

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of
Improving Wireless Emergency Alerts and
Community-Initiated Alerting
Amendments to Part 11 of the Commission's Rules
Regarding the Emergency Alert System
PS Docket No. 15-91
PS Docket No. 15-94

ORDER

Adopted: November 1, 2019

Released: November 1, 2019

By the Deputy Chief, Public Safety and Homeland Security Bureau:

I. INTRODUCTION

1. In this Order, the Public Safety and Homeland Security Bureau (Bureau) of the Federal Communications Commission (Commission) grants a limited waiver of the Commission's Wireless Emergency Alerts (WEA) rules to permit T-Mobile USA, Inc. (T-Mobile), a Participating Commercial Mobile Service (CMS) Provider, to conduct two tests to assess its ability to perform enhanced geographic targeting (geotargeting) of WEA Alert Messages. For both tests, T-Mobile will send a State/Local WEA Test from its CMS Provider Alert Gateways (CMS gateways) to the WEA-capable mobile devices of its subscribers that have affirmatively opted in to receive such test messages. The first test will occur in Bellevue, Washington on the evening of November 4, 2019 with a backup date of November 7, 2019. The second test will occur in Concord, California on November 14, 2019 with a backup date of November 15, 2019. For the reasons discussed below we grant T-Mobile's request, subject to certain conditions.

II. BACKGROUND

2. The WEA system allows authorized government entities to send geographically targeted emergency alerts to commercial wireless subscribers who have WEA-capable mobile devices, and whose commercial wireless service providers are Participating CMS Providers. WEA messages are initiated by authorized federal, state, local and Tribal officials, who transmit messages to the Integrated Public Alert and Warning System (IPAWS), an alert aggregator administered by the Department of Homeland

1 Participating CMS Providers are commercial mobile service providers that have elected voluntarily to transmit WEA Alert Messages. 47 CFR § 10.10(d), (f).

2 See 47 CFR § 10.350(c) (providing that Participating CMS Providers must offer their subscribers the option to opt in to receive State/Local WEA tests because their subscribers are, by default, opted out).

3 See Letter from Steve Sharkey, Vice President, T-Mobile, to Michael Wilhelm, Chief, Policy and Licensing Division, FCC, PS Docket No. 15-91, at 3 (Oct. 29, 2019) (T-Mobile Revised Waiver Request).

4 See id.

5 See Commercial Mobile Alert System, PS Docket No. 07-287, Third Report and Order, 23 FCC Rcd 12561, 12575, para. 32 (2008).

Security's Federal Emergency Management Agency (FEMA).⁶ FEMA IPAWS, in turn, then transmits the WEA message to the CMS gateway, a secure interface that receives, authenticates and validates WEA messages.⁷ Once CMS Providers receive the WEA alert from the CMS gateway, they use their network infrastructure to deliver it to their subscribers' WEA-capable mobile devices within a geographically targeted area.⁸

3. The Commission's rules prohibit use of the WEA Attention Signal except during actual emergencies, authorized tests, and certain public service announcements.⁹ Additionally, the Commission's rules allow testing of WEA functionality in limited circumstances.¹⁰ On September 29, 2016, the Commission adopted a *Report and Order* permitting authorized alert originators to conduct end-to-end WEA tests to the public to assess how WEA is working within their jurisdictions through the use of a new "State/Local WEA Test" WEA category.¹¹ Only those subscribers who affirmatively opt in to receive such tests would receive the WEA test message.¹² The rules allowing these State/Local WEA Tests became effective on May 1, 2019.¹³ FEMA has informed the Bureau, however, that IPAWS is not yet ready to support certain WEA enhancements, including State/Local WEA Tests, pending further necessary technical changes to IPAWS.¹⁴ Accordingly, entities wishing to conduct end-to-end WEA tests prior to IPAWS's readiness to support State/Local WEA Tests have requested a waiver to use existing WEA message classifications instead of State/Local WEA Tests to permit end-to-end testing.¹⁵

⁶ See 47 CFR § 10.320(a) ("The CMS provider gateway must provide secure, redundant, and reliable connections to receive Alert Messages from the federal alert gateway.").

