

# Mobile radio network for the police and emergency services

## Issues Statement

### Introduction

#### *Background*

1. On 25 October 2021, following a consultation opened on 8 July 2021, the Competition and Markets Authority (CMA), in exercise of its powers under sections 131 and 133 of the Enterprise Act 2002 (the Act), made a reference for a market investigation into the supply of LMR network services for public safety (including all relevant ancillary services) in Great Britain.
2. For the purposes of the reference:
  - (a) ‘LMR network services for public safety’ means – services provided through a secure private communications network, based on land mobile radio technology, that is used by personnel involved in public safety (namely the police, emergency and fire services, and those who need to communicate with such services) when in the field;
  - (b) ‘ancillary services’ means – services that are interlinked with the provision of LMR network services for public safety and for which customers have limited alternative suppliers including for example services such as those provided at the testing facilities for radio terminals used by LMR network public safety users.
3. The CMA, acting through a group of independent members constituted from its panel,<sup>1</sup> is required to decide whether any feature or combination of features of each relevant market prevents, restricts or distorts competition in connection with the supply or acquisition of any goods or services in the UK or a part of the UK.<sup>2</sup> If the CMA decides that there is such a prevention,

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<sup>1</sup> Martin Coleman (Chair), Humphrey Battcock, Colleen Keck, and Jeremy Newman.

<sup>2</sup> See [section 134\(1\)](#) of the Act.

restriction or distortion of competition, it will have found an ‘adverse effect on competition’ (AEC).<sup>3</sup>

4. If the CMA finds that there is an AEC, it has a duty to decide whether it should take action, and/or whether it should recommend others take action, to remedy, mitigate or prevent the AEC concerned or any detrimental effect on customers so far as it has resulted from, or may be expected to result from, the AEC.<sup>4</sup> If the CMA decides that action should be taken, it must also decide what action should be taken and what is to be remedied, mitigated or prevented.<sup>5</sup>
5. This statement sets out:
  - (a) Our initial hypotheses concerning which features of the market for the supply of LMR network services for public safety (including all relevant ancillary services) in Great Britain, if any, may be adversely affecting competition; and
  - (b) which potential remedies may be suitable to address any AECs that we may find or any detrimental effect resulting from any such AECs on the providers of emergency services (i.e. the end-customers and users of these services), which are ultimately funded by British taxpayers.<sup>6</sup>
6. This issues statement will provide a framework for our investigation. It does not represent the CMA’s provisional views, findings or conclusions on either the competition issues or potential remedies. The CMA has yet to determine whether any competition concerns arise in the supply of LMR network services for public safety (including all relevant ancillary services) in Great Britain. The hypotheses identified in this document are simply areas that, at this stage, we consider merit further investigation and analysis. These hypotheses may change as our investigation progresses. Similarly, the CMA will only put in place remedies if it identifies that there are competition concerns (ie AECs) in the market referred. There is no presumption that any AECs will be found.

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<sup>3</sup> As defined in [section 134\(2\)](#) of the Act.

<sup>4</sup> Section 134(4) of the Act.

<sup>5</sup> Section 134(4) of the Act.

<sup>6</sup> As noted in paragraph 4 above, if the CMA finds that there is an AEC, it has a duty to decide whether (and if so what) remedial action should be taken as regards the AEC concerned or any resulting detrimental effect on customers. In paragraph 5 and in the remainder of this document, we refer to potential remedies to address any AECs that we may find as short-hand to mean potential remedies to the AECs concerned or any resulting detrimental effect on customers.

## ***Invitation to submit views***

7. We are publishing this statement now to assist those submitting evidence to focus on the potential issues we envisage being relevant to this investigation and any potential remedies to address any AECs that we may find.
8. We invite parties to tell us, with reasons, if they believe either that (a) the issues we have identified should not be within the scope of our investigation or are mischaracterised, or (b) there are further issues we have either not identified, or which we have indicated we are not minded to pursue but which we should consider. We ask parties to support their views with relevant evidence (including original documentation and analysis).
9. We plan to hold hearings with interested parties to discuss potential issues and potential remedies in due course. As our thinking develops, we expect to issue further documents prior to the publication of a provisional decision report containing our provisional findings on the issues. If we were to provisionally find one or more AECs, the provisional decision report would also contain our provisional decision on remedies. Our administrative timetable has been published on the [inquiry case page](#).
10. To submit views together with supporting evidence, please email [MRN@cma.gov.uk](mailto:MRN@cma.gov.uk) by Monday 10 January 2022.

