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15 March 2017

**Shri Asit Kadayan**  
Advisor (QoS)  
Telecom Regulatory Authority of India  
Mahanagar Doorsanchar Bhawan  
Jawahar Lal Nehru Marg  
New Delhi 110002

**Subject: Consultation Paper on “Net Neutrality”**

Dear Sir,

This is with reference to the above referred TRAI consultation paper dated 04.01.2017 and press release no. 11/2017 dated 14.02.2017. In this regard, please find enclosed our response to the consultation paper as an annexure to this letter.

We hope that the TRAI will find our response useful and consider our inputs while finalising the recommendations on this subject.

Thanking you,

Yours sincerely,  
For **Telenor (India) Communications Pvt. Limited**  
(*Erstwhile Telewings Communications Services Private Limited*)

A handwritten signature in black ink, appearing to read 'P. Sharma', written over a horizontal line.

**(Pankaj Sharma)**  
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Encl: a.a

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## Telenor (India) Response to TRAI Consultation Paper on Net Neutrality (Dated 4<sup>th</sup> January 2017)

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### Preamble

Telenor (India) welcomes the opportunity to comment on the technical, quality and transparency aspects of Net Neutrality. However, we submit that there should be a comprehensive approach to the issue of Net Neutrality encompassing the past consultations held by TRAI and the DOT (summarized in Table 1.1 of the CP).

The debate/ consultation should not be confined to Net Neutrality rather it should be holistic and cover all aspects of *'open internet access'* to all citizen. The aim of the Government should be ***'Equal Internet access to all'*** at the most affordable tariff for all lawful content.

**Consultation on Regulatory Framework for OTT services** - In our response dated 24 Mar 2015, we had submitted that *'regulatory equality'* should be established between the licensed telecom service providers and OTT players. The OTT communication services are providing services similar to the licensed TSPs and this has created regulatory inequality.

Taken at face value there does not appear to be a direct link between level playing field (LPF) and Net neutrality (NN). LPF is about playing by the same rules; ensuring actions in a competitive market are not distorted, while NN essentially is a non-discrimination principle about equal treatment of traffic. However, both deal with neutrality.

'Same service same rules' can be understood as ensuring *"regulatory neutrality"*, i.e. regulation must be neutral in the sense that it does not treat the same services differently. Likewise for NN the inherent requirement for treating something equally, without discriminating points in the direction of the LPF school of thought.

That said, these two topics in our view are formally divorced from each other. LPF is a broader concept and principle related to the design of a regulatory framework. NN is a specific regulatory concern. Hence, we recommend that **the regulatory equality should be settled first** to establish **level playing field**.

**DOT Committee report on Net Neutrality** - In addition to the above consultation by TRAI, we had also responded to the DOT Committee through the MyGov portal and the committee after consultation with a wide range to stakeholders held the following conclusion amongst others.

“

**8.9** *The problem is further exacerbated from the regulatory angle when viewed in the context of a licensed service provision co-existing with an unregulated service both competing for the same set of customers especially when the regulated service provider rides on the network infrastructure of the licensee to deliver the service. The existence of a regulatory arbitrage in addition to the pricing arbitrage adds a degree of complexity that requires a calibrated response to bring about a level playing field.*

**8.11** In view of the above discussions, the committee recommends the following:

.....

(iv) The **existence of a pricing arbitrage** in VoIP OTT communication services requires a graduated and calibrated public policy response.

**9.10** To summarize, **the Committee favours regulatory oversight on OTT communication service providers** .....

“

**Consultation on Differential Pricing for Data Services** - In our response dated 07 Jan 2016, we had recommended for a principle based case to case approach towards differential pricing. Differentiation in pricing is a form of market segmentation and Unified License provides us freedom to design our own tariff. Any regulation should not restrict the flexibility of market oriented pricing.

Few examples quoted were – a particular operator may decide to provide free weather updates (application), another example can be free access to annual matriculation Board results on a specific day (website), yet another example can be night data packs for chatting designed specifically for student community (platform / market segmentation).

Few more examples can be – a particular user may want to access maps (driver by profession) or utility services (bill payment) or health application only. College students may like to subscribe to a data pack for unlimited instant messenger services for a fixed monthly charge.