⁷ See 47 CFR § 10.320(b) ("The CMS provider gateway must authenticate interactions with the Federal alert gateway and validate Alert Message integrity and parameters."). Section 10.320 also specifies other actions that the CMS gateway will take with regard to the federal gateway.

⁸ See 47 CFR §§ 10.320; 10.330 (CMS gateway and WEA infrastructure requirements).

⁹ 47 CFR § 10.520(d). The Attention Signal is a loud, attention-grabbing, two-tone audio signal that uses frequencies and sounds identical to the attention signal used by the EAS. Compare 47 CFR § 10.520 with 47 CFR § 11.31(a)(2).

¹⁰ 47 CFR § 10.350. Specifically, the Commission's rules require Participating CMS Providers to participate in monthly tests initiated by the Federal Emergency Management Agency (FEMA) and in periodic tests of WEA's C-Interface. *Id.*

¹¹ *Wireless Emergency Alerts; Amendments to Part 11 of the Commission's Rules Regarding the Emergency Alert System*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 11112, 11154-11157, paras. 65-68 (2016).

¹² *Id.*

¹³ *Id.* at 11161, 11165, paras. 79, 85 (stating that the deadline for state and local testing is 30 months after the rule's publication in the Federal Register); *Federal Communications Commission, Wireless Emergency Alerts, Amendments to Rules Regarding the Emergency Alert System*, 81 Fed. Reg. 75710 (Nov. 1, 2016) (establishing the date of Federal Register publication).

¹⁴ See *Public Safety & Homeland Security Bureau Announces Delay in Availability of Certain Improvements to Wireless Emergency Alerts*, PS Docket Nos. 15-91, 15-94, Public Notice, 34 FCC Rcd 4647 (2019); *Advisory Regarding May 1 Deadline for Improvements to Wireless Emergency Alerts and Guidance for State/Local Alert Originators*, PS Docket Nos. 15-91, 15-94, Public Notice, 34 FCC Rcd 2819, 2820 (2019).

¹⁵ See, e.g., *Improving Wireless Emergency Alerts and Community-Initiated Alerting; Amendments to Part 11 of the Commission's Rules Regarding the Emergency Alert System*, PS Docket Nos. 15-91, 15-94, Order, DA-19-1056 (PSHSB Oct. 21, 2019); *Improving Wireless Emergency Alerts and Community-Initiated Alerting; Amendments to Part 11 of the Commission's Rules Regarding the Emergency Alert System*, PS Docket Nos. 15-91, 15-94, Order, DA-19-1052 (PSHSB Oct. 21, 2019); *Improving Wireless Emergency Alerts and Community-Initiated Alerting; Amendments to Part 11 of the Commission's Rules Regarding the Emergency Alert System*, PS Docket Nos. 15-91, 15-94, Order, DA-19-1040 (PSHSB Oct. 16, 2019).

4. On January 30, 2018, the Commission adopted measures to enhance the accuracy of WEA geotargeting.¹⁶ Pursuant to this rule, Participating CMS Providers are required to deliver WEA Alert Messages to a geographic area that “matches” the target area specified by the alert originator.¹⁷ “Matching” is achieved when “100 percent of devices within the specified area receive the Alert Message with not more than 0.1 of a mile overshoot.”¹⁸ The enhanced geotargeting rule will become effective on November 30, 2019.¹⁹ The Alliance for Telecommunications Industry Solutions (ATIS) has standardized industry’s approach to meeting the enhanced geotargeting requirement through a technique called “device-based geofencing.”²⁰ With device-based geo-fencing, and subject to technical limitations, WEA-capable mobile devices that receive the WEA Alert Message will display it only if they are located within the target area.²¹ Otherwise, they will suppress it.

