



July 25, 2016

TO:

RS Sharma  
Chairman, Telecom Regulatory Authority of India

Shri A. Robert J. Ravi,  
Advisor (QoS), Telecom Regulatory Authority of India

*Re: Comments by the Mozilla Corporation on the Telecom Regulatory Authority of India's  
Consultation Paper on Cloud Computing*

Dear Sirs,

Thank you for the opportunity to submit comments on the Telecom Regulatory Authority of India's Consultation Paper on Cloud Computing. Mozilla welcomes the opportunity to comment on how TRAI may continue to further investment in Internet technologies in India and promote the orderly growth of the Internet and the telecommunications sector.

As you are likely aware, Mozilla produces the Firefox web browser and other products and services collectively adopted by hundreds of millions of individual Internet users around the world. Mozilla is also a foundation that educates and empowers Internet users to be the Web's makers, not just its consumers. Finally, Mozilla is a global community of technologists, thinkers, and builders, including thousands of contributors and developers in India, who work together to keep the Internet alive and accessible.

India has experienced exponential growth in cloud computing services. TRAI observed that the cloud computing market reached a value of \$1.08 billion in India last year alone. TRAI's consultation paper seeks comment on how a regulatory framework for cloud computing could effectively encourage further deployment of such services, and in so doing, touches on a large number of related issues.

We applaud TRAI's continued leadership on timely Internet policy issues, and we appreciate the consultation paper's exploration of cloud computing as a significant frontier for consideration. We welcome the thoughtful discussion of privacy implications in the cloud in this consultation, and note in addition the potential value of looking at privacy more broadly. However, we are concerned by some aspects of the proposals, particularly where they are broader than the context of cloud computing, as they risk undermining India's commitment to promoting the orderly growth of the Internet through openness, technology innovation and the Digital India initiative.

In this submission, we highlight three particular issues contemplated in this consultation paper:

- A dedicated debate on a privacy framework in India is needed to adequately address privacy concerns;
- Data localization mandates and data retention requirements undermine security and the integrity of the Internet; and
- Mandatory licensing requirements for cloud computing services would greatly impede innovation.

***A dedicated debate on a privacy framework in India is needed to adequately address privacy concerns.***

The consultation paper addresses many issues that arise in the context of cloud computing including cybersecurity, interoperability, cross-border data transfers, and data privacy. We appreciate TRAI's focus on privacy and push to afford users more control of their data in the cloud computing market. TRAI appropriately observes that "data security in the cloud computing must necessarily be safeguarded when processing personal data" and that "[c]onfidentiality, availability and integrity of data must be ensured by means of appropriate organisational and technical measures."<sup>1</sup> We note also with interest the possibility of a "privacy steering committee" and the reference to the proposed Right to Privacy Bill.

We appreciate TRAI's effort to engage meaningfully with these important issues. However, Mozilla believes that the present forum is inadequate to fully address them. While we appreciate the importance of privacy expressed in the consultation, we respectfully urge TRAI and the Government of India to approach privacy more broadly and not limit its treatment of the issue to the context of cloud computing. The management of cloud computing services may very well raise privacy concerns, but TRAI should avoid approaching privacy on a technology-specific basis, which can lead to inconsistent law and obscure the path forward for new technology. Moreover, the protection of user privacy should not be dependent on their choice of technology. The protection of privacy can be accomplished through more general standards, which has the added benefit of providing a more future-proof approach, allowing new companies and entrepreneurs to apply these standards as new technologies develop. Mozilla therefore respectfully encourages TRAI and the Government of India to pursue the protection of user privacy and data protection through a dedicated regulatory or legislative process and to engage in an open, public debate on these important issues.

This need is all the more urgent following the Supreme Court of India's conflicting decisions regarding the existence of a right to privacy under the Constitution. Without a strong foundation in privacy protections, it is difficult to see how any regulations in a context specific to a nascent market would adequately protect the rights of users.

***Data localization mandates and data retention requirements undermine security and the integrity of the Internet.***

Mozilla is concerned with the consultation paper's discussion of data localization mandates and local data retention policies as a part of the cloud computing framework. In outlining possible options to regulate a legal framework for cloud computing, the consultation states:

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<sup>1</sup> Consultation Paper on Cloud Computing, Telecom Regulatory Authority of India (Jun. 10, 2016), at 45, [http://www.trai.gov.in/Content/ConDis/20777\\_0.aspx](http://www.trai.gov.in/Content/ConDis/20777_0.aspx).

