BSA SUBMISSION
ON THE
CONSULTATION PAPER ON LEVERAGING ARTIFICIAL INTELLIGENCE AND BIG DATA IN THE TELECOMMUNICATIONS SECTOR

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Dear Sir,

Subject: BSA Submission on the Consultation Paper on Leveraging Artificial Intelligence and Big Data in the Telecommunications Sector

BSA | The Software Alliance (**BSA**) appreciates the opportunity to provide comments to the Telecom Regulatory Authority of India (**TRAI**) on its Consultation Paper on Leveraging Artificial Intelligence and Big Data in Telecommunication Sector (**Consultation Paper**).[1]

BSA is the leading advocate for the global software industry before governments and in the international marketplace. Our members are at the forefront of software-enabled innovation that is fuelling global economic growth, including cloud computing and artificial intelligence (**AI**) products and services.[2] As leaders in AI development, BSA members have unique insights into both the tremendous potential that AI holds to address a variety of social challenges and the governmental policies that can best support the responsible use of AI and ensure continued innovation.

We welcome TRAI's recognition of the opportunities presented by the development and deployment of AI in the telecom sector. TRAI rightly acknowledges that AI can generate substantial economic growth and enable participants in the telecommunications sector to provide better and more responsive services.[3] Additionally, TRAI rightfully notes that AI plays an important role in providing advanced cybersecurity solutions that keep up with evolving threats. These benefits of AI should be allowed to prosper in the telecom sector – and in all sectors. In our submission, we provide principles

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[1] Telecom Regulatory Authority of India, Consultation Paper on Leveraging Artificial Intelligence and Big Data in Telecommunication Sector, dated 05 August 2022, https://trai.gov.in/sites/default/files/CP_05082022.pdf.

[2] BSA's members include: Adobe, Alteryx, Altium, Amazon Web Services, Atlassian, Autodesk, Bentley Systems, Box, Cisco, CNC/Mastercam, CrowdStrike, Dassault, Databricks, DocuSign, Dropbox, Graphisoft, IBM, Informatica, Intel, Kyndryl, MathWorks, Microsoft, Nikon, Okta, Oracle, Prokon, PTC, Rockwell, Salesforce, SAP, ServiceNow, Shopify Inc., Siemens Industry Software Inc., Splunk, Trend Micro, Trimble Solutions Corporation, TriNet, Twilio, Unity Technologies, Inc., Workday, Zendesk, and Zoom Video Communications, Inc.

[3] Telecom Regulatory Authority of India, Consultation Paper on Leveraging Artificial Intelligence and Big Data in Telecommunication Sector, dated 05 August 2022, https://trai.gov.in/sites/default/files/CP_05082022.pdf, page 2.

for a flexible policy framework to facilitate the responsible uptake of AI in the telecommunications and other sectors. Our key recommendations are outlined below:

Summary of BSA's Recommendations

1. AI regulation should be risk-based and systematic.
2. Maintain strong data innovation policies.
3. Account for different roles and responsibilities of stakeholders.
4. Ensure global interoperability of regulations.
5. Promote competition and innovation in procurement.
6. Use tools and resources to mitigate the risk of bias; and
7. Coordinate with other regulatory bodies

Details of BSA's Recommendations

1. AI regulations should be informed by existing law, and be risk-based and context-specific.

BSA agrees with TRAI's observations that there is a need to adopt mechanisms to address AI-related risks and promote responsible and trustworthy AI systems.[4] In this regard, we encourage TRAI to consider a systematic, risk-based regulatory approach. Such an approach would limit regulation to AI systems deployed in high-risk scenarios and where significant risks to individuals are likely to arise.

AI and machine learning are used for a vast array of purposes in telecommunications, including traffic engineering, device onboarding and configuration, mobility management, security analytics and threat detection, predictive maintenance, and so many more. Some of these uses are as different from each other in terms of their wider implications on users and customers as they would be from AI uses in entirely different sectors. These facts reinforce the need for context-specific approaches focused on the risks involved with particular use cases, as opposed to the broad set of uses associated with telecommunications.