In all the above cases the service provider should have the flexibility to package / bundle the services according to the needs of the consumer. As long as a tariff plan (voice or data) adheres to the key principles of tariff regulations described in para 9 of the differential pricing consultation paper namely 1.) Non-discriminatory 2.) Transparency 3.) Non anti-competitive 4.) Non-ambiguous pricing and 5.) Non-misleading; then that tariff plan should be allowed.

The term Discrimination is derogatory and is generally associated with blocking and throttling. There has been no publicly reported instance of market failure on this front. On the other hand our submission to the Authority was that market segmentation or *Differential tariff* as a tool for marketing should be allowed. Even after more than 2 years of this regulation coming in force there has not been a case of consumer benefit due to this regulation. Hence, we once again submit that the differential pricing regulation should be withdrawn and our Right to do business should be restored.

**Consultation on Free Data** - The Authority had sought to find a leeway under the Differential pricing regulation through this consultation. We had submitted our response dated 30 Jun 2016, wherein we had submitted that:-

What is being envisaged in this consultation paper is a new class of **intermediary** service providers who can offer services similar to TSPs with no obligations to pay any telecom levies or taxes to Govt. Such **intermediary** whom the Authority wishes to regulate is under no obligation to be governed by telecom regulations as they are non-

licensees. In our understanding, this will create non-level playing field and discriminate against TSPs. In addition, it also violates existing TRAI regulation on discriminatory pricing for data services.

In the last consultation paper on differential pricing, we strongly proposed that there should not be a blanket approach on differential pricing and Authority should look at major infringements of Net Neutrality or any kind of discrimination on a case by case basis. ***An ex-post scrutiny under the competition laws would be most appropriate.***

As stated by the Authority in para 8 of the consultation paper that the Prohibition of Discriminatory pricing for Data services regulation is a limitation in itself as ***it restricts the commercial flexibility to incentivise and innovate.*** The plurality of consumer choice is getting stifled. It is hurting the very consumers the Authority claims to protect as it restricts the most important element of the internet value chain namely TSP's ability to innovate and expand consumption. This regulation is now acting as a stumbling block to offer concessional or free data to consumers even though it is for the larger good of society and helps expand the market.

Therefore we would earnestly request Authority to reconsider the regulation on "Differential pricing" and we oppose the creation of a new class of platform providers to offer such services.

### **Global position on NN**

#### **"Net must stay unchained, but free data isn't bad": Ajit Pai, FCC**

The newly appointed FCC Chairman Mr Ajit Pai has supported the open and free access to the Internet but favours free data and light touch regulation. He emphasized that certain core principles of a free Internet, that Internet service providers shouldn't be allowed to block lawful content must be at the heart of policy and the principles must be upheld with the consideration that investment in infrastructure must be encouraged. Some of the remarks made by Mr Pai during the Mobile World Congress 2017 Event at Barcelona as per the media reports are as follows:

- *Rules that are too restrictive can be detrimental to investment...*
- *"Regulators should be very sensitive to market conditions and if a particular (player) or a group of players is behaving in an anticompetitive way, then you take targeted actions against those players, but pre-emptively deciding that you should apply regulations to the entire industry, even in the absence of any market failure, creates a serious risk of unintended consequences,"*
- *one of the unintended consequences were that infrastructure investments — because of these rules — have gone down in the US, for the first time in the modern age outside of a recession*
- *And now the industry is much more dynamic and diverse, and we want to make sure we provide some of those core consumer protections but not apply some of the outdated rules of the past*

- *Any policy on net neutrality must provide the best market oriented framework that allows the private sector to innovate and invest. To the extent that there are any instances of any anticompetitive conduct, then government agencies are more than adequate to deal with that kind of conduct.*

**Pre- consultation on Net Neutrality -** In our submission dated 05 July 2016, we had presented our case that Internet is a Global economy and the telecom service provider (TSP) is merely one of the many players in this eco system. It would be rather naïve to assume that TSPs alone can indulge in anti-competitive behavior and scuttle the internet. While the investments in infrastructure are happening in the telecom space the value creation for shareholders are happening elsewhere.

The monopolistic behavior, as and when observed by the Authority should be investigated ex-post under the existing competition laws and the findings should be published. This should be followed by an opportunity given to the affected parties to present their case and if found guilty they should be penalized.