5. In light of the foregoing circumstances, T-Mobile seeks a waiver of Sections 10.320, 10.350, and 10.520(d) of the Commission’s rules to evaluate and confirm its ability to comply with the Commission’s rules by initiating a State/Local WEA Test at its CMS gateway.²² Typically, a Participating CMS Provider would receive a State/Local WEA Test at its CMS gateway after it has been received from an authorized alert originator through IPAWS. The Participating CMS Provider would then transmit the alert from its CMS gateway to WEA-capable mobile devices utilizing its network. T-Mobile proposes to send the State/Local WEA Test for a portion of the system, directly from the CMS gateway to WEA-capable mobile devices utilizing the T-Mobile network’s enhanced geotargeting capability.²³ T-Mobile will target a single State/Local WEA Test to a small industrial area in Bellevue, Washington on November 4, 2019 and a second State/Local WEA Test to a similar area in Concord, California on November 14, 2019.²⁴ The State/Local WEA Test message will be delivered only to the WEA-capable mobile devices of T-Mobile subscribers that have affirmatively opted in to receiving such tests, in compliance with our State/Local testing requirements.²⁵ The test message would read as follows: “THIS IS A TEST OF THE WIRELESS EMERGENCY ALERT SYSTEM. NO ACTION IS REQUIRED.”²⁶ T-Mobile commits to notifying first responder organization such as police and fire agencies and 911 Public Safety Answering Points serving the test locations.²⁷

¹⁶ *Wireless Emergency Alerts; Amendments to Part 11 of the Commission’s Rules Regarding the Emergency Alert System*, PS Docket Nos. 15-91, 15-94, Second Report and Order and Second Order on Reconsideration, 33 FCC Rcd 1320, 1349 paras. 56-58 (2018) (*Second WEA R&O*).

¹⁷ *See id.* at 1324, para. 6.

¹⁸ *See id.* at 1324-25, para. 6. Section 10.450(a) will further provide that, where the Participating CMS Provider's network infrastructure is technically incapable of matching the specified target area, then that Participating CMS Provider must deliver the Alert Message to an area that meets the foregoing geotargeting standard (*i.e.*, an area that “best approximates” the target area) on and only on those aspects of its network infrastructure that are incapable of matching the target area. *See Wireless Emergency Alerts*, 83 Fed. Reg. 8623 (2018).

¹⁹ *Second WEA R&O*, 33 FCC Rcd at 1329 para. 12 (establishing the November 30, 2019 effective date).

²⁰ *See* ATIS, ATIS 0700041: Wireless Emergency Alerts (WEA) 3.0: Device-Based Geo-fencing (2019); ATIS, ATIS0700036v.002: Wireless Emergency Alert (WEA) 3.0 Mobile Device Behavior (MDB) Specification (2019).

²¹ *See id.*

²² *See* T-Mobile Revised Waiver Request at 2; 47 CFR §§ 10.320, 10.350, 10.520(d).

²³ *See* T-Mobile Revised Waiver Request at 2.

²⁴ *See id.* at 3 (establishing back-up testing dates of November 7 and 15, 2019, respectively).

²⁵ *See id.* at 2.

²⁶ *See id.*

²⁷ *See id.*

III. DISCUSSION

6. A provision of the Commission's rules "may be waived by the Commission on its own motion or on petition if good cause therefor is shown."²⁸ The Commission may find good cause to extend a waiver "if special circumstances warrant a deviation from the general rule and such deviation will serve the public interest."²⁹ Ensuring wireless emergency alerts are directed to those for whom they are relevant is critical because it will "encourage emergency managers to use WEA, enable them to use WEA to more effectively move consumers to take protective actions, and will reduce the potential for over-alerting and subscriber opt out."³⁰ The Commission has previously recognized that compliance with enhanced geotargeting necessitates testing,³¹ and we find that there is good cause to grant T-Mobile's request for a waiver to initiate a State/Local WEA Test at its CMS gateway in order to do so. T-Mobile indicates that it has been working diligently with vendors and others to meet the November 30, 2019 enhanced geotargeting compliance deadline, but "testing must be conducted to assess the proper functioning of the new geo-targeting feature," and "[a]bsent a waiver, the benefits of these new requirements may not be fully realized in a timely manner."³² We are persuaded that the test will help T-Mobile assess the proper functioning of enhanced geotargeting,³³ so that T-Mobile can complete its implementation of enhanced geotargeting by November 30, 2019.