a) Informed by existing law

To minimise regulatory duplication, TRAI should first evaluate the adequacy of the existing legal framework to determine whether new AI-specific regulations are needed. In evaluating the sufficiency of existing laws, policymakers should be guided by two considerations. First, to promote trust and confidence in AI, the public should be assured that the law will continue to afford the same level of protection irrespective of whether a decision is made by a person or an automated system. Second, to promote AI innovation and adoption, it is vital to ensure that there is sufficient clarity about how existing laws and regulations will apply to AI. **Thus, we recommend that TRAI consider the need for specific AI regulations only in circumstances where there is a demonstrated gap in the existing framework, including sector-specific regulations**.

b) Risk-based

As a general principle, the scope of any regulatory obligations should be a function of the degree of risk and the potential scope and severity of harm. Many AI systems and the manner in which they are deployed pose extremely low, or even no, risk to individuals or society, and imposing onerous regulations on the entities developing and/or deploying such systems would only unduly hamper

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[4] Telecom Regulatory Authority of India, Consultation Paper on Leveraging Artificial Intelligence and Big Data in Telecommunication Sector, dated 05 August 2022, https://trai.gov.in/sites/default/files/CP_05082022.pdf, page 82.

innovation. Regulations should therefore focus on high-risk applications of AI, such as uses of AI that may have significant consequence on a person's life (e.g., access to food, water or healthcare services or credit) or that pose a significant risk of physical harm. **To this end, it will be important to carefully assess scenarios that should be deemed as high-risk and hence be subject to legal requirements.**

c) Context-specific

The risks that AI poses and the appropriate mechanisms for mitigating those risks are largely context specific. Rather than regulating AI as a technology, regulatory activity should instead focus on particular applications of AI that may involve specific risks. Moreover, because the appropriate mechanisms for addressing risks will vary depending on the nature of the AI system and the setting in which it is being deployed, regulators should avoid prescriptive, one-size-fits-all technical requirements. **Instead, BSA encourages regulatory approaches that provide incentives to adopt process-based accountability mechanisms, such as impact assessments, for particularly high-risk applications of AI.**

2. Maintain strong data innovation policies.

The Consultation Paper identifies data accessibility as a constraint that hinders the adoption of AI.[5] To this end, TRAI should encourage initiatives to increase access to data for the purpose of training AI systems.[6]

AI systems are "trained" by ingesting enormous volumes of data. Their efficacy and benefits are therefore dependent on the quantity and quality of data that is available for training. As a result, policies affecting the ability to access and share data have a significant influence on the development of AI systems and the quality of their outputs. To promote innovation and adoption of AI, TRAI should consider: a) ensuring that data can move freely across borders; b) making non-sensitive government data assets freely available and usable for the general public; and c) promoting voluntary data sharing mechanisms.[7]

a) Cross-border data transfers

International data transfers are integral to every stage of the AI life cycle, from the development of predictive models to the deployment and use of AI systems. Data used in AI systems often originate from many geographically dispersed sources. Many AI solutions like analytics used in India are developed internationally and offered over cloud computing systems. Likewise, AI solutions developed in India rely on international data transfers both for their development and deployment. **Therefore, it is imperative that TRAI avoid data localization requirements, whether in AI-specific laws or the broader legal framework in India and allow data to move freely across borders securely.**

b) Access to non-sensitive government data assets

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[5] Telecom Regulatory Authority of India, Consultation Paper on Leveraging Artificial Intelligence and Big Data in Telecommunication Sector, dated 05 August 2022, https://trai.gov.in/sites/default/files/CP_05082022.pdf, page 90-91.

[6] Telecom Regulatory Authority of India, Consultation Paper on Leveraging Artificial Intelligence and Big Data in Telecommunication Sector, dated 05 August 2022, https://trai.gov.in/sites/default/files/CP_05082022.pdf, page 92-93.

[7] Spurring AI Innovation With Sound Data Policy, accessible at: Spurring AI Innovation With Sound Data Policy - BSA Artificial Intelligence

BSA supports an open data policy through which non-sensitive government data is made open, available, and useable for the general public. Government-generated data is a resource that can serve as a powerful engine for creating new jobs and promoting economic growth. At both the local and national levels, governments collect and generate vast quantities of non-sensitive data that can be harnessed in the development of AI systems. For instance, an AI system designed to improve supply chain efficiency can leverage government data about historical traffic flows, law enforcement event advisories, and weather patterns to recommend delivery routes that minimise congestion, reduce emissions, and improve public safety.

