

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of

Wireless Emergency Alerts

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PS Docket Nos. 15-91 and 15-94

To: The Commission

REPLY COMMENTS

DIGITAL BROADCASTING TECHNOLOGIES, LLC (“DBT”), through counsel and pursuant to Section 1.415(c) of the Commission’s Rules,¹ hereby submits its reply comments in this matter, in which the Commission has requested a refreshing of the agency record on facilitating multimedia in Wireless Emergency Alerts (“WEA”)².

1. In its Comments filed May 29, 2018, DBT noted that contrary to the expressed position of the mobile telephone industry that multimedia messaging technology is not feasible, existing technology developed by DBT can immediately permit immediate insertion of multimedia in WEA.³ DBT has created a format for combining these elements that is compatible with broadcasts of virtually any baud rate. It can provide multimedia messaging even on the existing mobile network, albeit at slower speeds. Moreover, DBT noted that its technology can be useful in emergency situations involving complete mobile system outages.⁴

2. In this Reply, DBT will focus on several issues raised principally by the Cellular

¹ 47 C.F.R. § 1.415(c).

² DBT’s reply comments are timely filed. See “Public Notice,” DA 18-302, released March 28, 2018; 83 Fed. Reg. 18,257 (Apr. 26, 2018), establishing June 11, 2019 as the deadline for the filing of reply comments.

³ DBT Comments, p. 4.

⁴ Id., p. 9.

Telecommunications Industry Association (“CTIA”) and Alliance for Telecommunications Industry Solutions (“ATIS”).

3. The first issue is the position of CTIA and ATIS that multimedia messaging is not feasible because of the risk of missing out or delaying the text portion of a WEA, should multimedia content be included in WEA messages.⁵ This contention overlooks the advantages of the “carousel” format advanced by DBT.⁶ As previously noted, the multimedia message can be fully populated even if packets are received out of order.⁷

4. Using DBT’s technology for delivering multimedia content in the messages, there is no increased risk of not receiving the text part of the message, as argued by CTIA and ATIS. Each packet of DBT’s message is a standalone item. The address scheme described in DBT’s Comments allows for any packet that has been properly received and saved to be assembled and displayed with any other required packets, independent of whether or not other content has yet to be fully transmitted.⁸ In other words, if the text portion of an alert is split between five packets, then as soon as those five packets are received, the message can be displayed, even though there may be many more packets still being sent that belong to a multimedia file. The packets in DBT’s messages do not have to be received in sequential order, nor do they have to be contiguous. This is fully set out in DBT’s original Comments.⁹

⁵ CTIA Comments, p. 10; ATIS Comments, p. 5.

⁶ DBT Comments, p. 7.

⁷ *Id.*, p. 8.

⁸ *Id.*, pp. 7-8.

⁹ *Id.*

5. An additional point regards the contention that multimedia messaging can only be feasible with the adoption and employment of eMBMS feature throughout the entire cellular network.¹⁰

6. . Although there are obvious advantages to the higher baud rates available with eMBMS, it is important to note that DBT's technology can function at any baud rate available from the carrier. Time delays between messages have no impact, nor do the packets necessarily need to be sent at the same rate throughout the transmission. Thus, it is not necessary to require new transmit technology (*i.e.*, eMBMS) to take advantage of the capabilities of this protocol. DBT has used the message format at baud rates as low as 4800 baud with satisfactory results. Accordingly, there is no reason that it could not be applied at the rates being discussed for WEA messages on existing mobile systems.

7. It should also be noted that the protocol that DBT is proposing is already compatible with a broadcast optimized for linear programming, contrary to the suggestion by ATIS that "significant technical work also remains" to develop the underlying standards."¹¹

8. The mobile industry takes the position that requiring multimedia messaging is a bridge too far; a burden on the existing mobile system. In fact, the technology currently exists to make multimedia messaging for WEA immediately available, even if at slower speeds. The Commission should adopt a deadline for employment of multimedia WEA messages.

¹⁰ CTIA Comments, p. 11; ATIS Comments, p. 6.

¹¹ ATIS Comments, p. 6.

9. DBT endorses the assertion made in the comments submitted by APCO that “Arguments that the WEA system was not designed for certain capabilities should have no bearing on whether to incorporate capabilities that already exist in wireless networks”.¹² Since the release of the First Report and Order in this docket, the Commission has committed itself to allowing the public to realize the benefits of multimedia content in WEA and endorsed the goal of taking advantage of advances in technology to make the system more effective.¹³ DBT can now offer such an advance.

10. In conclusion, DBT can demonstrate the capabilities of its protocols and codecs to the appropriate government agencies now, and to work with CMS providers and the appropriate government agencies, as suggested in comments submitted by both FEMA and NOAA in employing these WEA messaging improvements. There exists technology to provide multimedia capability in WEA messaging and DBT can provide it now.

Respectfully submitted,

DIGITAL BROADCASTING TECHNOLOGIES, LLC

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Dated: June 11, 2018

¹² APCO Comments, p. 2.

¹³ See generally *Report and Order and Further Notice of Proposed Rulemaking in PS Docket No. 15-191*, 31 FCC Rcd 11112 (2016).

APPENDIX 1 – Declaration of C.Y. Smith

Declaration of C.Y. Smith

I, C.Y. Smith, hereby declare the following:

1. I am the president and founder of Digital Broadcasting Technologies, LLC ("DBT").

I am also the Chief Engineer of DBT.

2. The foregoing Reply Comments were prepared at my direction and under my supervision. I have authorized the filing of these Comments in FCC Docket Nos. Docket Nos. 15-91 and 15-94.



C.Y. Smith