

**Mobile radio network for the Police and Emergency Services**  
**Issues Statement (“IS”) and Profitability methodology approach (“PM”)**  
**EE Limited (“EE”) comments**

**Introduction**

1. EE welcomes this opportunity to respond to the CMA’s initial views on its investigation into private communications network services using land mobile radio technology. EE is a wholly-owned company of the BT Group, and is the contracting entity under the ‘Lot 3’ Emergency Services Network (‘ESN’) contract. We are one of the key organisations alongside Motorola and Samsung tasked with delivering ESN.
2. EE agrees with the CMA’s assessment of the market, its characteristics and the potential for harm arising from Motorola’s position in running both the legacy Airwave network as well as being a significant delivery partner for ESN. The emergency services are currently deprived of the benefits of ESN services, which could bring cost efficiencies, greater productivity and save lives.
3. We think financial and profitability analysis is key to identifying any link between incentives and behaviour. Airwave’s financial position on its own is relevant, as is its contribution to the wider Motorola group, to the incentives to deliver ESN efficiently, and how it interacts with other firms in this market and its ancillary services.
4. If the CMA finds evidence to support its theories of harm, it is likely that a suite of remedies, rather than a single remedy, will be needed to address the multiple roles Motorola plays in Airwave and ESN.

**Market definition**

5. We agree with the CMA’s assertion that it should consider the “*long-run dynamic competitive interactions between ESN and the Airwave network*” in the theory of harm section of its assessment.
6. EE observes that in a “well-functioning market”<sup>1</sup> the participants would seek to replace ageing, expensive and inefficient technology with new, cheaper and higher-speed technology, and derive value from the new technology, without delay. The CMA’s remedies should aim to achieve this well-functioning market in the context of Airwave and ESN.

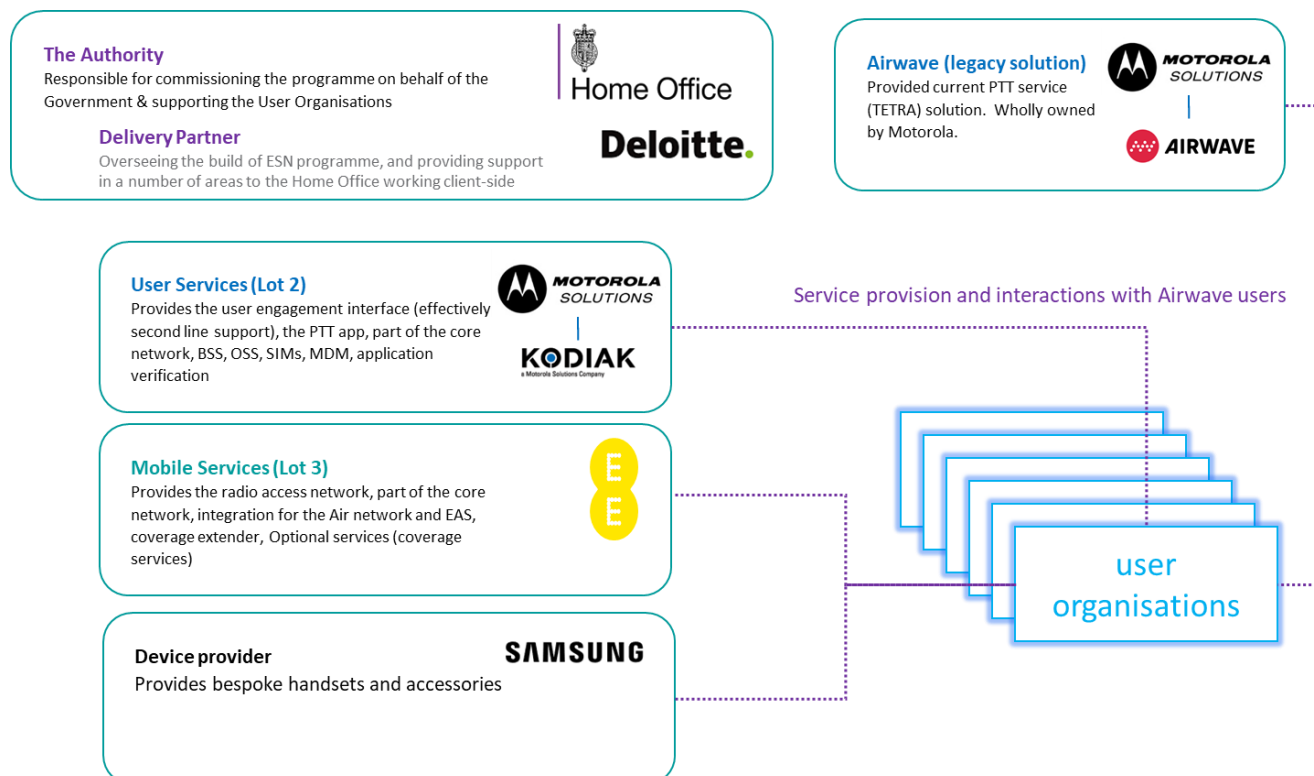
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<sup>1</sup> Issues Statement, paragraph 44.