## **Focus of the investigation**

### ***Overview of the reference market and its development***

11. In Great Britain, the police, fire and rescue and ambulance services personnel operating in the field communicate with each other (and with their colleagues in control rooms) securely using a private mobile radio network called Airwave which is the only such network in operation in Great Britain. The [Market Investigation Reference report](#) (MIR report) includes more information on the Airwave network, its characteristics and its owners at paragraphs 1.10 to 1.20. The MIR report also describes at paragraphs 1.21 to 1.34, the process by which the building, financing and operation of the Airwave network was commissioned in 2000, under a Public Finance Initiative framework arrangement (the PFI Agreement), and how its operation evolved over the following years, until it was decided (around 2013) that it would be replaced by another telecommunication solution, called the Emergency Service Network (or ESN). The design and roll-out of ESN was contracted to a number of suppliers (including Motorola Solutions Inc., referred to in the remainder of this Issues Statement as Motorola Solutions) in late 2015. It was intended that once ESN had been built, and all users transferred to it, the

Airwave network would be switched off, which was initially planned to take place by the end of the PFI Agreement, in late 2019/early 2020.

12. At the same time as it was taking part in the bidding process for the ESN contracts, Motorola Solutions negotiated the acquisition of Airwave Solutions Limited (Airwave Solutions), the owner and operator of the Airwave network. Thus by 2016, Motorola had become both a key supplier in the development and roll-out of ESN and also the sole provider of the network ESN was intended to replace.
13. The roll-out of ESN has taken longer than originally planned and, as a result, the Airwave network continues to operate outside of the timeframe of the original PFI Agreement. It is now expected that the transition of users from the Airwave network to ESN will not be complete before the end of 2026, some 7 years later than originally planned.
14. In assessing whether or not an AEC has arisen we look at three issues:
  - (a) The main characteristics of the market and the outcomes of the competitive process;
  - (b) the composition of the relevant market; and
  - (c) the features, if any, which are harming competition in the relevant market.<sup>7</sup>

### ***Market characteristics and market definition***

15. Below, we first consider our proposed approach to assessing market characteristics and the composition of the relevant market before turning to our proposed approach to theories of harm and outcomes.

#### *Market characteristics*

##### *Introduction*

16. LMR network services for public safety in Great Britain are supplied solely by Airwave Solutions, a company that generated £433.5m in revenue in 2020. On the demand-side, there are 470 organisations that fall broadly into two categories: 'blue light customers' (i.e. the police, fire and ambulance services) and 'sharer organisations' (i.e. other organisations that need to communicate with blue light services, using the Airwave network), as described at

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<sup>7</sup> Paragraph 94 of [CC3 \(revised\)](#).

paragraph 1.11 of the MIR report. The services are provided to blue light organisations under four long-term contracts that were entered into by the relevant customer groups<sup>8</sup> over time (see Appendix B, paragraph 2 of the MIR report), starting with the PFI Agreement, which was signed in 2000. The end dates of these key contracts were brought into alignment following the award of the ESN contracts to coincide with the expected switch-off of the Airwave network. Sharer organisations have separate contractual arrangements.

*Contractual and commercial relationships between Airwave Solutions and its customers*

17. We shall seek to understand how the market has developed over time, and in particular the nature and evolution of the commercial and contractual relationships between Airwave Solutions and its customers, including the following:
  - (a) How the provision of LMR network services has evolved over time and changes to contractual, commercial and operational relationships between Airwave Solutions and the various users of the Airwave network;
  - (b) the relationship between key commercial terms in the PFI Agreement and other relevant contracts;
  - (c) the process through which key commercial terms, including price, service quality and duration, were originally set and have been re-negotiated in recent years, including the roles of the Home Office and other customers, as well as the relevance of the PFI Agreement terms, in these re-negotiations;
  - (d) how the pricing of special events (such as coverage of the G7 summit) is established;
  - (e) relevant clauses in the PFI Agreement relating to the possibility of an extension of, and/or exit from, this contract, and
  - (f) the way in which the various types of services provided by Airwave Solutions are purchased by users of the Airwave network.
18. We invite interested parties to provide evidence on the above aspects of the contractual and commercial relationships between Airwave Solutions and its

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<sup>8</sup> Home Office on behalf of the police; Department for Communities and Local Government (later transferred to the Home Office) on behalf of the fire services; the Department of Health for the ambulance services in England and Wales; the Scottish Ambulance Service Board for the Scottish ambulance services.

customers, and any other sector characteristics that may be relevant to our understanding of how the relevant market operates.

