

3.1.4 Scenario – CMAS in Subset of Single Technology Operator's Network on Subset of Devices

This scenario illustrates where the CMSP deploys a single delivery technology in a subset of the CMSP network to support CMAS, and only a subset of mobile devices on the CMSP network support the delivery technology and thus the reception of the CMAS alerts while in the portion of the CMSP network where the delivery technology is deployed.

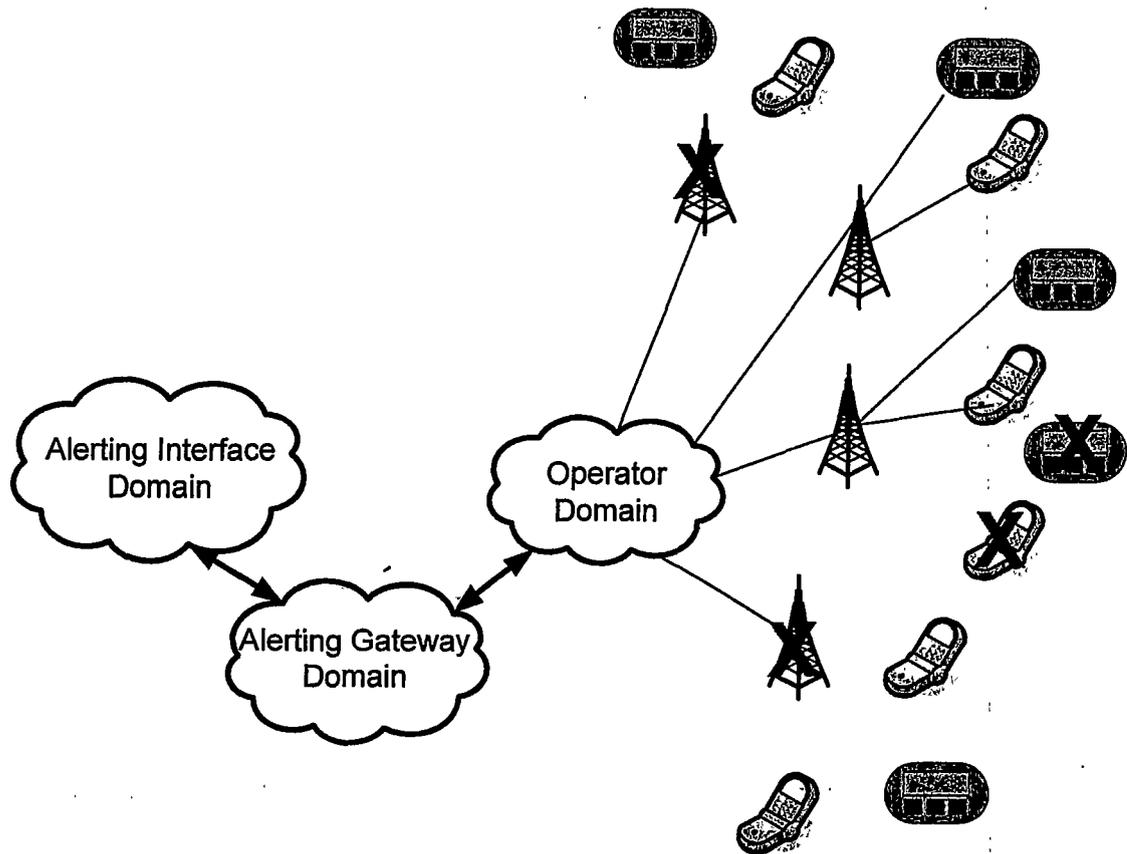


Figure 3-4 CMAS in Subset of Single Technology Operator's Network on Subset of Devices

3.2 Scenarios for Multiple Technologies Deployed

3.2.1 Scenario – CMAS in Entire Multiple Technology Operator Network on All Devices

This scenario illustrates where the CMSP deploys a multiple delivery technologies within the CMSP network to support CMAS alerts, and all mobile devices on that CMSP network support all delivery technologies and thus the reception of the CMAS alerts.

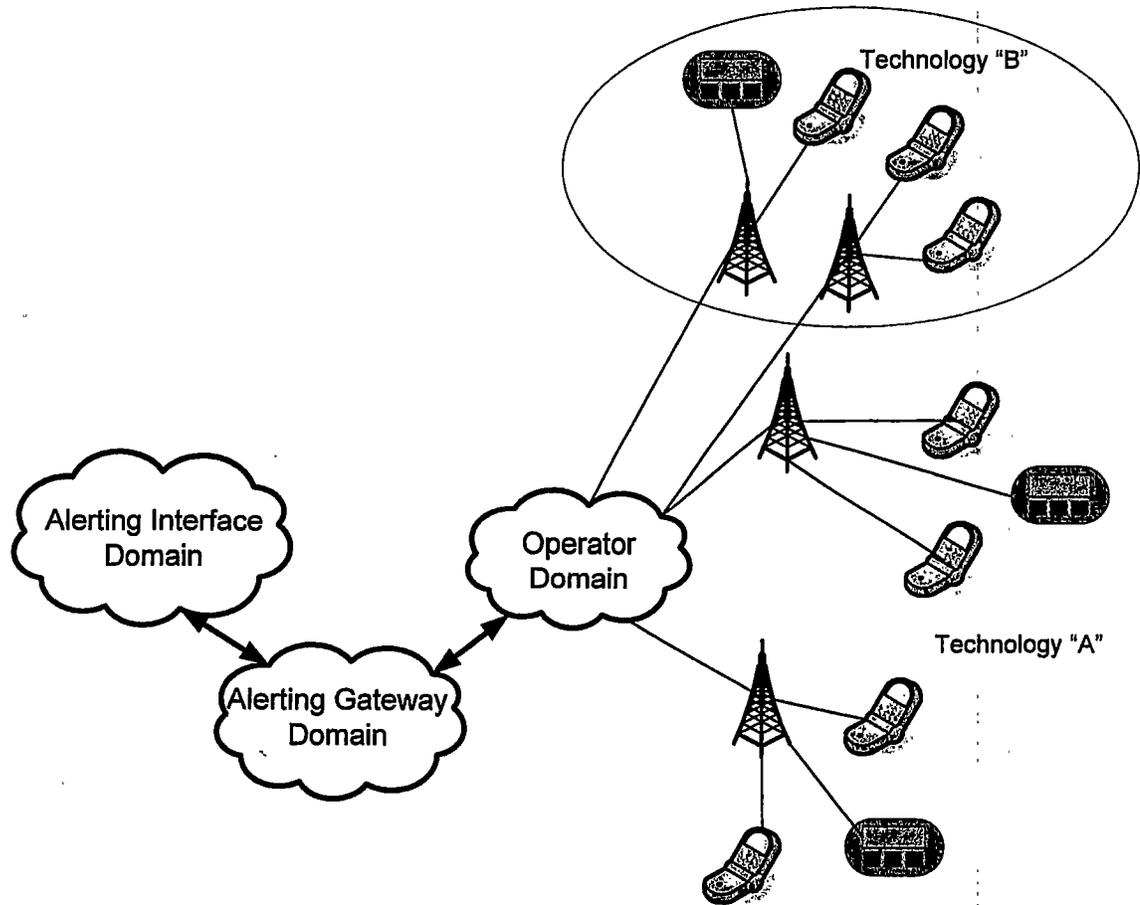


Figure 3-5 CMAS in Entire Multiple Technology Operator Network on All Devices

3.2.2 Scenario – CMAS in Entire Multiple Technology Operator Network on Subset of Devices

This scenario illustrates where the CMSP deploys multiple delivery technologies within the CMSP network to support CMAS alerts, and only a subset of mobile devices on the CMSP network supports one or both delivery technologies and thus the reception of the CMAS alerts. Some mobile devices may not support either deliver technology.

