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**Subject: Tata Communications Limited's response to TRAI Consultation Paper on
"Regulating Converged Digital Technologies and Services – Enabling
Convergence of Carriage of Broadcasting and Telecommunication
services"**

Dear Sir,

This is with reference to the TRAI Consultation Paper No.3/2023 dated 30-01-2023 on Regulating Converged Digital Technologies and Services – Enabling Convergence of Carriage of Broadcasting and Telecommunication services.

In this regard, please find enclosed herewith Tata Communications Limited's response to the Consultation Paper as Annexure -I for your kind perusal.

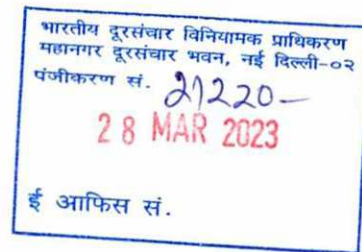
We request you to kindly take on record our response and consider our inputs while finalizing the recommendations.

Thanking You,
Yours Sincerely,

For Tata Communications Limited,

**Praveen Sharma
(Authorized Signatory)**

Enclosure: As mentioned above



TATA COMMUNICATIONS

Tata Communications Limited

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**Tata Communications Limited's response to TRAI Consultation Paper
on "Regulating Converged Digital Technologies and Services – Enabling Convergence of
Carriage of Broadcasting and Telecommunication services"**

Preamble

At the outset, we thank TRAI for providing us an opportunity to share our comments/inputs on this important paper which will likely to decide converged legal and regulatory framework equipped with handling of content and carriage together in line with global practices. As depicted in the paper, over the period of time, various technological developments in digital markets have resulted in the convergence of devices, services, and networks and also convergence plays an important role in society from the economic, social, and development perspective. It can influence the way in which governments develop appropriate policies while looking for social welfare; enterprises compete in the market; and individuals communicate with each other and benefit from efficient, lower-cost, innovative, and new value-added products and services.

The main drivers of convergence are efficient utilization of resources, increased level of competition, more innovative user applications and technological developments and same has been further accelerated by the emerging use of digital technologies across the sectors. The convergence of digital and physical products through the use of Machine to Machine (M2M), Internet of Things (IoT) Artificial Intelligence, Internet of Things (IoT) and other technologies is paving the way for Fourth Industrial Revolution (Industry 4.0).

Over this period, there has been a massive increase in the storing, processing, and functional capabilities of the network systems and consumer devices. Digitalization of these services has resulted in the convergence of individual delivery networks as well as consumer devices. Digital transformation has drastically increased the computing and information delivery capabilities of communication networks. This has resulted in the development of global-scale digital platforms which are generally hosted in the Cloud and can deliver virtually any service to any person and at any place through the Internet. Now, instead of having vertically separate networks for each service, the digital platforms and networks have horizontal layers. Accordingly, there may be a need to reorient the applicable policies, laws, rules, regulations, and procedures from vertical to horizontal.

It is also pertinent to highlight that Convergence has resulted in the development of innovative products and new services. It has given rise to new players in the market. With the advent of digital media and Over-the-top (OTT) services, the boundaries among providers of different services are also blurring. While on one hand, convergence is resulting in the introduction of new OTT services, on the other hand, new OTT services are pushing convergence further.

With the above background, it is submitted that the convergence of carriage of broadcasting services and telecommunications presents complex legal and regulatory issues that may require extensive amendments to existing laws or the creation of a comprehensive/converged legal framework (separate comprehensive code) as existing laws may not be sufficient to deal with the challenges and opportunities that arise from the convergence of Telecommunications and Broadcasting sectors. It is also recommended that global practices may also be studied in detail

to understand how Regulators are handling issues arises from converged Telecommunications and Broadcasting services especially in the context of IT and technological advancements.

A unified regulatory body would be better equipped to deal with convergence issues and could help to streamline the licensing process. This would reduce the administrative burden on both service providers and Ministries issuing the license and would help to ensure that consumers are protected. In fact, India should adopt the model which is being followed in most of the countries wherein the regulator itself has been given the power to grant licenses to the service providers and at the same time has also been entrusted with the duty to regulate them. Being the sectoral Regulator, TRAI, can do justice by synergizing with the license conditions as per the evolving technological changes and then make regulations and monitor the compliances by the service providers in a more efficient manner.

