



Mobile Radio Network Services Market Investigation

*Motorola's Response to the CMA's Final Report and Decision on a
Market Investigation Reference*

15 November 2021

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1. Introduction and Summary

- (1) Motorola welcomes the opportunity to participate in this market investigation into mobile radio for the police and emergency services. This is of course a critical service for this country: we depend on this network 24 hours a day, seven days a week, irrespective of location, and in times of the utmost crisis. Motorola has been involved in the public safety communications business in Great Britain for over 50 years, and has been involved in the provision of the current Airwave service since its inception. Motorola therefore has a vast history and experience of understanding what it takes to support this country's first responders and the public authorities charged with procuring what they need.
- (2) In this Response Motorola provides its initial comments on some of the main themes of the CMA's Final Report and Decision (the "MIR Decision"). As will be apparent from these initial comments, the Land Mobile Radio Network Service (i.e. the Airwave service) is extremely complex and has a very long history. It is for this reason that Motorola suggested a more reasonable timetable that would allow sufficient time for a thorough factual understanding and appraisal. Needless to say, Motorola stands ready to assist the Group in ensuring that it has the correct information at its disposal.
- (3) The Group will need to ignore at the very outset the misleading description of the underlying issue provided by the CMA at paragraph 4 of the Summary of the MIR Decision. Paragraph 4 states:

"It is now expected that the Airwave network will continue until the end of 2026, with the terms of the extension needing to be agreed by the end of 2021. Negotiations between Motorola and the Home Office are on-going."

- (4) Contrary to the CMA's understanding, the terms of any extension sought by the Home Office were already agreed in 2016, following extensive negotiations and as part of a whole suite of arrangements entered into between the Home Office and Motorola (as purchaser of the Airwave network). **The key element of that deal, for these purposes, is the unilateral contractual right for the Home Office to extend the Airwave service at agreed pricing for as long as it is needed while the Home Office transitions its 300,000 users to ESN** which, in turn, requires Motorola to invest over £300 million in capital expenditure to ensure the continuity of service of the Airwave network, without any expectation of additional returns. There is, therefore, nothing that "needs" to be agreed by the end of 2021. The only "negotiations" that have been taking place since 2016 [✂]. This simple yet crucial factual error on the part of the CMA has profound implications for the correct analysis of the Airwave contracts.
- (5) The suite of agreements entered into between the Home Office and Motorola also includes a heavily negotiated Deed of Recovery, to which the CMA pays scant regard. This Deed of Recovery was designed to address risk as a result of Motorola's dual role and specified remediation and financial remedy in the event of delay and was entered into as part of the Home Office giving consent for Motorola's acquisition of Airwave. This Deed ensures – through the vast discount sums available – that Motorola remains highly incentivised to deliver its part of the Emergency Services Mobile Communications Programme or "ESMCP" (the Programme sponsored by The Secretary of State for the Home Department to deliver the new Emergency Services Network ("ESN")). [✂] confirms that Motorola has not caused ESN to be delayed; if that were the case, [✂].
- (6) In fact, the incentives to deliver under the Deed of Recovery have been key to Motorola, as Motorola delivered its components of ESN despite [✂]. This is demonstrated by the central

role the Deed of Recovery has played in each contractual reset (as discussed at Section 3.4.4. below), and [REDACTED].

- (7) The CMA claims to have considered scenarios “over the next 6 years” (at paragraph 7 of the MIR Decision). However, the Home Office is only seeking an extension of the Airwave service until the end of 2026 [REDACTED], so the CMA appears to have modelled scenarios beyond the life of the desired extension period. As a matter of contractual fact, and for all parties’ planning purposes, the Airwave term does not expire until the “National Shut Down Target Date” which is currently set at [REDACTED], so assuming a Home Office requirement for the Airwave Service until 31 December 2026, the “extension” period is in fact only four years.
- (8) The CMA has made statements about the burden of any excessive profits made by Motorola falling to the British taxpayer. Motorola very much welcomes the Group’s thorough assessment of this subject. **By the end of their terms in 2026 (assuming that the Home Office exercises its option and chooses to extend to that date) the Airwave contracts will have yielded a nominal post-tax IRR of [REDACTED]. As explained in this Response, the projected post-tax IRR agreed by the Home Office for Airwave at the time of Airwave’s inception was 17%**, which itself compares extremely favourably to far less risky projects commissioned by the Government. The evidence shows unequivocally that the British taxpayer has had both the security and safety afforded by a network with extraordinary service levels, and has enjoyed this service at a price that, with the benefit of hindsight, has turned out to be an economic bargain.
- (9) At its heart, therefore, the question for the Group is whether it is appropriate to intervene to rewrite what is anticipated by all parties to be the final years of a 24-year highly complex contract that has in fact worked extraordinarily well for the British taxpayer.
- (10) Another important theme in the MIR Decision is Motorola’s participation in both the ESMCP (the successor to Airwave) and Airwave, which is stated to contribute in various ways to the Airwave ‘market’ not working well. In this Response, Motorola explains, among other things, how the CMA had the opportunity to explore this issue in 2016 when it investigated Motorola’s acquisition of Airwave. The CMA claims (at paragraph 3 of the MIR Decision) that it received “*assurances*” from Motorola that Airwave would be shut down in 2019. This is untrue. Motorola gave no such assurances, not least because it is not within Motorola’s gift to decide when the Airwave network is shut down. In fact, as the CMA is aware, Motorola supplied documents showing its own internal estimates of the very significant probability of the Airwave network existing after 2019. It is therefore unreasonable and unfair to now claim that Motorola somehow assured the CMA of a 2019 Airwave shut down.
- (11) This Response explains how Motorola came to be involved in the ESMCP, came subsequently to acquire Airwave with the consent and approval of both the Home Office and the CMA, and how Motorola has supported both of these extraordinarily complex projects beyond its contractual obligations. It will also be apparent - but unsurprising - from this Response that, in light of the MIR Decision’s reference to a potential Airwave divestiture, [REDACTED]. Given that the proposed intervention relates to a contract where all prices are already agreed, other suppliers in the ESMCP will inevitably now question the reliability of their own contracts, as will *all* businesses invited to enter into long-term contracts with the Government.
- (12) Motorola is confident that the Group will, having conducted its independent review, ultimately conclude that, far from being a ‘market’ that is not working well:

- (a) there is no ‘market for the supply of LMR network services’; this is a fiction created by the CMA to try to justify its intervention on behalf of the Home Office and Cabinet Office; or if there is a ‘market’, that it has in fact worked extraordinarily well;
 - (b) but for the Home Office’s failings, ESN would have been delivered and Airwave switched off without the need for any Airwave extension;
 - (c) against this background, it would be grossly disproportionate for the CMA to intervene in the terms on which the Government exercises its option to extend the Airwave service for the final years of the contract; and
 - (d) Motorola has consistently delivered to its requirements, showing substantial flexibility, while [REDACTED] across both the ESMCP and Airwave.
- (13) The remainder of this Response is organised as follows. The next section provides a simplified overview of the ESMCP. This is very important background context to an assessment of Airwave not simply because of the issues alleged by the CMA but because (i) critically, if ESN had been delivered on time, Airwave would have been switched off and this Market Investigation would not be happening; and (ii) the ESMCP provides a helpful insight into the conduct of the Home Office as a monopsonist customer and into the conduct of Motorola often going beyond its contractual obligations to support the ESMCP. On an objective reading it will be obvious that Motorola did not delay the ESMCP. Of course, [REDACTED], but nonetheless Motorola intends to ensure that the Group has the facts surrounding this topic. In fact, Motorola anticipates that, having considered the explanation for the delays in the ESMCP, the Group will want to consider whether the CMA should have considered the adverse incentives on the Home Office created by the Home Office’s achievement in 2016, at a time when the misalignment of two of its key ESMCP suppliers’ technical solutions had become apparent to the Home Office, of a unilateral fixed-price option to extend Airwave without limit in time. This option effectively provided a state-guaranteed insurance policy that Airwave would always be available regardless of the state of its ESMCP. The Group may also want to consider why the finger has been pointed at Motorola in respect of ESMCP delay, and whether the accusation is fair.
- (14) Following the review of the ESMCP in Section 2, Section 3 provides a simplified overview of Airwave, with a particular emphasis on explaining the contractual structure since Motorola believes that this has also not been understood by the CMA. Section 4 provides comments on the competitive assessment envisaged by the Market Investigation given Motorola’s [REDACTED]. This section corrects in particular the CMA’s theory that but for Motorola’s presence in both the ESMCP and Airwave, the Home Office would have been able to play off the two programmes against each other, creating competitive tension. This theory simply ignores how the services were procured and how the Airwave to ESN transition process was always intended to operate. Last, Motorola was not able to understand the profitability calculations made by the CMA in the MIR Decision but was unable to provide comments in this Response since the CMA has declined at this stage to provide the model underlying its calculations. In the circumstances, we rely upon the Group for their accuracy.
- (15) In the Home Office’s most recent Airwave pricing reduction exercise (2018), the Group should keep in mind that the Home Office mandated a reverse dynamic in which it demanded *increased* pricing in the latter years of that three-year extension. Section 4 explains this in more detail.
- (16) Motorola remains at the disposal of the Group, and looks forward to supporting this investigation.

2. Background to the CMA's MIR Decision – ESN

2.1 Introduction

- (17) The CMA states in its MIR Decision that “*Motorola’s position as owner of Airwave Solutions and key supplier in the design and roll-out of ESN*” and “*the delays in the roll-out of ESN (which may or may not have resulted from Motorola’s conduct in relation to the design and roll-out of ESN since 2016)*” are preserving weak competitive constraints on Motorola and thus give the CMA reasonable grounds for suspecting that these factors prevent, restrict or distort competition (at paragraph 2.21 of the MIR Decision). In reaching these conclusions, the CMA strongly insinuates that Motorola’s dual role in the roll-out of the ESMCP and operation of the Airwave service acts as an incentive for Motorola to prolong such delays.
- (18) The “*incentive*” risk that the CMA highlights was however recognised and fully dealt with in 2016 as part of the change of control consent negotiations between Motorola and the Home Office. Those negotiations culminated in the execution of a Deed of Recovery, which was also reviewed by the CMA in 2016. The Deed of Recovery does not permit the Home Office to make Motorola pay for delays caused by others. Put another way, if, but for Motorola’s failure to deliver its Lot 2 elements on time, the ESMCP mobilisation would be complete (and users confirm they are ready to start transitioning to ESN) the Home Office may seek to claim under the Deed of Recovery [✂]. Otherwise, Motorola is not liable for ESN programme delays. That was, and should remain, the eminently fair way to proceed in a multi-faceted programme.
- (19) Further, even if Motorola were incentivised to delay the mobilisation of the ESMCP, the following sections show that Motorola was not able to, and did not, delay the Programme. The assertion here that there are weak ‘competitive constraints’ on Motorola betrays the CMA’s lack of understanding of Airwave and the ESMCP, which is explained in Section 4. There was no opportunity for the notional competition that the CMA seeks to rely upon, since contracts relating to the future existence of Airwave and transition arrangements with respect to ESN were already in place, at the request of the Home Office.

2.2 ESMCP overview

- (20) As the Group will be aware, ESN will replace the existing Airwave service and provide enhanced capabilities for the users: “*ESN will transmit voice, video and broadband data across the 4G network and give first responders immediate access to life-saving data, images and information in live situations and emergencies on the frontline ... ESN’s high-speed mobile technology will mean communication between the emergency services will take priority over all other network traffic, even at peak times in busy urban locations. It will mean the emergency services and other first responders can share vital data, information and expertise quickly and securely from the frontline*”.¹
- (21) ESN will also bring additional benefits to its users, together with the broader general public, as the Home Office highlights that the project will serve the dual purpose of improving 4G network coverage across Great Britain to enable 999 calls to be made securely from mobile phones in many of the most remote and rural parts of the country.²

¹Home Office, *Emergency Services Network: Overview* (last updated 18 February 2021) <<https://www.gov.uk/government/publications/the-emergency-services-mobile-communications-programme/emergency-services-network>>.

²Home Office, *Emergency Services Network: Overview* (last updated 18 February 2021) <<https://www.gov.uk/government/publications/the-emergency-services-mobile-communications-programme/emergency-services-network>>.

- (22) ESN is being delivered by the ESMCP incrementally, and unlike other parts of the ESMCP (see Section 2.4. below) Motorola already has a working version of its deliverable for the “*ESN Direct 2*” product (the second iteration of PTT service on ruggedised smartphones). The Home Office states that “[t]he focus is on getting the products, coverage and services that emergency services need so they can be tested, adopted and used as they become available, rather than having to wait until every element of the network is finished.”³
- (23) Once deployed, ESN will be one of only two emergency service networks in the world where frontline users share a network with the general public and in fact, the only emergency service network which makes use of pioneering technology allowing communications between frontline users to have priority over all other network traffic.⁴ Motorola therefore regards the development and roll-out of ESN as a unique and innovative addition to critical national infrastructure, and is proud to be contributing to this important programme. It is expected that 5G technology (and beyond) will permit further and easier network “slicing” to provide high priority and protected services, although Motorola is not aware that the Home Office has planned a migration path for ESN from 4G to 5G.
- (24) ESN comprises eight separate products to be delivered incrementally, each providing increasing functionality to assist the nation’s emergency services and other frontline workers. See Figure 1 below which provides a high-level overview of these products, together with details of their intended use and target audience:

Figure 1: ESN Products⁵

Product	What is it?	Intended audience
ESN Assure	Coverage testing app to check signal strength.	All users, to build confidence that coverage is sufficient.
ESN Connect	Prioritised data-only service.	Users of existing data-only devices, for example, in vehicles.
ESN Connect +⁶	Prioritised voice and data service.	Fire or ambulance users who do not need specialist voice features.
ESN Direct	Prototype of ESN Prime (two versions ⁷).	Users who are prepared to trial ESN before it is complete.

³Home Office, *Emergency Services Network: Overview* (last updated 18 February 2021) <<https://www.gov.uk/government/publications/the-emergency-services-mobile-communications-programme/emergency-services-network>>.

⁴Public Accounts Committee, *Upgrading emergency service communications* (25 January 2017) <<https://publications.parliament.uk/pa/cm201617/cmselect/cmpubacc/770/770.pdf>>; National Audit Office, *Upgrading emergency service communication: the Emergency Services Network* (15 September 2016) at Part 2, paragraph 2.2 <<https://www.nao.org.uk/wp-content/uploads/2016/09/Upgrading-emergency-service-communications-the-Emergency-services-Network.pdf>>.

⁵Based on Figure 6 of National Audit Office, *Progress delivering the Emergency Services Network* (10 May 2019) <<https://www.nao.org.uk/wp-content/uploads/2019/05/Progress-delivering-the-Emergency-Services-Network.pdf>>.

⁶Now mothballed.

⁷ESN Direct 2 being the active service currently available for users.