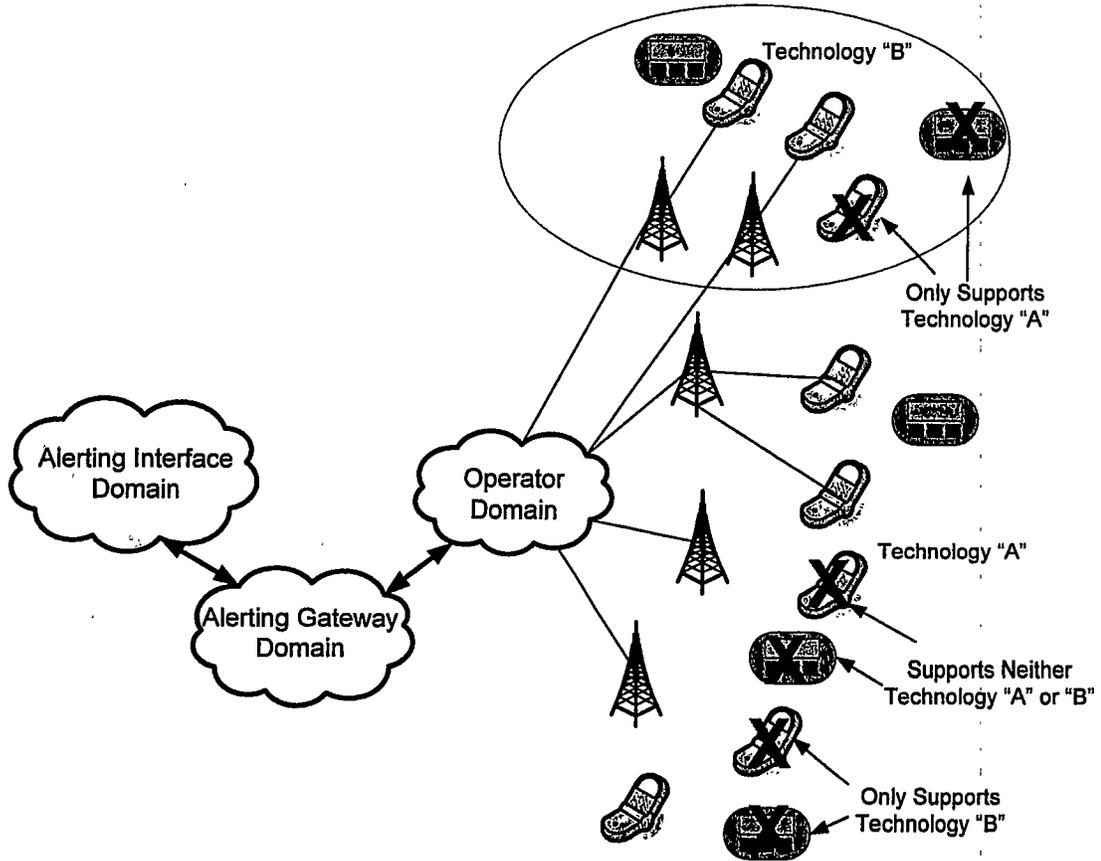


Figure 3-6 CMAS in Entire Multiple Technology Operator Network on Subset of Devices

3.2.3 Scenario – CMAS in Subset of Multiple Technology Operator Network on Subset of Devices

This scenario illustrates where the CMSP deploys multiple delivery technologies on a subset of the CMSP network to support CMAS alerts, and only a subset of mobile devices on the CMSP network support one or both delivery technologies and thus the reception of the CMAS alerts. Some mobile devices may not support either delivery technology. This is a realistic picture of the deployment of CMAS, especially in a nationwide scenario.

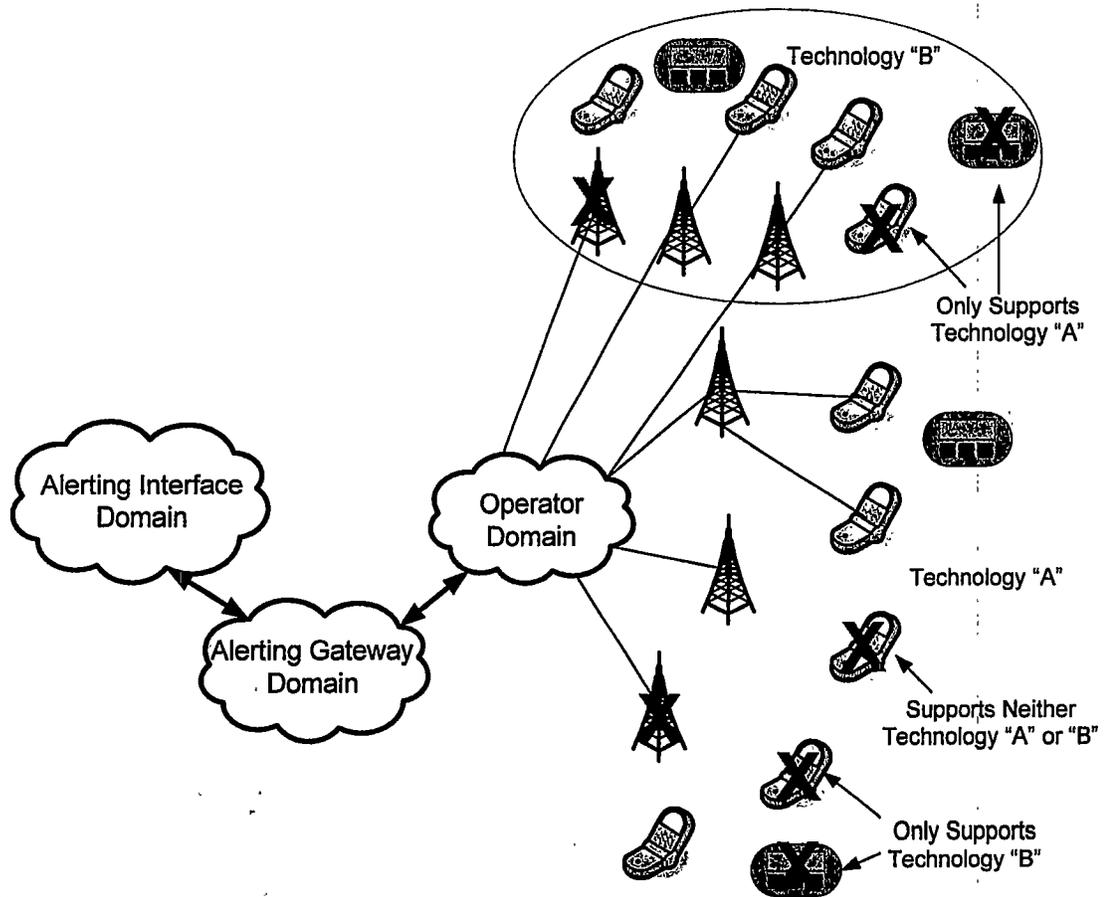


Figure 3-7 CMAS in Subset of Multiple Technology Operator Network on Subset of Devices

3.3 Scenario for Operator Does Not Elect to Transmit CMAS Alerts

This option illustrates where the CMSP does not elect to transmit CMAS alerts.

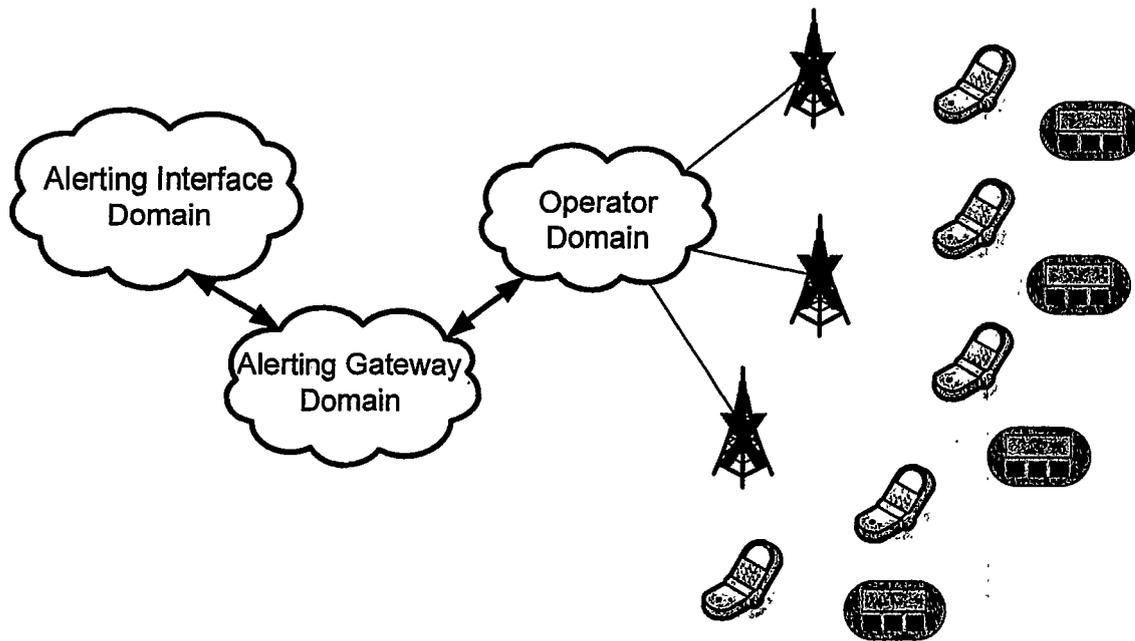


Figure 3-8 Operator Does Not Elect to Transmit CMAS Alerts

3.4 Subscriber Notification Recommendations

The CMSAAC, in collaboration with the Cellular Telephone and Internet Association (CTIA) and its membership developed the proposed text to be used by commercial mobile service providers to notify their subscribers 1) when they intend to transmit emergency alerts “in part” or 2) when they do not intend to transmit emergency alerts. The WARN Act appears not to require specific text be developed for service providers who elect to transmit emergency alerts throughout its entire coverage area. Therefore no text was developed for that case.

3.4.1 Notification Procedures

The CMSAAC recommends that carriers retain the discretion to determine how to provide specific information regarding (1) whether or not they offer wireless emergency alerts, and (2) which devices are or are not capable of receiving wireless emergency alerts, as well as how to tailor additional notice, if necessary, for devices offered at other points of sale, *i.e.*, retail outlets, mobile virtual network operators (MVNOs) and third party vendors.

3.4.2 Notification Text Recommendations

The CMSAAC submits the following recommended notice text, consistent with the requirements of the WARN Act.

I. NOTICE BY CARRIER WHO INTENDS TO TRANSMIT EMERGENCY ALERTS “IN PART.”

NOTICE REGARDING TRANSMISSION OF
WIRELESS EMERGENCY ALERTS (Commercial Mobile Alert Service)

1
2 [[WIRELESS PROVIDER]] has chosen to offer wireless emergency alerts within portions of its service
3 area, as defined by the terms and conditions of its service agreement, on wireless emergency alert capable
4 devices. There is no additional charge for these wireless emergency alerts.

