



XiFi Networks

Response To

TRAI's Consultation Paper on

Model for Nation-wide Interoperable

and

Scalable Public Wi-Fi Networks

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Contents

1. INTRODUCTION
2. RESPONSE TO TRAI'S CONSULTATION PAPER

1. Introduction

XiFi Networks applauds the Telecom Regulatory Authority of India (TRAI) for issuing the “Consultation Paper on Proliferation of Broadband through Public Wi-Fi Networks” and subsequently issuing the follow up “Consultation Paper on Model for Nation-wide Interoperable and Scalable Public Wi-Fi Networks”.

Based on the insights shared and the constructive inputs collated from several ecosystem stake holders, XiFi Networks team believes that TRAI is moving towards a policy framework which will help the execution of the Digital India Vision.

We believe that the recommendations suggested shall ensure that India's Wi-Fi Hotspot footprint will be increased manifold. Un-bundling access providers and traditional ISPs will encourage local level entrepreneurs, retail stores etc. to embrace Wi-Fi as a service, and is the fastest and safest way to facilitate rapid proliferation of Wi-Fi in India.

2. Response to TRAI Consultation Paper

Q1. Is the architecture suggested in the consultation note for creating unified authentication and payment infrastructure will enable nationwide standard for authentication and payment interoperability?

Response: We believe the nationwide enablement will depend not just on the architecture proposal but on a standardization of execution of this architecture. Which needs to take in to account the following constraints:

Globally, standard protocols like WECP (Wi-Fi Certified Passpoint) are being used, which have been developed on the IEEE 802.11u. Pass point automates that entire process, enabling a seamless connection between hotspot networks and mobile devices, all while delivering the highest WPA2™ security. However, in India, the presently deployed Wi-Fi infrastructure is unlikely to be compliant to WECP. Hence, it is likely to be running different authentication protocols like PEAP, EAP-FAST/TLS. Hence, we recommend that both WECP and existing protocols should be supported. A unified authentication architecture can be standardized for nation-wide deployment, since existing deployments rely on WLAN-authentication by user. A body to define and manage this entire process including eventual migration to WECP would be beneficial. In such a case, authentications through e-KYC and for tourists through passport numbers would also be easier to design

Q2. Would you like to suggest any alternate model?

Response: As suggested above, for the enablement of a unified authentication architecture to be standardized nationwide, there should be an Organization/Body setup to manage the uniformity of Authentication and payment interoperability

Q3. Can Public Wi-Fi access providers resell capacity and bandwidth to retail users? Is “light touch regulation” using methods such as “registration” instead of “licensing” preferred for them?

Response: OECD countries have different strategies regarding unbundling local loop and infrastructure competition, as the characteristics and infrastructure networks of countries vary. The use of policy depends on the extent of competition in broadband infrastructure. Given the supply crunch facing the country, light-touch regulation would help accelerate Wi-Fi deployments rather than licensing.

Q4. What should be the regulatory guidelines on “unbundling” Wi-Fi at access and backhaul level?

Response: Post-unbundling, backhaul can be provided with a license while Wi-Fi access can be provided with light-touch regulation like registration.

In Retail Stores, small village/villages, Wi-Fi can be used dynamically as access (hotspots) or connect to the one or more access/hotspots for backhaul, using mesh architecture and dedicated bridge mode for optimal use of multiple hotspots. Wi-Fi deployment should be encouraged as a light touch regulation technology even if it used as a combination of hotspots and backhaul - to ensure faster and cheaper deployment at the road-side shops, smaller villages. Given that in such cases a clear distinction cannot be made, we recommend that any service provider using Wi-Fi technology shall be treated as light-touch regulation.

Other things that can also be incorporated are - to allow all 2.4 and 5 GHz to be used for outdoor use, increase the max allowed power levels/EIRP for all bands, as long as they are meeting all safety norms for prescribed EMF radiation levels. This is to allow higher coverage per deployment, resulting in faster deployments.

Q5. Whether reselling of bandwidth should be allowed to venue owners such as shop keepers through Wi-Fi at premise? In such a scenario please suggest the mechanism for security compliance.

Response: With the aspiration that Mobile Broadband proliferation needs to happen to the remotest of locations in India, we need to ensure that the policy motivates and enables any shopkeeper having a registered shop (Like the roadside hawkers, chaiwallahs etc.) to be allowed to become a hotspot service enabler and included in the list of partners mentioned in Point no. 16.

From a Security compliance perspective, the Internet Feed to the Hotspot enabler shall continue to be regulated by the ISP/Fixed BB Provider. e-KYC and other authentication procedures suggested in Q1, in

addition to authentication hand-over from mobile operators (available in ~25-30% of existing smartphones in India and expected to cross 60% by 2017) shall also address the security compliance issue.

Q6. What should be the guidelines regarding sharing of costs and revenue across all entities in the public Wi-Fi value chain? Is regulatory intervention required or it should be left to forbearance and individual contracting?

Response: One should look at Public Wi-Fi as an example of PPP model like toll-highways. Regulatory intervention to ensure maximum charges and a fixed time-period beyond which such charges may not be exercised would be necessary, rather than a complete autonomy in setting prices. Given the interest of the OTT and data-analytics segments in developing the Indian market, there should be no shortage of bidders for such a PPP model.