Product	What is it?	Intended audience
ESN Beta (previously ESN Prime and Post Prime)	ESN service for police on the ground.	Non-covert police users on the ground.
ESN Prime +⁸	ESN service for police with special security needs.	Covert police users.
ESN Air	ESN devices and coverage for aircraft.	Police and ambulance aircraft.
ESN Innovate⁹	Software and development kit.	All users, to build apps to take advantage of ESN data.

- (25) The Home Office expects that all of the 107 police, fire and ambulance services in England, Scotland and Wales will agree to use ESN,¹⁰ as well as a further 345 other potential users (such as local authorities, utility services, railway operators, and first responders). To help the Group better understand the scale of ESN's potential user base, these figures include at least 300,000 individual frontline emergency service connections, using operating equipment in over 50,000 vehicles, 115 aircraft and 200 control rooms, and potentially over 25,000 individual connections for non-blue light organisations. ESN is therefore a large-scale and technical programme with considerable complexity – a view which the Home Office also supports.¹¹
- (26) Although the ESMCP is a cross-government programme, the costs associated with the development and roll-out of ESN will be borne primarily by the Home Office. The National Audit Office's analysis of Home Office forecasts in 2019 indicated that the Home Office would be responsible for 78% of the total costs, amounting then to approximately £7,224m. The Department of Health & Social Care, the Scottish Government and the Welsh Government also sponsor the project and, at that time, were projected to contribute 10% (approximately £893m), 11% (approximately £1,031m) and 1% (approximately £116m) to the total cost respectively. These figures include any sums that will eventually be re-charged to the emergency services that will use the network.¹²
- (27) The successful deployment of ESN is dependent on various deliverables being met by a broad range of contractual counterparties, further reflecting the complexity of the project. EE and Motorola are currently the main contractors for the ESMCP. EE is responsible for delivery of the mobile communication service (under the Lot 3 contract), which includes providing priority access to EE's existing mobile network and increasing network coverage across Great Britain, while Motorola is responsible for the delivery of user services (under the Lot 2 contract), such as software and systems which ensure that ESN meets the needs of its end

⁸ Motorola is awaiting an update from the Home Office on their strategy for covert users.

⁹ Inactive.

¹⁰ Including over 300,000 frontline emergency service connections, using operating equipment in over 50,000 vehicles, 115 aircraft and 200 control rooms.

¹¹ See, for example, Public Accounts Committee, Oral Evidence: Emergency Services Communications, HC 770 (16 November 2016), at Q223 <<https://publications.parliament.uk/pa/cm201617/cmselect/cmpubacc/770/770.pdf>> ("**Mark Sedwill**: ...this is an innovative programme, with considerable complexity. [...] I think we are doing it well, but just the level of risk in a programme of this scale, complexity and innovativeness has to be the thing that is most on my mind.").

¹² National Audit Office, *Progress delivering the Emergency Services Network* (10 March 2019), at Figure 2 <<https://www.nao.org.uk/wp-content/uploads/2019/05/Progress-delivering-the-Emergency-Services-Network.pdf>>.

users.¹³ KBR was also a key delivery partner¹⁴ responsible for supporting the programme in implementing ESN (pursuant to the Lot 1 contract), until the termination of its contract with the Home Office in 2019.¹⁵ In 2018, when the Home Office “reset” the ESMCP (this is further described in paragraph (54) below) the Home Office replaced the original 2015 duration model of an “initial term” plus multiple unilateral extension options with a fixed expiry date of 31 December 2024 and no extension options. Although no explanation was given for this decision at the time of the reset, it does remain unclear what the Home Office intends to do with the ESMCP beyond 2024.

- (28) Although EE and Motorola are the Home Office’s current main contractual partners until expiry of their ESN contracts in 2024, the Home Office has engaged a large number of third parties to carry out work on key aspects of the ESMCP (referred to by the Home Office as the “related projects”). For example, Vodafone was awarded a contract to link ESN to emergency service control rooms in 2016. Samsung Electronics was awarded a contract in 2017 for the supply of handsets for use on ESN.¹⁶ More recently, in 2019, Chelton¹⁷ was selected by the Home Office to provide air-to-ground communication capabilities with emergency service aircraft.¹⁸ In the absence of any formally appointed prime contractor from the private sector, the Home Office itself (being the only participant which has a delivery contract with every individual ESN supplier) is the prime contractor and the system integrator for the ESMCP. It also fulfils a central project management role, with overall responsibility for integrating and delivering the entire ESN system to its end users.¹⁹
- (29) To help the Group better understand the contractual makeup of the ESMCP, and the multifaceted nature of the Programme generally, Figure 2 below presents a framework of the different contracts which it is understood make up ESN (based on publicly available information and Motorola’s understanding). The Group should note that whilst this is the current status, the Home Office has subsequent to the procurement voiced dissatisfaction with the way in which the Home Office originally procured ESN and the resulting Lot structure.

Figure 2: ESN Contracts²⁰

#	Contract	Description	Contractor	Status	Details
1.	Programme advisory and delivery services	Programme advisory and delivery services and transformatio	Deloitte	Active	Awarded contract Awarded value £60,000,000 Awarded supplier Deloitte LLP

¹³National Audit Office, *Progress delivering the Emergency Services Network* (10 March 2019), at Summary, paragraph 3 and Figure 2 <<https://www.nao.org.uk/wp-content/uploads/2019/05/Progress-delivering-the-Emergency-Services-Network.pdf>>.

¹⁴ Committee of Public Accounts, *Emergency Services Network: further progress review* (17 July 2019) at paragraph 17 <<https://publications.parliament.uk/pa/cm201719/cmselect/cmpubacc/1755/175507.htm>>.

¹⁵ See Motorola’s submission dated 2 September 2021, Table 1: Delays in the Roll-Out of ESN.

¹⁶National Audit Office, *Progress delivering the Emergency Services Network* (10 March 2019), at Summary, paragraph 4 <<https://www.nao.org.uk/wp-content/uploads/2019/05/Progress-delivering-the-Emergency-Services-Network.pdf>>.

¹⁷ Cobham Aerospace Connectivity, now rebranded as Chelton.

¹⁸ According to information available on the UK Government’s Contracts Finder webpage <<https://www.contractsfinder.service.gov.uk/>>.

¹⁹National Audit Office, *Progress delivering the Emergency Services Network* (10 May 2019), at Figure 1 <<https://www.nao.org.uk/wp-content/uploads/2019/05/Progress-delivering-the-Emergency-Services-Network.pdf>>.

²⁰Based on Figures 1, 13 and 15 of National Audit Office, *Progress delivering the Emergency Services Network* (10 May 2019) <<https://www.nao.org.uk/wp-content/uploads/2019/05/Progress-delivering-the-Emergency-Services-Network.pdf>> and information available on the UK Government’s Contracts Finder webpage <<https://www.contractsfinder.service.gov.uk/>>.

#	Contract	Description	Contractor	Status	Details
		n consultancy services			21 August 2019 Awarded contract Awarded value £60,000,000 Awarded supplier Deloitte LLP 9 August 2019
2.	Mobile communication Services	Mobile phone network infrastructure including Air to Ground Network	EE	Active	Awarded contract Awarded value £675,600,000 Awarded supplier EE Ltd 8 December 2015 Amended contract Amended value £895,700,000 Awarded supplier EE LTD July 2019
3.	User services	Various software and systems to make ESN work as a service	Motorola	Active	Awarded contract Awarded value £294,000,000 Awarded supplier Motorola Solutions UK Ltd 8 December 2015 Amended contract Awarded value £401,000,000 Awarded supplier Motorola Solutions UK Ltd May 2019
4.	Delivery partner	Programme management	KBR ²¹	Terminated	Awarded contract Awarded value £49,700,000 Awarded supplier Kellogg Brown & Root Limited 26 October 2015
5.	Handheld devices	Ruggedised handsets with device-to-device and push-to-talk	Samsung	In renegotiation	Awarded contract Awarded value £0 Awarded supplier Samsung Electronics (UK) Limited

²¹As stated above, KBR is no longer active as the Delivery Partner for the Programme.

#	Contract	Description	Contractor	Status	Details
		capability for emergency services			21 November 2017
6.	Fixed vehicle devices	Equipment for use in emergency service vehicles	Handsfree Group	Active	Awarded contract Awarded value £70,000,000 Awarded supplier Handsfree Group Ltd 28 November 2019
7.	Vehicle installation	Procure and coordinate installation of equipment in emergency service vehicles	TBC	Motorola is not aware of the status of this	N/A
8.	Network resilience	Capability to maintain an acceptable level of service following disruption to the network such as power/equipment failure	TBC	Motorola is not aware of the status of this	N/A
9.	Extended area services	292 sites in areas not covered by the EE network need to be built and connected to EE's network	Various	Active	Awarded contract Awarded value £200,000,000 Awarded suppliers Lendlease Construction (Europe) Ltd Clarke Telekom Ltd Daly International (UK) Ltd Ericsson Limited Obelisk Communications Ltd 19 May 2016 Awarded contract (Scotland and Borders)

#	Contract	Description	Contractor	Status	Details
					<p>Awarded value £25,000,000 Awarded supplier Lendlease Construction (Europe) Ltd 23 September 2016</p> <p>Awarded contract (England and Wales) Awarded value £25,000,000 Awarded supplier Lendlease Construction (Europe) Ltd 23 September 2016</p>
10.	Air-to-Ground Network Design Assurance	ESN coverage for emergency service aircraft	Roke Manor Research	Active	<p>Awarded contract Awarded value £550,000 Awarded supplier ROKE MANOR RESEARCH LIMITED 28 June 2019</p>
11.	Aircraft communication system	Devices for emergency service aircraft	Chelton	Active (in delay)	<p>Awarded contract Awarded value £100,000,000 Awarded supplier Chelton Ltd 13 August 2019</p>
12.	London underground coverage	Provide ESN coverage across the London Underground network including tunnels and stations	Transport for London and subcontractors	Active	<p>Awarded contract Awarded value £23,500,000 Capita July 2020²²</p>
13.	ESN link	Network connection between control room	Vodafone	Motorola is not aware of the status of this	<p>Awarded contract Awarded value £15,200,000 Awarded supplier Vodafone Ltd</p>

²² Capita announces today that it has secured a contract with Transport for London (TfL) to design and deliver key elements of the network infrastructure that will underpin the upcoming Emergency Services Network (ESN) throughout the London Underground (22 July 2020) <<https://www.capita.com/news/capita-signs-network-infrastructure-contract-with-tfl>>

#	Contract	Description	Contractor	Status	Details
		equipment and ESN			16 September 2016
14.	Control room upgrades	Upgrading control room software to work with ESN	Various	Motorola is not aware of the status of this	<p>Awarded contract Awarded value £1,346,802 Awarded supplier Systel (Systemes et Telecommunications) SA 12 May 2020</p> <p>Awarded contract Awarded value £3,200,000 Awarded supplier Saab AB 20 December 2019</p> <p>Awarded contract Awarded value £6,400,000 Awarded supplier Frequentis AG 20 December 2019</p> <p>Awarded contract Awarded value £5,600,000 Awarded supplier Capita Secure Information Solutions Ltd 20 December 2019</p> <p>Awarded contract Awarded value £6,500,000 Awarded supplier APD Communications Limited 18 December 2019</p>
15.	Coverage assurance	Services to test ESN coverage	Telent	Active	<p>Awarded contract Awarded value £10,300,000 Awarded supplier Telent Technology Services Limited 17 September 2018</p>

#	Contract	Description	Contractor	Status	Details
16.	Programme support	Resource to support ESN	Internal staff and contractors	Motorola is not aware of the status of this	N/A

- (30) Motorola’s responsibilities under the ESMCP therefore represent only one element of the work that is necessary to deliver ESN overall, such delivery being dependent on the completion of work by other third parties that are outside of Motorola’s control.²³
- (31) While the roll-out of ESN has self-evidently been subject to significant delays across almost all components of the Programme, in that context Motorola alone would not be in a position to delay it. A detailed chronology of the events which gave rise to the ESN delays can be found in the Appendix to this Response. The following section of this Response further expands on the key reasons for these delays.

2.3 Why is the ESMCP delayed?

- (32) The CMA states in its MIR Decision that “*there have been increasing concerns about the delays to the roll-out of ESN*”. The CMA has further suggested, both in its Consultation and in its subsequent MIR Decision, that Motorola is incentivised to prolong such delays by virtue of its ownership of the Airwave network. This is categorically incorrect. Motorola’s conduct throughout ESN demonstrates the very opposite, and Motorola reiterates its position that even if it were incentivised to delay the introduction of ESN (a suggestion which Motorola strongly refutes), Motorola would not be in a position to delay the Programme. While this is self-evident from the chronology at the Appendix to this Response, the following sections explore in more depth the circumstances which have led to a delay in the roll-out of ESN and which would have resulted in further delay, but for Motorola’s involvement in the Programme (such involvement including the delivery of services which were beyond the scope of Motorola’s contractual obligations under the Programme, and which were provided by Motorola at risk and without commercial cover, as set out at paragraph (56) below).
- (33) It will be apparent from what follows that even if Motorola had an incentive to delay ESN, *it could not act* on any such incentive, and so this theory must not be permitted to be introduced as a pretext for adopting remedies to solve a problem that does not, in fact, exist.
- (34) The failure by the Home Office to launch ESN is well-documented in the public record. The ESMCP has been the subject of numerous reviews by the National Audit Office and the Public Accounts Committee. Indeed, as early as September 2016, the National Audit Office highlighted that the timeline for ESN would be “*difficult to achieve*”²⁴ and concluded that the Home Office and other sponsor bodies were underrating the seriousness of the risks associated with the delivery of ESN.²⁵

²³ See Home Office letter to Public Accounts Committee (30 July 2021) for a recent status report <<https://committees.parliament.uk/publications/7265/documents/76221/default/>>.

²⁴National Audit Office, *Upgrading emergency service communications: the Emergency Services Network*, HC 627 (15 September 2016), at paragraph 2.22 <<https://www.nao.org.uk/wp-content/uploads/2016/09/Upgrading-emergency-service-communications-the-Emergency-services-Network.pdf>>.

²⁵National Audit Office, *Upgrading emergency service communications: the Emergency Services Network*, HC 627 (15 September 2016), at Summary, paragraph 18 <<https://www.nao.org.uk/wp-content/uploads/2016/09/Upgrading-emergency-service-communications-the-Emergency-services-Network.pdf>>.