There are several other issues that need to be deliberated among stakeholders for reaping optimal benefits of convergence of telecommunications and broadcasting incl. Technical interoperability between Telecommunication networks and Broadcasting to enable devices and networks to work together, Spectrum allocation to meet growing demand for spectrum to support convergence of broadcasting and telecommunications services, Content regulations to address issues such as content classification, censorship, and consumer protection in a converged environment, Privacy and security framework to protect consumer privacy and ensure the security of converged networks and services, Consumer protection regulations to protect consumers from unfair practices in the converged service offerings to ensure that they have access to reliable information about the services they are using and Promoting startup to innovate and deliver applications, content and services to give rise to innovation culture in India.

Tata Communications issue wise comments:

Question 1 – Whether the present laws are adequate to deal with convergence of carriage of broadcasting services and telecommunication services? If yes, please explain how?

Or

Whether the existing laws need to be amended to bring in synergies amongst different acts to deal with convergence of carriage of broadcasting services and telecommunication services? If yes, please explain with reasons and what amendments are required?

Or

Whether there is a need for having a comprehensive/converged legal framework (separate comprehensive code) to deal with convergence of carriage of broadcasting services and telecommunication services? If yes, provide details of the suggested comprehensive code

Tata Communications response:

- The convergence of carriage of broadcasting services and telecommunications presents complex legal and regulatory issues that may require extensive amendments to existing laws or the creation of a comprehensive/converged legal framework.

- Existing laws may not be sufficient to deal with the challenges and opportunities that arise from the convergence of Telecommunications and Broadcasting sectors. This is because traditional broadcasting regulations are often focused on content and may not adequately address the technical and operational aspects of carriage whereas telecommunication regulations are typically geared towards network perspective and may not fully account for the content and cultural aspects of broadcasting.
- As rightly pointed out in the Consultation paper that although convergence of telecom and broadcasting networks and services can ensure efficient utilization of the available resources and converged services are creating vast new capabilities that are benefiting individuals, businesses, and society as a whole however, the administrative government units responsible for overseeing these functions have still not been converged/ restructured. Disparate policy structures for telecom and broadcasting cause governance challenges like multiple license/permission authorities for same converged service (e.g., IPTV), lack of regulatory clarity on the outcomes of converged technologies (e.g., OTT), demarcated administration of the converged digital services (e.g., converged cloud platforms), lack of clarity on broadcasting content through Optical Fibre, etc. These challenges are required to be addressed in the new framework.
- Therefore, in our view, a comprehensive/converged legal framework (separate comprehensive code) to deal with convergence of carriage of broadcasting and telecommunication services may be necessary to address the full spectrum of legal and regulatory issues related to convergence. This could involve the creation of a separate comprehensive code that specifically deals with convergence of both content and carriage of broadcasting and telecommunications services respectively. As mentioned in the paper, comprehensive/converged legal framework should be defined in such a way that it provides sufficient flexibility and opportunities to connectivity providers, media providers and technology providers for adopting new business models. Further, convergence of telecom and broadcasting networks and services should also ensure efficient utilization of the available resources.
- It is also submitted that important aspects such as standards and technical license conditions that may be relevant from various perspectives including safety, interoperability and quality of service should also be reviewed in detail while framing new converged framework.
- Such a separate comprehensive code should provide ample clarity and consistency for existing Service Providers, Regulators and consumers alike, and facilitate innovation and competition in the converged sector. It is suggested that a comprehensive Code should address issues such as content regulation, network neutrality, licensing, spectrum allocation and consumer protection with a focus on ease of doing business.
- Ultimately, the adequacy of existing laws or the need for a comprehensive/converged legal framework will also depend on the specific legal and regulatory challenges that arise from the convergence of carriage of broadcasting and telecommunications services in a particular jurisdiction. Global practices may also be studied in detail to understand how regulators are

handling issues arises from converged telecommunication and broadcasting services especially in the context of IT and technological advancements.

- Internet, having assumed the role of dominant carriage medium for OTT Broadcasting services, how it would be amenable to licensing and regulation both from carriage license and content regulation perspective, also needs to be examined and actioned upon.

Q2. Whether the present regime of separate licenses and distinct administrative establishments under different ministries for processing and taking decisions on licensing issues, are able to adequately handle convergence of carriage of broadcasting services and telecommunication services? If yes, how and if no, what should be suggested alternatives.

