



RJIL/TRAI/2021-22/362
30th November 2021

To,
Shri Kaushal Kishore
Advisor (Finance & Economic Analysis)
Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan
Jawahar Lal Nehru Marg, New Delhi – 110002

Subject: Comments on Consultation Paper on ‘Tariff issues related to SMS and Cell Broadcast alerts disseminated through Common Alerting Protocol (CAP) platform during disasters/non-disasters’ dated 3rd November 2021.

Dear Sir,

Please find enclosed comments of Reliance Jio Infocomm Ltd. (RJIL) on ‘Tariff issues related to SMS and Cell Broadcast alerts disseminated through Common Alerting Protocol (CAP) platform during disasters/non-disasters’ dated 3rd November 2021.

Thanking You,
For **Reliance Jio Infocomm Limited**,

Kapoor Singh Guliani
Authorised Signatory

Enclosure: As above.

**Reliance Jio Infocomm Limited's comments on TRAI's consultation paper on
"Tariff issues related to SMS and Cell Broadcast alerts disseminated through Common
Alerting Protocol (CAP) platform during disasters/non-disasters"
(Consultation Paper dated 3rd November 2021)**

Preface

1. We thank the Authority for issuing this consultation paper to take views of broader section of stakeholders, on the important issue of charging of geo-intelligent SMS and Cell Broadcast alerts disseminated through Common Alerting Protocol (CAP) platform during disasters/non-disasters.
2. **Reliance Jio Infocomm Limited (RJIL) has already submitted its comments on the limited consultation on the subject vide our letter No. RJIL/TRAI/2021-22/109 dated 17th June 2021 and request you to treat the same as part and parcel of our current submissions.**
3. At the outset, we submit that **it is important to recognize that the Telecom Service Providers (TSPs) have important role and responsibilities in preparedness, response, and Recovery related activities under the Standard Operating Procedure (SOP-2020) for Telecommunication Services for responding to disasters issued by DoT.** The TSPs have made considerable investments to meet the requirements of Common Alerting Protocol (CAP) and have built internal CAP platforms to meet the requirements of CDOT-CAP platform, therefore, **it would be preposterous to contemplate the possibility of offering these services free of cost. The possibility of charging for SMS alerts sent (a) during non-disaster situation; (b) prior to disasters; (c) unrelated to disasters have been well recognized by the Government while framing the DM Act 2005 and SOP.**
4. We further submit that there is no need of doing any additional costing exercise to determine the tariff for such alert messages, as India has a vibrant market for bulk SMS and the **tariff determined by market forces, combined with TRAI's existing determination for SMS termination and promotional and service SMS to arrive at a reasonable tariff for alert messages in non-disaster situations.**
5. We had suggested a tariff of 10p/SMS vide our aforementioned letter and would reiterate the same. As explained in said letter, the market rate of bulk-SMS is anywhere between 13p/SMS to 18p/SMS, which includes the SMS termination charge at 2p/SMS and promotional SMS termination at 5p/SMS. **Thus, discounting for various overheads 10p/SMS would be sufficiently reasonable charge that would not only account for all OPEX related costs incurred but would also act as a deterrent to**

frivolous use of the facilities, keeping the same available for TSPs own use during normal times.