- (35) More recently, the Public Accounts Committee identified ESN as being among the Home Office's biggest risks.²⁶ However, in the course of the inquiry, observations by the Public Accounts Committee make clear that failures by the Home Office with respect to ESN are not unique. To the contrary, these failures are indicative of much broader, systematic issues at the Home Office with respect to the delivery of large-scale technology projects. See, for example, comments put to Matthew Rycroft, Permanent Secretary of the Home Office (2020 – Present), by the Public Accounts Committee:
- *"I want to come onto the sad litany of failures in your Department Mr Rycroft. We have seen problems with the emergency services network and e-Borders. **Those big, technical projects done at scale seem to be a problem for your Department.**"* (emphasis added).²⁷
 - *"There does seem to be a common theme, which I think the Chair referred to at the start of the session, with the Home Office and big technology projects not being delivered on time, to scale or, very often, to budget."*²⁸
 - *"Why are we seeing, repeatedly, problems with the technical aspects of these programmes? What is the challenge in the Home Office?"*²⁹
- (36) In March 2020, the Home Office's entire major projects portfolio was rated 'red', meaning it was impossible for it to deliver all of its programmes on time and to budget.³⁰ Matthew Rycroft, an experienced civil servant and current Permanent Secretary at the Home Office, commented that upon joining the Home Office, "[o]ne of the first things that I did was look at our portfolio. At that time, it was rated red, which I was extremely surprised by. **I had never been in a Department that had a red portfolio** – red means that it is impossible for every programme to be delivered on time and on budget – and that was a real wake up call." (emphasis added)
- (37) Matthew Rycroft subsequently identified three major problems which impede the Home Office's delivery of major technology projects (including ESN): deliverability, scope and governance.³¹ In response, the Public Accounts Committee commented: "[s]urely this is the basis of what Government should be getting right, whichever the Department and whatever the subject – working out what it wants to do, making sure the governance is well managed, and then delivering it and making sure it is a deliverable programme."³² This assessment was not disputed by Matthew Rycroft.

²⁶Public Accounts Committee, *Digital Services at the Border* (12 March 2021), at Conclusions and Recommendations, paragraph 1 <<https://committees.parliament.uk/publications/5024/documents/50077/default/>>.

²⁷Public Accounts Committee, *Oral evidence: Digital Services at the Border, HC 936* (1 February 2021), at Q43 <<https://committees.parliament.uk/oralevidence/1607/default/>>.

²⁸Public Accounts Committee, *Oral evidence: Digital Services at the Border, HC 936* (1 February 2021), at Q47 <<https://committees.parliament.uk/oralevidence/1607/default/>>

²⁹Public Accounts Committee, *Oral evidence: Digital Services at the Border, HC 936* (1 February 2021), at Q48 <<https://committees.parliament.uk/oralevidence/1607/default/>>

³⁰Public Accounts Committee, *Oral evidence: Digital Services at the Border, HC 936* (1 February 2021), at Q66 <<https://committees.parliament.uk/oralevidence/1607/default/>>

³¹Public Accounts Committee, *Oral evidence: Digital Services at the Border, HC 936* (1 February 2021), at Q37 <<https://committees.parliament.uk/oralevidence/1607/default/>> ; see also Public Accounts Committee, *Digital Services at the Border* (12 March 2021), at Part 1, paragraph 6 <<https://committees.parliament.uk/publications/5024/documents/50077/default/>>

³²Public Accounts Committee, *Oral evidence: Digital Services at the Border, HC 936* (1 February 2021), at Q49 <<https://committees.parliament.uk/oralevidence/1607/default/>>

- (38) The following sections of this Response explore each of the key issues identified by Matthew Rycroft above with reference to the ESMCP, which show the central role of the Home Office in the delay of the Programme. Moreover, it will be apparent that it is simply implausible to suppose that if Motorola had not owned Airwave, it could have sped up the delivery of ESN. Such a theory is simply absurd, yet is offered by the CMA as a benefit that could have ensued if Motorola had not participated in the ESMCP and Airwave (at paragraph 1.65 of the MIR Decision).

2.3.2 Deliverability

- (39) It was clear from the outset of the procurement process that the ESMCP was an extremely complex and high-risk programme to deliver within the Home Office's prescribed timetable.³³
- (40) The National Audit Office and the Public Accounts Committee both highlight that ESN will be one of only two systems in the world where emergency services will share a network with the public. In particular, it is observed that "[t]he other, South Korea has considerably higher 4G coverage today [circa September 2016] than the EE Ltd. (EE) network on which ESN will rely" and thus, "starts from a considerably higher base since it has 97% national 4G mobile data coverage." By contrast, by the end of September 2016, EE had reached only 70% coverage³⁴. The model proposed in South Korea can be further distinguished from ESN on the basis that part of the South Korean network would be reserved for use by the emergency services, as opposed to being shared directly with the public, meaning the proposal is "less risky" than ESN. This is contrasted with the position in other countries, which are said to be pursuing alternative solutions either fully or partly based on older TETRA technology and dedicated networks.³⁵ As such, the technology required for the roll-out of ESN is not only unique and innovative, but also unprecedented, untested, and unproven.
- (41) Indeed, the Programme was initially designated a 'black' risk rating by the Home Office³⁶ (the highest possible risk rating), indicating, well in advance of Motorola's involvement in the project, that the ESMCP was highly likely to be susceptible to delay. Prior to the award of contracts, this meant that the Programme was subject to enhanced internal oversight within the Home Office, in the form of an accounting officer and investment committee review. The ESMCP risk level was later downgraded to 'amber' in December 2015, meaning that pre-existing concerns about the Programme were no longer escalated to the Home Office management board by June 2016. Although these downgrades were purportedly based on the Programme completing procurement of the main contracts, as well as technical and commercial benefits resulting from Motorola's purchase of Airwave, the National Audit Office was critical of the Home Office's approach, as this coincided with the project's entry into the critical design, build and test phase.³⁷ The National Audit Office gave a stark warning to the

³³See, for example, Public Accounts Committee, Oral Evidence: Emergency Services Communications, HC 770 (16 November 2016), at Q223 <<https://publications.parliament.uk/pa/cm201617/cmselect/cmpubacc/770/770.pdf>>.

³⁴Fierce Wireless, *EE reaches 70% geographic coverage with 4G network* (28 October 2016) <<https://www.fiercewireless.com/europe/ee-reaches-70-geographic-coverage-4g-network>>.

³⁵Public Accounts Committee, *Upgrading emergency service communications* (25 January 2017) <<https://publications.parliament.uk/pa/cm201617/cmselect/cmpubacc/770/770.pdf>>; National Audit Office, *Upgrading emergency service communication: the Emergency Services Network* (15 September 2016) at Part 2, paragraph 2.2 <<https://www.nao.org.uk/wp-content/uploads/2016/09/Upgrading-emergency-service-communications-the-Emergency-services-Network.pdf>>.

³⁶National Audit Office, *Upgrading emergency service communications: the Emergency Services Network* (15 September 2016), at paragraph 3.18 <<https://www.nao.org.uk/wp-content/uploads/2016/09/Upgrading-emergency-service-communications-the-Emergency-services-Network.pdf>>.

³⁷National Audit Office, *Upgrading emergency service communications: the Emergency Services Network*, HC 627 (15 September 2016), at paragraph 3.18 <<https://www.nao.org.uk/wp-content/uploads/2016/09/Upgrading-emergency-service-communications-the-Emergency-services-Network.pdf>>.

Home Office in this regard: “[D]espite the programme’s mitigations, ESN remains an inherently high-risk programme that will require the highest levels of senior oversight throughout its lifetime”,³⁸ yet the Home Office had, at this point, withdrawn the supervision of its management board.

(42) In fact, there was already a two-month delay before the main contracts were even awarded as part of the procurement process. The Home Office’s full business case, issued in August 2015, anticipated that the main contracts would be awarded in October 2015, yet the Lot 2 and 3 contracts (awarded to Motorola and EE respectively) were not signed until December 2015. The record shows that, even as late as August 2019, key contracts relating to ESN were still to be awarded.³⁹ Inexplicably, rather than pushing back the milestones for delivery of ESN accordingly, the Home Office brought forward the end-date for the Programme by three months, from March 2020 to December 2019. The National Audit Office noted that this had “*significantly shortened the time available for transition*” from 30 months to 27 months,⁴⁰ thus increasing the risk of delay within the parameters of the revised timetable.

(43) While the Home Office states in its consultation response that “*it was expected that the Airwave network would shut down (following customer transition to ESN) in 2019*”⁴¹ (which comments are echoed by the CMA in its MIR Decision), the Group should treat this position as lacking any credibility. As a matter of fact, the Home Office appears to have had no such expectation. The Home Office’s statement, made for the purposes of the Consultation, is directly contrary to statements of the Home Office which appear elsewhere on the public record. The Home Office has on multiple occasions acknowledged that the timetable for the delivery of ESN was too ambitious and over-optimistic. For example:

- **“Sir Mark Sedwill⁴²: [...] I was always uneasy about the level of ambition and the pace of the ESN programme. I sought, as well as the formal scrutiny – the gateways, the Major Projects Authority and so on – a whole load of informal challenge sessions, because I just wanted to test it.”** (emphasis added).⁴³
- **“Chair: But your predecessor was in front of us not that many weeks ago, and he told this Committee that the ESN programme’s timetables were too optimistic. Do you agree?”**

Sir Philip Rutnam⁴⁴: With hindsight, yes, certainly” (emphasis added).⁴⁵

³⁸National Audit Office, *Upgrading emergency service communications: the Emergency Services Network*, HC 627 (15 September 2016), at paragraph 3.18 <<https://www.nao.org.uk/wp-content/uploads/2016/09/Upgrading-emergency-service-communications-the-Emergency-services-Network.pdf>>.

³⁹Cobham’s £64 million contract with the Home Office to provide ESN with air-to-ground communication services was not awarded until mid-August 2019.

⁴⁰Report by the Comptroller and Auditor General, *Upgrading emergency service communications: the Emergency Services Network*, HC 627 (15 September 2016), at paragraph 2.17 and Figure 11 <<https://www.nao.org.uk/wp-content/uploads/2016/09/Upgrading-emergency-service-communications-the-Emergency-services-Network.pdf>>.

⁴¹Home Office, *CMA Consultation Response relating to Motorola’s relationship with Airwave and The Emergency Services Network programme* (25 October 2021) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1027806/Home_Office.pdf>.

⁴² Cabinet Secretary and Head of the UK Civil Service.

⁴³Public Accounts Committee, *Oral evidence: Cyber Security in the UK*, HC 1745 (1 April 2019), at Q62 <<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/public-accounts-committee/cyber-security-in-the-uk/oral/98951.pdf>>.

⁴⁴ Permanent Secretary, Home Office

⁴⁵Public Accounts Committee, *Oral evidence: Emergency Services Network: Progress Review*, HC 1755 (22 May 2019), at Q42 <<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/public-accounts-committee/emergency-services-network-further-progress-review/oral/102447.html>>.

- *“Chair: Mr Webb, were you too optimistic? Did you narrow your perspective?”*

Stephen Webb⁴⁶: ***Undoubtedly**, when you look back on it, we made some – I think we consciously always said that **it was an ambitious timescale**. We thought that if you needed more time, you would be able to buy it, because would be able to extend the contracts” (emphasis added).*⁴⁷

- *“Shabana Mahmood: I was rather asking whether the Home Office was too optimistic on that timescale, and should have challenged EE more.*

Stephen Webb: *Could they have done it to their original timescales? I think they probably could have done more of their masts to the original timescale. I think they probably have struggled to do all the Glasgow, Tyne and Wear metro and so on. With some of those, they and **we were probably being over-optimistic** that they could complete them on time” (emphasis added).*⁴⁸

(44) The Home Office’s implementation of a timetable which was both unrealistic and unattainable, in the context of an already delayed project, meant that further delay was almost inevitable. However, evidence in the public record indicates that there was initially a sense of complacency within the Home Office when faced with the very real prospect of delay. For instance:

- Stephen Webb, Senior Responsible Owner of the Programme at the Home Office, is on the record as stating: *“**We always said**, as we did when we were here last, **that if we needed further extensions beyond national shutdown we would take as much as law enforcement and the emergency services needed** before they were comfortable about being ready to turn [Airwave] off. We knew what price they would take. We had a price by month, by region – **we knew how much that would cost**. I fully anticipate that we will take up some of that. I cannot yet say just how much, but there will need to be some, just to give law enforcement the transition.”* (emphasis added).⁴⁹
- Indeed, Stephen Webb had previously given oral evidence before the Public Accounts Committee in November 2016 which made clear that the extension of Airwave was perceived to be a ready contingency by the Home Office: *“We are currently working on some potential revised plans for the timescale, but overall I am very confident that we will get it in very close to the timescale that we previously agreed at the final business case. **There will be a little slippage, I accept that**. We accept the NAO Report’s finding—this was an ambitious timescale—**but our argument has always been that it is best to go for an ambitious timescale because we have that contingency to allow us to buy as much extension as we need**. We are going as fast as we can. If it slips, we know how much it will cost, but we want to minimise that as*

⁴⁶ Senior Responsible Owner, Emergency Services Network, Home Office.

⁴⁷Public Accounts Committee, *Oral evidence: Emergency Services Network: Progress Review, HC 1755* (22 May 2019), at Q46, <<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/public-accounts-committee/emergency-services-network-further-progress-review/oral/102447.html>>.

⁴⁸Public Accounts Committee, *Oral evidence: Emergency Services Network: Progress Review, HC 1755* (22 May 2019), at Q126 <<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/public-accounts-committee/emergency-services-network-further-progress-review/oral/102447.html>>.

⁴⁹Public Accounts Committee, *Oral evidence: Upgrading Emergency Services Communications* (1 February 2017), at Q11 <<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/public-accounts-committee/upgrading-emergency-services-communications-recall/oral/46529.html>>.

much as possible—partly for the savings, but largely because of the enormous operational benefits that this system promises.” (emphasis added).⁵⁰

- Sir Mark Sedwill, Permanent Secretary at the Home Office (2013 – 2017), further noted that: “[...] **the risk register for the programme always had within it the possibility of having to extend what we know is ageing equipment—this is an old system now—and having to put the Airwave system into care and maintenance as we go. This is essentially crystallising that risk. It is a risk that the programme has had within its compass for some time** [...]” (emphasis added).⁵¹

- Indeed, Sir Mark Sedwill had previously stated in November 2016 that an extension of Airwave posed only “*a financial risk rather than an operational one. If the roll-out timetable were to slip to the right, **we would run Airwave for longer** and we would be in parallel for longer.”* (emphasis added).⁵²

(45) This is further attested to by letters sent by the Public Accounts Committee in the course of its initial inquiries:

- “*This Committee first raised concerns in November 2016 about the technical, commercial and stakeholder risks involved in delivering ESN. At that time your department did not seem overly concerned about these risks since **you believed a ready contingency was in place: the current service, Airwave, could simply continue until ESN was ready.***” (emphasis added).⁵³
- “*It is clear from the start [of the Programme], **the Department was complacent** about the risks involved in the programme.”* (emphasis added).⁵⁴

(46) The record clearly shows that the Home Office had, from the outset, treated the extension of Airwave as a ready contingency, and had entered into binding contractual arrangements to lock down that contingency. Yet there was no detailed plan for how such a contingency would be triggered, how it would operate, and the Home Office had failed to communicate to Motorola critical information, such as whether and for how long it expected to require Airwave extensions and in which regions. Nor had the Home Office budgeted for this contingency, despite relying on it, as it did not know its budgetary settlement beyond 2020.⁵⁵

(47) The CMA further suggests in its MIR Decision that the ability of Motorola to “*shape or otherwise delay the design and roll-out of ESN*” hampered the emergence of “*significantly*

⁵⁰ Public Accounts Committee, *Oral evidence: Emergency Services Communications* (16 November 2016), at Q74 <<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/public-accounts-committee/emergency-services-communications/oral/43448.pdf>>.