There is an urgent need for **regulatory modernization** and to reduce the regulatory burden on licensed services (**deregulation**).

Our present response is an extension of our earlier responses mentioned above and this should be read in cohesion. In summary, we would like to submit to the Authority that –

**Internet is the largest canvas for Innovation; any Regulation should not stifle Innovation.**

**Question wise comments**

**Question 1: What could be the principles for ensuring non-discriminatory access to content on the Internet, in the Indian context?**

**Response:**

We agree with the Authority in so far as the non-discriminatory access to all lawful content on the Internet is concerned.

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*Para 1.2.2 In the paper, TRAI had recognised that while there are several definitions of NN, the term is generally understood to mean the principle that Telecom Service Providers (TSPs) must treat all Internet traffic on an equal basis, without regard to the type, origin, or destination of the content or the means of its transmission. In recognition of the complex set of issues surrounding this concept and the diverse viewpoints on the subject, the Authority initiated a deeper enquiry into the various issues relevant to the subject. “*

We also support the core principles of NN outlined by the High Level Committee of DOT in its report on Net Neutrality released in May 2015.

1. User Rights	Subject to lawful restrictions, users should have the right to access content and services of their choice
2. Blocking	No blocking of any lawful content unless needed for legal/security/congestion purposes or to provide parental controls
3. Throttling	No degradation of internet traffic based on the content, application, services or end user unless needed for legal/security/congestion/fair usage purposes
4. Prioritization	No paid prioritization which creates discrimination
5. Transparency	Transparent disclosure of information to the users for enabling them to make informed choice
6. Competition	Competition to be promoted and not hindered
7. Congestion and Traffic Management	Reasonable and legitimate traffic management subject to ensuring core principles of Net-Neutrality
8. QoS	QoS to be ensured as per best practices and national regulations
9. Privacy	Online privacy of the individuals to be ensured
10. Security	Scrupulously follow the extant security guidelines
11. Data Protection	Disclosure of user information only with consent of the user or on legal requirements

In addition to the above, we had submitted earlier that having set the core principles of NN, **we should frame uniform obligations** on consumer protection, lawful intercept, data protection, retention and privacy, service security, reliability, emergency services and local taxes

These should be uniformly applied to all providers of services namely the TSP, content providers, platform / application providers, user interface manufacturers, solutions providers. It is more so important as the traditional differentiation between these verticals have blurred and one player can operate in more than one vertical. Hence, there is an urgent need for **Horizontal Regulations**.

**Horizontal regulations** – To establish consumer friendly and future proof regulation, **horizontal legislation should progressively replace sector or service specific rules**. Specific areas are:

- a. **Data privacy / retention:** Customer data has become a valuable commodity in the Digital Services market. In many jurisdictions the regulations governing how customer data is collected, processed and stored vary considerably between different market participants depending on their legacy sector of origin. Regulation should evolve toward a common data privacy regulatory framework for the same services which applies equally to all providers of those services.
- b. **Consumer protection (QoS):** should provide a minimum level of consumer protection based on horizontal rules and above all a high degree of transparency towards customers.
- c. **Law enforcement/national security:** There should be consistent horizontal obligations supporting legitimate law enforcement and national security activities. **Traceability of subscribers** of services.

**Question 2: How should “Internet traffic” and providers of “Internet services” be understood in the NN context?**

- a) **Should certain types of specialized services, enterprise solutions, Internet of Things, etc. be excluded from its scope? How should such terms be defined?**
- b) **How should services provided by content delivery networks and direct interconnection arrangements be treated?**

**Please provide reasons.**

**Response:**

EU has defined ‘**internet services**’ as publicly available electronic communications

service that provides access to the internet, and thereby connectivity to virtually all end points of the internet, irrespective of the network technology and terminal equipment used'. 'Internet traffic' can be defined as flow of data across internet in *best effort traffic between end points on the open internet*.