Tata Communications Response:

- The current regime of separate licenses and distinct administrative establishments under different ministries for processing and taking decisions on licensing issues may not be able to adequately handle convergence of content and carriage of broadcasting services and telecommunication services. This is because the existing regulatory framework was developed at a time when these services were separate and distinct.
- The convergence of these services will bring new regulatory and legal challenges that the current regulatory framework may not be equipped to handle. For example, the convergence may lead to a blurring of the lines between broadcasting and telecommunications, making it difficult to determine which regulatory framework applies to a particular service. It is also submitted that the new framework should be flexible to further evolve on a continuous basis to keep pace with the developments.
- To adequately handle convergence of carriage of broadcasting services and telecommunication services, it is suggested that the regulatory framework be reviewed to take into account the changing nature of these services. One option could be to create a unified regulatory body that oversees both broadcasting and telecommunications services.
- A unified regulatory body would be better equipped to deal with convergence issues and could help to streamline the licensing process. This would reduce the administrative burden on both service providers and Ministries issuing the license and would help to ensure that consumers are protected. In fact, India should adopt the model which is being followed in most of the countries wherein the regulator itself has been given the power to grant licenses to the service providers and at the same time has also been entrusted with the duty to regulate them. Being the sectoral Regulator, TRAI, can do justice by synergizing with the license conditions as per the evolving technological changes and then make regulations and monitor the compliances by the service providers in a more efficient manner. Such system is being efficiently worked in countries like USA, UK, Bangladesh where the regulatory bodies itself have the power to grant licenses and also regulate the industry after consulting relevant stakeholders.

- Internet having assumed the role of dominant carriage medium for OTT Broadcasting services , how it would be amenable to licensing and regulation both from carriage license and content regulation perspective , also needs to be examined and actioned upon
- Another alternative could be to create a more flexible regulatory framework that allows for the integration of broadcasting and telecommunications services. This would involve reviewing the existing licensing regime to ensure that it is more adaptable to the changing nature of these services.
- Ultimately, the goal should be to create a regulatory framework that promotes competition and innovation while protecting consumers. This will require a coordinated effort between various Ministries, Departments, Regulator, industry stakeholders and policymakers to ensure that the regulatory framework is up-to-date and responsive to the changing needs of the industry.
- It is also recommended that a new framework should be created ensuring that no advantage is provided for a service provider who will be an integrated player above the operator who would like to operate under certain services. This may give rise to con-competitive practices in Market.

Q3. How various establishments dealing with standardization, testing, certification, training & skills, R&D, Promotion of Industries under different ministries can be synergized to serve in the converged era.

Tata Communications response:

Synergizing various establishments dealing with standardization, testing, certification, training & skills, R&D, and promotion of industries can greatly benefit the industries and promote innovation and growth. Here are some ways to achieve this:

- **Establish a centralized platform:** A centralized platform can be established where all the establishments can come together to share their resources, knowledge, and expertise. This platform can act as a one-stop-shop for all the industry needs, where industries can get access to different services provided by these establishments.
- **Collaborate and share resources:** Collaboration among the establishments can lead to better utilization of resources, expertise, and knowledge. For example, testing and certification centers can collaborate with R&D centers to develop better testing protocols for new products. Similarly, training and skills development centers can work with standardization bodies to develop training programs that meet industry standards.
- **Integrate data and technology:** The integration of data and technology can lead to better decision-making and improved efficiency. For instance, standardization bodies can work with R&D centers to develop standards that incorporate the latest technological advancements. Certification centers can use blockchain technology to provide a more secure and transparent certification process.

- **Develop industry-specific solutions:** The establishments can work together to develop industry-specific solutions to address the challenges faced by various industries. For example, standardization bodies can work with R&D centers to develop standards for the renewable energy industry. Similarly, training centers can work with industries to develop customized training programs that meet the specific needs of that industry.
- **Promote cross-functional teams:** Cross-functional teams can bring together experts from different fields to work on complex industry problems. For instance, a team consisting of experts from standardization, testing, certification, training & skills, and R&D can work together to develop a comprehensive solution for a particular industry.

In conclusion, synergizing various establishments dealing with standardization, testing, certification, training & skills, R&D, and promotion of industries requires a collaborative approach, integration of data and technology, development of industry-specific solutions, and promotion of cross-functional teams. This can lead to improved efficiency, better decision-making, and the promotion of innovation and growth in various industries.

Q4. What steps are required to be taken for establishing a unified policy framework and spectrum management regime for the carriage of broadcasting services and telecommunication services?