7. Furthermore, we are persuaded that the means by which T-Mobile proposes to conduct its test would serve the public interest. T-Mobile's test is narrowly designed to affect a limited subset of the public, while still providing T-Mobile with the data necessary to evaluate its implementation of enhanced geotargeting. T-Mobile proposes to send a State/Local WEA Test so that "test messages will be received only by people that have specifically elected to receive State/Local WEA Test messages (i.e., the State/Local Test option on the device has been toggled on)."³⁴ As T-Mobile explains, unlike tests that are designed to evaluate public awareness, T-Mobile's proposed tests "are designed merely to evaluate the geo-targeting capabilities of certain devices."³⁵ T-Mobile states that "testing will be controlled and limited to small geographic areas."³⁶ In adopting this category of tests, the Commission acknowledged its value in assessing geotargeting in particular, stating that State/Local WEA Tests would provide "an opportunity to test in an environment that mirrors actual alert conditions and evaluate, for example, the accuracy with which various Participating CMS Providers geo-target Alert Messages in their community."³⁷ We note that because IPAWS cannot yet support State/Local WEA Tests,³⁸ T-Mobile

²⁸ 47 CFR § 1.3.

²⁹ See *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (citing *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969), *aff'd*, 459 F.2d 1203 (1973), *cert. denied*, 409 U.S. 1027 (1972)).

³⁰ *Second Report and Order*, 22 FCC Rcd at 1324, para. 6.

³¹ See *id.* at 1331-32, para. 14.

³² T-Mobile Revised Waiver Request at 2.

³³ See *id.*

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.*

³⁷ See *Wireless Emergency Alerts; Amendments to Part 11 of the Commission's Rules Regarding the Emergency Alert System*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 11112, at 11154-55, para. 65. While the Commission expressly contemplated that emergency managers would initiate State/Local WEA tests, FEMA is responsible for authorizing alert originators and has confirmed that T-Mobile's proposed test is an appropriate "use of [the WEA] system" under the IPAWS Modernization Act. FEMA also stated that it "does not require that T-Mobile become an authorized IPAWS alerting authority to initiate and send the proposed test message." See Email from Mark Lucero, Chief, Integrated Public Alert and Warning System Engineering, Department of Homeland Security, Federal Emergency Management Agency, to James Wiley, Attorney Advisor,

(continued...)

would conduct its test by inserting the test message at CMS gateway.³⁹ T-Mobile has confirmed that it is ready to support State/Local WEA Tests.⁴⁰ Accordingly, the test will only be displayed on the mobile devices of T-Mobile subscribers who have opted in to receive State/Local WEA Tests, in compliance with the Commission's rules.⁴¹

8. In light of the foregoing, we grant T-Mobile a limited waiver of the Commission's WEA rules to conduct State/Local WEA Tests in Bellevue, Washington and Concord, California on November 4 and November 14, 2019, respectively, or on the respective back-up dates referenced in T-Mobile's letter.⁴²

9. Specifically, we waive Section 10.320, as it pertains to specific functions that the CMS gateway must support and perform with respect to the IPAWS gateway.⁴³ We also waive Section 10.350, because the CMS gateway will not receive the test from FEMA, as described in Section 10.350(c)(1), but instead will be initiated by T-Mobile directly.⁴⁴ We waive Section 10.520(d), as requested by T-Mobile, because that Section limits the use of the WEA attention signal to, *inter alia*, authorized tests, and this State/Local WEA Test will deviate from the testing authorized by 10.350(c).⁴⁵ We also waive Sections 10.530(b) and 11.45 on our own initiative. We waive 10.530(b) because, like the WEA attention signal, use of the WEA vibration cadence is restricted to those authorized by part 10.⁴⁶ We waive Section 11.45 insofar as the WEA attention signal may be confused for the Emergency Alert System (EAS) attention signal because they consist of the same fundamental frequencies.⁴⁷