### *Market definition*

19. In line with our guidance,<sup>9</sup> we shall seek to define the economic market(s) in which LMR network services are supplied in Great Britain by examining, in light of our understanding of how competition works in the supply of LMR network services, the demand-side alternatives available to customers when Airwave Solutions supplies them; and any constraints on Airwave Solutions on the supply-side. In seeking to define the relevant market(s), we shall consider whether ESN services should be included as part of the same market(s).
20. We note in this respect that it does not appear to be a matter of contention that there are no alternatives to the Airwave network on the demand-side or the supply-side in the short run. Motorola Solutions' position is that ESN was never envisaged as a possible substitute for the Airwave network and that it is a replacement for that network, thus implying that they are in different economic markets. Having considered this argument, evidence relating to the nature of both networks and, in particular, the fact that ESN is not currently operational and therefore is not available as an alternative or replacement to the Airwave network, and is unlikely to be so in the near term, our initial view is that there are limited grounds for broadening the relevant market on the basis of demand-side or supply-side substitution to include the provision of ESN services in Great Britain.
21. We note that ESN's development is not inevitable in that, to be brought to fruition, ESN requires efforts from those involved in its design and roll-out. We also note that any delay to (or speeding up of) the development of ESN may affect Airwave Solutions' revenue and profitability by impacting upon, for example, the number of customers that use it, the length of time that customers use Airwave Solutions, the extent of customers' bargaining positions vis-à-vis Airwave Solutions and the level of investment required to keep the Airwave network in operation. The development of ESN can therefore be viewed as a form of long-run dynamic competition as it represents efforts that have the goal of winning customers that currently use the Airwave network. Because these long-run competitive dynamics do not necessarily imply short-run substitutability between LMR network services and ESN services, we currently do not consider that this necessitates broadening the relevant market to include ESN. However, we propose to consider the

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<sup>9</sup> Paragraph 132 of [CC3 \(revised\)](#).

scope for long-run dynamic competitive interactions between ESN and the Airwave network in our assessment of the theories of harm.

22. Motorola Solutions, in its successive submissions, has argued that the supply of LMR network services in Great Britain does not constitute a relevant market. This is because, they argue, such services can only be provided through a long-term contract (the PFI Agreement) between two parties (Airwave Solutions and the Home Office) owing to the bespoke nature of the services, and there is limited scope for competition during the contract.
23. Our current view is that the fact that a market has characteristics that lead to there being only one supplier does not mean that it is not a relevant market. Monopolies are markets, even if they are monopolies because of some inherent characteristic. In addition, we note that some processes still exist that could be subject to competition – at least in principle: for example, the negotiation of contract extensions and the development of new alternatives to the Airwave network.
24. In light of the above, we do not currently propose to subject this argument to further analysis, but we invite interested parties to provide views on this, including any reasons to consider this argument further.
25. We invite interested parties to give us views on the issues set out in paragraphs 19 to 24 above.

### ***Theories of harm***

26. Competition is a process of rivalry as firms seek to win customers' business. It creates incentives for firms to meet the existing and future needs of customers as effectively and efficiently as possible—by cutting prices, increasing output, improving quality or variety, or introducing new and better products, often through innovation; supplying the products customers want rewards firms with a greater share of sales. Beneficial effects may also come from expansion by efficient firms and the entry into the market of new firms with innovative products, processes and business models, and the exit of less successful ones.<sup>10</sup> In considering whether there may be features preventing, restricting or distorting competition, we shall look both at the short-run effects of competition (e.g. on the basis of existing products/services) and at the longer-term effects (e.g. the introduction of improved new or substitute

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<sup>10</sup> Paragraph 10 of [CC3 \(revised\)](#).

products or the opening of new outlets in a more broadly defined product category of areas)<sup>11</sup>.

