

28<sup>th</sup> September 2019

To  
Shri. Asit Kadayan,  
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Sir,

**Subject : - Comments on Consultation Paper on Duration of alert for the called party**

We are a TRAI registered CAG. We offer our comments on the issues that were posed in the consultation paper on duration of alert for the called party.

Yours Sincerely,

GOPAL RATNAM V  
Secretary  
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## Issues for Consultation

Q. 1. Can the the arbitrary value of  $T_{\text{Ringing}}$  impacts consumer experience Please give your views with detailed justifications.

The arbitrary value of  $T_{\text{Ringing}}$  will definitely impact consumer experience.

The intention of the call originator is majority of the time is to have the call connected. In our opinion based on the observed behavior of subscribers the missed call phenomenon is greatly reduced. Hence if the call is not successful then there would be repeated attempts made to connect, paradoxically engaging the network resources and further reducing the consumer experience.

Also we have to be conscious of the time wastage that is likely to occur due to this repeated attempts leading to productivity loss for a large number of consumer across the country.

**Hence arbitrary value of  $T_{\text{Ringing}}$  will lead to poorer consumer experience and lower economic productivity.**

Q. 2. How to discover the appropriate values of  $T_{\text{Ringing}}$  from customer's perspective? What may be the guidelines to be followed when configuring specific values of relevant timers in the originating and terminating networks to achieve  $T_{\text{Ringing}}$ ? Please give your views with detailed justifications.

Consumer will have different response time as various factors impact their behavior in any context. We intuit based on personal observation and a dip stick study of our members, that major likely factors are

1. The Time of day.
2. The activity the subscriber is engaged in at the time of call ringing
3. The location of the mobile phone
4. The demographics of the consumer (age,gender)
5. The intention of the consumer

Hence consumer surveys and actual behavioral data would enable the the discovery of appropriate values of  $T_{\text{Ringing}}$  from customer's perspective. This should be possible by applying the latest computer techniques.

The guidelines to be followed when configuring specific values is based on some of the above factors which impacts the consumer's behavior. One factor is Age of the subscriber - Senior citizens should have higher  $T_{\text{Ringing}}$  than other age group. The other factor of time of day - the night time  $T_{\text{Ringing}}$  should be higher than the day time, as subscriber may be relaxing/resting/travelling, and hence accessing the mobile would take longer. The  $T_{\text{Ringing}}$  should be 50 to 60 secs at one end to 30 to 20 secs at the other end.

Q. 3. Is there a requirement to configure values of timers related to ringing in a uniform manner across the networks or is there also a requirement to maintain additional time margins for the timer in the originating network with respect to the typical values of timer configured in the terminating networks? Please suggest typical values for  $T_{\text{Ringing}}$  along with supporting data and explain with detailed justifications.

If the timers are configured for the same value across the network, then the possibility of the ringing duration being less than the value set on the terminating network. Hence there is a requirement to maintain additional time margins for the timer in the originating network.

Our suggestion that the terminating network set the value of the timer depending on his requirement. Hence the value of the timer configured in the terminating network should be  $T_{\text{Ringing}}$  plus 5 secs

Q. 4. Whether customers need to be offered options to change or modify the duration of ringing time particularly for them? If yes what should be the typical range of values within which one can set the values and what should be the granularity to make such a change? To modify values, What procedure is suggested to be followed by the customer to make such changes? Please give your views with detailed justifications.

**Yes, the customers should be definitely offered the option of setting and also modifying the duration of ringing time.**

If the objective is to enhance consumer experience and also ensure overall productivity gain (Consumer spend wasting their time in setting up successful calls) then this is necessary.

The current value of 30 secs should be industry standard for calls during the day time of between 9 AM and 6 PM when most subscribers are mobile and active and hence have their phones close to them. During the rest of time an additional 10 secs, ie 40 secs should be the industry standard. Beyond this standard setting the consumer should be allowed to set the values below and above the standard values. The granularity or the steps should be 10 secs. **So we suggest that the Values should be between 20 to 50 secs with the initial or default setting being 30 secs during the day and 40 secs during the night.**

**The consumer should send a code to the telecom operator with each of the 10 secs slot having a specific marker, like \*2\* for 20 secs, \*3\* for 30 secs, \*4\* for 40 secs and \*5\* for 50 secs.**

Q. 5. How to discover the appropriate values of percentage of calls that can be force released by the network i.e. value of CREL, which may be acceptable in general from customer's perspective? How this value affects with the changes in value of the  $T_{\text{Ringing}}$ ? Please suggest typical values for CREL along with supporting data and explain with detailed justifications.

The discovery process has to be based on actual consumer behavior based on the consumer freedom to choose the ringing duration. After a lapse of a few months of the consumer choice regime, data would be available for the average ringing duration. Then a cutoff value for force release by the network could be established.

Q.6. How the impact on the utilization of different types of telecommunication resources such as radio spectrum, point of interconnect etc. may be assessed due to the change in the values of timers, related to duration of ringing, configured at originating network or at terminating network? Please provide details of computation methodology to make such assessment along with supporting data to justify the suggested value of  $T_{\text{Ringing}}$ .

We have no comments on this issue.

Q. 7. Whether networks can be adaptive by utilizing Artificial Intelligence (AI) and Machine Learning (ML) techniques to discover appropriate value of ringing duration specific to a subscriber or class of subscriber? Whether networks can also differentiate commercial calls from normal calls from the perspective of ringing duration? Please provide inputs and give your views with detailed justifications.

Consumer behavior is quite variable during a day and also alters over a period of time. It is therefore prudent to use Artificial Intelligence (AI) and Machine Learning (ML) techniques to discover the value of ringing duration. **This should be done for each consumer, that specific to a subscriber.**

We strongly feel that the network should not differentiate between commercial calls from normal calls either favourably or unfavourably. A network would not know the nature of a normal call, it could be an emergency and hence the customer should have the freedom to choose the ringing duration.

Q. 8. Any other issue which is relevant to this subject?

1. We strongly believe that most customer are wise enough not to have to a long duration ringing duration unnecessarily. Currently they would not be knowledgeable about their actual behavior with respect of receiving the calls. The telecom operator based on their analysis on the individual consumer's past behaviour regarding the receiving of calls can make suggestions to the consumer to reset their values. When telecom operator start employing the AI or ML techniques this is feasible and this enable consumer to co-create a better consumer experience.

2. The telecom operator can also provide incentives to consumer to set lower values for the ringing duration if it wishes to optimise its network resources.