



भारतीय दूरसंचार विनियामक प्राधिकरण
TELECOM REGULATORY AUTHORITY OF INDIA
भारत सरकार / Government of India



Letter No. _R-3/7(3)/2021-QoS (E 2168)

Dated: 29.09.2023

To

The Secretary
Department of Telecommunications,
Sanchar Bhawan
New Delhi -110001

Subject: TRAI's Response to DoT's Back-Reference dated 13.04.2023 on TRAI's recommendations dated 14.09.2020 on "Cloud Services"

Through the letter No. 4-41/Cloud Services/2021-NT dated 13.04.2023 (**Annexure-I**), DoT has referred back TRAI's recommendations dated 14.09.2020 on "Cloud Services" for reconsiderations. The issues raised in the back reference letter have been examined and following facts are submitted-

1. A cloud service is a type of computing service that allows users to access and use resources over the internet such as storage, servers, databases, software and analytics. There are different types of cloud services such as infrastructure as a service (IaaS), platform as a service (PaaS) and software as a service (SaaS). Any framework in this regard should accomplish all aspects of the cloud services in totality for their comprehensive development to compete at global level.
2. TRAI recommendations were submitted based on DoT clarifications, vide its letter dated 22.06.2015 intimating that MeitY had formed a Task Force and a Working Group for Cloud adoption framework with a Cloud Management Office to accredit Service Providers. DoT advised TRAI to collaborate with the Working Group for recommendations.
3. After following a comprehensive consultation process with the stakeholders, TRAI submitted the Recommendations on "Cloud Services" to DoT on 16.08.2017. The recommendations mainly included the following:
 - i. Light-touch regulatory approach has been adopted to regulate cloud services.

- ii. DoT shall prescribe a framework for registration of Cloud Service Providers (CSPs) industry bod(y)(ies), which are not for profit, all CSPs above the threshold to be notified by the Government have to become member of one of such industry body.
 - iii. Industry body will prescribe Code of Conduct (CoC) for its functioning which have to be followed by their members. In addition to CoC, there will be a governance structure of the industry body aimed to support effective and transparent implementation, management and evolution of the CoC. Industry body, not for profit, may charge fee from its members which is fair, reasonable and non-discriminatory.
 - iv. Industry body will also have a disclosure mechanism to promote transparency regarding interoperability, billing, data security and other related matters.
 - v. A Cloud Service Advisory Group (CSAG) to be created to function as oversight body to periodically review the progress of Cloud services and suggest actions, if any, to the Government.
 - vi. Telecommunications Standards Development Society of India (TSDSI) has been tasked to develop standards for ensuring interoperability for cloud services.
 - vii. Government may consider enacting an overarching and comprehensive data protection law covering all sectors.
 - viii. Government shall draw a robust Mutual Legal Assistance Treaty (MLAT) to address the jurisdictional issues and amend existing MLATs to include lawful interception or access to data on the cloud.
 - ix. Government shall continue its policy to promote cloud services through cloud infrastructure projects. Ministry of MSME may also continue to promote adoption of ICT in the sector including providing subsidies as being done at present.
4. The government accepted all recommendations, which was communicated vide DoT letter dated 6th May 2019. Further vide DO letter no 4 - 4/ Cloud Services/2017-NT dated 27.09.2018 DOT informed that the TRAI recommendation regarding framework for registration of CSPs industry body(ies), which are not for profit, has been accepted by Government in principle. Accordingly, additional recommendations were requested by DoT from TRAI on the terms and conditions of registration of industry body, eligibility, entry fee, period of registration and governance structure, etc.
5. Once again after following an extensive consultation with relevant stakeholders, TRAI presented its "Cloud Services" recommendations to the Government on 14.09.2020. It included the following main recommendations:

- i. Initiating a light touch regulatory framework by setting up an industry body through a three-step process: enrolment of CSPs operating in India; formation of an adhoc body to frame broad rules, organizational structure, election procedure, etc; and the election of office bearers to take over its functioning as a regular industry-led body.
 - ii. Industry body to be registered under the Societies Registration Act, 1860 and to be formed using the approach followed for the formation of the M2M body by DoT.
 - iii. Scope of Cloud Service Providers, initially, to be limited to cloud service providers of Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) who are providing services in India.
 - iv. Telecom Service Providers not to be allowed to share infrastructure and platform related to Telegraph with a Cloud Service Provider (CSP), who is not a member of CSPs industry body registered with DoT.
 - v. The industry body so created to review its experience and further deliberate upon the need to form multiple bodies for different purposes such as, to address requirements of different market segments. DoT may require this review after 2 years of commencement of the functioning of first industry body, or such time as it considers appropriate.
6. Cloud service providers often rely on telecom networks to deliver their services and telecom operators may offer cloud services as part of their portfolio. Cloud services and telecommunications are increasingly intertwined, as new technologies use telecom resources to provide cloud-based data storage and vice versa. This creates challenges for regulation, as the boundaries between these sectors become less clear.
7. There are several common things between cloud services and telecom services. Some of the key similarities include:
- a. Network Infrastructure: Both cloud and telecom rely on network infrastructure to deliver their services to customers. Cloud services require high speed, reliable and scalable network infrastructure to deliver data and applications to users, while telecommunications companies use their network infrastructure to provide voice and data transmission services to their customers including cloud service providers.
 - b. Data Centers: Both cloud services and telecom services require high-performance, reliable and scalable data centres. Cloud service providers operate data centers to store and process customer data and applications, whereas telecommunications companies use data centers to store and process customer data and network information such as billing data and network

performance metrics. Infrastructure created for data centers can be leveraged for both telecom and cloud services.

- c. Security: Both cloud and telecom services have similar security requirements. Service Providers in both domains must safeguard their network and data centers against cyber threats and unauthorized access. This involves employing measures like firewalls, encryption, and access controls. Regular security audits and penetration testing are common practices to discover vulnerabilities and validate the efficiency of security controls.

8. National Digital Communications Policy (NDCP) 2018¹ has envisaged the following strategies for the growth and development of Cloud Services in India:

“Establishing India as a global hub for cloud computing, content hosting and delivery, and data communication systems and services.

- i. *Evolving enabling regulatory frameworks and incentives for promoting the establishment of International Data Centres, Content Delivery Networks, and Independent Interconnect exchanges in India.*
- ii. *Enabling a light-touch regulation for the proliferation of cloud-based systems.*
- iii. *Facilitating Cloud Service Providers to establish captive fiber networks.*

9. To accomplish above strategy TRAI submitted comprehensive recommendations to the Government on ‘Regulatory Framework for Promoting Data Economy through Establishment of Data Centres, Content Delivery Networks, and Interconnect Exchanges in India’ dated 18th November 2022.

10. The issue whether the cloud services fall under the ambit of TRAI Act and Telegraph Act has been deliberated in detail in Section B, Para 3.4 of the TRAI’s recommendations on ‘Cloud Services’ dated 14th September 2020 and the following was concluded in Para 3.5 of these recommendations-

Para 3.5

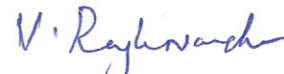
“The need to regulate CSPs

a) As discussed in the previous paras, cloud infrastructure and services cannot be separated from the telecom infrastructure and services from a regulatory perspective. With convergence, TRAI needs to make regulatory interventions as and when required in case of cloud services to protect the interests of

¹ Strategy No 2.2 (f) mentioned under the Propel India mission related to ‘Ensuring a holistic and harmonized approach for harnessing Emerging Technologies’.

customers. TRAI, under its ambit, as provided in the TRAI Act and the Indian Telegraph Act, can make recommendations to the Government on Cloud Services. And DoT can consider its recommendations to introduce appropriate measures or institutional mechanisms to deal with the issues related to 'Cloud Services'."

11. In view of the above, TRAI reiterates its recommendation on 'Cloud Services' dated 14th September 2020. TRAI proposes that these recommendation should be considered in holistic manner along with the TRAI's Recommendations '*Regulatory Framework for Promoting Data Economy through Establishment of Data Centres, Content Delivery Networks, and Interconnect Exchanges in India*' dated 18th November 2022.


(V. Raghunandan)
Secretary, TRAI

Encl- As above.