⁵¹ Public Accounts Committee, *Oral evidence: Upgrading Emergency Services Communications* (1 February 2017), at Q15 <<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/public-accounts-committee/upgrading-emergency-services-communications-recall/oral/46529.html>>.

⁵² Public Accounts Committee, *Oral evidence: Emergency Services Communications, HC 770* (16 November 2016), at Q83 <<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/public-accounts-committee/emergency-services-communications/oral/43448.pdf>>.

⁵³ Public Accounts Committee, Letter from Meg Hillier MP to Sir Philip Rutnam (17 November 2017) <<https://old.parliament.uk/documents/commons-committees/public-accounts/Correspondence/2017-19/letter-ho-esn-271117.pdf>>.

⁵⁴ Public Accounts Committee, Letter from Meg Hillier MP to Sir Phillip Rutnam (14 March 2018) <<https://www.parliament.uk/globalassets/documents/commons-committees/public-accounts/Correspondence/2017-19/letter-chair-ho-esn-140318.pdf>>.

⁵⁵ Public Accounts Committee, *Upgrading emergency service communication* (25 January 2017), at Part 1, paragraphs 7 – 9 <<https://publications.parliament.uk/pa/cm201617/cmselect/cmpubacc/770/770.pdf>>.

different competitive dynamics envisaged by the Home Office when it procured the design and roll-out of ESN” (see paragraph 2.21(c)(i) of the MIR Decision). This fundamentally mischaracterises the nature of Motorola’s role in the development and roll-out of ESN. Motorola was never in a position to delay the delivery of ESN, nor is it in a position to shape the design and roll-out of the Programme as a whole – this responsibility lays with the Home Office⁵⁶.

- (48) In any event, it is also clear that the “*significantly different competitive dynamics*” purportedly envisaged by the Home Office at the time of procurement could not have been hampered by Motorola’s participation in the ESMCP to date, as explained in this Response.

2.3.3 Scope

- (49) Motorola’s Lot 2 ESMCP contract has evolved significantly from its inception in December 2015. Leaving aside the major structural and scope changes that the 2018 / 2019 “ESMCP Reset” brought about, [REDACTED]. Some examples of user driven changes both before and following the ESMCP Reset are as set out below.

- (50) Prior to the original reset which culminated in the enactment CR110 a number of material scope changes (amongst others) that have been included:

- (a) [REDACTED]
- (b) [REDACTED]
- (c) [REDACTED]
- (d) [REDACTED]
- (e) [REDACTED]
- (f) [REDACTED]
- (g) [REDACTED]
- (h) [REDACTED]

- (51) Following the agreement to move away from the original Motorola WAVE 7000 PTT solution to the Motorola Kodiak PTT we have agreed to provide the following additional functionality over above that agreed as part of the product roadmap [REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

⁵⁶ Whilst the Home Office might seek the views of key suppliers through requests for information, the shaping of ESN is the responsibility of the Home Office.

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(52) In parallel to the CAN500 discussions a new target BSS Uplift Solution consisting of three core sub-systems. This was agreed in December 2018. Those core sub-systems are as follows:

- (a) Self-Service Interface (SSI) subsystem;
- (b) Request Fulfilment (RF) subsystem;
- (c) Billing subsystem.

(53) [✂].

(54) As regards the scope of the Programme, the Home Office announced in September 2018 that it would “reset” the ESMCP and change its originally conceived mobilisation model from a “Big Bang” approach (where all of the Programme’s components and technologies would need to be built, tested and accepted before transition commenced) to one of incremental delivery via the incorporation of various “ESN Products” which introduced increasing levels of

functionality and features culminating in the fully deployable “ESN Prime” product. This involved making significant changes throughout the Programme, including a renegotiation of contracts with EE and Motorola, and delaying the point at which ESN would replace Airwave by a further three years to December 2022, with the option to extend further. It also included the introduction of Motorola’s Mission Critical Push to Talk software product known as Kodiak. As a general matter, the National Audit Office observed that the contractual changes were “*wide-ranging, covering changes to existing schedules, financial conditions, project responsibilities, service agreements and governance arrangements*”,⁵⁷ and thus materially altered the scope of the contractual arrangements between the Home Office and its respective counterparties.

- (55) Temporary working arrangements were also agreed under Heads of Terms in September 2018 with both EE and Motorola to allow work on the Programme to continue during the renegotiations of those supplier’s ESMCP contracts. Although the contract renegotiations were due to be agreed by December 2018, these too were delayed in their conclusion until May 2019 (in respect of Motorola’s renegotiated contract) and July 2019 (for EE’s), and this affected the progress of the Programme reset.⁵⁸
- (56) Notwithstanding the multitude of changes that were made in respect of the scope of the Programme overall, including those changes which affected Motorola’s obligations under the Lot 2 contract specifically, Motorola remained committed to fulfilling the Programme’s requirements. This was true even in instances where it was necessary for Motorola to input significant amounts of additional cost, time, and effort in order to achieve compliance with the Home Office’s evolving requirements, and in instances where such compliance required Motorola to undertake work without commercial cover. Examples of the Home Office’s changing requirements, Motorola’s work beyond the scope of its contractual obligations and where it undertook work without commercial cover are set out below by way of illustration:
- (a) CR110 represented the first reset to the ESN programme. [REDACTED].
- (b) Prior to CAN500 (Change Authorisation Note 500 in relation to the Lot 2 Agreement which reset the ESN programme) Motorola’s planning activities and those of other suppliers took place in isolation. Through the course of negotiations of the CAN500 reset of the commercial aspects, Motorola suggested and facilitated workshops for suppliers and led the development of an integrated programme plan to increase alignment and understand mutual dependencies whilst continuing to deliver on Motorola’s own contractual obligations under Lot 2.
- (c) As part of the CAN500 reset it became clear that [REDACTED] the Home Office to be a fast follower rather than a trail blazer or as he put it in the “kick off meeting” for the 2018 ESN Reset process to “*tuck in to the middle of the peloton*” with regard to the PTT application and rather than continue with Motorola’s WAVE 7000 product wanted to deploy Kodiak as a commercial off the shelf product. Following an extensive period of due diligence carried out by the Home Office and supported by Motorola’s experts

⁵⁷National Audit Office, *Progress delivering the Emergency Services Network* (10 May 2019), at paragraph 3.5 <<https://www.nao.org.uk/wp-content/uploads/2019/05/Progress-delivering-the-Emergency-Services-Network.pdf>>.

⁵⁸National Audit Office, *Progress delivering the Emergency Services Network* (10 May 2019) paragraph 3.5 <<https://www.nao.org.uk/wp-content/uploads/2019/05/Progress-delivering-the-Emergency-Services-Network.pdf>>.

the Lot 2 contract was amended in September 2018 effectively setting out a timetable for Motorola to start delivering on Kodiak.⁵⁹

(d) Over the past year, despite the parties believing that clarity on user requirements had been resolved in the ESMCP reset [REDACTED]⁶⁰ Motorola has had to agree access into all its testing reference environments, has tripled testing from that envisaged by CAN500 and the breadth of testing has been expanded significantly. This has all be done by Motorola free of charge, not on a quid pro quo basis, in order to maintain the programme. Motorola has also taken on costs which the Home Office has offered to pay, [REDACTED].

(57) Motorola’s costs in the mobilisation phase of the ESMCP have been much higher than anticipated due [REDACTED]. In addition, Motorola [REDACTED]. As a business, Motorola offers public safety solutions. It develops its products and solutions with, at its core, a deep understanding of the practical needs of frontline users developed over the best part of 100 years of service to these communities all over the world. Therefore, as part of its work and due to the importance of preserving its reputation, Motorola has gone above and beyond its contractual requirements and without commercial cover in order to deliver what the UK’s emergency services need. Motorola has been [REDACTED].

2.3.4 Governance

(58) In conjunction with the Home Office’s [REDACTED] failures with respect to the deliverability and the changing scope of the Programme, there have been significant shortcomings with respect to governance. The National Audit Office observed that “[a] complex programme such as ESN needs effective oversight and governance to ensure progress is made and risks managed” and “[t]he Home Office has identified that it needs to improve the programme’s governance and has been addressing this in parallel with revising the programme’s business case, negotiating new contracts with suppliers and launching the first ESN products.”⁶¹

(59) Similarly, as early as September 2016, the National Audit Office identified the need for improved management and governance of the Programme if it is to deliver ESN successfully. For example:

- *“The programme’s approach to technical assurance and testing needs to be better. **The programme board lacks independent telecommunications expertise and the Group the programme set up to provide such assurance has not systematically analysed the risks.** Furthermore, the programme’s testing plans are currently high level and there are differences of opinion between programme officials and suppliers on the scope of, and roles and responsibilities for, testing. **In a programme this***

⁵⁹ As the CMA should be aware from Motorola’s previous submissions, as part of the 2018 contract extension, there was a transition from the bespoke WAVE 7000 platform to the standards-based ‘off-the-shelf’ Kodiak offering. At the time the Home Office noted that “the change from Wave 7000 to the already working Kodiak product de-risks delivery and enables the programme to move to a standardised solution faster. The incremental approach enables user benefit to be achieved earlier than under a big bang rollout”. Prior to the ESN Heads of Terms being signed in September 2018, the Home Office conducted extensive due diligence over a period of months, including a trip to the United States in order to learn more and see the product in action. The Home Office reviewed the PSCS requirements in Lot 2 and mapped that to Kodiak functionality. The conclusion of that exercise was that the Home Office was able to get comfortable that the release schedule for Kodiak satisfied the requirements.

⁶⁰ [REDACTED]

⁶¹ National Audit Office, Progress delivering the Emergency Services Network (10 May 2019) paragraph 2.4 <<https://www.nao.org.uk/wp-content/uploads/2019/05/Progress-delivering-the-Emergency-Services-Network.pdf>>.

complex some assurance that is independent of suppliers, the programme and the emergency services would be beneficial.

- **“User engagement could be better, particularly with police and non-emergency service users of Airwave. Emergency services representatives agreed that engagement over requirements had been good but perceptions were more mixed since then. Some emergency services representatives were unsure of the benefits of ESN to them, possibly because Airwave is currently largely paid for centrally. Some emergency services representatives also told us how programme officials do not always listen to challenges that they raise.**
- **“The circumstances in which the Airwave contract will be extended need to be more clearly set out. The programme has a clear contingency, to extend Airwave, and has agreed a cost for doing so. However, there is limited detail on how and when this contingency will be invoked and for how long. As a consequence, we found that there was not a shared understanding between programme officials, emergency services representatives and other stakeholders about contingency plans and how any delay will be funded”** (emphasis added).⁶²

2.4 Third party delays

(60) The CMA accepts (at paragraph 1.40 of the MIR Decision) that delays to the Programme have arisen for a range of reasons: “By 2017, the Home Office was publicly reporting delays of nine months in delivering ESN and commissioned an independent review, which found that the transition from the Airwave network to ESN was not likely to happen on time **for a variety of reasons** and that the ESN programme needed to be reset.” (emphasis added). The independent review cited by the CMA highlighted at least five principal causes of delay:⁶³

- The failure of KBR to provide planning and collaboration between the other contractors after its role in the Programme was downgraded.
- EE and Motorola had solutions based on different versions of the technical standards.
- Disagreement on the accountability for systems integration and technical design between the Home Office and Motorola (the review having found that the Home Office and Motorola had not agreed the “true scope” of Motorola’s role in integrating ESN systems “end-to-end”).
- Challenges in locking down the specification for software and user services, such as the Home Office failing to implement an effective process for signing off software developed by Motorola in a timely manner.
- Late delivery of the “related projects” (e.g. those which were awarded to parties other than Motorola, EE and KBR), which the Home Office kept separate from the main contracts and controlled itself. These included contracts for the handsets and vehicle

⁶²National Audit Office, *Upgrading emergency service communications: the Emergency Services Network*, HC 627 (15 September 2016), at Summary, paragraph 16 <<https://www.nao.org.uk/wp-content/uploads/2016/09/Upgrading-emergency-service-communications-the-Emergency-services-Network.pdf>>.

⁶³National Audit Office, *Progress delivering the Emergency Services Network* (10 May 2019) paragraph 1.13 <<https://www.nao.org.uk/wp-content/uploads/2019/05/Progress-delivering-the-Emergency-Services-Network.pdf>>.

equipment that the emergency services will use, providing ESN on the London Underground and an air-to-ground service for helicopters and aeroplanes.

- (61) More recently, in its July 2021 Report, the National Audit Office noted the following significant technical challenges and principal causes of delay resulting from third-party involvement in the delivery of the ESCMP:⁶⁴
- Working with the network provider to increase the coverage and resilience of its 4G network (**not Motorola's responsibility**).
 - Developing new handheld and vehicle-mounted devices as no current devices were compatible with the Emergency Services Network (**not Motorola's responsibility**).
 - Successfully integrating all the components (**not Motorola's responsibility**).
 - Meeting the needs of the emergency services in situations such as in the air or underground (**not Motorola's responsibility**).
- (62) Motorola remains at the Group's disposal to assist in relation to any of the above themes. The following sections focus on those themes most directly relevant to Motorola.

2.5 The "Lot 2" schedule

- (63) In the instructions for bidders and following award of the contracts in the period leading up to the execution of the Lot 2 and Lot 3 contracts in December 2015 (i.e., the latter stages of the original ESMCP procurement) the Home Office prevented Motorola from discussing its technical design assumptions with EE. Although the prohibition on discussing technical design assumptions was a common instruction given by the Home Office to all Lot 2 and 3 bidders, Motorola and EE wished to have those discussions to ensure that each would commence the extremely aggressive mobilisation phase of the Programme with a full understanding of each other's technical architectures and to address any misalignments in advance of that commencement. This extraordinary decision meant that each of Motorola and EE were effectively required to enter into contracts and commence the technical design process without any clarity on those technical interface issues. The fact that Motorola and EE were not allowed to speak and the fact that the Home Office knew about such a misalignment but did not mention this to either Motorola or EE effectively resulted in conflicting architectures, conflicting test system set-up (Motorola had a reference test system design which did not align with EE's and therefore required re-design) and conflicting test methodologies.
- (64) To draw an analogy with the rail industry, this extraordinary situation is akin to a purchaser commissioning rail infrastructure, asking different suppliers to build the rolling stock and the track, not allowing each to align on the designs and then presiding over delivery of rolling stock that doesn't fit on the tracks. When Motorola raised this in January 2016 after the issue became clear in design workshops, the Home Office sought to claim that Motorola should have known about this, although how Motorola should have known about this in light of the rules of the procurement is unclear. In order to try to advance matters, Motorola met with EE to figure out what could be done with EE as the two proposals (that of Motorola and EE) missed each other significantly. At this point the Home Office started to intervene to amend the plans and demand additional things that Motorola has to do along the way. These changes, which included the lengthening of the plan, were enforced by the Home Office

⁶⁴ National Audit Office, *The challenges in implementing the digital change* (21 July 2021) Figure 7 <<https://www.nao.org.uk/wp-content/uploads/2021/07/The-challenges-in-implementing-digital-change.pdf>>.