While there is an effort to try to define exactly those two terms, we must acknowledged that discussions on net neutrality will take different forms in different countries (section 2.2 of CP). As a key principle we believe in the Open Internet, i.e. an internet where customers can access the content and services of their choice and there are no restrictions in the services that operators can make available to end-users

Specifically for *internet services*, we believe in Open Internet where customers can access the content, services and applications of their choice and operators have the freedom and flexibility to innovate. This is what makes the Internet valuable for our customers. The more variety on the Internet, the more demand for Internet access. As operators we have every incentive to maintain the openness and diversity of the Internet. Openness plays a central role in keeping the Internet a platform for innovation, economic growth, social inclusion and the spreading of ideas.

As for *internet traffic*, equal treatment of all services is not a reality today. Different services have different characteristics and requirements to function properly. Traffic management, in some form or another, is obligatory in shipping digital packets. For encouraging innovation and benefiting consumers, operators must have flexibility in implementation of traffic management. Telecom operators should also be given the possibility to differentiate services to the benefit of consumers. Customers should be allowed to choose the Internet access product that serves their needs

**Question 3: In the Indian context, which of the following regulatory approaches would be preferable:**

- (a) Defining what constitutes reasonable TMPs (the broad approach), or
- (b) Identifying a negative list of non-reasonable TMPs (the narrow approach).

**Please provide reasons.**

**Response:**

Please refer our response to Q1, the broad based approach is concluded in the DOT committee report and the list of no-no is no blocking, no throttling, no paid prioritization (narrow approach). Both the approaches are identical if we have a principle based approach, wherein we define the core principles of NN and then develop Horizontal Regulations. Infringement (if any) should be evaluated ex-post under the competition laws as internet is a Global economy.



In the following section we explain what should be the priority of India (in the context of TMPs) and that is ***'Equal Internet access to all'***.

There are several interpretations of the term “Net Neutrality”. The strict interpretation that all data is equal has given way to the more un-realistic view that networks carry different types of traffic and therefore prohibiting traffic management practices can be counter-productive.

This strict interpretation of the Discriminatory Pricing Regulation has led to a situation where a handset can be bundled with unlimited free data but an unlimited data offer for education tutorials cannot be offered by a TSP. The later is prohibited under the regulation.

### **There is a need for a broader view of the term NN, associated tariff & TMPs.**

A broader view of the term “Net Neutrality” refers to the principle that the internet should be an open platform for freedom of expression, innovation and socio-economic development. Mobile operators are committed to maintaining the open internet. Managing network traffic and offering different service packages do not contradict this belief in the open internet. Without managing data traffic, operators cannot efficiently meet consumers’ demands to access different types of applications and services through their mobile connections. Forcing them, through Net Neutrality regulations, to be detached from their network traffic is neither operationally practical nor necessary.

NN should be addressed in the context of capacity of networks (2G/3G/4G) for carrying the internet traffic, mode of delivery (wireless/wireline/ cable/ satellite) and maturity of the networks at industry and national level.

India is a market where the entire country is yet to reap the benefit of mobile coverage. The immediate priority in India, where 80% of the population has no data connectivity, is to ensure access to data service for the unconnected through broadband network rollout, rather than continue to debate on the concepts and issues of Net Neutrality which are only beginning to be defined globally. As a country our vision should be to provide basic internet to every citizen so that they can access -

- e-government sites,
- mobile financial services for financial inclusion,
- utility bill payment
- train ticket booking through IRCTC portal (largest e-commerce site in India)
- weather forecast information for agriculture
- citizen services
- distance learning
- universal education
- examination results
- Government complaint portals and many such citizen services.

These application based services are part of their social life and require basic internet (low bandwidth) to access these services. It should be the endeavor of the Regulator to make available the public information and government services *“anytime, anywhere”*. **These may not require active traffic management.** Therefore, it is high time we

prioritize the connectivity for all the villages of India to ensure availability of basic internet services.

Other services which require high bandwidth (FTP services), low latency (gaming), low lossy (video / voice) or specialized services (M2M, IOT etc.) should be allowed to be **classified based on technical parameters**. TSPs should be free to deploy traffic management as per technical requirements and convey it in a simple fashion to consumers to maintain transparency. It would be rather difficult to hardbound / define the rules for TMPs as these will evolve with technology.