ANNEX 2

Government of India
Ministry of Communications
Department of Telecommunications
Network & Technologies (NT) Wing

No. 4-41/Cloud Services/2021-NT

Dated: 13.04.2023

To,
The Secretary,
Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan,
Jawaharlal Nehru Marg,
New Delhi-110002


Sub: Back Reference on recommendations of TRAI on Cloud Services dated 14.09.2020

This has reference to the recommendations of TRAI on Cloud Services dated 14.09.2020. These recommendations have been considered by the Government and the following is submitted in this regard:

- i. DoT sought the views of MeitY as subject matter of TRAI recommendations is also being dealt by them.
- ii. MeitY in its comments dated 19.03.2023 mentioned that they are not in the favour of laying down any kind of regulation including a light-touch regulatory framework as the Cloud industry / Cloud services are in the nascent stage and any such framework may limit the growth of the Cloud ecosystem in the country. It is also mentioned by MeitY that TRAI recommendations do not construe to be light-touch regulations but may result in to another set of regulations which the market players may find hard to comply.
- iii. MeitY also mentioned that major initiatives in the Cloud domain are already underway in MeitY and the empanelment of Cloud Service provider (CSP) is in a way of light-touch regulation only. The detailed comments of MeitY are enclosed as Annexure-I.
- iv. After detailed deliberations on these TRAI recommendations, the Government has come to a prima facie conclusion that the subject of Cloud Services pertains to MeitY, which is already doing the CSP empanelment. As MeitY has suggested no further regulation is required in the matter, TRAI recommendations on Cloud Services dated 14.09.2020 may not be accepted.
- v. Accordingly, as per Section 11(1) of TRAI Act, 1997 (as amended), the recommendations on "Cloud Services" dated 14.09.2020 are being referred back to TRAI for its reconsideration.

2. This is issued with the approval of Competent Authority.

Enclosure: As above


(Dindayal Joshi)
DDG(NT)

efile No.R-23011/2/2023-CC&BT
Ministry of Electronics and Information Technology
(R&D in CC&BT Group)

Subject: 22nd meeting of the Digital Communications Commission (DCC) scheduled to be held on 20th March 2023

Comments of Ministry of Electronics and Information Technology (MeitY) on Agenda Item No. 22.8 – TRAI's Recommendations dated 14.09.2020 on "Cloud Services"

TRAI recommendations propose to have light-touch regulations for the CSPs, however, while reviewing the recommendations it is observed that these recommendations do not construe to the light-touch regulations but may result in to another set of regulations which the market players may find hard to comply.

MeitY has not been in the favour of laying down any kind of regulation including a light-touch regulatory framework as the Cloud industry / Cloud services are in the nascent stage and any such framework may limit the growth of the Cloud ecosystem in the country. It may be noted that MeitY in the past has written to DoT vide number 10(7)/2013-EGII dated 06.09.2018 regarding clarification on the roles of MeitY and DoT on Cloud services. As per the OM, it was submitted that as the major initiatives in the Cloud domain are already underway in MeitY, therefore, DoT may kindly take into account MeitY's efforts in the Cloud domain to avoid overlap and duplication of efforts.

Further, the MeitY's empanelment of CSP is in a way of light-touch regulations only. MeitY has been empanelling CSPs since 2015 and has already empanelled 19 CSPs basis Pr-Qualification Criteria, Technical Criteria and, Legal compliances. These criteria pertain to certificate of incorporation, turnover, no. of years of experience, etc. that have been finalized after extensive industry consultations. These criteria are more encompassing and detailed that has been running successfully over several years. These empanelled CSPs adhere to various compliances, certifications, and technical criteria thereby resulting in a uniform and coherent empanelled group. Apart from this, they are also in compliance with the CERT-In guidelines that are released from time to time.

It is submitted that Cloud Computing is not a telecom service rather it is an IT service that falls squarely within the jurisdiction of MeitY.

As MeitY is already doing the CSP empanelment, therefore, having another set of regulations will result in dual directives from the Government (MeitY, TRAI/DoT) and would lead to confusion in the industry.

In view of the above, MeitY does not agree with the proposed TRAI recommendations related to light-touch regulation, the formation of an industry-led body and its Governance structure, eligibility, entry fee, and period of registration.