5
6 Wireless emergency alerts may not be available on all devices or in the entire service area, or if a
7 subscriber is outside of the [WIRELESS PROVIDER's] service area. For details on the availability of this
8 service and wireless emergency alert capable devices, please ask a sales representative, or go to [[INSERT
9 WEBSITE URL]].

10
11 Notice required by FCC Rule XXXX (Commercial Mobile Alert Service).

12
13
14 **II. NOTICE BY CARRIER WHO, "IN WHOLE," DOES NOT INTEND TO TRANSMIT EMERGENCY**
15 **ALERTS**

16
17
18 **NOTICE TO NEW AND EXISTING SUBSCRIBERS REGARDING TRANSMISSION OF WIRELESS**
19 **EMERGENCY ALERTS (Commercial Mobile Alert Service)**

20
21 [[WIRELESS PROVIDER]] presently does not transmit wireless emergency alerts.

22
23 Notice required by FCC Rule XXXX (Commercial Mobile Alert Service).

4 CMAS Alert Scenarios

This section provides descriptions recommended by the CMSAAC for many common scenarios which are related to the support of CMAS Alert messages. These scenarios are a representative sample and do not include all possible sequences and/or events. Specifically this section will include descriptions of the following scenarios:

- Nominal CMAS alert scenarios for text based CMAS alert, as well as future capabilities of streaming audio, streaming video, and downloaded multimedia CMAS alerts
- CMAS alert cancellation scenario
- CMAS alert update scenarios for text based CMAS alert, as well as future capabilities of streaming audio, streaming video, and downloaded multimedia CMAS alerts
- CMAS alert expiration scenario
- Duplicate CMAS alerts scenarios for both duplicate CMAS alerts on the same broadcast technology and duplicate CMAS alerts from different broadcast technologies
- Multiple different active CMAS alerts scenarios
- Multiple different CMAS alerts

4.1 Nominal CMAS Alert Scenarios

4.1.1 Scenario for Nominal Text CMAS Alert

An event has occurred and the appropriate government entities have decided to issue a text based CMA to warn the CMSP subscribers within the indicated alerting area.

This scenario applies to both the CMSP subscribers and to subscribers who are roaming as visiting subscribers into the service area of the CMSP network which will be broadcasting the CMA.

4.1.1.1 Pre-Conditions

1. Mobile device is authorized and authenticated for service on CMSP network.
2. Mobile device is receiving adequate radio signal strength from the CMSP.
3. Mobile device is in state that allows for the detection and reception of the CMA (e.g., not busy, not on a voice call).
4. No previous Commercial Mobile Alert Message (CMAM) is being broadcast by the CMSP.
5. There is no active CMAM on mobile device.
6. CMSP subscriber is within the alerting area for the CMA.

4.1.1.2 Normal Flow

The normal flow for the text based CMA is described in the following steps and in the associated flow diagram which follows:

1. The appropriate government entity creates the alert message in CAP format which is sent to the government alerting network over Reference Point A.
2. The government alerting network validates and authenticates the received alert request.
 - a. If the alert fails validation or authentication, an error response is returned to the originating government entity and the alert is not sent to the CMSP. End of scenario.

- 1 3. The government alerting network converts the received alert message into the text profile based CMAS
2 format supported by the CMSP.
 - 3 a. *If the alert fails conversion, the alert is not sent to the CMSP. End of scenario.*
- 4 4. The text profile based CMAM is sent to the CMSP over Reference Point C.
- 5 5. The CMSP validates the received CMAM.
 - 6 a. If the CMAM fails validation, an error response is returned to the government alerting
7 network and the CMAM is not broadcast by the CMSP. End of scenario.
- 8 6. The CMSP sends an acknowledgement to the government alerting network that a valid CMAM has
9 been received.
- 10 7. The CMSP performs geo-targeting to translate the indicated alert area into the associated set of cell
11 sites / paging transceivers for the broadcast of the CMA.
 - 12 a. If the CMSP does not support CMAS in the indicated alert area, the CMAM is not broadcast
13 by the CMSP. End of scenario.
 - 14 b. If the CMSP does not have any cell site / paging transceiver coverage within the indicated
15 alert area, the CMAM is not broadcast by the CMSP. End of scenario.
 - 16 c. If the entire nation is indicated as the alert area then all cell sites / paging transceivers of the
17 CMSP which support the CMAS service are used for the broadcast of the CMAM.
- 18 8. The CMSP broadcasts the CMAM to the set of cell sites / paging transceivers identified by the geo-
19 targeting processing in the previous step.
 - 20 a. The CMAM is broadcast via the CMSP selected technology.
- 21 9. The mobile device monitors for the broadcast of the CMAM via the CMSP selected technology.
 - 22 a. If the CMAM is not a Presidential alert and if the end user opt-out selections for CMAS alerts
23 indicate that this type of CMAM is not to be presented, the CMAM is discarded or ignored.
24 End of scenario.
- 25 10. The CMAM is received and presented to the end user including the activation of the CMAS audio
26 attention signal and/or the activation of the special emergency alert vibration cadence (if mobile device
27 has vibration capabilities) for a short duration as defined by CMSP policies and by the capabilities of
28 the mobile device, and display of the CMAM message text on the visual display of the mobile device.
 - 29 a. Activation of the CMAS audio attention signal and/or special vibration cadence complies with
30 the end user mobile device configuration as defined in Section 7.2, below.
- 31 11. The behavior of the mobile device beyond this point is outside the scope of the WARN Act and,
32 therefore, is not subject to recommendations by the CMSAAC. The functionality of the mobile device
33 is CMSP and mobile device specific.

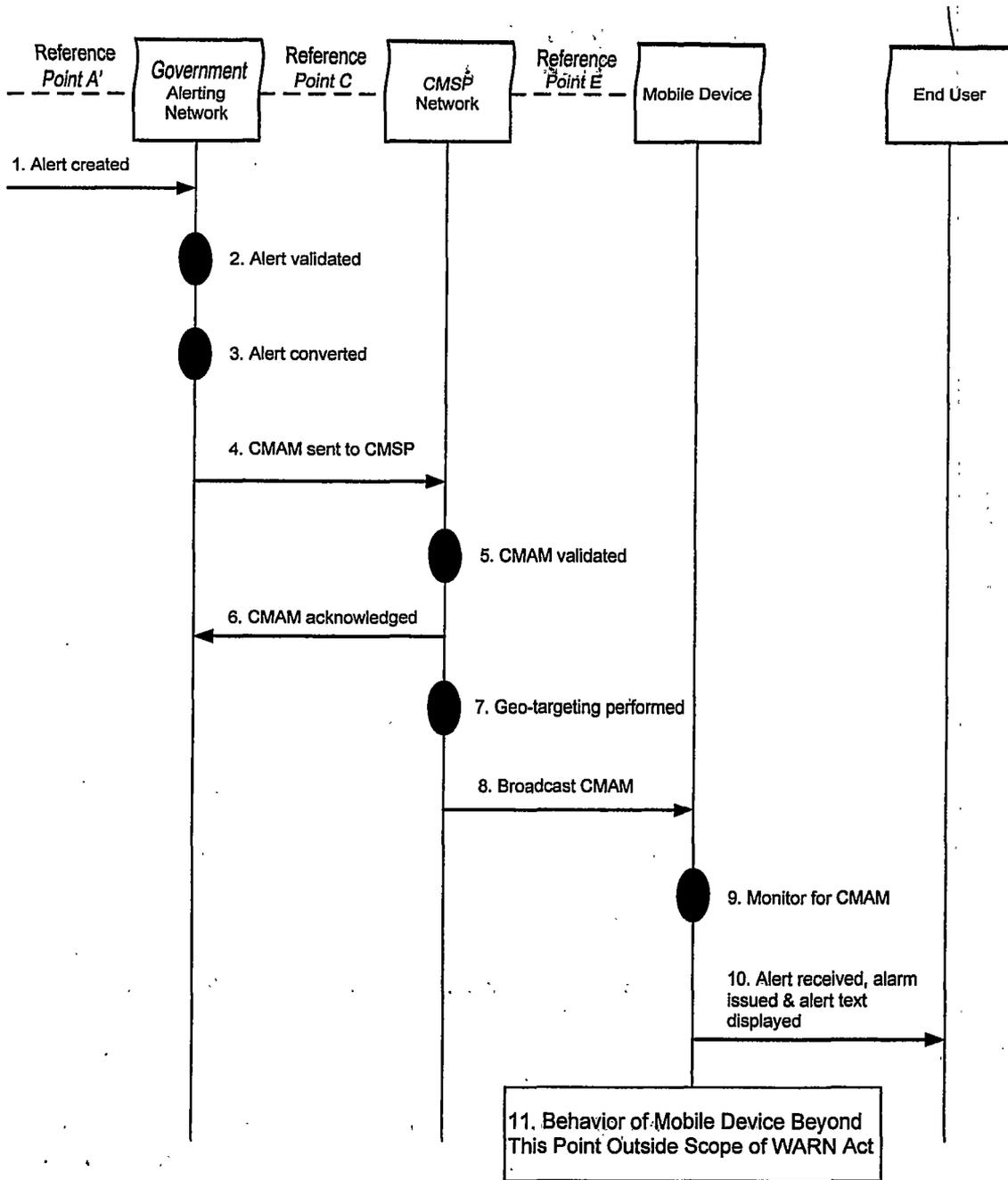


Figure 4-1 Flow for Scenario for Nominal Text CMAS Alert

4.1.2 Scenario for Nominal Streaming Audio or Streaming Video CMAS Alert

Streaming audio or streaming video CMAS alerts are a future capability.