6. As highlighted earlier also, in addition to disaster related messages, we get requests from state and local authorities for SMS blast on various matters relating to governance, social, educational, advisory, awareness etc. We submit that currently over 150 Mn such messages are being disseminated in a month, implying considerable consumption of resources.
7. We submit that the **disaster related messages remain relevant only if these are topical, to-the-point and pertain to actual events or possibilities thereof.** Therefore, it is important that these CAP based facilities are not used for sending all and any messages deemed important. **We should learn from our tendency of excesses by state government authorities as seen in case of data services barring orders and put in place a system to use these facilities only for disaster situations. A reasonable and fair commercial tariff for all other situations would act as an important deterrent that will protect the sanctity of disaster related alerts.**
8. Further, with regards the debate about which service to use between SMS and Cell Broadcast Service (CBS), **we had clarified that RJIL has already established an in-house CAP platform as per requirement of DOT, which is integrated with the centralized CDOT-CAP platform and we are disseminating disaster related messages through SMS.** We understand that SMS is a much better option than CBS, as it is not device dependent, cannot be barred by the recipient and most importantly, the actual delivery to a recipient can be checked on a near real-time basis.
9. We submit that RJIL's CAP platform identifies the subscriber currently latched in the given polygon and then sends alert notification via SMS. An automated feedback is also sent back to CDOT providing the status and statistics of CAP message delivery. This SMS based system has worked well so far and similar systems have been adopted across the Industry. While we will keep on adding enhancements on consistent basis, we do not see any justification for any change in the basic structure of SMS based RJIL CAP platform. **Accordingly, in line with the well-established and fruitful technology neutral approach already adopted by the Authority and Government, there should not be any mandatory migration to CBS for CAP based alerts. Thus, even if the Authority and Government deem CBS based alerting more suitable, the same should be optional for TSPs and they should be permitted to choose the suitable technology considering the investments and efforts already spent, as long as requisite KPIs are met.**
10. We had requested the Authority to also take into consideration the related requirement of fixing the tariffs for Voice messages or Out Bound Dialer (OBD)

communications for disaster and non-disaster related communication with geographical intelligence. The same has not been included in the Consultation Paper, however, considering the fact that DoT has already issued the Standard Operating Procedure for targeted voice message dissemination using 'Covid-19 Savdhan' vide circular dated 24th May 2021 and we are already getting requests to this effect, we request the Authority to consider the submissions on this aspect as well while fixing the tariffs.

11. Conclusions

1. TSPs should be suitably compensated for sending the CAP based alerts in non-disaster scenarios, as envisaged in DM Act 2005.
2. The tariff should be fixed at 10p/SMS for all such messages basis the market discovered tariffs.
3. The TSPs should be permitted to use the most suitable CAP alert dissemination technology between SMS and CBS, as per their own deployment.
4. The tariff for voice messages should also be fixed under this exercise.

Issue wise response:

Question 1: What are the technical options available with the Telecom Service Providers for mass message dissemination through Common Alerting Protocol (CAP) platform during disasters and non-disasters and what are the challenges being faced with respect to these technology options?

And

Question 2: Which method of mass message dissemination for alert, Short Service Message or Cell Broadcast Service, is preferred? Please provide supporting reasons.

RJIL Response

1. As mentioned in our earlier submissions and Preface, SMS, and CBS alerts through Common Alerting Protocol (CAP) platform are the messaging based technical options available for mass-dissemination. In addition to this, the voice messages through OBD are also possible.
2. We submit that **SMS is the preferred mode of disseminating these messages as it more customer friendly and it provides a clear advantage in the diverse device spread in the country, especially in remote and rural areas.** As also noted by the Authority, under CBS, delivery of communication is device dependent and CBS can also be barred on intended recipient's device, which is the not the case with SMS.

3. CBS also fails on many other parameters as end to end CBC delivery feedback is not available and it does not support message retry on failure like SMS. In our practical experience the performance of SMS is much better on many other parameters like delivery time, reliability, suitability to cover smaller geographic areas etc., **making it an obvious preferred choice of disseminating messages to selective geographies. Therefore, RJIL prefers SMS medium for mass message dissemination of alerts.**
4. Further, the reliability related limitations of CBS also make its undeployable commercially. **As CBS does not support customer delivery feedback statistics, charging for CBS will have huge challenges and prone to disputes, whereas for SMS such statistics and reports are easily available.** The success of SMS based message dissemination is self-evident as millions of COVID-19 related messages were delivered successfully in past one year.
5. Furthermore, there is Industry-wide consensus on using only SMS for delivering communication under CAP since beginning and DoT and C-DoT are well aware of this understanding. The COAI has also written to the DoT on this subject and requested Government against implementation of Cell Broadcast.

Question 3: What is the success rate in delivery of messages in each of the methods adopted by the operators for dissemination of messages to the masses? Please provide details.