## Theories of harm and the multiple roles of Motorola Solutions

7. The CMA rightly notes that the ESN programme is a complex eco-system. As illustrated in Figure 1 below, Motorola Solutions currently, through Airwave, has direct customer relationships with over 470 user organisations<sup>2</sup>. Once ESN is available, customers will have operational relationships with Motorola Solutions through the user services, with EE through the mobile services and with Samsung through the devices they respectively provide.

Figure 1. Service provisions by Airwave and Motorola Solutions to user organisations



8. One of the CMA’s theories of harm is that Motorola Solutions’ control of the Airwave network and of the design and roll-out of key elements of ESN may be a feature of the reference market that may prevent, restrict or distort competition in the supply of LMR network services. EE agrees with the CMA that there are strong reasons for investigating potential harm arising from this. Indeed the 2019 NAO report highlighted that Motorola’s involvement “*in key components of the current and future emergency services communications [puts] it at an advantage over any competitors when the ESN contract is renewed in 2024*”<sup>3</sup>. The following features are currently all part of the transition to ESN and EE believes they may also be relevant in the CMA’s assessment of harm:

<sup>2</sup> The Home Office is the key contract holder for the ‘blue light customers’ (i.e. the police, fire and ambulance services) and accounts for the largest part of Airwave Solutions revenues.

<sup>3</sup> “Progress delivering the Emergency Services Network”, 10 May 2019, National Audit Office (“2019 NAO Report”). <https://www.nao.org.uk/wp-content/uploads/2019/05/Progress-delivering-the-Emergency-Services-Network-Summary.pdf>

- Motorola is the sole provider of 'Mission-critical Push-to-Talk' (MCPTT) software for ESN;
  - Motorola has control over interworking between Airwave and ESN during transition; and
  - Motorola has access to representatives from user organisations and the opportunity to influence perceptions of Airwave and ESN.
9. In a well-functioning market, participants would be incentivised to transition efficiently from the legacy to the new technology for a number of reasons: costs associated with legacy technology rise as replacement of obsolete parts becomes increasingly difficult; newer technology is cheaper and delivers better performance, can deliver greater value, and there is greater scope for innovation for new services.
10. Motorola also provides the 'front end' interface to the emergency services (e.g. service desk, ordering, provisioning and billing systems) without which the emergency services cannot consume ESN services.
11. Motorola can control whether it allows interoperability between its own MCPTT software used in ESN and any other MCPTT software developed by others.
12. Motorola's interworking between Airwave and ESN during transition from the former to the latter is also critical. Airwave controls access to this interworking capability and so could, from a technical perspective, effectively prevent interworking with potential new MCPTT entrants in ESN.
13. Motorola's access to user organisation representatives means that incentives and opportunities may exist for it to behave in a manner that influences the emergency services' perception of the attractiveness, viability and maturity of ESN and to discourage their transition to ESN. The CMA would need to ask the Emergency Services' representatives about their experiences, including what impact the statements made by Motorola's chief executive about the co-existence of Airwave and ESN going on for "*a lot longer*" and the "*criticality and duration of LMR*"<sup>4</sup> have on their perception of ESN.
14. At present, delay on ESN is perpetuating the use of the older technology, Airwave. Motorola makes materially greater revenue and profit from Airwave than it will make from ESN, as can be determined from the National Audit Office's 2019 report<sup>5</sup> and Airwave's published accounts<sup>6</sup>. Such significant

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<sup>4</sup> See paragraph 2.18(c) of the CMA's final report and decision on the market investigation reference.

<sup>5</sup> See Figure 1 of the 2019 NAO Report.

<sup>6</sup> The profit Motorola makes from Airwave has accounted for c.24% of Motorola Solutions Inc.'s global post-tax profits on all activities for each of the last 3 years. Airwave Solutions Ltd earned £158m post-tax profit for year ended 31 Dec 2020, compared against net earnings of USD949 (or £694m) for the

contributions and their potential influence on Motorola's business decisions in the negotiation of the Airwave contracts merit investigation. These factors suggest, moreover, that the CMA should consider whether or not group-wide profit incentives affect business decisions around ESN delivery.

15. Motorola also has sole control over the 'Mission-critical Push-to-talk' (MCPTT) software (known as Kodiak). This is at the heart of ESN, and many other elements are dependent on its delivery (such as device testing, coverage testing, and control room software updates). Absent sufficiently developed MCPTT software, transition to ESN cannot start and Airwave cannot be shut down. The delivery of the MCPTT application to enable transition to start, including integration testing with other components of the network, is significantly delayed. Transition is currently expected to start in 2024 (delayed from 2017).
16. Whether intentional or not, EE has observed, and continues to observe, in its role as a partner in the ESN programme, delays in the development, delivery and testing of the MCPTT software. The outcome is that the delays postpone the replacement of Airwave's old and expensive technology by ESN's more modern, efficient, higher speed and economical technology.