BSA encourages TRAI to consider facilitating access to and use of non-sensitive government data to support domestic innovation and development in AI.

c) Promote voluntary data sharing mechanisms

The Consultation Paper considers the need for an authority to act as a gatekeeper and manager of stored data, and to set up guidelines for data sharing between industry and government.[8] BSA supports the development and adoption of tools and best practices that make it easier and less expensive to share data in ways that are consistent with rigorous privacy expectations. However, any mandatory data sharing protocols or obligations should be avoided since mandatory requirements would only stunt innovation and can be counterproductive. TRAI should focus on policies such as incentive schemes and voluntary data sharing frameworks that facilitate the voluntary exchange of data within and between industry and government, so as to boost the development and use of AI services. **In this regard, please refer to BSA's Open Data Agenda[9] which aims to enhance the collective benefits of data through responsible policies that promote voluntary data sharing and foster opportunity, collaboration, and growth**.

3. Account for different roles and responsibilities of stakeholders.

The Consultation Paper recognises that in some cases, such as "black box" algorithms, there is a lack of clarity around liability between vendors, operators, and users of AI.[10] **BSA recommends that to the extent new AI regulation is contemplated, it should account for the unique roles and capabilities of the different entities that may be involved in an AI system's supply chain.** To that end, regulatory obligations (and associated liabilities) should fall on the entity that is best positioned to both identify and efficiently mitigate the risk of harm that gave rise to the need for the regulation. Reflecting the inherently dynamic nature of AI systems, regulations must account for the array of stakeholders that may play a role in various aspects of a system's design, development, and deployment.

In general, there are at least two key stakeholders with varying degrees of responsibility for managing the risks associated with an AI system throughout its lifecycle:

- **AI Developers:** AI Developers are organisations responsible for the design and development of AI systems.

- **AI Deployers:** AI Deployers are the organisations that adopt and use AI systems. (If an entity develops its own system, it is both the AI Developer and the AI Deployer).

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[8] Telecom Regulatory Authority of India, Consultation Paper on Leveraging Artificial Intelligence and Big Data in Telecommunication Sector, dated 05 August 2022, https://trai.gov.in/sites/default/files/CP_05082022.pdf, page 106.

[9] BSA | The Software Alliance, Open Data Agenda, June 2020, https://www.bsa.org/files/policy-filings/061120bsaopendata.pdf.

[10] Telecom Regulatory Authority of India, Consultation Paper on Leveraging Artificial Intelligence and Big Data in Telecommunication Sector, dated 05 August 2022, https://trai.gov.in/sites/default/files/CP_05082022.pdf, page 82.

It is critical that AI regulations account for the unique roles and responsibilities of developers of AI systems and the organisations that deploy such systems. The appropriate allocation of risk management responsibilities between such stakeholders will vary depending on the nature of the AI system being developed and which party determines the purposes and means by which the underlying model is trained. In many instances — especially those involving general-purpose AI tools — developers will not be in a position to know the precise manner in which the technology is being deployed by an end-user. In such circumstances, the party best positioned to address potential risks will be the entity that deploys an AI system and determines the purposes and means by which the AI system is used. Including such a conceptual distinction would be helpful to different stakeholders as they carry out risk assessments to determine the appropriate measures to adopt for AI development, deployment, and use.

4. Ensure global interoperability of regulations.

India's leadership in the development and use of AI will be possible only if companies operating from India can access global markets. To ensure Indian innovation can thrive in foreign markets, it will be vital to ensure that the India's approach to AI regulation is interoperable with global partners. In this regard, we encourage Indian regulators to reuse existing definitions and governance frameworks in AI as much as possible, such as those produced by the Organisation for Economic Cooperation and Development (**OECD**). In particular, OECD's recommendation represents an important first step toward establishing global norms around the governance and regulation of AI. Those norms are predicated on a risk management-based approach for enhancing the benefits of AI and safeguarding against unintended harms. Future Indian regulation should seek to align with OECD's recommendations.

Additionally, to the extent the Indian government determines it necessary to adopt standards as part of India's regulatory framework for AI, India should place primary reliance on international, consensus-based standards. Such standards are key to establishing consensus around technical aspects, management, and governance of the technology, as well as framing concepts and recommended practices to underpin trustworthiness of AI inclusive of privacy, cybersecurity, safety, reliability, and interoperability. Leveraging such standards will increase interoperability, alignment, and trust in AI systems. For example, Indian regulators can seek to align AI regulations with internationally-recognised standards such as those currently under development in International Organization for Standardization (ISO) / the International Electrotechnical Commission (IEC) Joint Technical Committee (JTC) 1/ SC 42[11] and Institute of Electrical and Electronics Engineers (IEEE).

