do happen, the access point gets placed outside the premises and someone subsequently asks for it to be taken down, either due to bureaucratic friction or other pressure. The point is that there is no one actively pushing this from the top down. The PCO concept worked because the telcos promoted it directly. They installed it, trained the shop owner, and collected revenue share. Private sector push and accountability made it work. PM-WANI lacks that kind of structured promotion. Government is in the business of governance, not handholding. But handholding is what this ecosystem needs. Unless state-level municipalities and institutions are brought in and information flows all the way down, adoption will remain patchy. Right of way rules took years to filter down to the states despite pressure from large telcos. A small PDOA has no such lobbying power.

Question: What specific recommendations or safeguards would you suggest for the effective implementation of the consultation paper?

Response (Mr. Debashish Bhattacharya):
What we are working toward is public Wi-Fi that is safe, open, secure, and available to all, ultimately contributing to universal broadband at an affordable price. A combination of the measures that TRAI has zeroed in on, taken together, is what will create the proliferation we are looking for. We are not treating this as a last-ditch effort. We started this movement and we will continue to push until critical mass is reached. To put the scale of the gap in perspective: the global average today is one public Wi-Fi hotspot for every 15 persons. In India, we have approximately one for every 500. There are 630 million public Wi-Fi hotspots across 194 countries globally. India, with one-sixth of the world's population, has just over four lakh eleven thousand. That is the gap we are trying to close.

Adv. Raj Pagariya,
Principal, The Cyber Blog India

Date: 23rd May, 2026
Time: 3:00-3:45 PM
Medium: Virtual

The interview begins with a quick round of introductions followed by questions.

Question: What is your overall assessment of the consultation, and how does it address the current challenges in expanding access to public Wi-Fi?

Response:
My take is fairly simple. We keep setting big targets, such as installing a certain number of Wi-Fi points in a certain number of years, and we have never successfully achieved those targets even once. Now, with states running their own public Wi-Fi initiatives, building a cohesive platform is only going to get harder.

Thinking purely from the end user's perspective: when I am at a railway station, I use RailTel's Wi-Fi. When I step outside, a different web platform opens up and I have to sign up all over again. At that point, it is just easier to use mobile data. Why should I sign up on different platforms at different locations? In my assessment, most people who might use public Wi-Fi have grown up being told it carries serious security risks. So they might use it for streaming, but not for productive or sensitive work. That preconceived notion is a real barrier. Trust is missing. What we actually need to solve is the following: when someone comes from a village to a city like Indore, it should be seamless that even with mobile data turned off, the service works at major hotspots or bus stands. This problem does not exist in urban centers, but it does matter for last-mile connectivity. The person who genuinely needs last-mile connectivity is not in a metro, not in a Tier 2 city, not even in a Tier 3 city. They are in a village with four or five households and two shops.

So the integration between systems is something that needs to be addressed. Many states have their own programs, and other government initiatives like RailTel exist in parallel. Unless we build a single sign-on platform that works everywhere, implementation will always fall short.

Question: Public Wi-Fi networks can raise questions regarding interoperability, cybersecurity, and privacy safeguards. How adequate are existing mechanisms for addressing these concerns?

Response:
Over the last twelve years, I have conducted around 700 cybercrime awareness sessions, including at government higher secondary schools where students only knew Aadhaar and WhatsApp. In all of those sessions, I told people: never enter a password on public Wi-Fi, do not log in, do not do internet banking. That has been a consistent message in awareness content.

But here is the tension: if you are building a structured program to give the public internet access, and a user already has 4G on their phone, why would they switch to your Wi-Fi? They will only switch if the service is fast and reliable. Otherwise, there is no reason to switch. It is fine if it is not working right now, because after walking a kilometer the phone signal improves and the problem goes away. So the first requirement is reliable, consistent bandwidth.

On the trust side, it is not just a technology problem. You can implement every security measure available, but if the people managing those measures are not careful, the system will not hold. A common example: when police investigate a case, the chat logs appear on social media the next day. If that is the operating environment, how do people trust that a new system will be secure? Building a positive perception takes years of consistent effort, and a single incident can undo it all. Given the scale of this project, the risk of a trust-damaging incident is high. Breaking the public association between public Wi-Fi and insecurity will take a lot of effort.

Question: From a legal and policy perspective, what are the major distinctions between PM-WANI and the current consultation?