4.1.3 Scenario for Nominal Downloaded Multimedia CMAS Alert

Downloaded multimedia CMAS alerts are a future capability.

4.2 CMAS Alert Cancellation Scenario

The event that caused the issuance of the CMA has changed and the appropriate government entities have decided that the event is no longer an imminent threat to life or property. Consequently the appropriate government entities have decided to issue a cancellation of the CMA.

This scenario applies to both the CMSP subscribers and to subscribers who are roaming as visiting subscribers into the service area of the CMSP network which will be broadcasting the CMA.

If the received CMAM cancellation is not valid and if, as a part of its implementation, the CMSP has enabled message retransmission, the CMSP may continue to send the original alert until expiry or until a valid CMAM cancellation is received.

4.2.1 Pre-Conditions

1. Mobile device is authorized and authenticated for service on CMSP network.
2. Mobile device is receiving adequate radio signal strength from the CMSP.
3. Mobile device is in state that allows for the detection and reception of the CMA (e.g., not busy, not on a voice call).
4. A previous non-expired Commercial Mobile Alert Message (CMAM) has been broadcast by the CMSP and has been received by the mobile device (i.e., there is an active CMAM on the mobile device).
6. CMSP subscriber is within the alerting area of the active CMA.

4.2.2 Normal Flow

The normal flow for the cancelled CMA is described in the following steps and in the associated flow diagram which follows:

1. The appropriate government entity creates the alert cancellation message in CAP format which is sent to the government alerting network over Reference Point A.
2. The government alerting network validates and authenticates the received alert cancellation request.
 - a. If the alert fails validation or authentication, an error response is returned to the originating government entity and the alert cancellation is not sent to the CMSP. End of scenario.
3. The government alerting network converts the received alert message into the text profile based CMAS format support by the CMSP
 - a. The Alert Gateway ensures that the urgency, severity, certainty match the values of those fields in the original message. As a consequence, a cancelled CMAM passed to the CMSP Gateway has the same urgency, severity, certainty, and message category as the original CMA alert in order to ensure the opt-out filter on the handset is the same for both messages. Therefore if the original CMAM was ignored based on opt-out criteria, then the CMAM cancellation should also be ignored.
 - b. If the alert fails conversion, the alert cancellation is not sent to the CMSP. End of scenario.
4. The CMAM cancellation is sent to the CMSP over Reference Point C.
5. The CMSP validates the received CMAM cancellation.

- 1 a. If the CMAM cancellation fails validation, an error response is returned to the government alerting
2 network and the CMAM cancellation is not broadcast by the CMSP. End of scenario.
- 3 6. *The CMSP sends an acknowledgement to the government alerting network that a valid CMAM*
4 *cancellation has been received.*
- 5 7. The CMSP discontinues the broadcasts the associated CMAM including the text component and any
6 associated audio, video, or multimedia components.
- 7 8. The CMSP performs geo-targeting to translate the indicated alert area into the associated set of cell
8 sites / paging transceivers for the broadcast of the CMA.
 - 9 a. If the CMSP does not support CMAS in the indicated alert area, the CMAM is not broadcast
10 by the CMSP. End of scenario.
 - 11 b. If the CMSP does not have any cell site / paging transceiver coverage within the indicated
12 alert area, the CMAM is not broadcast by the CMSP. End of scenario.
 - 13 c. If the entire nation is indicated as the alert area then all cell sites / paging transceivers of the
14 CMSP which support the CMAS service are used for the broadcast of the CMAM.
- 15 9. The CMSP broadcasts the CMAM cancellation to the same set of cell sites / paging transceivers
16 identified by the geo-targeting processing in the previous step.
- 17 10. The mobile device monitors for the broadcast of the CMAM cancellation via the CMSP selected
18 technology and receives the CMAM cancellation.
 - 19 a. If the CMAM cancellation is not a Presidential alert and if the end user opt-out selections for
20 CMAS alerts indicate that this type of CMAM is not to be presented, the CMAM cancellation
21 is discarded or ignored. End of scenario.
- 22 11. The CMAM cancellation is received and the CMAM cancellation is presented to the end user
23 including the activation of the CMAS audio attention signal and/or the activation of the special
24 emergency alert vibration cadence (if mobile device has vibration capabilities) for a short duration as
25 defined by CMSP policies and the capabilities of the mobile device, and the display of the CMAM
26 cancellation message text on the visual display of the mobile device.
 - 27 a. Activation of the CMAS audio attention signal and/or special vibration cadence will comply with
28 the end user mobile device configuration as defined in Section 7.2 below.
- 29 12. The behavior of the mobile device beyond this point is outside the scope of the WARN Act and,
30 therefore, is not subject to recommendations by the CMSAAC. The functionality of the mobile device
31 is CMSP and mobile device specific.

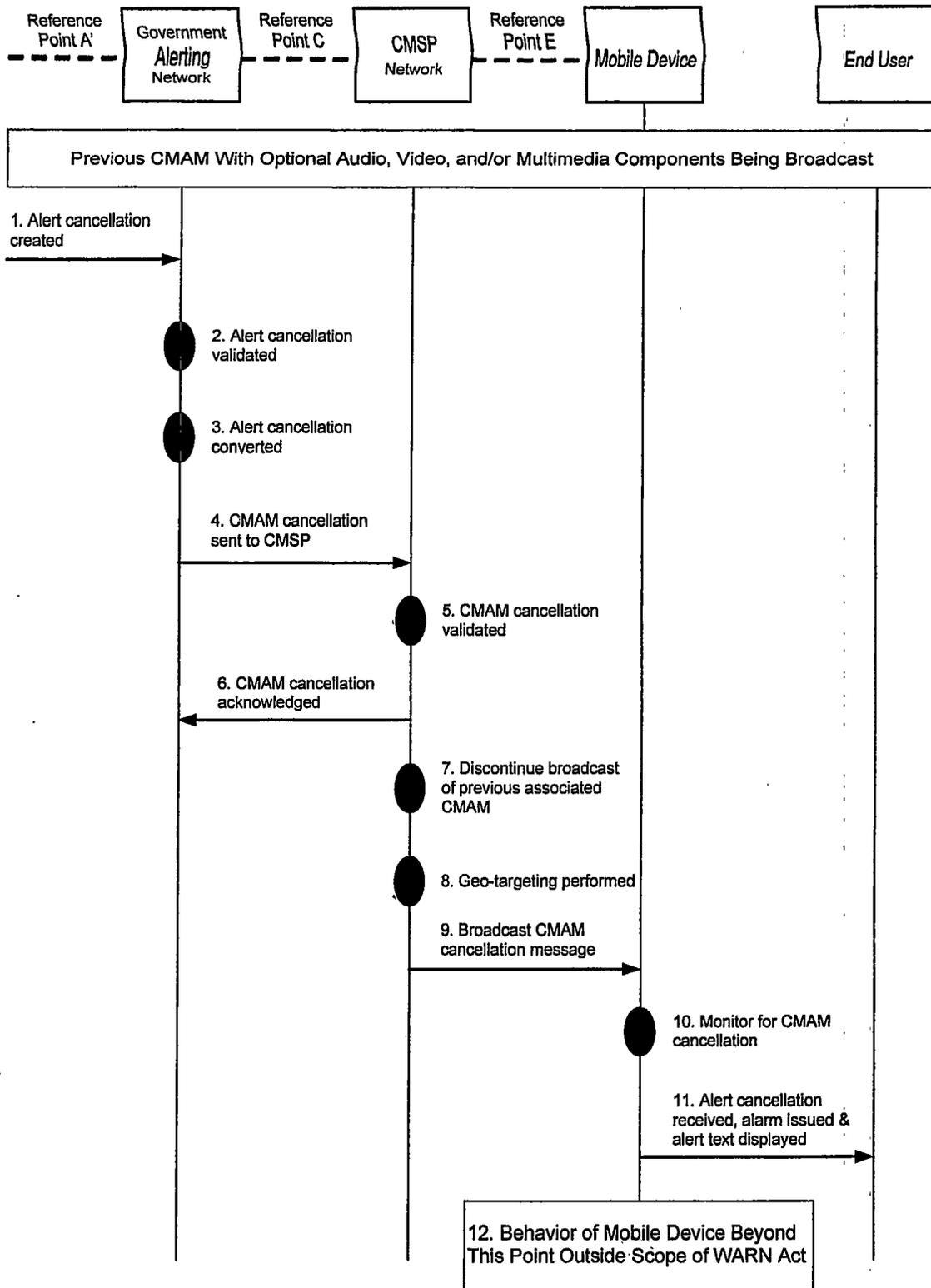


Figure 4-2 Flow for CMAS Alert Cancellation Scenario

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4.3 CMAS Alert Update Scenarios

4.3.1 Scenario for Update of Text CMAS Alert

The appropriate government entities have decided to issue an update to a previously issued text based CMA to warn the CMSP subscribers within the indicated alerting area about changes associated with the event that caused the issuance of the previous CMA.

This scenario applies to both the CMSP subscribers and to subscribers who are roaming as visiting subscribers into the service area of the CMSP network which will be broadcasting the CMA.