10. To ensure that the public is not misled into believing that the test is an actual warning, we condition this waiver on the full implementation outreach plan described in the T-Mobile letter. The T-Mobile outreach plan is less extensive than that conducted by other authorized alert originators to whom we have granted WEA testing waivers.⁴⁸ We find that less extensive outreach is warranted in this case because prior end-to-end tests were delivered to everyone with a WEA-capable mobile device within the target area, whereas this test will only be delivered to T-Mobile subscribers who have chosen to receive tests of this kind. Indeed, more extensive outreach for this test could risk undue concern or confusion

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Cybersecurity and Communications Reliability Division, FCC Public Safety and Homeland Security Bureau (Oct. 29, 2019, 1:39PM EST) (referencing the *Integrated Public Alert and Warning System Modernization Act of 2015*, Pub. L. No. 114-143, § 526(d), 130 Stat. 327, 329 (2015) (codified at 6 USC § 321o(d)) (2016)).

³⁸ See *Public Safety & Homeland Security Bureau Announces Delay in Availability of Certain Improvements to Wireless Emergency Alerts*, Public Notice, 33 FCC Rcd 4647 (PSHSB June 7, 2019); *Advisory Regarding May 1 Deadline for Improvements to Wireless Emergency Alerts and Guidance for State/Local Alert Originators*, Public Notice, 33 FCC Rcd 2819, 2820 (PSHSB Apr. 30, 2019). See also T-Mobile Revised Waiver Request at 1 n.4.

³⁹ See T-Mobile Revised Waiver Request at 2.

⁴⁰ See *id.*

⁴¹ See 47 CFR § 10.350(c)(4).

⁴² See T-Mobile Revised Waiver Request at 3.

⁴³ *Id.* at 1. Specifically, Section 10.320(a) and 10.320(b) require the CMS gateway to support a secure connection to the federal alert gateway and to authenticate interactions with the federal alert gateway, respectively, but T-Mobile's CMS gateways will not perform these functions during the test.

⁴⁴ 47 CFR § 10.350(c)(1).

⁴⁵ 47 CFR § 10.520(d).

⁴⁶ 47 CFR § 10.530(b).

⁴⁷ 47 CFR § 11.45; see also, e.g., *supra* note 15 (highlighting other waiver orders for WEA testing that have waived Section 11.45 for this purpose).

⁴⁸ See *supra* note 15.

because recipients of broader outreach would include those who have not opted in to receive State/Local tests and, as such, would not receive the T-Mobile test messages that would be the subject of the outreach.

11. We further condition this waiver to require that the tests may only be conducted in a manner that is consistent with the T-Mobile Waiver Request and may only be conducted for the purposes described therein. We also require that the test and any post-test analysis and reports that T-Mobile may conduct or cause to be produced are done in a manner consistent with customers' expectations of privacy, confidentiality of Participating CMS Providers' network information, and the overall security of the WEA systems and infrastructure.⁴⁹ We encourage T-Mobile to report its test results in electronic format to the Bureau. Finally, we encourage members of the public who wish to share their experience with the test to do so by filing a description of that experience with the FCC's Public Safety Support Center at <https://www.fcc.gov/general/public-safety-support-center>.

IV. ORDERING CLAUSE

12. Accordingly, IT IS ORDERED that, pursuant to section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and section 1.3 of the Commission's rules, 47 CFR § 1.3, that sections 10.320, 10.350, 10.520(d), 10.530(b), and 11.45 of the Commission's rules, 47 CFR §§ 10.320, 10.350, 10.520(d), 10.530(b), and 11.45 of the Commission's rules, ARE WAIVED, to allow T-Mobile to test its enhanced WEA geotargeting capability in Bellevue, Washington on November 4, 2019 or November 7, 2019, and in Concord, California on November 14, 2019 or November 15, 2019, which tests must be conducted subject to the conditions described herein. This action is taken under delegated authority pursuant to Sections 0.191 and 0.392 of the Commission's rules, 47 CFR §§ 0.191 and 0.392.

FEDERAL COMMUNICATIONS COMMISSION

Nicole McGinnis
Deputy Chief
Public Safety and Homeland Security Bureau

⁴⁹ See 47 U.S.C. § 222.