Response:
Broadly, the intent is the same. Having gone through around 100 pages of the consultation and its questions, I think it is largely trying to do the same thing under a different name.

There is also a part of me that thinks it may be too late. When I go back to my own background, people in villages already have smartphones and are running 5G without any issues. Travel a little further into Madhya Pradesh and you might find some gaps, but by and large, people are already spending significant time on social media through mobile internet. AI assistants are also becoming accessible, even in regional languages. The window where public Wi-Fi would have been genuinely transformative may have passed.

PM-WANI had set a target of lakhs of Wi-Fi access points and openly acknowledged that the target was not met. Now there is a new attempt. But what happens to the old system? Is it being integrated into the new one? Integration is already a problem at the state level, where each state is doing its own thing.

Post-COVID, India now has roughly 85 crore internet users out of an effective user base of around 100 crore. Penetration is already high. If you want to make a meaningful difference, focus on the remaining 10 to 20 percent in genuinely remote areas where accessibility is a serious problem. Those are islands where internet simply does not reach. Allocate funds there. Installing public Wi-Fi in a city like Indore serves little purpose because phones are already working well and mobile operating systems actively warn users that public Wi-Fi may not be secure. The moment for broad public Wi-Fi rollout may have passed.

Question: Does the current regulatory framework adequately support the growth of a public Wi-Fi ecosystem in India?

Response:
On compliance, I often say this plainly: we are not a pro-compliance society. We only worry about compliance when a penalty is imminent. I work extensively on IT law, the DPDP Act, and e-commerce rules compliance. It takes significant effort just to convince organisations that they need to make four policies and change a few processes to be compliant.

The second and related problem is that we have not tried to simplify compliance. Let me give a personal example. I was working on a compliance framework for a particular country. I uploaded our policies to their portal as required. The designated point of contact responded within a week, identified three specific issues, and provided potential solutions with a request to confirm our approach within a week. That was government actively participating in the implementation of its own rules.

In India, that kind of active facilitation does not happen. The expectation is that vendors will search out requirements on their own. My suggestion is to build a platform where onboarding is clear and structured. If I am entering this initiative as a vendor, I should be able to see exactly what my compliance obligations are, what the cost is on a one-time basis and what the periodic cost is, and make an informed decision about whether it is viable. The individual regulations and frameworks are decent on their own. But without a single platform that maps obligations to roles, compliance will always be a problem. The willingness to build that exists, but someone has to take the initiative.

Question: Public Wi-Fi involves multiple actors including telecom service providers, Public Data Offices (PDOs), Public Data Office Aggregators (PDOAs), technology providers, among others. Do existing institutional arrangements enable effective coordination among these stakeholders?

Response:
My concern is that we tend to over-complicate implementation. At this stage it is still a policy-level document, so course correction is still possible. Defining PDOs and PDOAs is fine, but the more entities you define, the more vendors you need to bring in. The government will not do this work directly. It will publish tenders. So whatever your expectations are, they need to be clearly translated into tender documents, and proposals need to address them.

And it will not be one PDOA aggregator for the whole country or one PDO for the whole country. There will be many. So you need quality benchmarks and a dedicated monitoring body to check whether those benchmarks are being met. I know many government contracts where benchmarks are written into the tender, termination clauses are included, and years later the contract has still not been terminated despite non-performance. My concern across all of this is implementation and subsequent monitoring. I am not criticising the project at large because I know it can genuinely benefit people in certain areas. But good intentions are not enough without accountability structures.

Question: What are your suggestions for a more streamlined implementation?

Response:
First, create visible public moments. Send a minister or cabinet minister to inaugurate this in a small village. PM-WANI failed partly because most of the country did not even know it existed. If you are going to do this, make noise, create awareness, give people a reason to use it, and the adoption and revenue will follow.

Second, integration is non-negotiable if this is to work at a national scale. It is not just one or two states running their own programs. There are many such initiatives. The decision needs to be made upfront: are we moving everything to a single platform or not? If yes, the relevant state departments need to be convinced of the benefits and brought on board, which will involve political negotiation. If a new system is being built, study all the existing state-level systems first and design accordingly. Either way, the integration path needs to be decided early and committed to.

Third, address the common problems of public procurement. Small vendors who operate in smaller towns, whether in Wi-Fi services, computer services, or peripherals, often avoid government contracts because payments do not come on time. If you want broader vendor participation, including vendors who can actually operate in remote areas, payment reliability needs to be addressed. If a vendor from Indore is sent 150 km to install Wi-Fi in a village, and the device stops working a week later, same-day support is impossible. You need local vendors in smaller places for this to be sustainable.