(and/or representatives of the Home Office) without correct use of the contractual change of control procedure. Motorola is not responsible for any of this - the Home Office decided to require its suppliers to enter into a very aggressive 17-month mobilisation phase and then attempted to blame Motorola for that misalignment and required it to change its technical architecture. This conduct by the Home Office led to a very significant delay situation before the project had even commenced as the first 12 months were spent working out what to do about the misalignment.

- (65) Oral evidence was given to the Public Accounts Committee on 22 May 2019 on this point, where the Home Office accepted that they had not realised the possible impact of this:

“Q47 Chair: Were you not aware that you had two major suppliers working on different technical criteria?”

Stephen Webb: I don’t think that we had realised how major an impact that was going to have.

Q48 Chair: Just to be clear, does that mean that you knew about it, but that you did not think that it was as big a problem as it really was?

Stephen Webb: Yes. We knew that Motorola had used release 10 and EE was assuming release 12. (emphasis added)

Q49 Chair: Even in my simple world, where I use things like Windows, if I used a different technical system from my children, from Mr Rowley or from Sir Geoffrey, we would not be able to communicate with each other. We would find it quite challenging—people would get wrong versions of documents, and things like that. I would find that quite hard. For a major project like this—UK-wide, first in the world, using new technology—when you knew that they were working with different technological criteria, did it not ring a bigger alarm bell?

Stephen Webb: Until we actually saw it live in testing, it was not clear how big the problem was. I completely accept that.

Q50 Chair: Ms Davinson, from your perspective as a digital officer, should it have rung bigger alarm bells?

Joanna Davinson⁶⁵: Probably, with hindsight, yes. (emphasis added)

Q51 Chair: Mr Webb, the review of the programme board that was undertaken for you by Costain raised some findings about the board’s oversight of your team, your reporting to the board and so on. You commissioned that report. Did it reassure you? Did it tell you what you knew already?

Stephen Webb: I was concerned about whether the programme board was working as effectively as I wanted it to, which is why I commissioned the report—absolutely.

⁶⁵ Chief Digital, Data and Technology Officer, Home Office.

Q52 Chair: *Did you need to commission a report to tell you some of those things? It was not a terribly surprising thing to those of us who are familiar with it from our independent perspective.*

Stephen Webb: *No, but it was useful to have that independent perspective and to see how these programme boards are working in various areas.*

Q53 Chair: *The key word there is independent. Is there an issue in the Home Office, in terms of governance, such that you felt you could not raise these concerns elsewhere or to a more senior level without the backing of an independent report? Some of this, to put it quite crudely, is the bleedingly obvious in terms of what was happening. It would have been obvious, certainly in your position, I would have thought.*

Stephen Webb: *Having somebody who had the capacity and experience and was able to talk to a number of us was generally useful. We had had a number of discussions within the Home Office with colleagues about whether this was working in quite the way I wanted, but I thought it was a useful thing to ask somebody to do. It came up with helpful recommendations that we have acted on.*

...

Q56 Lee Rowley: *On that point, is it not the case that at least one of your suppliers was telling you that you had a discrepancy in technical standards, many months before you confirmed as a programme that that was the case? I recall reading one of those documents where it said that.*

Stephen Webb: *I think so. We knew early on that there was a distinction between the release 10 and the release 12. What we didn't understand was how fundamental that was going to be in making the system work over a commercial, as opposed to a private, 4G network, and just how many problems it would cause later.*

Q57 Lee Rowley: *What did you do to try to align those two discrepancies between 10 and 12 at the time?*

Stephen Webb: *In a sense, that was the work that CR110 was designed to do. It was designed to bake that in, but it turns out that the codes continue to perform and the way the priority and pre-emption in particular was working was causing a lot of problems in testing. That was not the only issue; there were a number of quality and other issues with the main supplier's software that were also becoming increasingly clear in testing.*

Q58 Lee Rowley: *Forgive me for pushing it. I obviously don't know the context in which this was raised, but when one of your suppliers says, "I'm doing this," and one of your suppliers says, "I'm doing that," that would have been articulated in some environment—a committee, a governance, a paper, or whatever—and there would have been a problem identified. What happened in terms of problem x position, analysis, options, conclusion, tracking, output? You can't just say that this got broader and broader. Either it was dealt with or it was not. I don't understand the difference.*

Stephen Webb: I think one of the lessons was that, as we did the procurement, we probably didn't allow the suppliers to spend enough time talking to each other about their respective bids. There are certain rules about keeping the various bids separately. But that probably had some problems, because it meant it wasn't really until the two suppliers both turned up that we immediately realised how big a mismatch there was in those particular assumptions. Did we track and escalate that adequately at the time? Clearly, during the course of 2016 and early 2017 we had some problems with that, I accept. (emphasis added)

Q59 Lee Rowley: *Why did you not co-locate suppliers or teams within the suppliers, so that they could talk to each other?*

Stephen Webb: *On reflection, we probably should have done that. We thought through the planning. We thought the arrangements that we had to work with the suppliers would be good enough. On reflection, that does not appear to have been the case.”⁶⁶*

- (66) As a result of the discrepancy between technical standards and the misalignment, the Home Office forced Motorola to change its design to match that of EE, which caused delays. In addition, although the issue was entirely the fault of the Home Office for refusing to allow the parties to meet to discuss and even though the Home Office knew that Motorola and EE were working on different releases, the cost of the rework was borne by Motorola without commercial cover and therefore at Motorola's own risk in order to keep the programme going until resolved as part of the CR110 reset.
- (67) In addition to the delays that were caused by the fact that the solutions prepared by Motorola and EE were based on different technical standards, delays also occurred as a result of lack of clarity as to who was responsible for systems integration and technical design in respect of the entire end-to-end delivery of the ESCMP.
- (68) In 2017, the Home Office informed the Public Accounts Committee that it “*would bear overall integration risk [in respect of ESN] in line with Government best practice which now encourages the disaggregation of contracts.*”⁶⁷ The Home Office recognised that “*this meant that there was no single “throat to choke” in the event of any problems.*”⁶⁸ Equally, this meant that the overall responsibility for this aspect of ESN was unclear, and hence delays occurred as a result.
- (69) The lack of clarity as to who was responsible for systems integration and technical design in relation to the Programme can be traced back to the outset of the Programme, specifically the Lot 1/2/3 contracts. These contracts did not make clear who was ultimately responsible for systems integration and technical design out of KBR, Motorola, EE and the Home Office.⁶⁹

⁶⁶ Public Accounts Committee, *Oral evidence: Emergency Services Network: progress review* (Wednesday 22 May 2019) <<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/public-accounts-committee/emergency-services-network-further-progress-review/oral/102447.html>>

⁶⁷ Public Accounts Committee, *Upgrading emergency service communications* (25 January 2017) paragraph 12 <<https://publications.parliament.uk/pa/cm201617/cmselect/cmpubacc/770/770.pdf>>.

⁶⁸ Public Accounts Committee, *Upgrading emergency service communications* (25 January 2017) paragraph 12 <<https://publications.parliament.uk/pa/cm201617/cmselect/cmpubacc/770/770.pdf>>.

⁶⁹ National Audit Office, *Progress delivering the Emergency Services Network* (10 May 2019) <<https://www.nao.org.uk/wp-content/uploads/2019/05/Progress-delivering-the-Emergency-Services-Network.pdf>>.

- (70) In 2016, it had been suggested that Motorola would be responsible for a large amount of the operational integration.⁷⁰ This integration would be conducted by Motorola alongside Motorola's other responsibilities within the Programme.
- (71) However, by January 2017, the position as to integration was becoming unclear. At this stage, Motorola stated that *"it understood the need to test the system at scale and in real conditions"*⁷¹, but that it was only *"doing **part** of the integration"*⁷² (emphasis added). Motorola proceeded to explain its understanding of the integration process as follows:
- "Mr Frumkin's organisation [EE] integrates to our system. We integrate to whoever does London underground and so on. Obviously, they [the Home Office] are overseeing it, and I believe they have hired a consulting company for Lot 1 to do the assurance, witness the test and make sure it is checked correctly."*⁷³
- (72) EE similarly confirmed that it was *"working very closely with integrated testing"*⁷⁴, and thus it is clear that both Motorola and EE were cognisant of the importance of effective integration to the overall success and delivery of the Programme. However, what is equally clear is that there was baked-in uncertainty as to who was ultimately responsible for the successful integration of the separate components within the Programme.
- (73) The general understanding that the Home Office had assumed responsibility for the integration of the various aspects of ESN was confirmed by its actions from 2018 onwards. For example, by mid-2018, it was reported that the Home Office was *"using its own and sub-contracted staff for programme management and integration work"*.⁷⁵ Indeed, shortly after this in September 2018, the Home Office's responsibility for this aspect of the Programme was confirmed in Heads of Terms that were entered into both with EE and Motorola. More specifically, within these Heads of Terms, it was agreed that the Home Office would: *"act as the delivery integrator for ESN, take ownership of the integrated programme delivery plan and work with suppliers to produce an integrated ESN product."*⁷⁶ The Heads of Terms therefore provided the parties with much needed clarity as to who was responsible for integrating the separate components within the Programme and this was memorialised in the renegotiated Lot 2 contract, signed in May 2019. However, the clarity brought by this agreement did not extinguish the problems caused by the historic lack of clarity. Substantial remedial work needed to be undertaken, including in respect of certain of Motorola's responsibilities.
- (74) As a general matter, the Group should be aware that Motorola's acquisition of Airwave helped to avoid delays. Airwave, prior to its acquisition by Motorola, had bid for Lot 3 of ESN which was ultimately awarded to EE. After failure to progress beyond the initial stage, Airwave launched a challenge against the procurement of ESN in the courts based on unequal

⁷⁰ National Audit Office, *'Upgrading emergency service communications: the Emergency Services Network'* (15 September 2016) paragraph 3.14 <<https://www.nao.org.uk/wp-content/uploads/2016/09/Upgrading-emergency-service-communications-the-Emergency-services-Network.pdf>>.

⁷¹Public Accounts Committee, *Upgrading emergency service communications* (25 January 2017) Q31 <<https://publications.parliament.uk/pa/cm201617/cmselect/cmpubacc/770/770.pdf>>.

⁷²Public Accounts Committee, *Upgrading emergency service communications* (25 January 2017) Q31 <<https://publications.parliament.uk/pa/cm201617/cmselect/cmpubacc/770/770.pdf>>.

⁷³Public Accounts Committee, *Upgrading emergency service communications* (25 January 2017) Q31 <<https://publications.parliament.uk/pa/cm201617/cmselect/cmpubacc/770/770.pdf>>.

⁷⁴Public Accounts Committee, *Upgrading emergency service communications* (25 January 2017) Q30 <<https://publications.parliament.uk/pa/cm201617/cmselect/cmpubacc/770/770.pdf>>.

⁷⁵ National Audit Office, *Progress delivering the Emergency Services Network* (10 May 2019) paragraph 2.10 <<https://www.nao.org.uk/wp-content/uploads/2019/05/Progress-delivering-the-Emergency-Services-Network.pdf>>.

⁷⁶ National Audit Office, *Progress delivering the Emergency Services Network* (10 May 2019) paragraph 2.10 <<https://www.nao.org.uk/wp-content/uploads/2019/05/Progress-delivering-the-Emergency-Services-Network.pdf>>.

treatment. Had Motorola not purchased Airwave and resolved this dispute with the Home Office, court proceedings would have moved forward and the Home Office could have ultimately found themselves in a position where they needed to re-run the tender, causing further delays to the ESN project.

2.6 ESN Transition

- (75) Following completion of the ESMCP “Mobilisation Phase” when all components of the Programme build have been successfully delivered, tested and accepted the 3ES User Organisations start to transition from their existing Airwave communications platform to the new ESN communications platform.
- (76) This extraordinarily complex “Transition Phase” was originally scheduled to commence just 17 months after the execution of contracts in December 2015 and conclude 24 months later by December 2019. The management of this first-of-a-kind process was let to the original “Lot 1” ESMCP supplier KBR. The Home Office terminated KBR’s contract in 2019. This left the Home Office to assume responsibility itself for management of the transition of 300,000 users in a live operational environment. Motorola understands that the Home Office has subsequently outsourced elements of this assumed responsibility but it is unclear on what basis or indeed, from when the transition phase will be carried out or how long it will take to complete. To date Motorola has yet to receive a coherent and comprehensive transition plan.
- (77) At this stage, the only certainty is that Motorola’s delivery of an interoperability solution (as described at paragraph (108)(c) below) will play a fundamental role in enabling users to transition safely with access to both communication platforms simultaneously.

2.7 Conclusion

- (78) It should be perfectly clear that Motorola is simply not the cause of delay to the ESMCP, and it is disingenuous to imply otherwise. Indeed, the only explanation for the singling out of Motorola seems to be that Motorola runs the Airwave service. It should also be perfectly obvious that any issues regarding the ESMCP Lot 2 contract (and as the next section explains, also the Airwave contract) should be resolved as commercial discussions and not through the creation of a ‘market’ investigation and regulatory intervention.

3. The Airwave Service

3.1 Introduction

(79) The CMA has set out in its MIR Decision details of its understanding of the competitive process from 1995 to 2015 and in Appendix B certain key facts and the CMA's underlying evidence. The CMA's statements and questions to Motorola indicate that the CMA has not fully understood the complexity of the Airwave business and its operation. In the following, Motorola wishes to provide the Group with core background information, which Motorola believes will assist the Group to understand the development and delivery of the Airwave service.

3.2 Overview of Airwave

3.2.1 *A project company*

(80) Airwave has a long history. Airwave was set up after British Telecommunications ("BT") had won a Home Office (then in the guise of "PITO") contract to design, build and operate an entirely new secure communications network for police forces across England and Wales in 2000. Whilst the scope of Airwave's service provision has expanded (both in terms of customers and also evolving requirements to meet the needs of users such as the expansion to the London Underground following the 7/7 bombings), it has always been a business dedicated to the project of running the Airwave Network under the contract with the Home Office.

