



Proposal to amend the Privacy and
Electronic Communications (EC
Directive) Regulations 2003 to
enable the future implementation of
a national public emergency alert
system

OUTCOME REPORT

FINAL

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1. Introduction

1. This report summarises responses to the Cabinet Office consultation on proposed amendments to the Privacy and Electronic Communications Regulations 2003 (the Regulations) to pave the way for the future implementation of a national mobile alert system.
2. Communicating during an emergency is crucial. Alerting the public in a quick and effective manner that they are in the vicinity of an emergency - and informing them about what action they need to take - has an important role in limiting the impact of that emergency.
3. In the [Strategic Defence and Security Review](#) the Government committed to evaluate options for rapidly notifying people affected by an emergency. In autumn 2013 the Government, working with local emergency response agencies and the mobile phone operators, completed the [mobile alerting trials for public emergencies](#). This concluded that a “Location-Based SMS” service would be the most effective way to alert people in affected areas. However the Privacy and Electronic Communications Regulations 2003 would restrict the operation of such a system.
4. This is why the Government launched a consultation in December 2014 to consider whether the Regulations should be amended for the specific purpose of enabling the operation of a public alert system for use in the most serious of emergencies.
5. This consultation ran for six weeks between Monday 15th December and Monday 26th January. Respondents were asked to submit views on five questions and were invited to do so via email, written response or verbal feedback. A total of 27 responses were received (a full list of respondents can be found at **Annex A**). A summary of returns for each question asked in the consultation is set out below, along with our analysis of the returns. In Section 3, we explain the next steps that we plan to take and how this has been informed by the responses submitted.

2. Consultation Responses

6. This section summarises all of the responses received in the consultation. This is set out by question with any additional comments (not covered by any of the previous questions) summarised in section 2.5.

2.1 Question one: Do you agree with the Government's proposal to amend PECR to allow MNOs to process communications data for the purpose of a location-based SMS alert system?

7. All responses received in response to this question were supportive of the Government's proposal to introduce a targeted and specific exemption in the Regulations to allow mobile network operators to process and store traffic (and location data also if necessary) for the limited purpose of operating a public emergency alert system. Specific comments received in response to this question included:

- a. The **Information Commissioner** agreed that exemptions should be targeted and limited. Approval for issuing such messages should be made by senior personnel.
- b. The **Information Commissioner** went on to note that whilst a Cell Broadcast solution would have lower privacy impacts, other factors regarding handset compatibility makes this a less effective solution overall.
- c. The **Association of Chief Police Officers (ACPO)** were supportive of the changes.
- d. A **Mobile Network Operator** requested that the Regulation should be technology agnostic with regards to the delivery mechanism used. Whilst SMS is the optimal method currently, this may change as technology evolves.
- e. A **Mobile Network Operator** suggested that any future system should provide for those that decide to opt-out of receiving alert messages.
- f. The **Mobile Broadband Group**, representing the Mobile Network Operators, recognise that such a system operating on a "best efforts basis" would be capable of delivering a message to almost all handsets in the area at the time.

8. None of the respondents answered "no" to this question.

2.2 Question two: Are there any costs or benefits associated with any of these options that need to be considered before any final decision is taken?

9. Understanding the implications that may arise from the proposed amendments was an important aspect of this consultation. A number of comments within this section recognised the value that a future alert system would bring, with the amendments being the first step towards this. The direct costs that may arise from any changes were identified by a **Mobile Network Operator** and the **Mobile Broadband Group** as a need to revise their privacy policies as well as subscribers' terms and conditions of their services to take account of these changes.
10. Submissions from **mobile network operators** reported that upgrades to their infrastructure may be required so that they are capable of issuing alert messages. This refers to a potential future implementation of an alert system however and does not affect the content of the proposed amendments to the Regulations.
11. The answers to this question have informed the Impact Assessment for the amendments. Comments were also made regarding any future system implementation; these are noted in section 2.5.