RJIL Response

1. As mentioned above, RJIL has deployed SMS based alerting system which provides a high level of reliability in delivering the emergency message commands received from C-DoT CAP. **Further, as the SMS is attempted at least 3 times till it is delivered to the intended recipient, the success rate is very high i.e. near 100% in most cases.**
2. As far as CBS success rate is considered, we understand from a GSMA report of 2012, titled '**Mobile Network Public Warning Systems and the Rise of Cell-Broadcast**' that the high success rate of CBS is dependent on resolution of various technical issues and public awareness about the service. We are extracting and reproducing the relevant para from the report, herein below:

User familiarity and participation is crucial to the success of CBS as a PWS. A two-year study on using CBS as a citizen alert system conducted by Delft University of Technology in the Netherlands¹⁷, showed that the reach achieved by a cell broadcast alert was initially low (between 25-51%) but when technical problems had been overcome and citizens had been educated about the system this figure rose to 72-88%.

An overwhelming majority (94%) of survey participants viewed cell broadcast as a useful addition (though not a replacement for) the current warning systems.

3. Evidently, in India, **with extremely diverse handset scenario with a large number of devices not even supporting Cell Broadcast and challenges in consumer awareness achieving similar success rates or success rates at par with SMS will be a big challenge.** Therefore, SMS remains the preferred option of TSPs, with its added advantage of delivery feedback, which enables the Authorities with a valuable statistic that can help in making decision on requirement of any additional dissemination or prevention measures.

Question 4: What are the challenges related to customer end devices that may arise due to Cell Broadcast Service? If so, what are they and what is the extent (total number as well as percentage) of such cases encountered so far? In case an operator has first-hand experience, then the same may be shared with facts.

RJIL Response

1. As mentioned above, CBS is extremely dependent on the end user device. While theoretically over 99% of the devices available in the market support CBS, same cannot be the case with **actual devices in use in a country like ours where ‘1 of every 3’ mobile customers are not using Broadband services.**
2. As India has over 300 million mobile subscribers still using 2G services with a vibrant secondhand market, **it is possible that many customers’ devices are non-supportive of CBS.** However, as RJIL is using SMS based alerting system, we do not have actual field experiences to share on this aspect and request that actual device compliance with CBS may be checked from other sources.

Question 5: Is there a need for an elaborate tariff fixation exercise for CAP messages? In the alternative, would it be better from the perspective of ease of regulation to keep all categories of alerts/ messages given in paragraph 2.6 above including those at categories (i),(ii) and (iv) thereof, free of charge? Is keeping all CAP alerts/ messages free of charge an economically prudent and viable option?

RJIL Response

1. **The para 2.6 of the Consultation Paper clearly mentions that the DM Act 2005 and SOP has clearly defined 3 out of 4 categories of alerts as possibly chargeable.** We understand that this delineation stems from the **Government’s understanding that there will be a large number and type of alerts using this system and it is prudent to**

keep only the most essential alerts actually associated with disaster as free of cost. This fact is also reiterated by the specific reference for tariff determination of alerts that do not fall under the free of cost category. **Therefore, we disagree on making all messages using CAP based platform free.**

2. **The 'ease of regulation' concept is more suited for enhancing ease of doing business and reducing the regulatory burden.** We submit that it is completely ill-suited for reducing the revenue of TSPs, especially in a scenario, when the Government is coming out with packages to increase the liquidity needs of the TSPs. **Thus, we request the Authority to protect the legitimate revenue of the TSPs and prescribe a fair tariff for these SMS.**
3. It is pertinent to mention here, that a reasonable tariff for SMS sent through CAP platform will not only **compensate the TSPs for the specialized resources utilized but will also act as a deterrent for overuse or frivolous use of the facilities.** As mentioned earlier also many times TSPs are also compelled to send same/similar messages over a large base with repeated frequencies, which is not only excessive but may also cause inconvenience to the customers. Thus, it is important that the Authority fixes a tariff payable by Government Authorities for such messages so that such crucial resources are used judiciously and effectively, **while ensuring TSPs get fair compensation for the same and earn additional revenues. The Authority has already acknowledged and encouraged TSPs to avail additional streams of revenue generation in case of TCCCPR, 2018 and these use cases are in line with the same.**

Question 6: If answer to the question number 5 is No, then whether the service SMS charges of up to Rs 0.05 (up to five paise) as mentioned at Regulation 35 of TCCCPR 2018 be adopted for SMS/Cell Broadcast alerts/ messages sent through CAP platform?