If the received CMAM cancellation is not valid and if, as a part of its implementation, the CMSP has enabled message retransmission, the CMSP may continue to send the original alert until expiration or until a valid CMAM cancellation is received.

4.3.1.1 Pre-Conditions

1. Mobile device is authorized and authenticated for service on CMSP network.
2. Mobile device is receiving adequate radio signal strength from the CMSP.
3. Mobile device is in state that allows for the detection and reception of the CMA (e.g., not busy, not on a voice call).
4. The CMSP may be broadcasting a previous CMA which is associated with the updated CMA.
5. A CMAM may be active on mobile device.
6. CMSP subscriber is within the alerting area of the updated CMA.

4.3.1.2 Normal Flow

The normal flow for the update of text based CMAM is described in the following steps and in the associated flow diagram which follows:

1. The appropriate government entity creates the updated alert message in CAP format which is sent to the government alerting network over Reference Point A.
2. The government alerting network validates and authenticates the received updated alert request.
 - a. If the alert fails validation or authentication, or conversion, an error response is returned to the originating government entity and the alert is not sent to the CMSP. End of scenario.
3. The government alerting network converts the received alert message into the text profile based CMAS format supported by the CMSP.
 - a. The Alert Gateway ensures that the urgency, severity, certainty match the values of those fields in the original message. As a consequence, an updated CMAM passed to the CMSP Gateway has the same urgency, severity, certainty, and message category as the original CMA alert in order to ensure the opt-out filter on the handset is the same for both messages. Therefore if the original CMAM was ignored based on opt-out criteria, then the updated CMAM should also be ignored.
 - b. If the alert fails conversion, the alert is not sent to the CMSP. End of scenario.
4. The updated text based CMAM is sent to the CMSP over Reference Point C.
5. The CMSP validates the received updated CMAM.
 - a. If the updated CMAM fails validation, an error response is returned to the government alerting network and the updated CMAM is not broadcast by the CMSP. End of scenario.
6. The CMSP sends an acknowledgement to the government alerting network that a valid updated CMAM has been received.
7. The CMSP discontinues any broadcasts of the previously issued CMAM.

- 1 8. The CMSP performs geo-targeting to translate the indicated alert area into the associated set of cell
2 sites / paging transceivers for the broadcast of the updated CMAM.
- 3 a. If the CMSP does not support CMAS in the indicated alert area, the updated CMAM is not
4 broadcast by the CMSP. End of scenario.
- 5 b. If the CMSP does not have any cell site / paging transceiver coverage within the indicated alert
6 area, the updated CMAM is not broadcast by the CMSP. End of scenario.
- 7 c. If the entire nation is indicated as the alert area then all cell sites / paging transceivers of the
8 CMSP which support the CMAS service are used for the broadcast of the updated CMAM.
- 9 9. The CMSP broadcasts the updated CMAM to the set of cell sites / paging transceivers identified by the
10 geo-targeting processing in the previous step.
- 11 a. The updated CMAM is broadcast via the CMSP selected technology.
- 12 10. The mobile device monitors for the broadcast of the updated CMAM via the CMSP selected
13 technology.
- 14 a. If the updated CMAM is not a Presidential alert and if the end user opt-out selections for CMAS
15 alerts indicate that this type of CMAS alert is not to be presented, the updated CMAM is discarded
16 or ignored. End of scenario.
- 17 11. The updated CMAM is received and presented to the end user including the activation of the CMAS
18 audio attention signal and/or the activation of the special emergency alert vibration cadence (if mobile
19 device has vibration capabilities) for a short duration as defined by CMSP policies and the capabilities
20 of the mobile device, and the display of the updated CMAM message text on the visual display of the
21 mobile device.
- 22 a. Activation of the CMAS audio attention signal and/or special vibration cadence complies with the
23 end user mobile device configuration as defined in Section 7.2 below.
- 24 12. The behavior of the mobile device beyond this point is outside the scope of the WARN Act and,
25 therefore, is not subject to recommendations by the CMSAAC. The functionality of the mobile device
26 is CMSP and mobile device specific.

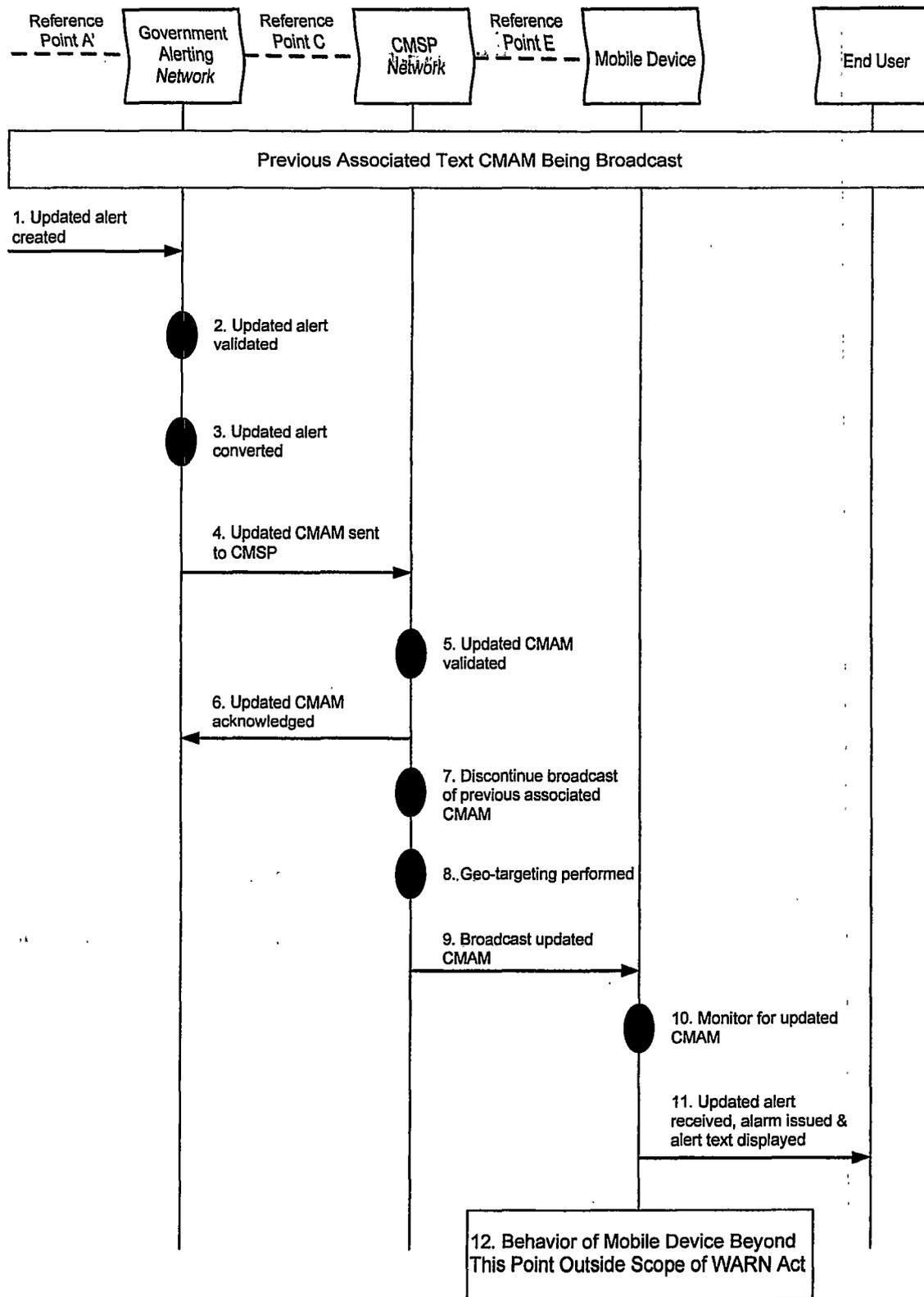


Figure 4-3 Flow for Scenario for Update of Text CMAS Alert

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1 **4.3.2 Scenario for Update of Streaming Audio or Streaming**
2 **Video CMAS Alert**

3 Streaming audio or streaming video CMAS alerts are a future capability.
4

5 **4.3.3 Scenario for Update of Downloaded Multimedia CMAS**
6 **Alert**

7 Downloaded multimedia CMAS alerts are a future capability.
8

9 **4.4 CMAS Alert Expiration Scenario**

10 The previously issued Commercial Mobile Alert Message (CMAM) alert has reached its expiration time
11 without having been updated or cancelled. This scenario describes the functionality when the expiration
12 time has been detected.
13

14 **4.4.1 Pre-Conditions**

- 15 1. The associated non-expired non-cancelled CMAM has been or is currently being broadcast by the
16 CMSP.
17

18 **4.4.2 Normal Flow**

19 The normal flow for the CMAS alert expiration is described in the following steps and in the associated
20 flow diagram which follows:

- 21 1. The expiration time of a previously issued CMAM has been determined by the CMSP.
22 2. Any active broadcasts of text component of the previously issued CMAM are discontinued by the
23 CMSP.
24 3. All active broadcasts of any associated audio, video, or multimedia components of the previously issue
25 CMAM are discontinued by the CMSP.
26