27. To provide structure to our assessment of whether there are any features leading to one or more AECs, we set out below high-level hypotheses for investigation (also known as ‘theories of harm’). These do not imply any prejudgement of an AEC; they are potential hypotheses to be tested. Our investigation is at a very early stage, and the purpose of identifying these hypotheses is to present some early thinking on these issues for comment and to help frame our investigation. These hypotheses are not necessarily mutually exclusive. Indeed, some are or may be closely related and connected to each other. Equally they may not be comprehensive – there may be other issues that we choose to consider further in the course of the investigation as our understanding of the market develops. Similarly, we may find, as our investigation progresses, that some, or all, of these hypotheses do not hold.

#### *Unilateral market power of Airwave Solutions*

28. Airwave Solutions is the only supplier of LMR network services for public safety in Great Britain. Therefore, customers wishing to use such services currently have no alternative but to contract with Airwave Solutions. Although the original four contracts for such services were awarded independently following bidding processes, their terms have had to be altered in recent years through bilateral negotiations.
29. In assessing whether this seemingly highly concentrated market structure can be expected to grant Airwave Solutions unilateral market power, we shall consider the balance of negotiating power of each relevant party in contract negotiations that have taken place since 2015, building on our assessment of the nature of the contractual arrangements between Airwave Solutions and its various customers, as set out in paragraph 17.
30. We propose to focus this assessment on the three occasions when the original four blue light contracts have been the subject of negotiations relating to the extension or alteration of their original terms, i.e.:
- (a) The period around the award of the ESN contracts and acquisition of Airwave Solutions by Motorola, which resulted in a series of new contractual arrangements in 2016;

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<sup>11</sup> Paragraph 136 of [CC3 \(revised\)](#).



- (b) the 2018 negotiations that led to the extension of the contracts to the end of 2022, and
  - (c) the 2021 negotiations relating to the potential extension of the contracts beyond 2022, to address the current expectation that the transition of users from the Airwave network to ESN will not be complete before the end of 2026.
- 31. Our current understanding (to be tested in the course of this investigation) is that the Home Office has been leading negotiations with Airwave Solutions, on behalf of all blue light organisations since 2015. We therefore anticipate that we will focus our evidence gathering on the negotiations between Airwave Solutions and the Home Office, relying primarily on contemporaneous documentary evidence to inform our analysis of the balance of power between these two parties, including in relation to:
  - (a) Each counterpart's objectives, outside options and risks in failing to reach an agreement through the negotiations;
  - (b) the key dimensions of the negotiations and broader circumstances in which the negotiations have been taking place;
  - (c) the information relating to key drivers of price that is available to each of the negotiation parties and the way this information is used by each party to influence the outcome of the negotiations, and
  - (d) the relevant contractual provisions of the original PFI agreement and other key contracts.
- 32. The current market situation, as described in paragraph 28, was originally expected to last only until the end of 2019. Delays in the roll-out ESN beyond this date, by preventing the emergence of ESN, have resulted in the continuation, for a sustained period of time, of a market situation in which prices and contract continuation are established through a series of bilateral negotiations.
- 33. Furthermore, Airwave Solutions plays a role in the transition of users from using LMR network services to ESN, through its involvement in the development and implementation of an interworking solution (i.e. the technology enabling users to communicate with each other across the Airwave network and ESN during the period of transition from one network to the other - see paragraph 1.61 of the MIR report for a description of interworking). Therefore, we will consider the extent to which Airwave Solutions' role in the roll-out of interworking may amount to a feature that prevents, restrict or distort competition, to the extent that it may contribute to

prolonging a situation in which Airwave Solutions may have unilateral market power.

34. We invite interested parties to provide views and evidence on this theory of harm.

#### *Dual role of Motorola Solutions*

35. Under this theory of harm, we shall consider whether Motorola Solutions' control of both the Airwave network through Airwave Solutions and key elements of the design and roll-out of the new network (ESN) may be a feature of the reference market that may prevent, restrict or distort competition in the supply of LMR network services. Our starting point is that if the first theory of harm (unilateral market power of Airwave Solution) holds true, this potential feature of the supply of LMR network services for public safety could worsen the market situation by removing or reducing the scope for competitive interactions between Airwave Solutions and the suppliers of ESN.
36. Motorola Solutions has argued that at the time of the award of the ESN contracts, it was not intended that the two networks would exert any competitive constraint on each other, as it was envisaged that one would replace the other, thus leaving no scope for competitive interactions.
37. At paragraph 21, we explain our starting point in thinking about this issue. Even if ESN does not exercise a direct competitive constraint on Airwave Solutions, the development of ESN represents a form of dynamic competition which could impact upon the revenues and profits of Airwave Solutions. In order to assess the nature of the potential competitive interactions between Airwave Solutions and ESN and whether and how these may be affected by potential features of the relevant market, we shall examine relevant documentary evidence, including the strategy documents of Airwave Solutions at the time of the ESN contract bidding to understand what actions, if any, the company was intending to take to respond to the threat posed by ESN on its revenue.
38. We shall consider the way in which Motorola Solutions' dual role may be having a distortive effect on the competitive process. This may include an assessment of:
  - (a) The way in which negotiations between Motorola Solutions and the Home Office are carried out, to the extent that negotiations straddle both the supply of LMR network services and the provision of services by Motorola Solutions in relation to the development of ESN; and