Question: Are there any financial or operational challenges that could affect the long-term viability of this project?

Response:
Sustaining infrastructure requires money. The challenge is that in a union of states, fund allocation becomes complicated by politics and coordination. GST took a decade to stabilise as an example of how long these things take. A potential solution to the funding problem is CSR. Beyond funding, the deeper requirement is people who actually understand village life and ground-level challenges. Someone who has only ever worked in air-conditioned offices will design solutions for metros and cities. The actual challenges at the last mile are very different. If the right people, those who understand what those challenges are and how to address them, are involved in design and implementation, this program can do wonders.

Question: What are your top three recommendations for the broader policy framework?

Response:
First, PPP can help solve the funding problem and brings private-sector accountability into the project. Second, if cheap internet is the promise, it cannot come at the cost of quality or service. Affordable pricing and service quality must go together. Third, integration needs to be done properly. With so many existing systems at the state level and in the private sector, people should not be left confused about which network they are on, which sign-in they need, or why their credentials from one location do not work at another. A seamless experience is the baseline for adoption.

Conclusion

The **Consultation Paper on the "Proliferation of Public Wi-Fi Networks in India"** represents an important opportunity to strengthen India's approach to **public internet access, digital inclusion, and connectivity infrastructure**. As digital services become increasingly central to education, livelihoods, governance, and civic participation, the expansion of accessible, affordable, and reliable public Wi-Fi networks will play a critical role in bridging connectivity gaps and supporting the country's broader digital development objectives.

The consultation process demonstrates strong stakeholder engagement with questions relating to **public Wi-Fi deployment, PM-WANI implementation, infrastructure accessibility, business viability, security and authentication frameworks, and last-mile connectivity**. Feedback from citizens, industry representatives, digital inclusion practitioners, telecommunications experts, and civil society stakeholders underscores that the success of public Wi-Fi initiatives depends not only on enabling policy frameworks but also on **practical implementation measures, sustainable business models, institutional coordination, and user-centric design**. Stakeholders consistently highlighted the need to address barriers to adoption while ensuring that public Wi-Fi networks remain accessible, interoperable, secure, and economically viable.

This report consolidates citizen perspectives and expert insights to inform the continued development of India's public Wi-Fi ecosystem. The recommendations seek to strengthen **affordability, accessibility, sustainability, and ease of deployment, while supporting broader goals of digital inclusion, universal internet access, and equitable connectivity**. By addressing implementation challenges and incorporating stakeholder feedback, the proposed measures can help create a more robust and inclusive public Wi-Fi framework that contributes meaningfully to India's evolving digital ecosystem and connectivity ambitions.

Acknowledgement

This report and the insights contained within it are the result of a collaborative effort involving citizens, experts, industry representatives, and civil society stakeholders whose perspectives and experiences have significantly contributed to the discussion on the Consultation Paper on the “Proliferation of Public Wi-Fi Networks in India.”

We extend our sincere gratitude to all individuals who participated in the consultation process and shared their views on the opportunities and challenges associated with expanding public Wi-Fi networks across India.

We are especially grateful to the experts who generously shared their time and expertise through in-depth interviews, including Mr. Osama Manzar, Founder and Director, Digital Empowerment Foundation; Mr. Arum Mukarji, Senior Director – Operations, Broadband India Forum; Mr. Debashish Bhattacharya, Additional Director General, Broadband India Forum; and Adv. Raj Pagariya, Principal, The Cyber Blog India.

We also acknowledge the role of organisations, platforms, and stakeholders who supported outreach and awareness efforts, helping to broaden participation in the consultation process and encourage informed public engagement on issues relating to public Wi-Fi and digital connectivity.

This report reflects the value of participatory policymaking in shaping India's digital future. We hope it serves as a constructive contribution towards strengthening an accessible, affordable, secure, and sustainable public Wi-Fi ecosystem that advances the goals of digital inclusion, universal internet access, and equitable connectivity across the country.