*To overcome the problem of multiple jurisdictions one of the possibilities may be to mandate the cloud service providers to host the data centers only in India. Another alternative may be to impose restriction on cross border movement of some critical information like tax returns, financial transactions, health records, etc.<sup>2</sup>*

The consultation also seeks comment on steps that can be taken by the Government of India to promote the establishment of data centers within India, a development that isn't problematic in itself but can be used to fuel concerning discussions about possible mandates on data storage and flow.<sup>3</sup> Collectively, these proposals risk harm to the integrity of Internet traffic, the privacy and security of users, and innovation online.

*First*, data localization policies that mandate national borders for data or introduce new restrictions on data portability present a major threat toward the growth of cloud computing by introducing high costs and actual limitations on technology innovation, development, and use. Instead of imposing unnecessary legal barriers, TRAI should support further study of the harmful impact of such policies and the benefits of advancing open information flow across jurisdictions.

A mandate to route traffic through data centers within the borders of India would massively disrupt the efficient and effective flow of Internet traffic, contravening the mandate of TRAI to ensure the orderly growth of the Internet and the telecommunications sector. Efficient Internet routing depends on the network's end-to-end design and dynamic transfer of packets of data. Routing protocols are designed to ensure that these packets travel along the most efficient route between two points. Limiting the routes data can travel ultimately undermines the efficiency and potentially the integrity of Internet traffic. Requirements to store data in India or segregate certain types of data may present a prohibitively difficult and expensive barrier to startups, hurting innovation, limiting entrepreneurship, and undermining the promise of Digital India.

*Second*, the consultation appears to indicate that its discussions of data localization mandates are based on a desire to increase government surveillance capabilities. TRAI observes that the "Indian government has for years supported the idea of foreign firms storing data within the country," citing the "need to monitor domestic Internet traffic for national security reasons, concerns over foreign surveillance, and a desire to ensure that data is subject to local laws."<sup>4</sup>

Using data localization as a tool to increase government collection and retention of user data in India significantly impacts trust and openness online. The consultation paper's proposals for improving privacy in the context of cloud computing alone are insufficient to remedy this harm. Without established privacy protections and norms in India for data protection, it is difficult to anticipate any possible cloud computing regulatory regime alone providing sufficient privacy protections.

Although comprehensive engagement with privacy and trust issues is needed, the Government of India can achieve some benefit by adopting positive principles in the context of government surveillance activity. In particular, we suggest the following as a baseline set of considerations:

- **User Security.** Government should act to bolster user security, not weaken it. This includes promoting strong and reliable encryption as a key tool in improving security.

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<sup>2</sup> *Consultation Paper on Cloud Computing* at 59.

<sup>3</sup> *Consultation Paper on Cloud Computing* at 74.

<sup>4</sup> *Consultation Paper on Cloud Computing* at 66.

- **Minimal Impact.** Government surveillance decisions should take into account global implications for trust and security online by focusing activities on those with minimal impact.
- **Transparency and Accountability.** There must be independent oversight bodies to ensure public trust in the government by detailing the limited circumstances where the government may access and use personal data.

***Mandatory licensing requirements for cloud computing services would greatly impede innovation.***

In previous consultations undertaken by TRAI and DOT there has been some speculation about how to ensure that OTT providers are sufficiently doing their part to protect national security. Specially, it was envisaged in previous consultations that OTT providers should be made subject to the same or similar licensure requirements as TSPs.

In the present consultation, TRAI again seeks comment on the appropriateness of licensing requirements for cloud computing services. Mozilla emphasizes that licensing requirements should not be used as a way to impose access requirements for law enforcement and government retention for data stored in cloud services. Any mandatory licensing scheme would prove onerous and would increase the costs of creating online, thereby discouraging Indian entrepreneurs from building the next Internet giant. The Department of Telecommunication rightfully concluded in 2015 that licensing requirements for OTTs were not warranted, and we respectfully recommend that TRAI should likewise conclude the same for cloud computing.<sup>5</sup>

***Conclusion***

We commend TRAI and the Government of India for the continued work to further the growth of the Internet by engaging in consultations on timely issues. Mozilla appreciates the thoughtful approach taken to consider the diverse set of issues that arise from the context of cloud computing, but we believe that the cloud computing market and the orderly growth of the Internet would be better served by conducting more thorough public discussion on the critical issues raised in the consultation paper through dedicated consultations, notably on privacy and the appropriate limits of government surveillance. Further, we urge TRAI to avoid any approach that includes data localization mandates or strict licensing requirements in cloud computing.

*Respectfully submitted by:*

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<sup>5</sup> Net Neutrality DoT Committee Report, Department of Telecommunications (May 2015), [http://www.dot.gov.in/sites/default/files/u10/Net\\_Neutrality\\_Committee\\_report%20%281%29.pdf](http://www.dot.gov.in/sites/default/files/u10/Net_Neutrality_Committee_report%20%281%29.pdf).