(81) The evolution towards the entity that currently runs Airwave, Airwave Solutions Ltd, is as follows. In the year ending 31 March 2002, BT demerged its wireless businesses including its Airwave business. To effect this, a number of steps were undertaken to reorganise certain parts of BT. A company originally called BT Wireless Limited became BT Sixty-Six Limited and then Airwave mm02 Limited. On 6 September 2001 BT transferred 100% of its shares in Airwave mm02 Limited to its wholly owned subsidiary O2 Limited. On 15 November 2001, Airwave mm02 Limited acquired the trade and certain assets and liabilities of the Airwave business from BT for consideration of £78.5million. On 19 November 2001, BT demerged its wireless division. On that day, BT transferred 100% of its shares in O2 Limited (the parent company of Airwave mm02 Limited) to mm02 plc. Prior to the acquisition of the Airwave business on 15 November 2001, Airwave mm02 Limited had not traded. After the acquisition, Airwave mm02 Limited continued to roll out Airwave's TETRA network and started to deliver its services to the first police forces. Over time, the company's name changed to Airwave O2 Limited, then Airwave Safety Communications Limited before landing on Airwave Solutions Limited in 2007. References to any of those other company names should be read as a reference to Airwave Solutions Limited, "Airwave".

3.2.2 *Nature of the contract procured and its risks and rewards*

(82) The procurement process that eventually resulted in the creation of Airwave took around five years, from first informal briefings with various radio communications companies in 1994/95 to the signing of a framework agreement with Airwave in 2000.

(83) The CMA provides in Appendix B of the MIR Decision a description of the process of procuring a national radio network for the emergency services between 1995 and 2000. It is not correct to say (as the CMA states at paragraph 10 of Appendix B) that the "*new system should be shared by the police and fire services, as well as other public safety organisations, if their requirements were met and it was cost effective*". In fact, it was originally envisaged that the national radio communications system (that would become Airwave) would be a system for

use by the Fire Service and Police only. In the early 1990s the Ambulance Service had said that they did not consider they had a need for a new radio system and accordingly were not within the scope of the procurement. In 1996, the Fire Service also removed themselves from the procurement as they considered that some of the features required by the police (for example, encryption) were not needed for them.

- (84) The procurement for the new system was therefore for a police radio communications system only, and the system procured was not the same system which exists now. It is necessary to understand this at the outset since this is intrinsically linked to risk and reward and therefore price. Failure to appreciate this leads inevitably to a fundamental misunderstanding of the negotiations between the commercial parties, their relative positions and drivers, and the contracts that were ultimately entered into.
- (85) Around 70 companies expressed an initial interest in the project, reducing to a single consortium prepared to meet the Home Office' requirements. The reasons for this reduction in the number of potential suppliers are clearly set out in a report prepared by the National Audit Office:⁷⁷ there were only a few companies possessing the financial strength to take on such a large process and the Home Office's requirement of the service being based on the TETRA standard meant that bidders needed to be prepared to commit the development of what, at the time, was only an emerging technology. At the same time, there was ongoing uncertainty over whether all emergency services would ever participate, and even when the scope was reduced to the police services, successful implementation would require the agreement of a large number of stakeholders.
- (86) These complexities were reflected in the considerable tendering cost, including the cost of the work required fully to understand the risks and challenges involved. As the National Audit Office states, "[f]urther uncertainty surrounded the project definition study stage. In 1994, the cost to each bidder of undertaking a study was estimated at £500,000, but by 1996 quoted figures for this work ranged between £2.5 million to £10 million. Such an investment in the project was, for two consortia, too risky". Though the option of reimbursing some of the cost was discussed, uncertainty over how much funding would be available meant that it was not possible to maintain wider interest in the project.
- (87) The complexity of the procurement exercise also becomes apparent from the effort required on the buyer side. In addition to technical expertise from the Home Office's Radio Frequency and Communications Planning Unit and radio communications experts seconded from police forces, there was substantial reliance on external advisers, including the development of a "should-cost" model which was successfully used to challenge Airwave's costs and to obtain price reductions. The decision to proceed with a single bidder was made on a careful assessment of the alternatives and in light of the measures available to mitigate the concerns that arose from not being able to play off two (or more) bidders in direct competition with each other. Overall, the National Audit Office was of the view that negotiations were handled well. As explained further below, moreover, it is not accurate to suppose that there was a lack of competitive tension at the time of contract award, or even that the presence of more than one bidder "at the end" would guarantee a better outcome (*cf.* ESN).
- (88) From a private sector commercial standpoint, there was no precedent at the time for such a vast complex system; Airwave represented new technology, and it was far from certain that there would ever be additional users of the Airwave network beyond the police forces. As with

⁷⁷ National Audit Office, *Public Private Partnerships: Airwave, Report by the Comptroller and Auditor General* (11 April 2002) paragraph 5 < <https://webarchive.nationalarchives.gov.uk/ukgwa/20170207052351/https://www.nao.org.uk/wp-content/uploads/2002/04/0102730.pdf>>.

any sort of partnership, during the negotiations the parties had engaged in discussions around risk and rewards. Airwave were prepared to engage in discussions about sharing benefits, sharing the rewards, as long as the Home Office could bring new users to the table (which it turned out they could not) and if they were prepared to share in some of the risks, which they were unprepared to do.⁷⁸

- (89) The parties were unable to come to an agreement which shared risks/rewards and therefore Airwave took on the risk (in return for reward) of the project. Questions were asked of PITO⁷⁹ about the level of return and their view was recorded in minutes of evidence taken before the Committee of Public Accounts on 22 April 2002:⁸⁰

“7. May I ask Mr Webb about this 17% return which was calculated as being what would be the right sort of return? How was this figure arrived at? Why was it deemed to be reasonable?”

(Mr Webb⁸¹) It was arrived at by O2. We took advice from both our technical and our financial advisers in reviewing that. Considering the level of risk we were transferring to O2 and the fact that there was no precedent for such a large system in previous procurements, it was new technology, there were several stakeholders and in fact there were issues relating to site acquisition, we considered the 17% return was fair. This was endorsed at the time by both ourselves and the Home Office. We felt we had actually taken independent advice and the return was fair.”

...

“93. Looking over a 15-year period and looking at the rate of change and looking at the risk element in that, how are you able to come to the conclusion that the rate of return is 17%?”

(Mr Webb) In that 17% a fair degree of risk was built in. Bear in mind that it is the responsibility of O2 to deliver the technology upgrade, therefore recognising that was part of the risk they built into that assessment.”

...

“121. Coming back for a moment to the question of whether the system can be sold elsewhere—we already know that it may be sold to the Ambulance and the Fire Services in future—the decision was taken that a 17% profit level was a reasonable one. To what extent was the fact that there might be a lot more profit in it for the company because of the possibility of selling on without having to pay back any of that to the original buyer included in that decision that that was a reasonable profit level?”

(Mr Webb) At the time we should have liked more people to have signed up but the

⁷⁸ Committee of Public Accounts, *Public Private Partnerships: Airwave* (4 November 2002) Q205 <<https://publications.parliament.uk/pa/cm200102/cmselect/cmpubacc/783/783.pdf>>.

⁷⁹ PITO ceased to exist on 31 March 2007 and was replaced by the National Policing Improvement Agency with effect from 1 April 2007. The NPIA was wound down operationally in December 2012 and its function in respect of the emergency services network was transferred to the Home Office. Accordingly, references to PITO should be read as references to the Home Office.

⁸⁰ Committee of Public Accounts, *Public Private Partnerships: Airwave* (4 November 2002) <<https://publications.parliament.uk/pa/cm200102/cmselect/cmpubacc/783/783.pdf>>.

⁸¹ Phillip Webb, Chief Executive, Police Information Technology Organisation (PITO).

only people we could deliver at the time were the Police Service. Any risk associated with selling on to any other authorities was down to O2 so it was a commercial decision as far as we were concerned.

122. *But any profit was going to them as well.*

(Mr Webb) Yes.

123. *So in a sense there was no downside for them. All that could possibly happen was that the profit level would go up if they did manage to sell on either to foreign countries or to other emergency services in this country. It is only an upside.*

(Mr Webb) Not necessarily. They did take a significant risk in the sense of the 17% return is assuming they actually get paid for it. At this moment, because there is a delay in the project and it is taking longer in some areas than necessary, they are not being paid, they are not earning revenue. There has been some retention of revenue as far as we are concerned, so they are not getting the full amount at this time.

124. *The 17% was the profit they were expected to make if they concluded a successful system and sold it simply to the Police Service in this country. only once we have successfully delivered here in the UK.*

(Mr Webb) Yes, that was what the plan was; 17%.

125. *And 17% was considered to be reasonable. If that had been the end of it and they had sold to nobody else it would have been considered a reasonable profit to make.*

(Mr Webb) That was the advice from our advisers at the time.

126. *Yet we allowed them also to take on all the potential profit for selling to any other service within this country or indeed abroad without insisting on any sort of a clawback.*

(Mr Webb) I am corrected here. An element of shares was an assumption which O2 made in terms of determining that profit was actually built into that 17%. They were taking the risk of assuming they would actually sell some shares to other people.

127. *I am delighted to have that change of answer, if I may say so. If that had not been the new answer, I should have been seriously worried about the way that negotiation had been carried out. How much of the 17% is the risk, whatever risk, which has been transferred to the company from the public sector? This is a PFI deal after all.*

(Mr Webb) It is a PFI deal so we have transferred the bulk of this to O2 in that they are responsible for providing the whole service, they are responsible for developing the service and a full capital investment is down to them.⁸²

128. *To date my understanding is that they have spent in excess of £100 million in putting in the infrastructure, they have received nothing like £100 million in terms of revenue. If they say in a year or two's time that they are very sorry but they cannot actually produce the system without getting a bit more money, do you say you are*

⁸² Committee of Public Accounts, *Public Private Partnerships: Airwave* (4 November 2002) <<https://publications.parliament.uk/pa/cm200102/cmselect/cmpubacc/783/783.pdf>>.

walking away and going back to your old system, picking up your hand-held mobile phones again?

(Mr Webb) We would not necessarily do that. The first thing we would do is endeavour to ensure that they do deliver. They have a contract with us. There are liabilities associated with that contract in terms of delivery. We would also automatically try to negotiate a situation where they did deliver."

- (90) The Home Office also gave their views on the subject of the commercial terms in response to questions and their view was recorded in the same minutes of evidence:

"78. If I have a lot of people who want to join O2 now, since you are the purchaser of this system in effect, you funded this development, you funded the setting up of this system, the taxpayer has funded it, how much does the taxpayer get back? What percentage does the taxpayer get back for every additional user of the system?"

(Mr Gieve⁸³) Under the contract we have at the moment we do not get anything back for extra users. The deal we have done with O2 is that they will take the risk from not getting extra users and they will take the gain from getting extra users. What those gains will be depends on the deals they do with other users. Those are also likely to be taxpayers, the Fire Service or whatever."

...

129. ...

(Mr Webb) ... Almost certainly if TETRA did fail we would have to procure an alternative system and that may have to be done on a local basis if we could not do another national procurement.

130. *That might then become very expensive.*

(Mr Webb) That could become expensive.

131. *So not all the risk has been transferred.*

(Mr Webb) You could not ever mitigate risk against companies failing to deliver and going bankrupt. Quite frankly we would be looking to get a significant return on any investment we had made as a result of that.

(Mr Gieve) What risks are O2 taking? One risk is that they cannot produce the required level of performance for the investment they had assumed at the outset. For example, they may need to put in more masts than they had planned in order to provide the coverage and quality of performance. That will cost them a lot of money and that will reduce the 17%. They only get the 17% if they deliver the service to their cost.

132. *I understand that they only get 17% profit if they do that. What I am asking is if they do not manage to do that and come back to you and say sorry they need more money whether in practice you are then over a barrel and have to say you cannot afford to go back to the old system. It would cost you a huge amount to ask somebody else to set up a new TETRA system now for us and therefore effectively you would be*

⁸³ John Gieve CB, Permanent Secretary, Home Office.

in a position where you were going to have to pay a little bit more to Airwave to make sure they do remedy the problems they still have.

(Mr Gieve) I certainly would not accept that if Jeff comes back and says he needs to change the contract we would just do so because we are over a barrel. We would force them to deliver on their contract and if they did not, there would be dire consequences. You then ask what happens if they are actually driven out and you have to find someone new. In that sense there is always a residual risk because we have to provide the service or at least the police authorities have to supply the service. That is true whether it is a PFI or a normal contract. There will be severe consequences for O2 if they cannot deliver"

- (91) Evidence from Airwave on the acceptability of the 17% return is that "[w]hat we made clear at the time and we still stand by, is that we would not have done this project in isolation for the police at [17%] return. We have taken this project on, on the basis that it would give us an opportunity to be able to market it to the Fire Service, the Ambulance Service and such like"⁸⁴.
- (92) The statements made by all parties in response to questions concerning profitability illustrate that all parties to the negotiations recognised that the return to Airwave reflected commercial risk taken on by Airwave in circumstances in which the PITO had the opportunity to share in the risk and rewards but chose not to do so. The rate of return was considered and determined to be fair.
- (93) This was therefore a commercial negotiation between two entities acting in a commercial capacity in which reward was allocated according to the risks taken by the parties. The Home Office is not an unsophisticated buyer and negotiator. It was simply not the case that the Home Office was in a weaker bargaining position. The Home Office was able to ensure that Airwave took on significant risk, pushing £170 million in risks onto Airwave (plus £70 million that the public sector would have allocated as a contingency).
- (94) The Home Office was content to push the risk onto the supplier of the Airwave network but is now seeking to intervene to reduce or remove the reward that derived from such a gamble and uncertain investment.

3.2.3 Procurement – Nature of procurement and competition

- (95) It is important to understand the nature of the Airwave procurement exercise and the challenges that had to be addressed by the purchaser as well as the supplier. The nature of the service procured is not such that an additional bidder would have created the competitive tension whose absence the CMA claims to have prevented the Home Office from negotiating "a price that was at the competitive level". The very difficulties that the Home Office procurement team had to overcome in order to negotiate effectively with the single bidder would have made comparing offers from different potential suppliers extremely challenging if not impossible. It is naïve to believe that the requirements could have been specified in sufficient detail to be able to select a supplier purely – or even predominantly - on the price offered – the services that Airwave was required to deliver, and eventually delivered to the full satisfaction of the emergency service users, could not be specified to an extent that would have turned the procurement into a task akin to procuring stationery or other standardised products and services.

⁸⁴ Committee of Public Accounts, *Public Private Partnerships: Airwave* (4 November 2002) Q199 <<https://publications.parliament.uk/pa/cm200102/cmselect/cmpubacc/783/783.pdf>>.

- (96) A fuller understanding of the specific requirements and the potential technological solutions for delivering the service was developed over the course of the procurement process, at substantial cost to all parties involved. It might in theory have been possible for the Home Office to maintain a larger number of bidders by being less prescriptive in terms of technology or other requirements or by reimbursing bidders for the cost incurred in the tendering process. The Home Office chose not to follow this path, a decision that appears sensible in the face of procuring a complex project at the leading edge of technology. The fact that the Airwave service was delivered on time and on budget and meets (and often exceeds) the requirement of users and its contracted performance levels is proof that this was the right decision.
- (97) Certainly in terms of the outcome this contrasts favourably with the ESMCP procurement, in which the Home Office considers competition to have been intense (although the fact is that one of the two remaining bidders in Lot 3 withdrew before the BAFO stage [✂]), but where project delivery has been plagued by multiple problems, many if not all of which can be linked back to poor procurement decisions, failures clearly to specify requirements and to structure the project in a manner that would provide sufficient certainty to all parties involved, with some key components of the solution procured separately and at a later date. The National Audit Office report into the delivery of ESN⁸⁵ makes for a sobering read, exposing the many failures of the Home Office that are responsible for the delay that the CMA [✂] appear to want to blame on Motorola. Reading that report side by side with the report into the Airwave procurement should make abundantly clear that the number of bidders in procurements of this nature is only one factor determining the quality of the outcome – and perhaps not the most important one.