2.3 Question three: Do you consider that the regulations pertaining to location data would also require amendment?

12. All the responses that addressed this question, stated that it was necessary that both traffic and location data would have to be processed in order for a location-based alert service to operate. Specific comments included:
 - a. The **Information Commissioner** noted that the current Regulations would prevent the mobile network operators from issuing alert messages, using the proposed technology.
 - b. The **Information Commissioner** went on to say that the fact that alert messages would be targeted to areas of the country that were impacted by an emergency is a positive element of the strategy.
 - c. Representatives of the **Mobile Networks** stated that the Regulations definitions of traffic data and location data were not mutually exclusive therefore an exemption to processing both data types is necessary.
 - d. One of the **Mobile Networks** went on to say that future technology changes may alter the way the handsets are identified and it would therefore be prudent to permit analysis of location data.

2.4 Question four: Do you consider that these changes would have any other impact on you or your organisation?

13. Responses to the consultation identified few other direct impacts:
- a. One of the **Mobile Networks** stated that given any decision to issue an alert would not be made by them; they would not be best placed to respond to any customer enquiries on the matter.

2.5 Question five: Do you have any other comments about the proposed changes?

14. In addition to the specific questions above, respondents were given the opportunity to provide additional comments related to the proposal. The main points raised by respondents are summarised in the following paragraphs.

2.5.1 Comments on the implementation of a National Alert System

15. The majority of responses included supportive comments about the Government's work to introduce a national location-based SMS system in the UK in the future. It was viewed as a very useful tool that could potentially save lives and significantly improve current alerting arrangements in the UK. **ACPO** commented that had the system been available, it would have been used a number of times within the past year. **Leeds City Council** commented that the tool would allow them to alert 'a much larger proportion of the public - as required by the Civil Contingencies Act 2004 (CCA) and in a very focussed area (i.e. where the message will make a major difference to the impacts of the incident) – than existing messaging tools will permit'.
16. There was also agreement that at the current time, location-based SMS provides the best method for improving capabilities to alert the public. However, a **Mobile Network Operator** commented that the regulation should be "solution neutral" and not constrain itself to this technology so as to remain flexible for future technology.
17. Many of the consultation responses referred to the issue of cost and financing of a potential future system. If a decision is made to implement this system, officials would work with the Mobile Network Operators and industry suppliers to work through the costing.
18. A number of responses commented on the importance of having an interface for the system that would be simple and easy to work. If this system were to be implemented, the Cabinet Office would work closely with emergency responders and industry to ensure that the front end of the system, where alert

authorisers would issue messages, provided the required functionality and was intuitive.

19. There was a general acceptance in a number of the responses received, that while a national location-based SMS system could significantly enhance current arrangements, that no one alert system will ever reach 100% of the population. There may be some people who would be out of coverage or who do not own a phone which would make sending them an SMS an ineffective way of alerting them. There was a recognition that this system would not be intended as a 'catch all' but instead could form part of a suite of wider communications channels.
20. A comment was also made by a **mobile network operator** that there should be the opportunity to test any system implemented to ensure that if it were to be called upon it would be effective and fully operational.

2.5.2 Security arrangements for any National Alert System

21. In addition to the many positive comments that were made about a proposed location-based SMS system, suggestions were made regarding its potential development. Responses stated that a future system would need to have robust security arrangements to safeguard against hacking attempts. There was also concern for the possibility for spoof messages to be sent out, using the brand of the system to send out inappropriate or misleading information.
22. As stated in the consultation document, it is envisioned that any future system would be available for use only during emergencies. The CCA defines an emergency as:
 - a. an event or situation which threatens serious damage to human welfare in a place in the United Kingdom,
 - b. an event or situation which threatens serious damage to the environment in a place in the United Kingdom, or
 - c. war, or terrorism, which threatens serious damage to the security of the United Kingdom.
23. A response from a **mobile network operator** requested 'clearer measures for determining what could fall within this category of emergency'. The National Risk Register¹ provides a comprehensive list of potential civil emergencies and provides further insight into the types of incident where an alert system could be used. The consultation document stated that the alert system will **not** be

¹ The National Risk Register provides a government assessment of the likelihood and potential impact of civil emergency risks. <https://www.gov.uk/government/publications/national-risk-register-for-civil-emergencies-2013-edition>

available in situations that do not qualify as an emergency, for example, peaceful protests or school closures.