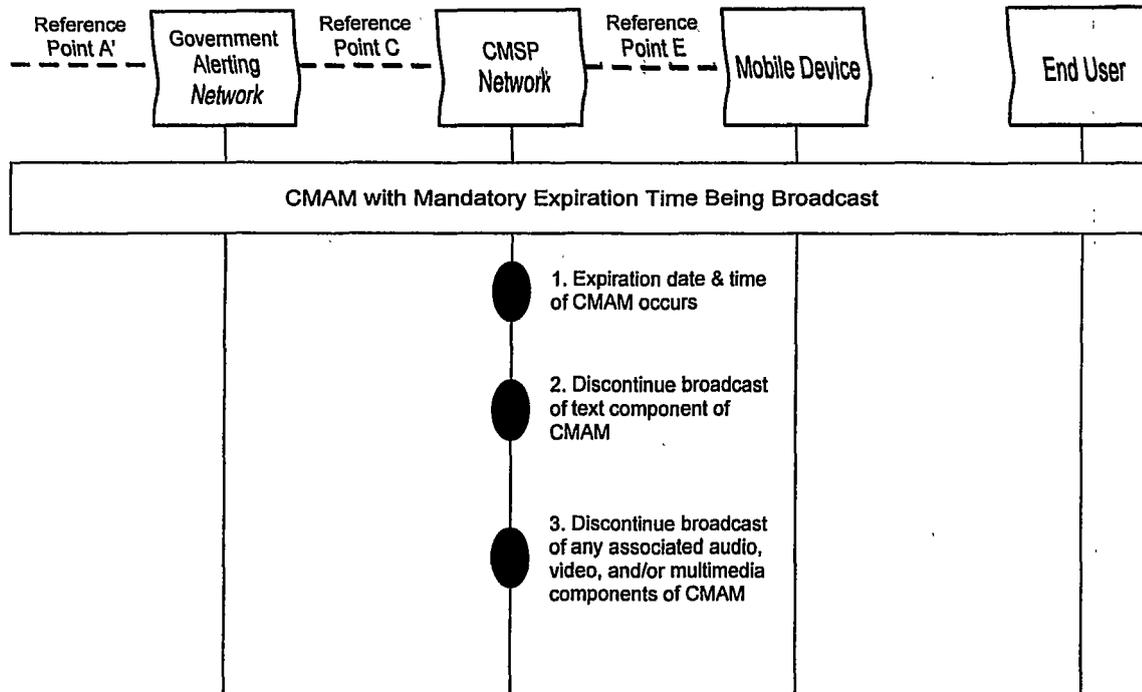


Figure 4-4 Flow for CMAS Alert Expiration Scenario

4.5 Duplicate CMAS Alerts Scenarios

4.5.1 Scenario for Duplicate CMAS Alerts on Same Broadcast Technology

A CMAM is being retransmitted by the CMSP network. The mobile device detects and ignores the duplicate CMAM.

This scenario applies to both the CMSP subscribers and to subscribers who are roaming as visiting subscribers into the service area of the CMSP network which will be broadcasting the CMA.

4.5.1.1 Pre-Conditions

1. Mobile device is authorized and authenticated for service on CMSP network.
2. Mobile device is receiving adequate radio signal strength from the CMSP.
3. Mobile device is in state that allows for the detection and reception of CMAM (e.g., not busy, not on a voice call).
4. A previous copy of the CMAM has been broadcast by the CMSP.
5. The previous copy of the CMAM is contained on mobile device.
6. CMSP subscriber is still within the alerting area for the CMA.

4.5.1.2 Normal Flow

The flow for duplicate CMAM on the same broadcast technology is described in the following steps and in the associated flow diagram which follows:

1. The CMSP network retransmits a previously broadcast CMAM.
 - a. The CMAM being retransmitted contains the same message identifier as the previously broadcast version.
 - b. The retransmission could be performed by the CMSP selected delivery technology depending on the capabilities of the delivery technology.
2. The mobile device monitors for the broadcast of the CMAM via the CMSP selected technology.
3. The mobile device detects the received CMAM as a duplicate CMAM based upon message identifier and other message attributes. The duplicate CMAM is ignored and discarded by the mobile station.

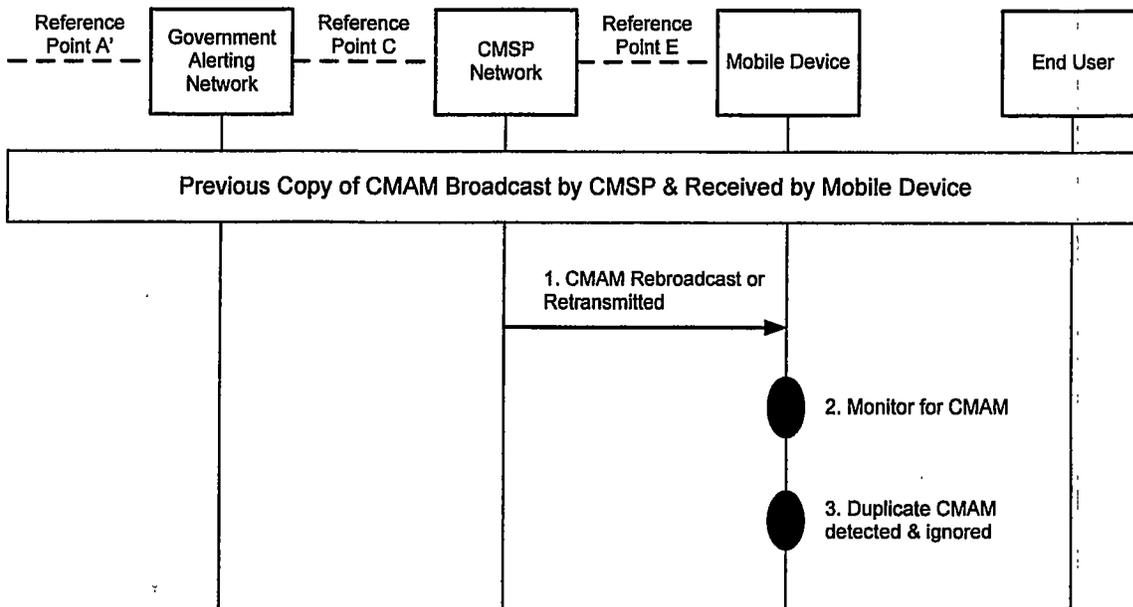


Figure 4-5 Flow for Scenario for Duplicate CMAS Alerts on Same Broadcast Technology

4.5.2 Scenario for Duplicate CMAS Alerts on Different Broadcast Technologies

An event has occurred and the appropriate government entities have decided to issue a text based CMA to warn the CMSP subscribers within the indicated alerting area. The CMSP network supports more than one broadcast technology in the indicated alerting area and the CMSP elects to broadcast the CMA on more than one technology in the indicated alerting area.

Support of multiple broadcast technologies by the CMSP network may be result of the deployment and implementation of newer broadcast technologies.

This scenario applies to both the CMSP subscribers and to subscribers who are roaming as visiting subscribers into the service area of the CMSP network which will be broadcasting the CMA.

4.5.2.1 Pre-Conditions

1. Mobile device is authorized and authenticated for service on CMSP network.
2. Mobile device is receiving adequate radio signal strength from the CMSP.

- 1 3. Mobile device is in state that allows for the detection and reception of the CMA (e.g., not busy, not on
2 a voice call).
- 3 4. *No previous CMAM is being broadcast by the CMSP.*
- 4 5. There is no active CMAM on mobile device.
- 5 6. CMSP subscriber is still within the alerting area for the CMA.
- 6 7. The mobile device is capable of receiving the CMAM from more than one broadcast technology.
- 7

8 **4.5.2.2 Normal Flow**

9 The flow for duplicate text profile based CMAS alerts on the different broadcast technologies is described
10 in the following steps and in the associated flow diagram which follows:

- 11 1. The appropriate government entity creates the alert message in CAP format which is sent to the
12 government alerting network over Reference Point A.
- 13 2. The government alerting network validates and authenticates the received alert request.
 - 14 a. If the alert fails validation or authentication, an error response is returned to the originating
15 government entity and the alert is not sent to the CMSP. End of scenario.
- 16 3. The government alerting network converts the received alert message into the text profile based CMAS
17 format supported by the CMSP.
 - 18 a. If the alert fails conversion, the alert is not sent to the CMSP. End of scenario.
- 19 4. The text profile based CMAM is sent to the CMSP over Reference Point C.
- 20 5. The CMSP validates the received CMAM.
 - 21 a. If the CMAM fails validation, an error response is returned to the government alerting
22 network and the CMAM is not broadcast by the CMSP. End of scenario.
- 23 6. The CMSP sends an acknowledgement to the government alerting network that a valid CMAM has
24 been received.
- 25 7. The CMSP performs geo-targeting to translate the indicated alert area into the associated set of cell
26 sites / paging transceivers for the first broadcast technology used for the broadcast of the CMAM.
 - 27 a. If the CMSP does not support CMAS in the indicated alert area, the CMAM is not broadcast
28 by the CMSP. End of scenario.
 - 29 b. If the CMSP does not have any cell site / paging transceiver coverage for the first broadcast
30 technology within the indicated alert area, the CMAM is not broadcast by the CMSP using the
31 first broadcast technology. The CMAM will be processed as described in Section 4.1.1
32 above. End of scenario.
 - 33 c. If the entire nation is indicated as the alert area then all cell sites / paging transceivers of the
34 first broadcast technology of the CMSP which support the CMAS service are used for the
35 broadcast of the CMAM.
- 36 8. The CMSP broadcasts the CMAM using the first broadcast technology to the set of cell sites / paging
37 transceivers identified by the geo-targeting processing in the previous step.
 - 38 a. The CMAM is broadcast via the first CMSP selected technology.
- 39 9. The CMSP performs geo-targeting to translate the indicated alert area into the associated set of cell
40 sites / paging transceivers for the second broadcast technology used for the broadcast of the CMAM.
 - 41 a. If the CMSP does not have any cell site / paging transceiver coverage for the second
42 broadcast technology within the indicated alert area, the CMAM is not broadcast by the
43 CMSP using the second broadcast technology. The CMAM is processed as described in
44 Section 4.1.1 above. End of scenario.