And

Question 7: What tariffs should be charged by TSPs for SMS and Cell Broadcast alerts/ messages under category (i), (ii) & (iv) as given at paragraph 2.6 above, in case SMS charges of up to Rs 0.05 (up to five paise) as mentioned at Regulation 35 of TCCCPR 2018 is not to be adopted?

And

Question 9: What methodology should be adopted to do the costing of the Cell Broadcast alerts/ messages? What are the cost items which should be factored in? Please provide supporting reasons.

RJIL Response

1. While we submit that there is a need to prescribe the tariff for geo-intelligent CAP messages disseminated by TSPs, we do not think that there is a requirement of

extensive cost exercise for this. **We submit that the market forces are already in play on costing of bulk messages, and the Authority can adopt the market discovered tariffs with minor adjustments, if required.**

2. As submitted earlier vide our letter dated 17th June 2021, the costing methodology can be derived from the commercial tariffs for A2P messages. The Authority has already prescribed termination charge of 7p/SMS for A2P messages (2p/SMS as termination charge and 5p/SMS as ceiling for promotional/service SMS), which account for many of cost items involved in SMS termination. With additional tariffs towards DLT integration, scrubbing service, interface for SMS dissemination and individual campaign feedback, **the bulk A2P messages are available in market anywhere from 13p/SMS to 18p/SMS, depending on the volume of SMS to be sent.**
3. However, considering the facts that this platform is going to be used by the Government Agencies, predominantly for public welfare, the additional overheads necessary for CAP platform can be waived. **Therefore, it is proposed that charge of 10P/SMS may be prescribed by the Authority for all the non-disaster messages through CAP platform, while SMSs during disasters situations can continue to be free.**
4. As submitted earlier, in case of disasters, The DoT Headquarter may issue necessary instructions in accordance with the DOT SOP-2020 for responding to disasters to declare the SMS, that are to be considered as disaster alerts through CAP platform, to be free. **However, the charge should be uniformly applicable for all other messages, irrespective of the central or state body issuing directions to send the messages.**
5. We also reiterate our submissions that **in order for ease of handling such requests in an efficient manner and to avoid unnecessary disputes**, C-DOT should prescribe an Identifier for disaster and non-disaster message and the same should be incorporated in the API. Along with this, a separate identifier for each state agency should also be added to ensure ease of billing. Further, in case the Government has deemed a messaging requirement as a non-chargeable emergency requirement then such authorization should be provided to TSPs for simplified billing. This can be done through API or separately at the time of billing.
6. **We reiterate that the above commercials are proposed with an understanding that the CAP platform developed and operated by TSPs, can also be used by the TSPs for their own commercial use for offering similar services to non-government entities.**

Question 8: What are the operational challenges for disseminating mass messages through Short Service Message and Cell Broadcast Service? What is the impact of these operational challenges on the costs involved in such dissemination? Please justify.

RJIL Response

1. There are not many challenges in disseminating the mass messages through SMS, only the size of the polygon can sometimes impact the time taken for disseminating the message to intended base, however, this has also been optimized in consultation with C-DOT, to make it as effective as possible.
2. On the other hand, the technical difficulties pertaining to CBS like device dependency, lack of delivery feedback and unsatisfactory performance on other parameters **like delivery time, reliability, suitability to cover smaller geographic areas etc. are all too well known. These difficulties make this method unsuitable for delivering emergency communication.**

Question 10: If there are any other issues/suggestions relevant to the subject, stakeholders are invited to submit the same with proper justification.

RJIL Response

1. As mentioned earlier, we request the Authority to utilize this opportunity for fixing the tariffs for Voice messages or Out Bound Dialer (OBD) communications for disaster and non-disaster related communication with geographical intelligence in view of the DoT SOP on such messages and already existing demands for sending such messages.
2. We reiterate that the methodology for determining the charges for voice messages or OBD can be same as for SMS. **However, considering additional resource requirement in terms of preparing campaign, loading the same across dialers and additional utilization of SIP/PRI, the tariff for non-disaster Voice message can be prescribed at 20 p/message for all answered messages with an audio length upto 15 sec, basis the similar principles described above for SMS tariffs.**