24. In order to better understand issues and concerns regarding privacy, officials from the Cabinet Office sought the views of representatives from a number of **Civil Liberties Groups** who raised a similar point. It was felt that an appropriate threshold for activation would be required, and the definition of an emergency seemed appropriate.

2.5.3 Data Retention

25. One specific issue, picked up in the responses from the **Information Commissioner** and a **Mobile Network Operator** was the potential requirement to retain data about which devices had been sent an alert message for a particular incident. This would be necessary for the purposes of issuing updates or 'stand down' messages to all those who had been in the impacted area and therefore received an initial alert message but who had left the area. The ability to issue updates or stand down message is an important feature of an effective alert system. It would, for example, ensure that anyone who had received an alert was aware that the incident was now over or could be directed to sources of help or essential information.
26. The **Communications Consumer Panel** commented that "the issuing of stand-down messages is key." In addition, several responses, including from a mobile network operator, were of the view that data identifying who had been sent an alert message may be needed for follow up enquiries from the public or possibly to provide information for any inquiries into incidents. A **mobile network operator** suggested a 30 day period would be a reasonable timeframe for this. Another **mobile network operator** was supportive of the idea that a limit should be placed on this retention period to 'address citizen privacy concerns and to enable capacity and storage planning to be undertaken.' This response also made the point that there could be a mechanism to enable the extension of this retention period in certain set circumstances such as conducting an inquiry into the handling of an incident.
27. It is important to note that no information regarding individuals' numbers would be passed outside of the Mobile Network Operators, as part of the proposed future system. Indeed the **Scottish Environment Protection Agency** highlighted that alert authorisers would not want (or need) to have data passed to them regarding the individuals who were being sent alert messages. The only information that alert authorisers would require would be performance data for the system which would refer to aggregate volumes of messages sent and the proportion successfully received.

28. Summarising, the **Information Commissioner** recommended that a full Privacy Impact Assessment should be undertaken before a future system is implemented.

2.5.4 Public Communications Campaign

29. Another important point was that the introduction of a system should be prefaced with an extensive communications campaign to ensure that members of the public were aware of the system and what it could be used for. This was seen to be particularly important for vulnerable groups, a point raised by the **Communication Consumer Panel**. They felt that 'the particular importance of the availability of the alert system through all providers for some disabled people, for example those who are deaf or have hearing impairments, who might be unaware of alerts through other channels.' The point was also made that a communications campaign could reinforce the importance of not using mobile devices whilst driving as reading an SMS message in the car was seen as a potential distraction.

2.5.5 Potential opt-out of any future alert system

30. The question of whether members of the public would have the option to 'opt-out' of receiving alert messages, should they wish, was raised in a number of responses. A **mobile network operator** for example stated that consideration should be given to the circumstances under which citizens may legitimately need to be excluded from the service - citing a subset of vulnerable citizens as one potential example of where this may apply.
31. Responses received to this consultation highlighted the pros and cons of having an opt-out available. If alert messages were providing potentially life saving information then sending them to all devices in a specified area may be necessary and proportionate. Conversely, other responses raised the point that people should have the right to withdraw from the service if they wished.

2.5.6 Coordination, compatibility and alert message content

32. Interoperability was raised in several responses. Respondents commented that any future system must be designed in a way that would allow it to link into existing technologies and to take into account future and emerging technologies. The **Environment Agency** stated that 'consideration would need to be given to the marketing of the messages so that no confusion to recipients arose if they received both the proposed messages and our existing severe flood warning messages together.' They went on to state that this could be accommodated through effective training and the aligning of alert procedures. Integrating any future system into existing protocols and ensuring it would be designed with existing services in mind was raised by a number of respondents.