3.2.4 Criticality and complexity of Airwave, performance and incentives

- (98) The Airwave network is now used by all police, fire and ambulance services in the UK. Based on Terrestrial Trunked Radio (“TETRA”) technology provided by Motorola Solutions, its network covers approximately 99 percent of Great Britain’s landmass, is resilient and enables more than 300,000 police, fire, ambulance and other emergency personnel to easily and securely communicate with each other, the critical importance of which is demonstrated in daily emergency situations as well as terrorist attacks such as the Manchester Arena bombings.
- (99) The issues in delivering such performance are not simple and the Airwave service represents a highly complex and novel technical solution which has evolved over time in terms of functionality. The evolution of the Airwave service over such a long period has also required Airwave to deal with third party supply issues; for example, on 20 April 2013, Airwave entered into a contract to replace all the Kilostream links in the Airwave network (the Kilostream replacement programme) with a microwave solution following BT withdrawing that product from the market and, on 30 January 2018, Airwave entered into a contract (Project Magna) to replace its core network with IP as a consequence of its supplier, Vodafone, withdrawing its legacy TDM technology. Airwave will need to make significant further investment to deal with other technological obsolescence/end of life issues for as long as the contract requires.
- (100) Notwithstanding its complexities, Airwave is a robust and well-performing system. Network Availability is over 99.8% and the national service restoration Service Level Agreement of four hours is regularly exceeded.

⁸⁵National Audit Office, Progress delivering the Emergency Services Network (10 May 2019) <<https://www.nao.org.uk/wp-content/uploads/2019/05/Progress-delivering-the-Emergency-Services-Network.pdf>>.

- (101) The fact that Airwave is a superbly well-performing system is reflected in Motorola’s customer feedback, which Motorola voluntarily collects and considers on a monthly basis through its internal Pulse of the Customer document packs. Average monthly customer scores for overall service have, over the past seven years, all been above a score of 7 out of 9.
- (102) The fact that Airwave performs so well also acts as a form of insurance for the Home Office. The Home Office has a back-up system at present, meaning that the incentive to move to ESN is not as strong as it might be if Airwave were not functioning well. In November 2017 the Committee of Public Accounts made this very point in a letter to the Permanent Secretary:

“This Committee first raised concerns in November 2016 about the technical, commercial and stakeholder risks involved in delivering ESN. At that time your department did not seem overly concerned about these risks since you believed a ready contingency was in place: the current service, Airwave, could simply continue until ESN was ready. The subsequent revelation in January 2017 that Airwave might not actually be available after March 2020 due to an issue with a service provided by a sub-contractor, Vodafone, has jeopardised this approach and raised the possibility of a scenario in which the emergency services might have no means of communication. It is vital that government avoids this scenario and we have been actively monitoring the programme’s progress since then.”⁸⁶

- (103) The Home Office did not dispute this suggestion. Motorola invites the Group to consider exactly what the Home Office strategy might have been, given the vast evidence of the delay to ESN under Home Office control.

3.3 Contractual summary

3.3.1 *Overview*

- (104) Motorola has provided to the CMA its contracts relating to the provision of Airwave (which are inevitably complex) but wishes to provide the following contractual overview to assist the CMA in its understanding of the main ‘Blue Light’ agreements.

Date	Details
29 February 2000	<p data-bbox="488 1538 1388 1608">Public Safety Radio Communications Service signed between PITO and British Telecommunications plc (“PFI Framework”)</p> <p data-bbox="488 1644 1059 1680">This is the Police PSRCS Framework agreement.</p> <p data-bbox="488 1715 1388 1888">It allows for each UK Territorial Police Force, in addition to non-territorial Forces (e.g. British Transport Police) to enter into a Services Contract with Airwave. It regulates contractual matters that affect all Services Contracts, such as termination rights, limitations of liability etc and acts as a ‘wrapper’ for each of the Service Contracts of which there are 52 in total</p>

⁸⁶ Public Accounts Committee, Letter from Meg Hillier MP to Sir Philip Rutnam (127 November 2017) <<https://old.parliament.uk/documents/commons-committees/public-accounts/Correspondence/2017-19/letter-ho-esn-271117.pdf>>.

Date	Details
	<p>Network Services (Core Services and Menu Services) were to be rolled out to each Police Force customer and the PFI Framework sets out which services fall within these categories:</p> <ul style="list-style-type: none"> • Core Services include a ‘core’ level of network coverage and standard control room connectivity. Core Services are paid for directly by the Home Office; and • Menu Services are additional services a Customer wishes to purchase over and above the ‘core services’. Menu Services are paid for by the Customer. <p>The “Core Services” and the “Menu Services” are together known as the “Network Services”</p> <p>Benchmarking mechanisms applied to the Network Services throughout the duration of the Framework Agreement that enabled the Home Office to assess the continuing Value for Money of the Network Services. [X]. If that exercise did not indicate Value for Money then good faith negotiations were to take place in line with recommendations to ensure Value for Money.</p>
19 July 2005	<p>ARP Project Agreement signed between the Secretary of State of Health and the Welsh Ambulance Services NHS Trust and Airwave O2 Limited (“ARP Agreement”)</p> <p>The ARP Agreement provides the following for the various Health and Ambulance Trusts across England and Wales (the Welsh Ambulance Service became a party to the ARP Agreement in 2007):</p> <ul style="list-style-type: none"> • Bundle 1 Services: provision of a digital radio voice and data network; and • Bundle 2 Services: provision of mobile and hand portable Terminals for voice and data, provision of dispatcher Terminals and their integration with other voice services located within the Control Room, systems integration of legacy data systems and relevant value-added services and installations. <p>Following the third anniversary of the Effective Date, the Secretary of State may require Benchmark Reviews of the Services, Charges and Service Level Specifications.</p>
26 March 2006	<p>Firelink Project Agreement signed between First Secretary of State and Airwave O2 Limited (“Firelink Agreement”)</p> <p>The Firelink Agreement provides the following for the various Fire and Rescue Services across Great Britain:</p>

Date	Details
	<ul style="list-style-type: none"> • Network Access; • Provision installation and maintenance of SANs (Service Access Nodes) such as in-vehicle Mobile Data Terminals, which may be selected by a FRS; • Integration of Control Room Equipment; • Decommissioning of existing Devices; • Provision of Spares; and • Training. <p>FRSs may order additional devices and services via Call Off Contracts that form part of the Firelink Catalogue.</p>
18 July 2006	<p>ARP (Scotland) Project Agreement signed between The Scottish Ambulance Service Board and Airwave O2 Limited (“ARP Scotland Agreement”)</p> <p>The ARP Scotland Agreement provides for the following:</p> <ul style="list-style-type: none"> • Bundle 1 Services involve the provision of a digital radio voice and data network; and • Bundle 2 Services involve the provision of mobile and hand portable Terminals for voice and data, provision of dispatcher Terminals and their integration with other voice services located within the Control Room, systems integration of legacy data systems and relevant value-added services and installations. <p>The ARP Scotland Agreement included similar benchmarking mechanisms to those included in the PFI Framework.</p>

3.3.1 Offers relating to the Blue Light Contracts

(105) Prior to Motorola’s acquisition of Airwave, certain offers were made by Airwave to the Government for the extension of the ‘Blue Light’ contracts. We understand that none of these offers have been accepted by the Government. The offers that have been made to the Government by Airwave to secure extensions are summarised as follows:

- (a) In October 2010, Airwave offered the Government a proposal which included £[redacted]million cash savings (£[redacted] million in 2011 and £[redacted] million for the years 2012-2014), a further £[redacted] million potential savings from force cost reduction (from managing officer deployment more efficiently) and a commitment to spend £[redacted] million enhancing the network. In exchange for this, Airwave requested a [redacted].

- (b) In October 2012, Airwave offered the Government a proposal which included £[redacted] million cash savings (£[redacted] million in 2014 and £[redacted] million in 2015), plus savings from future contract indexation concessions and adjusted usage pricing. In exchange for this, Airwave requested a [redacted].
- (c) A meeting with the Cabinet Office took place in March 2013, in which a package was offered worth £[redacted] million over 7 years, including £[redacted] million of incremental cash savings (paid at £[redacted] million per annum for the period 2015 to 2020), in exchange for a [redacted].
- (d) In March 2014 Airwave responded to a Government request to review and make a proposal that would provide transitional services to users to dovetail with their ESMCP transition planning. Airwave's response set out an overall benefit to the Government of £[redacted] million, which included approximately £[redacted] million of future cash reductions linked to structuring indexation (VOP) levels and a discount of £[redacted] million for the [redacted].
- (e) In July 2015, following a meeting with the Home Office, Airwave wrote to the Home Office to explain that they were willing to engage with the Home Office in relation to a potential collaborative savings exercise and to discuss the benchmarking dispute, which Airwave requested was ended to allow discussions on collaborative savings to commence. Airwave noted that the proposed workshop arranged for 30 July 2015 would progress these discussions. The Home Office email response dated 21 July 2015 sought to cancel the workshop and that the Home Office would consider its approach and respond in due course
- (106) Since 2016, Airwave has made a number of offers to the Home Office, as summarised in the following table:

Date of Offer	Average discount pa (£m)	Core Contracts extended to	Extension term (years) ^{2,3}	Approximate annual discount as % of core charges ⁴	Comments	Accepted by the Home Office
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		[redacted]

Notes to table

- [redacted]
 [redacted]
 [redacted]
 [redacted]
 [redacted]

3.4 Motorola's acquisition of Airwave

3.4.1 *Home Office consent required*

- (107) On 3 December 2015, Motorola agreed to acquire the entire issued share capital of Guardian Digital Communications Limited, the sole shareholder of Airwave Solutions Limited (the “Airwave Transaction”).
- (108) The Airwave Transaction gave the Home Office an opportunity to secure significant concessions from Motorola as a condition of providing its consent for the transaction to go ahead. The Home Office secured the following:
- (a) A perpetual obligation for Airwave to continue to deliver the service at Airwave’s risk until the final ESN Transition Group (whether delayed or on time) has transitioned to ESN and National Shut Down occurs;
 - (b) A unilateral option to extend Airwave for any period beyond 2019 at agreed pricing and further flexibility (all aligned to possible ESN elongated Transition scenarios) to require delivery of the Airwave Service only to such ESN Transition Groups that are delayed in transitioning to ESN and need the service for longer than those groups that have transitioned;
 - (c) An essential and bespoke “interoperability” service under which the emergency services users would be able to communicate on an interoperable basis via the existing Airwave Tetra system and the new ESN PTT voice communication system during the transition phase from Airwave to ESN;
 - (d) Settlement of ongoing litigation between the Home Office and Airwave relating to Benchmarking and Variation of Price equating to payments to the Home Office of £[redacted]m over three years;
 - (e) The Deed of Recovery providing financial remedies protecting the government from a delay to ESN caused solely by Motorola’s ESN Lot 2 delivery and the consequential need to extend Airwave;
 - (f) Common end date for all core contracts – Police, Fire, Health - removing the “ragged edge” expiry dates, [redacted] as regards the Home Office’s aspiration to complete ESN Transition across all the emergency services by December 2019;
 - (g) Access to [redacted] of Airwave’s sites located in rural areas in order to enable the Home Office to execute on its ESN extended area coverage requirements;
 - (h) Flexibility for Police Forces to extend their existing Menu Services provision at current pricing for a period of its choice through to National Shut Down at the latest; and
 - (i) Withdrawal of Airwave’s procurement challenge that it had brought against the Home Office following its exclusion from the ESMCP “Lot 3” competition. This avoided the prospect that the Home Office could be forced to re-procure that element of the ESMCP, which likely would have, caused significant delay to its proposed timetable.
- (109) In addition, the Home Office gained, in Motorola, a supplier of its critical Airwave service with public safety at the heart of its business and whose infrastructure and TETRA technology had been the backbone of the network since its inception. It also removed an owner of Airwave, in Macquarie, who was encumbered by around £2billion of debt⁸⁷ (which would of course

⁸⁷ Guardian Digital Communications Limited Annual Report and Consolidated Financial Statements Year ended 30 June 2015 <<https://find-and-update.company-information.service.gov.uk/company/06143540/filing-history/MzE0MjI4NjM0MWFkaXF6a2N4/document?format=pdf&download=0>>

have incentivised them to seek to maximise their profit at every opportunity, not least in the inevitable scenario of ESMCP being delayed).

3.4.2 Heads of Terms regarding Extensions

- (110) On 17 February 2016, Heads of Terms regarding Extensions were signed between (1) Motorola Solutions UK Limited, (2) Motorola Solutions UK Acquisition Company Limited, (3) the Secretary of State for the Home Department, (4) The Secretary of State for Health, (5) The Scottish Ambulance Service Board, (6) The Secretary of State for Communities and Local Government (“2016 HOTs”).
- (111) Pursuant to the 2016 HOTs the Parties agreed to vary the Blue Light Contracts in order to provide for the following:
- (a) Blue Light Contracts Expiry Date – Extension to the respective terms of each of the Blue Light Contracts (each having different expiry dates) such that each would expire upon the occurrence of National Shut Down (i.e., the shut-down of the Airwave Network such that Airwave would stop providing the Airwave Services on a national basis). [redacted] provide for the charges for the extension period:
 - (i) Under the PFI Framework together with associated contracts - the Core Service Charges (as such term is defined in the Home Office Contracts) were to continue to be payable to Airwave until the National Shut Down Date. Menu Service Charges were to remain the same for renewals or extensions beyond a certain point, with differences in certain cases.
 - (ii) Under the ARP Agreement - the current Charges (as such term is defined in the ARP Agreement) continue in respect of the Airwave Services provided under the ARP Agreement. For the period from the current service expiry dates until the National Shut Down Date, the preliminary agreement in regard to the [redacted] is reflected in [redacted].
 - (iii) Under the ARP (Scotland) Agreement - extension charges for Scotland were to be agreed following the same approach as outlined for England.
 - (iv) Firelink Agreement - the current Charges (as such term is defined in the Firelink Contract) were to continue until National Shut Down Date. Charges for the period from [redacted] were to be based on the then current charges in respect of the Airwave Services provided under the Firelink Contract but would be adjusted to add back [redacted] and other potential contractual extension uplifts and reductions. These adjustments were agreed between the Parties and included in the UCCN (see Section 3.4.3 below).
 - (b) National Shut Down – the National Shut Down Target Date was defined as 31 December 2019 or such later date as the Home Office may specify to Airwave using the National Shut Down mechanism set out in the 2016 HOTs. It is important to recognise the nature of this. This does not represent an obligation on or commitment made by Motorola to shut down Airwave in December 2019: this was an aspirational target date only that was given by the Home Office.
 - (c) Sitelink – variation of the Blue Light Contracts such that Airwave would provide Sitelink (the interoperability solution to be developed by Motorola, described in more detail in paragraph (108)(c) above).