BSA urges that TRAI should support regulations and standards that align with global norms and strive to make them interoperable with other jurisdictions.

5. Promote competition and innovation in public procurement.

The Consultation Paper notes that accreditation of AI solutions / products will help in public procurement of AI.[12] TRAI suggests that an entity/body be directed/formed for framing guidelines for procurement.[13]

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[11] ISO - ISO/IEC JTC 1/SC 42 - Artificial intelligence

[12] Telecom Regulatory Authority of India, Consultation Paper on Leveraging Artificial Intelligence and Big Data in Telecommunication Sector, dated 05 August 2022, https://trai.gov.in/sites/default/files/CP_05082022.pdf, page 142, 143.

[13] Telecom Regulatory Authority of India, Consultation Paper on Leveraging Artificial Intelligence and Big Data in Telecommunication Sector, dated 05 August 2022, https://trai.gov.in/sites/default/files/CP_05082022.pdf, page 142, 143.

BSA recommends that TRAI should consider the benefits of: (1) limiting public procurement guidelines to a narrow section of high-risk use cases or scenarios only; and (2) avoiding procurement preference for domestic AI tools and solutions. Indigenous technologies represent only a subset of global innovation. Preventing global competition in public procurement denies government agencies access to the full range of world-class products and services available globally. Furthermore, such policies deprive domestic technology firms of valuable opportunities to collaborate with global leaders and make such domestic companies less competitive internationally, harming global innovation. Opening procurements to solutions from the global marketplace will increase efficiency, cut costs, and improve security.

6. Use tools and resources to mitigate the risk of bias.

TRAI's consultation paper should encourage companies to mitigate the risk of bias in AI systems. BSA's Confronting Bias: BSA's Framework to Build Trust in AI (**BSA Framework**) provides a useful reference to guide the TRAI in its consideration of such risk of bias. [14] The BSA Framework is a first-of-its-kind methodology that organisations can use to perform impact assessments to identify and mitigate risks of bias that may emerge throughout an AI system's lifecycle.

The BSA Framework:
- Outlines a process for performing impact assessments to identify and mitigate potential risks of bias;
- Identifies existing best practices, technical tools, and resources for mitigating specific AI bias risks that can emerge throughout an AI system's lifecycle; and
- Sets out key corporate governance structures, processes, and safeguards that are needed to implement and support an effective AI risk management program.

BSA encourages TRAI to leverage the research and best practices in the BSA Framework to create relevant guiding materials for businesses around mitigating bias in AI development and deployment.

7. Coordinate with other government and regulatory bodies.

Since AI has cross-sectoral implications, different ministries and bodies within the Indian Government have been working on developing rules to ensure its effective usage within their respective sectors. For instance, the Ministry of Electronics and Information Technology (**MeitY**), is reportedly building the National Programme on Artificial Intelligence (**NPAI**), while the NITI Aayog, has released broad ethical principles for the design, development and deployment of AI in India.[5] Notably, the NITI Aayog, in its Approach Document for India: Principles for Responsible AI, has released a self-assessment guide for enterprises to ensure compliances with its ethical principles.[6]

To avoid overlaps and to ensure consistency between different frameworks, BSA recommends that TRAI should closely work with the MeitY and the NITI Aayog at all stages, from ideating and framing any regulatory framework to its implementation. This would ensure that there is uniform implementation of policies and requirements across India, allowing for certainty in the regulatory environment.

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[14] BSA | The Software Alliance, Confronting Bias: BSA's Framework to Build Trust in AI, June 2021, https://ai.bsa.org/confronting-bias-bsas-framework-to-build-trust-in-ai

In addition, as stated earlier it may be helpful for TRAI to ensure that the definitions of basic AI terms that it uses align with those established by the OECD as is common practice among global AI regulatory bodies.[15]

We thank you for the opportunity to provide recommendations and hope our submissions are useful to the consultation process. If you require further information in respect of this submission, please contact Mr. Venkatesh Krishnamoorthy at venkateshk@bsa.org.

Sincerely,

BSA | The Software Alliance

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[15] Artificial Intelligence & Responsible Business conduct by OECD accessible at:
https://mneguidelines.oecd.org/RBC-and-artificial-intelligence.pdf