- (b) the financial benefits that Motorola Solutions derives from its market position in the supply of LMR network services for public safety, and whether these may distort its commitment to the delivery of ESN and/or may incentivise it to act in relation to the delivery of ESN in a way that would have the effect of preserving the market position of Airwave Solutions for longer.
39. In relation to 38(b) above, we shall consider both Motorola's incentives and ability to behave in such a way, including the following evidence and analysis:
- (a) The comparison of profits and cash generated by Motorola Solutions from the operation of the Airwave network, against the profits and cash that it is currently deriving from its involvement in ESN.
- (b) To the extent possible, the consideration of potential future profits and cash it can expect to generate from ESN, including potential future sales of products and services related to ESN that Motorola Solutions may be able to make in the UK and elsewhere. In weighing current profits against future opportunities, we will take into account the likelihood of such opportunities arising, using Motorola Solutions' business plans and other documents quantifying such opportunities, to the extent that such evidence exists.
- (c) Motorola Solutions' broad business and corporate strategy, including statements made about its global market position and its view of how technology will evolve.
- (d) The nature of what Motorola Solutions is delivering, as part of its ESN contract and how this relates to the ESN delivery critical path and the quality of the solution that is being delivered. We shall in particular consider the roles played by mission-critical push to talk (MCPTT) technology and interworking.
- (e) Motorola Solutions' ability to influence blue light customers' trust in ESN and inclination to transfer from the Airwave network to ESN sooner than later.
- (f) The extent to which existing contractual provisions would prevent or disincentivise Motorola Solutions from pursuing such a course of action.
40. To consider this theory of harm further, we propose to gather evidence on Motorola Solutions' approach to the design and roll-out of the aspects of ESN that it is responsible for, including in relation to software development and to resourcing. This would help us understand how the theory set out in

paragraph 38(b) may have manifested itself in practice and to assess the extent to which this feature of the market may be distorting competition.

41. In approaching our analysis of the above evidence, we note that the delivery of ESN is a complex project with many dependencies and that delays, particularly in the early years of the project, may have been caused by multiple factors. We also recognise that the original deadline of 2019 may have been too optimistic, given the complexity of what was being envisaged. We shall be mindful of such points.
42. We invite interested parties to provide views and evidence on this theory of harm.

### **Outcomes**

43. Our investigation will consider outcomes of the competitive process and this will help us determine whether there are AEC(s) and, if so, the extent to which customers may be harmed by them.
44. Where relevant,<sup>12</sup> this assessment will be made relative to a ‘well-functioning market’, that is a market without the feature(s) causing the AEC(s) and we propose to focus on the two outcomes that are likely to be most relevant in this case: profitability and innovation.

### **Profitability**

45. As explained in the MIR report (paragraphs 1.16 to 1.19), the Airwave network is a highly differentiated and bespoke offering and for this reason, we propose to focus our quantitative assessment of market outcomes on the analysis of Airwave Solutions’ profitability.
46. Our profitability methodology approach working paper, published on the [MI webpage](#) alongside this Issues Statement, sets out the approach we propose to take in doing this assessment. This working paper describes:
  - (a) The role of profitability and financial analysis in market investigation references;

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<sup>12</sup> As indicated in paragraph 320 of [CC3 \(revised\)](#), there may sometimes be reasons to depart from that general concept, for example, if features are intrinsic to the market but nevertheless have anticompetitive effects (as in the case of a natural monopoly).