Annexure

→ Citizen Feedback

S. No.	Name	User Response
1	Citizen Leader	This is a good move to take India to the next step in terms of digitalisation but the concern still remains on privacy and security. While this draft is cognisant of it, when the policy is rolled out and actioned we will know finally if the privacy and security concerns are actually concerned.
2	Citizen Leader	I welcome TRAI's efforts to examine how public Wi-Fi can be expanded and strengthened in India. As public services, education, healthcare, banking, welfare schemes and civic participation become increasingly digital, internet access is no longer merely a matter of convenience—it is increasingly a prerequisite for exercising rights, accessing opportunities, and participating fully in society. In considering the future of public Wi-Fi in India, I encourage TRAI to focus not only on connectivity, but on meaningful access. 1. Public Wi-Fi should be treated as digital public infrastructure The success of public Wi-Fi should not be measured solely through the number of hotspots deployed or the amount of data consumed. Instead, it should be evaluated by whether people are able to meaningfully access services, information, opportunities and entitlements. Many citizens continue to face barriers despite nominal connectivity. These barriers include shared device ownership, poor network quality, limited digital literacy, language barriers, authentication challenges and affordability constraints. Public Wi-Fi should therefore be viewed as an enabling layer for digital inclusion and citizen agency, rather than simply another telecom service. 2. Prioritise deployment in public institutions and high-impact community spaces Priority deployment should be given to spaces where connectivity directly enables access to services, learning, livelihoods and rights.

S. No.	Name	User Response
2	Citizen Leader	These include: - Government schools and colleges - Anganwadis - Primary Health Centres and public hospitals - Panchayat offices - Ration shops and fair price shops - Post offices - Community radio stations - Women's self-help group centres These institutions often have stronger local trust, existing infrastructure and a public-service mandate. TRAI may consider recommending that all publicly funded institutions progressively provide PM-WANI-enabled connectivity as a public service. 3. Consider international case studies where public wifi is seen as public community infrastructure Examples from countries such as Brazil, Mexico, Indonesia and Kenya suggest that public connectivity programmes are most useful when they are not treated only as commercial internet services, but as shared infrastructure linked to public institutions and community access points. Across these contexts, common lessons include: - Schools, libraries, health centres, local government offices and community centres are often more effective anchors than standalone commercial hotspots, because they already have relationships with users. - Even where mobile data is widely used, shared public connectivity remains important for students, low-income users, rural communities, migrants and people without reliable personal devices. - Public Wi-Fi is most meaningful when it helps people access education, healthcare, government services, welfare schemes, jobs or civic participation.

S. No.	Name	User Response
2	Citizen Leader	4. Strengthen public Wi-Fi in mobility and transit spaces In urban areas, public Wi-Fi can play an important role in improving productivity and access in high-mobility environments such as: - Railway stations - Metro stations - Bus terminals - Airports - Major government offices For many business persons, migrant workers, students, gig workers and travellers, these locations serve as critical points of connectivity. Public Wi-Fi in such spaces should be reliable, easy to access and available without excessive onboarding friction. 4. Strengthen public wifi in shared Public Spaces Public Wi-Fi deployment should not be limited to government service centres and transport hubs. Shared public spaces play an important role in learning, social interaction, tourism and civic life. TRAI may consider encouraging deployment in: - Public libraries - Public parks - Community centres - Public squares - Museums - Cultural institutions - Tourist information centres - Major heritage and tourism destinations One of the most useful international examples may be the EU's WiFi4EU programme, which funded municipalities to install free Wi-Fi in public spaces including libraries, parks, museums, public squares, and municipal buildings. 5. Revisit the business model for PM-WANI deployment The limited scale achieved by PM-WANI so far suggests that additional attention is needed to the business viability of public Wi-Fi deployment. In many contexts, internet access alone may not provide sufficient revenue to sustain hotspot operators. Consumers are accustomed to paying mobile operators for internet access and often expect public Wi-Fi to be free.