33. The **Communications Consumer Panel** commented that the system should also take into account possible effects on the service if the Mobile Telecommunications Privileged Access Scheme² were to be invoked.
34. The importance of verification of alert messages was also raised. A number of responses commented that given the 160 character limit of text messages, that it would be important to advise recipients to check another media source to get further information. This is crucial as evidence shows people who receive emergency alerts tend to want to verify the message via another source. This could be a web link to an official online source, or as the **Environment Agency** response suggested, a telephone number for a helpline, similar to the Floodline service that is currently used for advice on alerts and warnings issued by the Environment Agency.

2.5.7 Mobile Virtual Network Operators

35. Some of the responses queried whether the proposed system would target devices on Mobile Virtual Network Operators (MVNOs) such as Tesco or Virgin. Due to the fact that MVNOs use the infrastructure of the four main operators in order to deliver their services, their customers would receive any messages sent out as part of this system. In addition, devices that were roaming on a UK network would also receive messages

2.5.8 Resilience and Communication

36. There could also be issues regarding network congestion if an alert system attempted to issue too many messages at the same time. If encountered, this could delay the receipt of an alert.
37. One of the five guiding principles of the Resilient Telecommunications Programme (which sits within the Civil Contingencies Secretariat) is to consider alternative options in the event that one form of communications is unavailable, this provides the resilience needed during an emergency to ensure that 'back ups' are in place.
38. One **mobile network operator** suggested that if a system were to be rolled out, that it would be beneficial to establish a 'task force' including industry, representatives from the emergency responders and the Government to come up with an appropriate UK-wide communications strategy. It was also suggested that learning from other countries that have already established these kinds of system could be used to inform this and the implementation of a system more broadly. The **ICO** commented that 'the transparency about the

² The Mobile Telecommunications Privileged Access Scheme is intended to preserve access to mobile networks by those engaged in an emergency response. For more information please see: <https://www.gov.uk/resilient-communications#privilege-access-schemes>

alert system will be very important'. As part of Government communication about the system, it might also be appropriate as part of any future implementation to consult on the protocols surrounding the actual operation of the proposed system.

3. Government response and next steps

39. We are grateful to all individuals and organisations which took the time to respond to this consultation. Section 2 summarises the responses received and the analysis that has informed our next steps.

3.1 Providing an exemption to the regulations

40. As a result of the responses received, the Government will move on its preferred option. A targeted exemption to the Regulations to permit the processing of both traffic and location data for the purpose of sending an alert message to the public will be introduced. To maintain focus, the exemption will only apply when:

- a. One of a specified number of public authorities notifies a network operator that an emergency as defined in section 1 of the Civil Contingencies Act 2004 has occurred, is occurring or is about to occur; and
- b. The network operator complies with the directions given by the authority.

The definition of an emergency in the Civil Contingencies Act 2004 would be likely to cover severe flood events, serious chemical accidents and very large fires.

41. The amendments to the Regulations will permit mobile network operators to disregard certain restrictions on the processing of data set out in regulations 7, 8 and 14 for the purposes of issuing an emergency alert message provided they are directed to do so by a designated organisation or person. When making this direction, the designated organisation or person will also specify:

- a. the location where an alert is to be issued;
- b. the time period for which the alert message is valid for; and
- c. what the alert message should say.

42. Regulations 7 and 8 restrict the circumstances when traffic data³ can be processed. In summary, regulation 7 requires that if processing is to be undertaken the consent of the subscriber must be obtained or the data anonymised. Regulation 8 goes on to identify the purposes for which traffic

³ Traffic data is defined by the Regulations as “any data processed for the purpose of the conveyance of a communication on an electronic communications network or for the billing in respect of that communication and includes data relating to the routing, duration or time of a communication.”

data may be processed, such as billing, the prevention of fraud or the provision of a value added service. Regulation 14 places limitations on the processing of location data⁴. Similarly this activity requires consent of the subscriber or for the data to be anonymised.