- (b) the proposed scope of our analysis, highlighting which business activities we consider to be relevant, which firms we propose to analyse and the time periods over which we propose to assess profitability;
  - (c) our proposed approach, including the overarching conceptual approach and specific elements within this approach such as: the calculation of economic profits, the valuation of assets; the calculation of the weighted average cost of capital and consideration of inefficiencies; and
  - (d) potential additional financial analysis, which may include the consideration of price or margin benchmarks and documentary evidence provided by Motorola Solutions.
47. We are inviting interested parties to comment on the profitability methodology approach working paper by 10 January 2022.

### *Innovation*

48. One important outcome of unilateral market power can be to stifle incentives on firms to innovate or invest in product development and thereby prevent the gains in productive efficiency and customer benefits that innovation or new products bring over time. When firms face competition – whether from other incumbents or from the threat of entry – the possibility of generating high profits encourages them to discover new products and processes.<sup>13</sup> As such, we look at the process of innovation in a broad sense, i.e. in terms of the efforts made by companies to bring new products and services to market. In this case, the activities associated with the development of ESN, regardless of the technological merits of this solution, constitute innovation.
49. Delays in the design and roll-out of ESN – a dampening of innovation – may indicate weak competition. We therefore propose to take account of these in our assessment of any AEC.

### **Remedies**

50. Alongside considering initial hypotheses relating to possible competition issues, we shall explore what potential remedies may be suitable to address any AECs that we may find. As our understanding of the market, and the potential issues within it, develops, we expect our consideration of potential remedies to develop also.

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<sup>13</sup> Paragraph 182 of [CC3 \(revised\)](#).

51. To help inform our initial thinking, we welcome views from parties on potential remedies at this very early stage. Were we to provisionally find that there are one or more AECs, then our provisional decision on any remedies would be contained in our provisional decision report, at which point parties would have a further opportunity to comment. Our final decision on any remedies would be contained in our final report.
52. To the extent that it is necessary, the purpose of any remedial action that we may seek to take, would be remedying, mitigating or preventing any AEC and/or any detrimental effect on the emergency services (i.e. the end-customers, beneficiaries and users of these services). This could also benefit British taxpayers who contribute to the cost of these services and benefit from any innovation.

### ***The CMA's approach to remedies***

53. When deciding whether (and if so what) remedial action should be taken to address an AEC, the CMA is required 'in particular to have regard to the need to achieve as comprehensive a solution as is reasonable and practicable'.<sup>14</sup> In doing so, the CMA considers – individually or as a package<sup>15</sup> – how comprehensively the potential remedy options address the AEC and/or the resulting detrimental effects on customers; and whether they are effective and proportionate.<sup>16</sup>
54. The CMA assesses the extent to which different remedy options are likely to be effective in achieving their aims, including whether they are practicable and, among other considerations, the timescale over which they are likely to have effect.<sup>17</sup> The CMA generally looks to implement remedies that prevent an AEC by addressing its underlying causes, or by introducing measures that can be put in place for the duration of the AEC. The CMA tends to favour remedies that can be expected to show results within a relatively short period of time. In line with the revised guidelines,<sup>18</sup> the CMA considers whether or not to limit the duration of individual remedies by including sunset provisions in their design. This approach might be appropriate if, for example, the relevant competitive dynamics of a market are likely to change materially over the next few years, or the measure in question is intended to have a transitional impact, while other longer-term measures take effect.<sup>19</sup>

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<sup>14</sup> Sections 134(6) and 138 of the Act.

<sup>15</sup> Paragraph 328 of [CC3 \(revised\)](#).

<sup>16</sup> [CC3 \(revised\)](#), paragraph 329.

<sup>17</sup> [CC3 \(revised\)](#), paragraphs 334 and 337.

<sup>18</sup> [CMA3](#), paragraphs 4.18–4.21 and 4.25.

<sup>19</sup> [CMA3](#), paragraph 4.20.