### **Profitability Methodology**

17. EE believes the CMA should also consider, in addition to the three periods identified<sup>7</sup>:
  - the period from 2016 onwards, taking into account Motorola's business case around the acquisition of Airwave at the time; and
  - scenarios modelled by Motorola on ESN delay up to 2028 against the backdrop of contracted delivery of 2017.
18. This reflects the "*flow-of-funds*" approach suggested in Oxera's 2015<sup>8</sup> update to help highlight key features of market outcomes, for example, how profitability of Airwave may have changed before and during Motorola's ownership. This could provide another angle on the incentives and the implications of Motorola's dual ownership.

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same period. The proportion was even higher in 2018 and 2019. Airwave Solutions annual reports are available at <https://find-and-update.company-information.service.gov.uk/company/03985643/filing-history> and Motorola Solutions Inc. annual reports are available at <https://investors.motorolasolutions.com/earnings-sec-filings/AnnualReports/default.aspx>. USD/GBP closing exchange rate 31 December 2020 was 0.7314.

<sup>7</sup> The PFI period from 2000 to 2019, the Extension period from 2020 to 2026, and the full period from 2000 to 2026.

<sup>8</sup> "Profitability analysis and competition policy, 2015 commentary", Oxera Agenda, <https://www.oxera.com/insights/agenda/articles/profitability-analysis-and-competition-policy-revisited/>

19. On the CMA's proposed truncated IRR approach<sup>9</sup> using the weighted average cost of capital (WACC) as the benchmark over the relevant period(s) of analysis, we would welcome a more detailed description of the CMA's analysis, the underlying assumptions and adjustments made, and the overall results. This would allow us to provide a more meaningful contribution to the debate of whether there was an AEC, and if so, the extent of the harm. We may comment on the CMA's estimates of WACC once the separate Working Paper is published.
20. The CMA provided some indicative results based on its three profitability models. EE notes that Airwave's post-tax profits have increased in the latter part of the PFI period, with reported profits of over £100m annually in the last four years.<sup>10</sup> We also observe that the three profitability models are based on two different sets of data provided by Motorola. We would recommend data issues be resolved at the earliest possible stage in order to reduce the number of possible scenarios/outcomes to be considered, and instead focus the discussion on the implications of the analysis.

## Innovation

21. We agree with the CMA's assessment that a potential harm from market power is to "*stifle incentives on firms to innovate or invest in product development*". Users should have been able to transition to ESN from September 2017 (21 months after contract signature), but in practice it will be 2024 before mass transition to enjoy the benefits of ESN can start.
22. EE believes that it should be possible for other MCPTT providers to enter the ESN eco-system (which would encourage innovation) but to do so would require access to interworking with Airwave and interoperability with Motorola's MCPTT which Motorola controls.<sup>11</sup> Fostering this would bring about longer-term benefits of ESN through the services that can be delivered to the user organisations, which in turn, could bring cost efficiencies, greater productivity and save lives.

## Remedies

23. EE considers it crucial for any remedies to remove all incentives (whether acted on or not) for Motorola to delay the delivery of the key ESN MCPTT software,

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<sup>9</sup> Internal rate of return approach, approximated using an analysis of Return on capital employed, with careful adjustments made.

<sup>10</sup> See <https://find-and-update.company-information.service.gov.uk/company/03985643/filing-history> for Airwave's annual accounts. Note that these are presented as year ending on 30 June and 6 months to 31 December, slightly different to the periods presented in the CMA's Profitability Methodology Approach.

<sup>11</sup> See also concerns raised by the 2019 NAO Report, paragraph 20, which noted: "*The Home Office will also need to manage any conflict of interests regarding Motorola's role in accrediting products for ESN to ensure fair competition, so emergency services are not tied to Motorola's products. Motorola is a control room vendor, potential supplier of handsets and vehicle devices and in charge of accrediting devices and control rooms for ESN (paragraphs 3.7, 3.14 and 3.20)*".

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and other contracted ESN services. In EE's view, the only way to achieve these objectives is ~~XXXXXX~~.

24. We agree with the CMA that divestment of Airwave (subject to appropriate conditions including interworking) is one way to do this.

25. ~~XXXXXX~~. It is a matter for the CMA to consider if any form of price regulation of Airwave is required – EE's perspective is that of how to advance ESN in the least time. EE does not believe, however, that an Airwave price control on its own, ~~XXXXXX~~, would be sufficient.

26. In either route, an obligation for the Kodiak product to be made interoperable with other competing MCPTT products should be considered as well as a need for access to interworking.