43. As suggested by consultation responses, the amendments will not specify a particular technology on which an alert system will be based. This will allow the alert system to develop as future technologies evolve.
44. The amendments will enable data about which devices have been sent an emergency alert to be stored for no more than 7 days. This will allow all devices that have previously received an alert during an incident to be sent a further message or messages to give further essential advice, notify them that the incident has been resolved, or alternatively where further information can be obtained. This will be necessary for example in advising those who have been evacuated from an area that they may return. After 7 days, anonymised or aggregated data may be retained, but identifying information, such as telephone numbers, will be deleted. This is considered the maximum period justifiable on the grounds of public security.
45. The consultation responses noted that personally identifiable data will **not** be passed to the agency issuing the alert. However, aggregated data – which will not identify individuals - on the volume of messages sent and how many were successfully delivered could be made available. This is important in being able to assess the effectiveness of the system.
46. In order to be an effective way of alerting the public in an emergency, the system must be capable of being activated 24 hours a day, 7 days a week. Work with emergency responders and the Association of Chief Police Officers (ACPO) has concluded that, in most scenarios, the Police are best placed to issue alert messages. In addition to the police, other bodies might take the lead in certain circumstances. For example the environmental agencies, in relation to severe flooding, have been listed as able to notify mobile network operators that an emergency has happened, is happening or is going to happen. Ministers of the Crown, as well as those from Devolved Governments, will similarly be permitted to notify the mobile networks in the event of emergencies.

⁴ Location data being defined as “any data processed in an electronic communications network indicating the geographical position of the terminal equipment of a user of a public electronic communications service, including data relating to—

- a. the latitude, longitude or altitude of the terminal equipment;
- b. the direction of travel of the user; or
- c. the time the location information was recorded.

47. The regulation would allow for periodic testing of a future system. This is an essential provision to enable checks to be carried out to ensure the system can operate effectively when needed. In order to provide sufficient assurance that testing is conducted appropriately the regulation would stipulate that a request to test the system would only be authorised by 'a Minister of the Crown'. To support this, and to provide further assurance that testing will be carried out proportionately, government is committed to publish in advance the procedures and justifications for a decision being made by the Minister to authorise a system test. We will consult widely with interested parties on this.

3.2 Other policy issues on the introduction of an emergency alert system

48. In view of the range of other comments submitted to the consultation, this section summarises how the Government will take these forward.
- a. Should a national alert system be rolled out, an effective information security strategy would be developed and implemented to protect the system from misuse.
 - b. Opting-out of the system is an important policy issue that the Government would carefully consider prior to the commencement of any plans to implement a future system.
 - c. The Cabinet Office are working to define a UK standard for the way that alert messages are formatted to address the issue of interoperability and to ensure that alert messages could be sent using a variety of different communications channels, including existing alert systems. Having an agreed standard in place would also allow third parties to republish any alerts that were issued.
 - d. A management policy around the invocation of the Mobile Telecommunications Privileged Access Scheme would need to be developed so that the two polices align.
 - e. The development of - and consultation on – an Alert Activation Protocol. This will provide further information and guidance on how and when an alert system will be used and seek to ensure alerts are sent in a proportionate and targeted way.
 - f. If this system were to be introduced the Government would work with the Mobile Network Operators to develop a strategy to minimise network

congestion. This could involve ‘throttling’ messages on the network or sending messages in a targeted way to avoid overload.

49. The Government will look to introduce these changes at the earliest opportunity.

Annex A: List of Respondents

27 responses were received in total. A full list of respondents can be found below:

Addiply

Association of Chief Police Officers

British Telecom

Call My

City of Bradford Metropolitan District Council, Department of Environment & Sport
Communications Consumer Panel

EE

Environment Agency

Essex County Council

Greater Manchester Fire and Rescue Service

Information Commissioner's Office

KCOM

Leeds City Council

Mobile Broadband Group

National Steering Committee for Warning and Informing

Natural Resources Wales

Northern Ireland Executive

Ofcom

Portsmouth City Council

Plymouth City Council

Scottish Government

Scottish Environment Protection Agency

South Wales Police

Suffolk LRF

Telefonica

Welsh Government

West Yorkshire Fire