**Question 4: If a broad regulatory approach, as suggested in Q3, is to be followed:**

**(a) What should be regarded as reasonable TMPs and how should different categories of traffic be objectively defined from a technical point of view for this purpose?**

**Response:**

**Classification based on Technical parameters** - The classification or categorization of traffic should be strictly based on technical parameters. ITU-R Recommendation G.1010 and ITU-R Recommendation M.1097-2 provides for 8 different classification based on the QOS experienced by the end user.

Here it is imperative to mention that internet is a network of networks and the TSP alone is not responsible for end to end quality, hence the experience of the end user (end point of the network) is taken for classification purposes.

**Classification of data based on latency and loss of info** – Certain applications are highly susceptible to errors but tolerant to delays viz. Still photograph. Other applications are highly intolerant of short-term delay variation (jitter) viz. Conversational voice. In contrast Streaming audio/ video has no conversational element attached to it and can use buffering to overcome delay requirements. Bulk data (file transfer) can work even with longer delays and/or loss of information. Thus different types of data over internet have different requirements and hence associated traffic preferences.

**Reasonable traffic management** – Traffic management is a tool to balance the network resource usage of bandwidth-heavy applications (e.g. video streaming, file sharing) versus time-sensitive applications (e.g. remote alarm monitoring, M2M, health monitoring, IOT) and does not imply blocking of a specific content or application provider on the network. On the contrary, active management of network resources makes the consumer experience better and makes networks more efficient, allowing operators to secure their networks, prioritize time-critical services and match scarce network resources to service requirements.

**(b) Should application-specific discrimination within a category of traffic be viewed more strictly than discrimination between categories?**

**Response:**

Discrimination of traffic is derogatory and it is generally associated with Blocking and Throttling. We have submitted earlier that Telenor (India) does not indulge in discrimination base on content / application/ origin / destination etc.

However, we had sought differentiation of services i.e. packaging and bundling of services. This is to imply that we should be allowed to offer unlimited access to books to students, instant messaging to teenagers, social media packs etc. This is purely from the end consumer preference and does not involve discrimination of traffic.

**(c) How should preferential treatment of particular content, activated by a users choice and without any arrangement between a TSP and content provider, be treated?**

**Response:**

As long as it is based on technical parameters and within the ambit of core principles this arrangement should be allowed.

**Question 5: If a narrow approach, as suggested in Q3, is to be followed what should be regarded as non reasonable TMPs?**

**Response:**

Please refer our response to Q #3 above.

The narrow approach should prohibit no blocking, no throttling, no paid prioritization.

**Question 6: Should the following be treated as exceptions to any regulation on TMPs?**

- (a) Emergency situations and services;**
- (b) Restrictions on unlawful content;**
- (c) Maintaining security and integrity of the network;**

**Response:**

- We agree with TRAI suggestion and above highlighted services should be treated as an exception to TMPs and to be followed stringently by all operators to ensure delivery of time critical / real time services without any delay.

- (d) Services that may be notified in public interest by the Government/ Authority, based on certain criteria; or
- (e) Any other services.

Please elaborate.

**Response:**

- Please refer our response to Q 4 (a), classification based on Technical parameters should be allowed. Any other method of classification (based on services) are prone to misuse.

**Question 7: How should the following practices be defined and what are the tests, thresholds and technical tools that can be adopted to detect their deployment:**

- (a) Blocking;
- (b) Throttling (for example, how can it be established that a particular application is being throttled?); and
- (c) Preferential treatment (for example, how can it be established that preferential treatment is being provided to a particular application?).

**Response:**

- A broader view of the term “Net Neutrality” refers to the principle that the internet should be an open platform for freedom of expression, innovation and socio-economic development and we support that. We as mobile operator are committed to maintaining the open internet.
- Managing network traffic and offering different service packages do not contradict this belief in the open internet. Without managing data traffic, operators cannot efficiently meet consumers’ demands to access different types of applications and services through their mobile connections. Forcing them, through Net Neutrality regulations, to be detached from their network traffic is neither operationally practical nor necessary. The hard boundaries can be:
  - No blocking of legal content or application
  - No throttling except for traffic management
  - No paid prioritisation or creation of fast lanes

**Question 8: Which of the following models of transparency would be preferred in the Indian context:**

- (a) Disclosures provided directly by a TSP to its consumers;
- (b) Disclosures to the regulator;
- (c) Disclosures to the general public; or
- (d) A combination of the above.