- 1 c. If the entire nation is indicated as the alert area then all cell sites / paging transceivers of the
2 second broadcast technology of the CMSP which support the CMAS service are used for the
3 broadcast of the CMAM.
- 4 10. The CMSP broadcasts the CMAM using the second broadcast technology to the set of cell sites /
5 paging transceivers identified by the geo-targeting processing in the previous step.
6 a. The CMAM is broadcast via the second CMSP selected technology.
- 7 11. The CMAM is received from both the first and second broadcast technologies.
- 8 12. Based upon mobile device capabilities and configurations, only one of the received CMAM will be
9 presented to the end user. The mobile device should only perform one activation of the CMAS audio
10 attention signal and/or the activation of the special emergency alert vibration cadence (if mobile device
11 has vibration capabilities).
12 a. If the CMAM is not a Presidential alert and if the end user opt-out selections for CMAS alerts
13 indicate that this type of CMAS alert is not to be presented, the CMAM is discarded or
14 ignored. End of scenario.
- 15 13. The behavior of the mobile device beyond this point is outside the scope of the WARN Act and,
16 therefore, is not subject to recommendations by the CMSAAC. The functionality of the mobile device
17 is CMSP and mobile device specific.

18

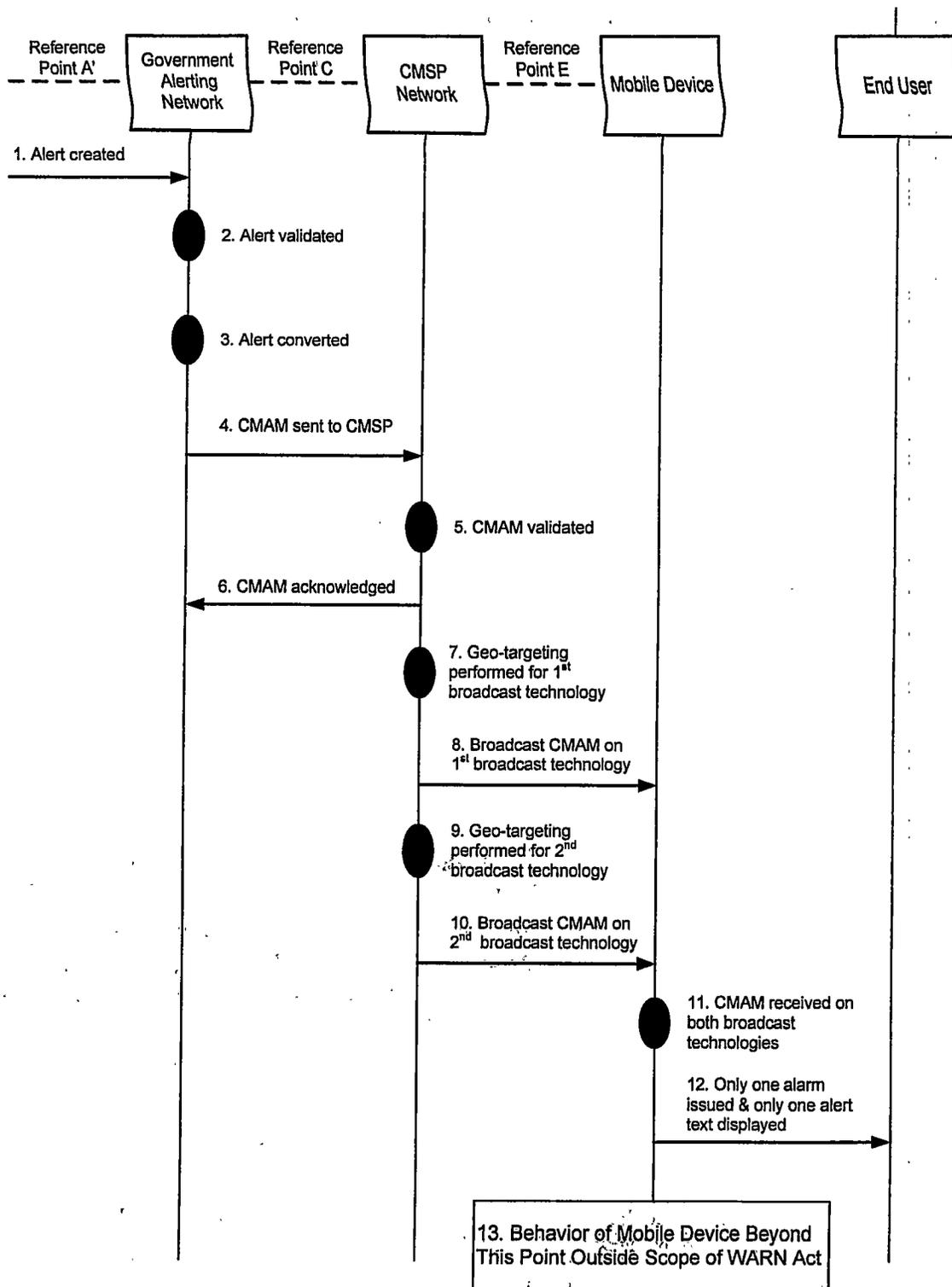


Figure 4-6 Flow for Scenario for Duplicate CMAS Alerts on Different Broadcast Technologies

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4.6 Multiple Different Active CMAS Alerts Scenario

An event has occurred and the appropriate government entities have decided to issue a text based CMA to warn the CMSP subscribers within the indicated alerting area. During the broadcast period of the 1st alert message, a second event has occurred for the same alerting area and the appropriate government entities have decided to issue a second text based CMA to warn the CMSP subscribers within the indicated alerting area.

The CMSP processes CMAM received from the Alert Gateway on a first come first served basis. There is no prioritization of processing or delivery of CMAM within the CMSP network.

This scenario applies to both the CMSP subscribers and to subscribers who are roaming as visiting subscribers into the service area of the CMSP network which will be broadcasting the CMA.

4.6.1 Pre-Conditions

1. Mobile device is authorized and authenticated for service on CMSP network.
2. Mobile device is receiving adequate radio signal strength from the CMSP.
3. Mobile device is in state that allows for the detection and reception of CMA (e.g., not busy, not on a voice call).
4. No previous CMAM is being broadcast by the CMSP.
5. There is no CMAM on mobile device.
6. CMSP subscriber is within the alerting area for the CMA.
7. Both CMA are to be issued for the same alerting area.

4.6.2 Normal Flow

The flow for multiple different CMAS alerts within the same alerting area is described in the following steps and in the associated flow diagram which follows:

1. The appropriate government entity creates the 1st alert message in CAP format which is sent to the government alerting network over Reference Point A.
2. The government alerting network validates and authenticates the 1st received alert request.
 - a. If the 1st alert fails validation or authentication, an error response is returned to the originating government entity and the alert is not sent to the CMSP. End of scenario.
3. The government alerting network converts the 1st received alert message into the text profile based CMAS format supported by the CMSP.
 - a. If the alert fails conversion, the alert is not sent to the CMSP. End of scenario.
4. The 1st-text profile based CMAM is sent to the CMSP over Reference Point C.
5. The CMSP validates the 1st received CMAM.
 - a. If the 1st CMAM fails validation, an error response is returned to the government alerting network and the CMAM is not broadcast by the CMSP. End of scenario.
6. The CMSP sends an acknowledgement to the government alerting network that the 1st received CMAM is valid.
7. The CMSP performs geo-targeting for the 1st CMAS alert to translate the indicated alert area into the associated set of cell sites / paging transceivers for the broadcast of the 1st CMAM.
 - a. If the CMSP does not support CMAS in the indicated alert area, the 1st CMAM is not broadcast by the CMSP. End of scenario.