55. The CMA is guided by the principle of proportionality in ensuring that it acts reasonably in making decisions about which (if any) remedies to impose (should an AEC be found). The CMA therefore assesses the extent to which different remedy options are proportionate, and in particular is guided by whether a remedy option:
- (a) Is effective in achieving its legitimate aim;
  - (b) is no more onerous than needed to achieve its aim;
  - (c) is the least onerous if there is a choice between several effective measures; and
  - (d) does not produce disadvantages which are disproportionate to the aim.<sup>20</sup>
56. The CMA may also have regard to the effect of any remedial action on any relevant customer benefits (RCBs) of a feature or features of the market(s) (for example, benefits in the form of lower prices, higher quality or greater choice or innovation).<sup>21</sup>
57. Where the CMA finds that there is an AEC, the circumstances in which it will decide not to take any remedial action at all are likely to be rare but might include situations in which no practicable remedy is available, where the cost of each practicable remedy option is disproportionate to the extent that the remedy option resolves the AEC, or where RCBs accruing from the market features are large in relation to the AEC and would be lost as a consequence of any practicable remedy.<sup>22</sup>

### ***Potential remedies on which views are sought***

58. In this section, we describe the initial remedy options we are considering to address any AECs that we may find. We describe each of these remedy options in turn, setting out how they might work in practice. We invite views on specific issues that we raise in this section as well as any other issues that interested parties would like to put to us. The list of remedies discussed below is by no means exhaustive and we invite suggestions from parties in relation to any remedies not identified that they believe we should consider.
59. As noted above, our consideration of remedy options will develop in light of our emerging thinking on any potential AECs as our investigation progresses. We are keen to start considering and evaluating the potential remedies we

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<sup>20</sup> CC3 (revised), paragraph 344.

<sup>21</sup> Section 134(7) and (8) of the Act.

<sup>22</sup> CC3 (revised), paragraph 354.

describe at paragraphs 61 to 73 below, at the same time as assessing the possible competition concerns.

60. We shall also consider other potential remedies if parties are able to provide relevant evidence and reasoning as to why these would be comprehensive, effective and proportionate.

#### *Remedy categories*

61. The various remedy options available to the CMA can be categorised in different ways. One means of delineating remedy types is whether a remedy is structural or behavioural in nature:
  - (a) Structural remedies include measures which change the structure of an industry or sector, such as requiring the divestiture of assets.
  - (b) Behavioural remedies include measures which influence the behaviours of firms and/or customers such as through the provision of information, introducing rules on conduct, enabling customers to use the data held by firms to their own advantage and placing limits on the levels of prices that can be charged.
62. Remedy options can also be thought of in terms of:
  - (a) Whether they seek to enable greater competition, for example, structural measures, that increase the number of firms, would be looking to intensify rivalry and enable greater competition. Similarly, providing customers with the means to make better informed decisions would be looking to directly increase competition; or
  - (b) whether they seek to more directly address any detriment, for example limiting the levels of prices that can be charged by a firm.
63. There are various mechanisms available to the CMA to implement any remedies:
  - (a) Undertakings from parties. Such undertakings would be an offering from a party to put in place various measures, enforceable by the CMA, to address any AEC that is found.
  - (b) An Order requiring parties subject to the Order to undertake various actions. An Order is usually adopted when there are more than a small number of parties subject to the remedies and/or when parties are unwilling to offer undertakings to the CMA. Again, these are enforceable by the CMA.



- (c) Recommendations to government and other bodies to take forward actions that would address any AEC. This can include a recommendation to introduce regulatory reform.
64. Given the nature of the theories of harm we are proposing to investigate, and based on the evidence we have seen to date, we consider it unlikely that recommendations to government or other bodies on their own could be effective in addressing any of the potential issues that we have identified. However, if we found an AEC, more than one remedy may be required, with the package of remedies potentially containing a mix of behavioural and/or structural remedies, as appropriate.<sup>23</sup> Our assessment of the effectiveness and proportionality of any remedies will be considered both individually and as part of a package and may involve a combination of undertakings and orders.
65. We have broadly grouped potential remedies into three categories:
- (a) Price control
  - (b) Information transparency remedies
  - (c) Structural separation to address the dual role of Motorola Solutions in Airwave Solutions and ESN.

#### *Price control*

66. Such a remedy would seek, potentially in combination with other remedies, to address the potential detriment to customers, for example, high prices, arising from any features that we may find, rather than the features themselves. As set out in paragraphs 45 to 47, we are exploring whether the prices charged by Airwave Solutions are higher than they would be in a competitive market.
67. We consider that a number of price control options could be available if this were the case. The high-level options we have identified to date include:
- (a) Bottom-up price control: Airwave Solutions would be required to set prices and/or revenues (as appropriate) such that total income would be equal to its operating expenditure (opex) plus depreciation of its capital base plus a reasonable return on capital in each year. Operating costs, capital expenditure and a reasonable return on capital would need to be determined in advance by a regulatory body and Airwave Solutions would be required to maintain full financial records and submit these for audit (as

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<sup>23</sup> Our view on this may change as the investigation progresses.

required). This type of price control is similar to that of many regulated businesses in Great Britain, including energy and water networks.