Please provide reasons. What should be the mode, trigger and frequency to

publish such information?

**Question 9: Please provide comments or suggestions on the Information Disclosure Template at Table 5.1? Should this vary for each category of stakeholders identified above? Please provide reasons for any suggested changes.**

**Response:**

- As highlighted in para 5.4.3 of the paper, most of the information suggested in the Information Disclosure template has already been covered and shared with the consumers transparently as per TRAI guidelines. This includes information related to tariffs, QoS, minimum data download speed, FUP etc.
- For specific information related to TMPs and specialized services, TSPs should have the freedom to provide information directly to the consumers that is relevant and meaningful so that they are aware of the characteristics of the services and the capacity they are buying. The regulator may provide guidance on transparency and means to provide requisite information to consumers but should not mandate a particular approach.

**Transparency and full disclosure** – It should be based on the principle that users are aware of the characteristics of the services and the capacity they are buying. This should be simple to convey and easy to understand and away from technical jargons.

**Question 10: What would be the most effective legal/policy instrument for implementing a NN framework in India?**

- (a) Which body should be responsible for monitoring and supervision?
- (b) What actions should such body be empowered to take in case of any detected violation?
- (c) If the Authority opts for QoS regulation on this subject, what should be the scope of such regulations?

**Question 11: What could be the challenges in monitoring for violations of any NN framework? Please comment on the following or any other suggested mechanisms that may be used for such monitoring:**

- (a) Disclosures and information from TSPs;
- (b) Collection of information from users (complaints, user-experience apps, surveys, questionnaires); or
- (c) Collection of information from third parties and public domain (research studies, news articles, consumer advocacy reports).

**Question 12: Can we consider adopting a collaborative mechanism, with representation from TSPs, content providers, consumer groups and other stakeholders, for managing the operational aspects of any NN framework?**

**(a) What should be its design and functions?**

**(b) What role should the Authority play in its functioning?**

**Response:**

- Presently, India is at the cusp of digital revolution and Government priority at this point of time should be to connect the unconnected populace so that the benefits of broadband services can be extended and the rollout of broadband services is at the nascent stage.
- Thus, Government rather focusing on ring fencing of internet, should work towards connectivity to the masses and ensure availability of basic internet services, to bridge the digital divide. It will be premature to enforce any legal / policy instrument for implementation of net neutrality framework in India.
- Telenor (India) believes in Open Internet where customers can access any lawful content & services of their choice and with no restrictions in the services that TSPs can make available to end-users.
- In view above, we believe that the tentative refinement approach suggested in the paper will be best suited for India in present circumstances.
- The High Level DOT committee report had done consultations with Industry, Academicians, Consultants, Professional bodies etc. and arrived at a conclusion on various issues involved in NN. The Government is yet to finalize its position on net neutrality and awaiting the TRAI's recommendations in the matter. Hence, we request Authority to build upon the conclusion arrived at; in the DOT committee report.

**Question 13: What mechanisms could be deployed so that the NN policy/regulatory framework may be updated on account of evolution of technology and use cases?**

**Response:**

- As highlighted in response to Q 10-12, Internet penetration in India is at a growth phase and discussions on hard bidding NN is pre-mature at this stage. This is more so when the definition of NN is still emerging even in highly penetrated broadband markets Globally. We recommend that the Government should focus towards proliferation of broadband services.
- We request TRAI to address regulatory inequality between licensed TSPs and OTT communication service providers. The address this anomaly, horizontal regulations should be prescribed for all Communication Service Providers (TSPs)

and OTTs) offering voice, messaging & video services under uniform obligations for consumer protection, lawful intercept, data protection, retention and privacy, service security, reliability, emergency services and local taxes. Beyond that it should be best left to the market force.

**Question 14: The quality of Internet experienced by a user may also be impacted by factors such as the type of device, browser, operating system being used. How should these aspects be considered in the NN context? Please explain with reasons**

**Response:**

- We agree with TRAI observation that the quality of internet access services experienced by end user depends upon several external factors which are beyond the control of the TSPs.
- The Authority as already put in place the 'My Speed' application and crowd sourcing the user experience information. The results are also published regularly in public domain. This will build enough peer pressure on service providers to improve.

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