- b. If the CMSP does not have any cell site / paging transceiver coverage within the indicated alert area, the 1st CMAM is not broadcast by the CMSP. End of scenario.
- c. If the entire nation is indicated as the alert area then all cell sites / paging transceivers of the CMSP which support the CMAS service are used for the broadcast of the 1st CMA.
8. The CMSP broadcasts the 1st CMAM to the set of cell sites / paging transceivers identified by the geo-targeting processing in the previous step.
 - a. The 1st CMAM is broadcast via the CMSP selected technology.
9. The 1st CMAM is received and presented to the end user including the activation of the CMAS audio attention signal and/or the activation of the special emergency alert vibration cadence (if mobile device has vibration capabilities) for a short duration as defined by CMSP policies and by the capabilities of the mobile device, and display of the 1st CMAM message text on the visual display of the mobile device.
 - a. If the 1st CMAM is not a Presidential alert and if the end user opt-out selections for CMAS alerts indicate that this type of CMAS alert is not to be presented, the CMAM is discarded or ignored.
 - b. Activation of the CMAS audio attention signal and/or special vibration cadence complies with the end user mobile device configuration as defined in Section 7.2 below.
10. An appropriate government entity creates a 2nd alert message in CAP format for the same alerting area as the 1st alert message. The 2nd alert message is sent to the government alerting network over Reference Point A.
11. The government alerting network validates and authenticates the 2nd received alert request.
 - a. If the 2nd alert fails validation or authentication, an error response is returned to the originating government entity and the alert is not sent to the CMSP. End of scenario.
12. The government alerting network converts the 2nd received alert message into the text profile based CMAS format supported by the CMSP.
 - a. If the alert fails conversion, the alert is not sent to the CMSP. End of scenario.
13. The 2nd text profile based CMAM is sent to the CMSP over Reference Point C.
14. The CMSP validates the 2nd received CMAM.
 - a. If the 2nd CMAM fails validation, an error response is returned to the government alerting network and the CMAM is not broadcast by the CMSP. End of scenario.
15. The CMSP sends an acknowledgement to the government alerting network that the 2nd received CMAM is valid.
16. The CMSP performs geo-targeting for the 2nd CMAM to translate the indicated alert area into the associated set of cell sites / paging transceivers for the broadcast of the 2nd CMAM.
 - a. For this scenario, since the indicated alert area of the 1st and 2nd CMAM are the same, the results of the geo-targeting for both the 1st and 2nd CMAM should return the same set of cell sites / paging transceivers.
17. The CMSP broadcasts the 2nd CMAM to the set of cell sites / paging transceivers identified by the geo-targeting processing step.
 - a. The 2nd CMAM is broadcast via the CMSP selected technology.
 - b. The retransmission of the 1st CMAM and the initial transmission of the 2nd CMAM may be simultaneously broadcast, or may be transmitted sequentially, depending on the delivery technology.
18. The 2nd CMAM is received and presented to the end user including the activation of the CMAS audio attention signal and/or the activation of the special emergency alert vibration cadence (if mobile device has vibration capabilities) for a short duration as defined by CMSP policies and by the capabilities of the mobile device, and display of the 2nd CMAM message text on the visual display of the mobile device.

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- a. If the 2nd CMAM is not a Presidential alert and if the end user opt-out selections for CMAS alerts indicate that this type of CMAS alert is not to be presented, the 2nd CMAM is discarded or ignored.
- b. Activation of the CMAS audio attention signal and/or special vibration cadence complies with the end user mobile device configuration as defined in Section 7.2 below.
- c. The mobile device ignores the retransmission of the duplicate 1st CMAM.
- d. The mobile device processing and presentation of multiple received CMAS alerts is outside the scope of the WARN Act and, therefore, is not subject to recommendations by the CMSAAC. The functionality of the mobile device is CMSP and mobile device specific

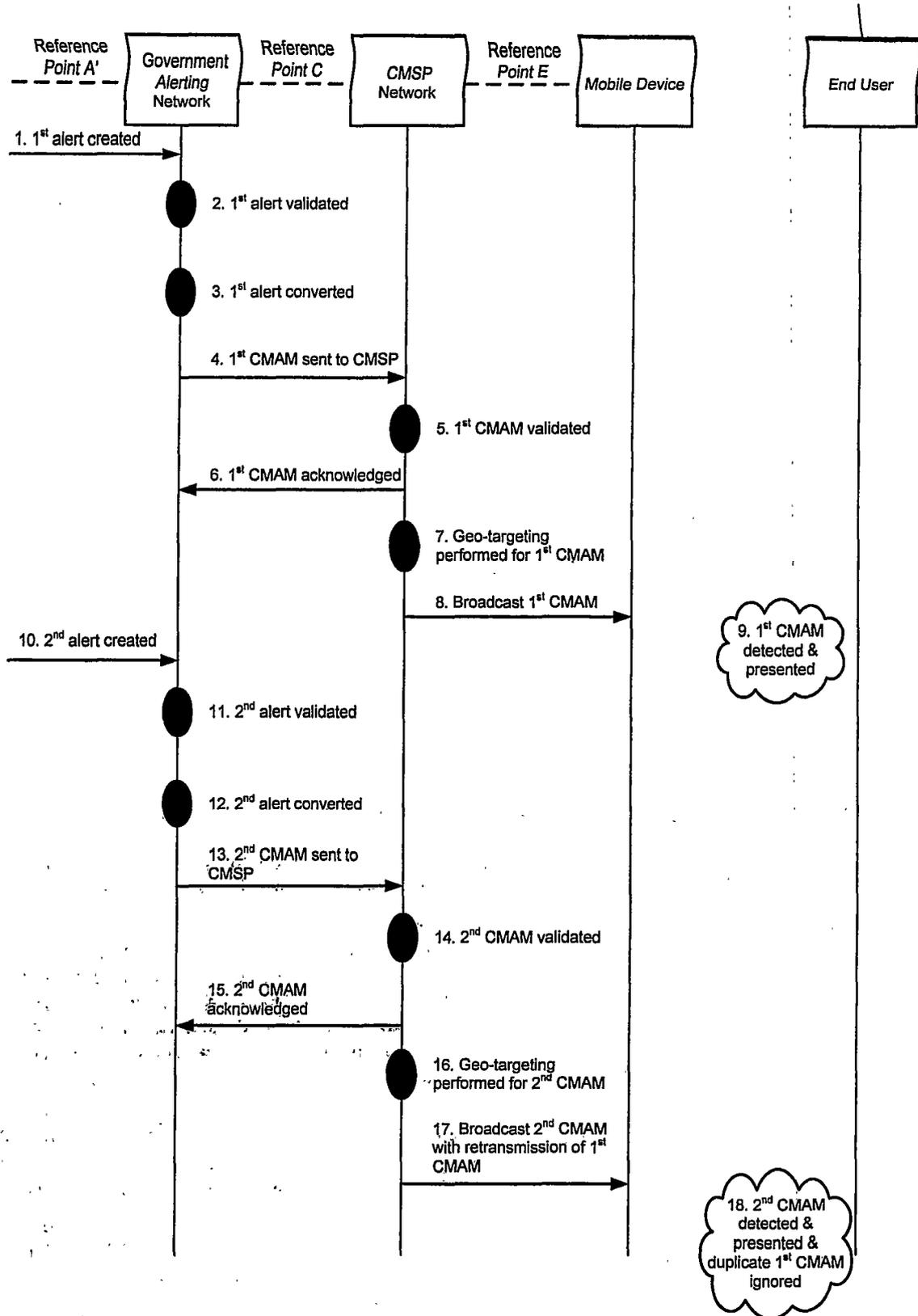


Figure 4-7. Flow for Scenario for Multiple Different Active CMAS Alerts Scenario

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5 General Requirements & Conclusions

The following section contains the CMSAAC's general recommendations and conclusions for the CMAS. Many of the conclusions and recommendations apply to initial deployments of the CMAS, for a text-based service profile. Future technologies, such as streaming audio, streaming video, and multimedia, are mentioned throughout this document; however, technology advances to support these future capabilities are just beginning to be developed and introduced. As CMSPs gain experience with these technologies, the applicability of those technologies to the CMAS will be better understood.

The CMSAAC recommends that this document be treated as a living document, with periodic updates to account for experiences with initial CMAS deployments and experiences with new technologies and their applicability to CMAS. An industry group consisting of government and industry stakeholders should be created after the CMSAAC's activity is complete to review and update this document on a periodic basis. This review should occur no less frequently than biennially. It is expected that during research, development, and deployment, this industry group may need to convene more frequently than biennially to address research conclusions and any development or deployment issues.

5.1 Scope & Definition of CMAS Alerts

The CMSAAC recommends that there are three classes of Commercial Mobile Alerts:

1. Presidential-level
2. Imminent threat to life and property (defined as alerts where the CAP severity equals Extreme or Severe, CAP urgency is Immediate or Expected, and CAP certainty is Observed or Likely).
3. Child Abduction Emergency or "AMBER Alert"

Because of the technical limitations in delivering emergency alerts on CMSP systems, the CMSAAC recommends that only the 3 classes defined above will be transmitted as CMA messages.

The CMSAAC recommends that the CMSPs who elect to support CMAs are considered for this purpose only to be agents of the federal, state, local, or tribal agencies that originate the alerts and are providing CMAs on their behalf.

A CMSP that elects to transmit alerts under Section 602(b)(2) of the WARN Act may not impose a separate or additional charge for such transmission or capability when the emergency alerts are transmitted in a manner consistent with the technical standards, protocols, procedures, and other technical requirements implemented by the Commission. For transmission or service beyond standards, protocols, procedures, and other technical requirements implemented by the Commission, a Commercial Mobile Service licensee is not bound by Section 602(b)(2)(C) of the WARN Act.

The Commercial Mobile Service licensee may utilize the technical standards, protocols, procedures, and other technical requirements implemented by the Commission to support the WARN Act for other services or purposes and are not bound by Section 602(b)(2)(C) of the WARN Act. The government portion, from Reference Point A to Reference Point C, of the CMAS will not be made available for commercial use.

CMAS will be provided according to the technical standards, protocols, procedures, and other technical requirements implemented by the Commission to support the WARN Act. A CMSP's networks shall not be bound to use any specific vendor, technology, software, implementation, client, device, or third party agent, in order to meet the obligations under the WARN Act.

Technical standards, protocols, procedures, and other technical requirements implemented by the Commission shall be standardized in industry fora which have a well-defined reasonable and non-discriminatory intellectual property rights policy, allowing for multi-vendor implementations.