S. No.	Name	User Response
2	Citizen Leader	Public Wi-Fi may be more sustainable when embedded within institutions and services that already serve communities, like schools. Post offices, panchayats, etc., rather than relying solely on stand-alone entrepreneurship. TRAI should therefore examine contexts where Wi-Fi functions as a complementary service rather than a standalone revenue-generating product. For example, cafés, restaurants, retail stores, and hospitality businesses often use Wi-Fi to attract customers, increase dwell time or improve user experience. Studying successful examples of such models could help identify sustainable approaches for PM-WANI deployment and reduce reliance on direct user payments. TRAI, DoT or other relevant agencies could also consider supporting innovation challenges, hackathons or pilot programmes that invite entrepreneurs, researchers, management consultants and industry experts to develop sustainable models for public Wi-Fi deployment. Particular focus could be placed on identifying revenue streams, operational partnerships and institutional arrangements that allow public Wi-Fi networks to remain affordable while being financially sustainable. 6. Encourage targeted interventions for underserved groups Digital exclusion continues to disproportionately affect women, low-income households, rural communities, older persons and feature-phone users. Public Wi-Fi policy should incorporate targeted measures that improve access for these groups and ensure that deployment decisions are informed by equity and inclusion considerations. A gender-responsive deployment strategy could help address persistent gaps in internet access and digital participation. For example, public Wi-Fi deployment strategies should explicitly consider locations regularly accessed by women and girls, including schools, colleges, market places used by women. TRAI may also explore partnerships with women's collectives and self-help groups as local operators or champions of public Wi-Fi infrastructure.

S. No.	Name	User Response
2	Citizen Leader	7. Plan for digital literacy building The success of public Wi-Fi initiatives should not be measured solely through infrastructure deployment. Meaningful adoption also depends on users having the skills, confidence and information necessary to safely and effectively navigate the digital ecosystem. As public Wi-Fi networks expand, TRAI and relevant government agencies should encourage complementary digital literacy initiatives that help citizens: - Connect to public Wi-Fi networks - Identify legitimate and secure networks - Protect personal information and avoid scams - Use digital payments safely - Access government services and entitlements online - Navigate the internet in their preferred language - Understand basic cyber-safety and privacy practices Particular attention should be given to first-time internet users, women, senior citizens, rural communities and other digitally excluded groups. TRAI may consider encouraging partnerships with socially driven content creators, civil society organisations, community-based organisations, educational institutions and digital inclusion initiatives to develop and deliver locally relevant digital literacy programmes. Existing community networks—including self-help groups, libraries, schools, community radio stations and grassroots organisations like Gram Vaani—can serve as trusted intermediaries for awareness-building and user support. Information materials should be available in local languages and through multiple formats, including audio, video, visual and assisted-access models, to ensure accessibility for diverse user groups. 8. Establish Minimum Quality Standards The availability of public Wi-Fi alone does not guarantee meaningful access. A connection that is cheap but slow, unreliable or difficult to authenticate remains a barrier. TRAI may consider developing minimum service standards covering: - Download and upload speeds - Network uptime - Reliability benchmarks - Security requirements - User experience metrics

S. No.	Name	User Response
2	Citizen Leader	Regular quality audits and public reporting could help build trust and ensure that public Wi-Fi networks remain usable rather than merely available on paper. In addition to tracking hotspots and subscriptions, TRAI should consider indicators such as: - Number of unique users - Usage by women and underserved groups - Reliability and uptime - time taken to complete common tasks - Successful access to public services and completion of tasks - Usage in schools, health centres and community institutions - User satisfaction and trust These indicators would provide a more accurate picture of access quality rather than just coverage, and whether public Wi-Fi is contributing to meaningful digital inclusion. 9. Improve usability through seamless access and roaming One of the major barriers to public Wi-Fi adoption is the repeated need to register, authenticate and sign in across different locations. TRAI should explore mechanisms that allow users to authenticate once and securely access PM-WANI networks across multiple locations without repeated registration requirements. Simplifying onboarding and enabling seamless roaming would significantly improve adoption and user experience. 10. Build trust through strong privacy and data protection safeguards Many users remain hesitant to use public Wi-Fi due to concerns about privacy and security. Public Wi-Fi frameworks should incorporate: - Data minimisation principles - Clear disclosure of data collection and retention practices - Limits on commercial exploitation of user data - Strong security standards for hotspot operators Users should be able to understand what information is collected, why it is collected and how it is used. Conclusion: India has made significant progress in expanding internet access through mobile connectivity. Public Wi-Fi presents an opportunity to complement these gains by creating shared, trusted and affordable digital infrastructure. To realise this potential, policy should focus not only on expanding connectivity, but on ensuring that connectivity translates into meaningful access, participation and opportunity for all citizens.
3	Citizen Leader	Public wifi systems can interfere with other signals creating a mess. Also they can impact health of living persons and other fauna in that area. there is no need for public wifi systems. In many ways these systems can be hazardous, with gullible and innocent people getting trapped. Most public systems in India are under maintained and are vulnerable for misuse and abuse.

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