- (b) Rate of return regulation: Airwave Solutions would assess its own operating and capital costs and apply a reasonable rate of return to come to an estimate of its allowed income and set its prices accordingly. Under this type of price control, clear guidance would need to be provided in advance by a regulatory body setting out the type of costs which should be included and how costs should be recorded and Airwave Solutions would be required to demonstrate compliance ex-post. It may also be necessary to include a mechanism for any regulator and/or customer to object to costs ex post, for example on the basis that they were demonstrably wasteful and/or inefficient.
- (c) Safeguard cap: prices/revenues would be set by a regulatory body at the current 'competitive or efficient' level, potentially with some headroom included, and indexed as required. For example, indexing may be based on the economy-wide rate of inflation (ie CPIH), or on industry-specific inflation measures, where available and appropriate.

- 68. Consideration would need to be given as to whether any price control would apply to all or some of the revenues of Airwave Solutions, and whether prices or total revenues should be capped.
- 69. Given the expectation that the Airwave network will be switched off in a few years' time, the CMA could introduce this price control itself and monitor compliance. However, should the Airwave network (or parts of its infrastructure) continue longer than currently envisaged (or evidence to this effect emerges during the investigation), there may be a case for ongoing oversight of such a price control to be transferred to an appropriate regulator.

#### *Information transparency remedies*

- 70. This type of remedy would aim to address the potential underlying feature of information asymmetry between Airwave Solutions and its customers by requiring Airwave Solutions to record costs on a basis which the regulatory body considers to reflect the economic substance of its activities and to disclose these costs to its customers, as relevant.
- 71. An information transparency remedy could be introduced either alongside a price control remedy, ie as a means of monitoring and enforcing compliance with the price control, or on a stand-alone basis. In the latter case, Airwave Solutions' customers would continue to negotiate prices directly with the

business but, if this remedy were in place, would do so on the basis of greater information and understanding of the costs and profitability of the network.

### *Structural separation to address the dual role of Motorola Solutions in Airwave Solutions and ESN*

72. Under this remedy option, Motorola Solutions could be required to divest Airwave Solutions and/or other activities that it carries out that may provide it with the ability and/or incentive to hamper the roll-out of ESN, with the possible effect of prolonging the operation of the Airwave network, e.g. activities relating to interworking and MCPTT technology. This may involve a partial divestiture and/or the licensing of relevant software.
73. This type of remedy, on a stand-alone basis, would not address the (potential) underlying feature of any unilateral market power on the part of Airwave Solutions, although it could limit its duration by encouraging the earlier replacement of the Airwave network by ESN. However, it could be combined with one or more of the other remedy options set out above in order to address any customer detriment comprehensively.

### *Questions on potential remedies*

74. We welcome any general observations and views on each of the separate remedies discussed above and on the following specific issues:
- (a) The potential for the remedies to effectively address any AECs, in particular:
- (i) The extent to which these remedies would partially or fully address either the potential features giving rise to an AEC in the relevant market and/or the detriment arising from those features;
  - (ii) the practicality of the remedies in terms of initial implementation and on-going monitoring for compliance; and
  - (iii) how the remedy options should be designed to maximise effectiveness. For example, should the various remedy options be implemented by order, undertaking or recommendation; for the price controls, whether prices or revenues should be capped; for cost transparency and price controls, which principles should be applied to recording and reporting costs and why etc.
- (b) The magnitude of associated costs and who would incur them.

- (c) Whether those remedies would be more onerous than is necessary to effectively address the identified AEC(s) and/or their detrimental effects on customers and, if so, whether an alternative remedy would be similarly effective and more proportionate.
- (d) The potential for unintended consequences and/or distortions to competition to arise from these remedies and how these could be mitigated.
- (e) The extent to which the remedy options under consideration would work together as a package to address identified AEC(s), and/or whether certain remedy options would conflict with the aims or functioning of other remedy options, reducing their effectiveness.
- (f) Other potential measures, including evidence on why they would be effective to effectively address the identified AEC(s) or their particular effects but less onerous and/or less liable to produce unintended consequences.