Tata Communications response:

Spectrum Management involves regulatory, administrative, supervisory, and specialized technical procedures necessary to ensure the efficient operation of radio communication services. It includes frequency planning, assignments, and monitoring of spectrum assigned to different users. In this regard, it is submitted that Wireless Planning and Coordination (WPC) wing under DoT being is a highly specialized agency with vast experience of spectrum management in the country and the spectrum is assigned to all users including broadcasting services in India by the WPC Wing and also balancing the demands of government users and private service providers efficiently since long and having vast experience. Thus, there is no need to establish any new policy framework for assignment of spectrum for telecommunications and broadcasting services.

Further, in case, there is a need arises to establish a unified policy framework and spectrum management regime for the carriage of broadcasting services and telecommunication services requires a multi-step process, we wish to suggest some general steps that could be taken as follows:

- **Conduct a feasibility study:** Before any policy framework can be established, a feasibility study must be conducted to determine the viability of unifying the policy framework and spectrum management regime for broadcasting and telecommunication services. The study should assess the current regulatory landscape, the current spectrum allocation and utilization practices, and the potential benefits and drawbacks of unification.
- **Identify key stakeholders:** In order to develop a unified policy framework, key stakeholders must be identified, including various Ministries, Regulator, Broadcasters, Telecommunication

Service providers, and Consumers. It is important to involve all relevant stakeholders in the policy development process to ensure that the framework is inclusive and reflective of the needs of all parties.

- **Develop a policy framework:** Once the feasibility study has been conducted and key stakeholders have been identified, a policy framework can be developed. The framework should address issues such as spectrum allocation, license conditions, technical standards, and regulatory compliance. The framework should also establish clear rules and procedures for spectrum sharing between broadcasters and telecommunication service providers.
- **Consultation and feedback:** The policy framework should be subject to public consultation and feedback to ensure that it is inclusive and reflective of the needs of all stakeholders. The feedback received should be incorporated into the framework where appropriate.
- **Implementation:** Once the policy framework has been developed and agreed upon, it must be implemented. Implementation may involve changes to the regulatory environment, spectrum allocation procedures, and license conditions. Implementation may also require the development of technical standards and guidelines for spectrum sharing.
- **Ongoing review:** The unified policy framework and spectrum management regime should be subject to ongoing review and evaluation to ensure that it remains relevant and effective. The review should be conducted periodically and may involve consultation with stakeholders, technical experts, and regulatory bodies.
- **Establishing a unified policy framework and spectrum management regime for broadcasting and telecommunication services** requires significant coordination and collaboration between stakeholders. It is important to establish clear rules and procedures for spectrum sharing and to ensure that the framework is inclusive and reflective of the needs of all parties.

Q5. Beyond restructuring of legal, licensing, and regulatory frameworks of carriage of broadcasting services and telecommunication services, whether other issues also need to be addressed for reaping the benefits of convergence holistically? What other issues would need addressing?

Tata Communications response:

Yes, there are several other issues that need to be addressed for reaping the benefits of convergence holistically. Here are some of them:

- **Technical interoperability:** As broadcasting and telecommunications networks converge, it is important to ensure that they can interoperate seamlessly. This includes not only the technical aspects of interoperability but also the development of common standards and protocols that enable devices and networks to work together.
- **Spectrum allocation:** With the convergence of broadcasting and telecommunications services, there is a growing demand for spectrum to support both types of services. Government needs

to allocate spectrum resources in a manner that ensures efficient use of available frequencies and avoids interference between different services.

- Content regulation: The convergence of broadcasting and telecommunications services has also created new challenges for content regulation. Government needs to develop new regulatory frameworks that address issues such as content classification, censorship, and consumer protection in a converged environment.
- Privacy and security: As more and more services are delivered over converged networks, there is a growing concern about privacy and security. Government needs to develop policies and regulations that protect consumer privacy and ensure the security of converged networks and services.
- Consumer protection: With the convergence of broadcasting and telecommunications services, consumers are often presented with a wide range of choices and options. Government needs to develop policies and regulations that protect consumers from unfair practices and ensure that they have access to reliable information about the services they are using.
- Promoting startup: With convergence the framework should promote startup culture to innovate and deliver applications, content and services as stand alone pillars. This will give rise to innovation culture in India. This will also bring down the entry barrier for small innovators to play in new proposed framework.

Overall, the convergence of broadcasting and telecommunications services is a complex process that requires a multi-faceted approach. By addressing these issues, Government can ensure that they are able to reap the full benefits of convergence, while also protecting the interests of consumers and ensuring the efficient use of available resources.