- (d) Benchmarking and settlements – the entering into of settlement agreements (i) to settle certain disputes and (ii) the basis on which any future benchmarking may occur.
- (e) Access to sites – granting the Home Office to 80 of the Sites located in rural areas and access to additional sites together with the provision of certain information on Sites.
- (f) Microwave encryption [REDACTED].

3.4.3 The Umbrella Change Control Note (UCCN)

- (112) It was agreed that the Blue Light Contracts would be amended to incorporate the terms set out in the 2016 HOTs in what was known as the Umbrella Change Control Note; so called because it included, under cover of one contractual document, the form of contractual Change notes that were prescribed by each of the Blue Light Contracts.
- (113) In August 2016 the changes were implemented in the UCCN using the relevant change control procedure as described in each Blue Light Contract and, for the purposes of consistency and uniformity, were structured as follows:
 - (a) Beneficial Ownership – [REDACTED] set out the Blue Light Contract CCNs applying to each Blue Light Contract documenting the beneficial change of ownership of the Contractor as a result of the Airwave Acquisition.
 - (b) Agreed Charges - [REDACTED] set out the Blue Light Contract CCNs documenting the Airwave Service Charges that will apply to each Blue Light Contract. The Blue Light Contract CCN in respect of the PSRCS Framework Arrangement also contains the Pro Forma Services Contract CCN to be offered to each Police Services Contract Customer and documenting the arrangements for extension to Menu Services accommodating National Shut Down.
 - (c) National Shut Down - [REDACTED] set out the Blue Light Contract CCNs documenting the:
 - (i) extension of the term of each Blue Light Contract; and
 - (ii) process that will apply to each Blue Light Contract in respect of National Shut Down.

3.4.4 The Deed of Recovery

- (114) On 17 February 2016 Motorola Solutions, Inc. and the Home Office also entered into a Deed of Recovery.
- (115) Recitals (F) and (G) of the Deed of Recovery explain the purpose of the agreement:

“(F) As part of its usual risk review process prior to the award of the Lot 2 Agreement, the Authority identified a risk in MSI’s common control and ownership of Airwave and MSUKL, such that MSI could manipulate delivery under the Lot 2 Agreement in order to financially benefit under the Blue Light Contracts.

“(G) The purpose of this Deed is to specify the approaches to remediation and the financial remedy that might apply in the event of either a [REDACTED] Delay (as defined in [REDACTED] below), a [REDACTED] Delay (as defined in [REDACTED] below) or a [REDACTED] (as defined in [REDACTED] below).”

- (116) The Deed of Recovery provided for the process for the Home Office making a claim of [REDACTED] Delay or [REDACTED] Delay and the financial consequences of issuance of a [REDACTED] Delay Notice or [REDACTED] Delay Notice, together with the circumstances in which [REDACTED] (i.e., [REDACTED]) will be deemed to have taken place and the consequences.
- (117) The CMA refers in its MIR Decision to the Deed of Recovery of 17 February 2016. The CMA's thinking around the Deed of Recovery is somewhat unclear to Motorola (as remaining redacted in the lesser redacted version of the MIR Decision provided to Motorola). However, Motorola wishes to take this opportunity to make clear to the Group that the Deed of Recovery was not simply a paper exercise or a document which was skewed in Motorola's favour or drafted in such a way that it became impossible to exercise and therefore redundant; this was a document which became a lodestone for Motorola in its delivery of ESN milestones and was front and centre in Motorola's relationship with the Home Office.
- (118) The CMA in its MIR Decision states: *"We also note that when the CMA considered the acquisition of Airwave Solutions by Motorola in 2016, the DoR provided greater incentives than now following the 2018 negotiations with the Home Office"* and refers to paragraph 1.50(e) which states *"Reduction of the DoR [REDACTED] to [REDACTED] in October 2019 and to [REDACTED] once certain ESN delivery milestones are achieved. Any claims by the Home Office under [REDACTED]"*. Whilst Motorola can only guess at what is under the redactions, it is simply illogical for the CMA to conclude that the variations to the Deed of Recovery originally entered into provided greater disincentives by reference to the [REDACTED] in penalties under the variations.
- (119) The original Deed of Recovery provided for the payment of a '[REDACTED] Adjustment' if a [REDACTED] Notice or [REDACTED] Notice is issued after the National Shut Down Target Date [REDACTED] or in the event [REDACTED] Notice was served relating to [REDACTED]. The calculation of the [REDACTED] Adjustment is set out in the Deed of Recovery but essentially is calculated at the rate of [REDACTED]% of the applicable [REDACTED] or applicable [REDACTED] calculated on a pro rata monthly basis and applied as a [REDACTED].
- (120) The variation to the Deed of Recovery signed in September 2018 was a key component of the overall ESN Reset deal provided for updates to its structure such that the '[REDACTED] Adjustment' becomes payable if a [REDACTED] Delay Notice or [REDACTED] Delay Notice is issued after the National Shut Down Target Date [REDACTED] or in the event [REDACTED] Notice is served under [REDACTED]. The calculation of the [REDACTED] Adjustment [REDACTED] set out in the Deed of Recovery but essentially is calculated at the rate of [REDACTED]% of the applicable [REDACTED] or applicable [REDACTED] calculated on a pro rata monthly basis and applied as a reduction to the aggregate [REDACTED]. The 2018 Deed of Recovery variation incorporated an incentive [REDACTED] mechanism under which depending on Motorola's [REDACTED] performance its ultimate [REDACTED] Adjustment [REDACTED] would improve. In practice, at the date of the 2018 DoR Variation the [REDACTED] was [REDACTED]%. That would be reduced to [REDACTED]% upon achievement by Motorola of its [REDACTED] (delivery by Motorola of [REDACTED]) and then to [REDACTED]% upon achievement of the [REDACTED]. Leaving aside the extremely onerous penalties that the Lot 2 contract itself provides for if the supplier is late, it hardly needs stating that these [REDACTED] percentages amount to compelling incentives for Motorola's ESN delivery.
- (121) The CMA suggests that this provides lesser disincentives. It is quite the opposite. The 2018 variation to the Deed of Recovery provides greater incentives. It encourages Motorola to move through the mobilisation phase to achieve milestones and reduce its potential exposure to penalties and this is what has happened; the critical Kodiak 9.1 milestone was delivered on time and Motorola is continuing to work towards delivery of Mobilisation Complete, incentivised in line with the Deed of Recovery. An illustration of Motorola's completion of milestones is set out below.

- (122) The Airwave Transaction completed on 19 February 2016. On 5 May 2016 the CMA announced that it had launched a merger inquiry. In its submissions to the CMA as part of the CMA's review of the Airwave Transaction in 2016, Motorola explained that:

"For Motorola, the strategic rationale for the Transaction can be summarised as follows:

- (a) *The economics of the Transaction on a standalone basis justify the risk and return of operating and maintaining the Airwave network for a contracted stream of income up until the network is scheduled to be turned off in December 2019.*
- (b) *The Transaction will also enable Motorola to develop its "managed services" skills to help assist other international governments who want to migrate from TETRA technology to 4G LTE, or other, networks.*
- (c) *In addition, Motorola was concerned that Motorola's reputation may be impacted if the previous owners of the Airwave network failed to maintain a good level of service on the aging TETRA technology infrastructure. The underlying technology (supplied by Motorola) is approximately 15 years old, and Motorola felt that it was the safest and best-placed replacement to manage down (and phase out) the Airwave network as the network users migrate across to the ESN service. Any failure of the existing Airwave network in Great Britain could impact negatively on Motorola's reputation in other TETRA markets around the world.*
- (d) *Finally, as Motorola begins to provide the services awarded to it under the ESN Lot 2 contractual arrangements, the Transaction results in skilled employees, processes and procedures becoming available to Motorola that will enable Motorola to assist the UK government in migrating from the Airwave network to the new ESN in a safe, effective and timely manner."*

- (123) In the process of its investigation, the CMA focussed its questions on the supply of radio terminals. Insofar as questions arose as to any issues regarding Airwave as it related to ESN and/or potential delays Motorola explained that *"the Transaction does not give rise to any horizontal overlaps. In summary, Airwave and Motorola have never competed against each other in the sale or supply of TETRA terminals to the Airwave network user-base, whether on a standalone or managed service basis. Airwave does not design or manufacture TETRA terminals. Airwave's primary business is the supply of the network service ('airtime') for the British emergency services and designated sharer organisations such as the Red Cross and the Ministry of Defence."* The CMA asked for more information on *"Motorola's explanation about the future of the TETRA network (including possible scenarios) along with an explanation of how any extension to the Airwave network **may impact the size and duration of the TETRA terminals market in the UK**"* (emphasis added), in response to which, Motorola confirmed that:

"[a]s the CMA is aware, MSI has concluded legally binding arrangements with the UK Government (the "HoTs"), providing that all Airwave contracts for the emergency services will terminate on 31 December 2019. Attached at Annex A is a copy of the executed HoTs dated 17 February 2016. At the same time, Motorola has entered into a legally binding commitment to have ESN user services ready for live service by September 2017, and a full migration completed by 31 December 2019. By reason of

these arrangements, Motorola is unequivocally economically committed to securing a timely preparation of the new ESN and a timely switch off of the Airwave network. ...”

- (124) In terms of delays to ESN, Motorola noted that there was no expectation that the ESN roll-out would be delayed, but (in response to a question from the CMA) that possible factors which might, in theory, result in a delay were external factors, adoption and migration factors and technical factors. Other questions regarding delay concerned demand for TETRA handsets.
- (125) The CMA cleared the Airwave Transaction on 1 July 2016. In its MIR Decision the CMA makes reference to the merger clearance decision made by the CMA which it says was “*partly based on the expectation (and assurances made by Motorola and the Home Office) that the Airwave network would be shut down by 2019*”. The MIR Decision states “*The Home [O]ffice did not express any concerns about possible delays to ESN. On 1 July 2016, the CMA cleared the merger*”. These two sentences may suggest that the CMA considered the competitive relationship between Airwave and ESN and the impact on the continuation of the supply of the Airwave network should ESN be delayed and cleared the transaction on the basis that such a delay was unlikely to materialise. However, this is not the case.
- (126) The CMA in its clearance decision did, of course, note that Motorola had been awarded the contract for the supply of ESN. A number of third parties had submitted to the CMA that there would be delays to the ESN timetable (as set out by the Home Office) and that “*it is unlikely that the Airwave network will be switched off in the planned timescales, if ever*”. The concerns raised by those third parties were with regard to additional demand for devices. The CMA contacted Motorola and various third parties including the Home Office to investigate this. The Home Office “*told the CMA that the ESN project is running to schedule. The Home Office have plans for dealing with each of the potential delays pointed to by third parties and does not believe any delays will, on their own, result in additional demand for TETRA radio terminals to work on the Airwave network*”. The CMA noted that “*whilst some delay is possible, the evidence ... indicates that the rollout of ESN is currently running to schedule and therefore the contestable sales of TETRA radio terminals in the period until ESN will be low*”.
- (127) The CMA assessed the potential impact of the merger in Great Britain in relation to, inter alia, the supply of the Airwave network. The CMA considered the impact of the merger in the following frames of reference, in each case on a GB-wide basis:
- (a) the distribution of TETRA radio terminals;
 - (b) the supply of the Airwave network;
 - (c) the supply of Airwave testing services/facilities; and
 - (d) the manufacture for supply of TETRA radio terminals.
- (128) The CMA’s competitive assessment with regard to horizontal unilateral effects states “*Horizontal unilateral effects may arise when one firm merges with a competitor that previously provided a competitive constraint, allowing the merged firm profitably to raise prices or degrade quality on its own and without needing to coordinate with its rivals. Horizontal unilateral effects are more likely when the merger parties are close competitors. The CMA assessed whether it believes that the Merger would give rise to a realistic prospect of an SLC in relation to unilateral horizontal effects in the distribution of TETRA radio terminals*”.
- (129) As for the Home Office’s position, had the Home Office had concerns about the dual role of Motorola in respect of Airwave and ESN then the Home Office would surely have raised this

and any such position would have found its way into the decision. However, no such statements appear and the transaction was cleared, therefore it can be inferred that no such objections were made by the Home Office. In fact, the Home Office's position, even three years later in late 2019, was that Motorola was incentivised in both roles:

“As officials have discussed before the PAC on several occasions, Motorola's position as ESN Partners and Airwave owners includes elements both of risk and opportunity. The Department recognises the risks and has taken steps to ensure that Motorola is appropriately incentivised in both its roles.”⁸⁸

- (130) It is unclear why the Home Office, eighteen months after such a statement, felt compelled to change its position to such an extent that it felt that nothing short of a CMA intervention could remedy the issues it perceived in the ESMCP project unless the rationale was to seek to blame Motorola for Home Office failures.

3.5 The 2018 Airwave extension

- (131) In April 2018, the Home Office approached Motorola with a request to quote for a [redacted] year extension of the Airwave contract. This request appears to have been made in the context of the planned reset of the ESMCP, so that the Home Office could understand the cost of retaining Airwave as a backup for critical PTT functionality. Motorola responded to the Home Office request with a first model to set out what the service charges might be and to advance the 'framework' of both Airwave & ESN.⁸⁹ This document suggested a discount structure of [redacted] %/[redacted] %/[redacted] % over time, with discounts staggered in line with network investments.
- (132) The Home Office subsequently requested a proposal for an extension based on a rolling 18-month contract. In response, Airwave explained that such an arrangement could not be accommodated without significant increases in the price of the Airwave service as Airwave would be unable to enter into long-term contracts with suppliers and would need to pass on higher charges for short-term contracts and potentially large write-offs of capital investments. Instead, Airwave offered the option of [redacted]. This would allow Airwave to package network investments into discrete blocks. Decommissioning charges would be waived after [redacted] but would be payable in full or at [redacted] % if the Home Office exercised the [redacted] and therefore the network would have to be shut down earlier. As Airwave pointed out, incorporating the flexibility offered through the [redacted] created additional risks as investments might need to be brought forward if component failure rates exceeded forecasts without any certainty of being able to recoup these investments.
- (133) The proposal submitted to the Home Office in [redacted]⁹⁰ retained the [redacted] structure of the original [redacted] year proposal, and with some changes to the bundles included would guarantee blue light customers savings of £[redacted]m off a total baseline revenue of £[redacted]bn over [redacted] years, compared with savings of £[redacted]m off a total baseline revenue of £[redacted]bn under the initial proposal. This amounted to a similar saving of around [redacted] % over the full [redacted] year period whilst providing a considerable amount of flexibility.

⁸⁸ *Treasury Minutes: Government response to the Committee of Public Accounts on the Ninety-Fifth and on the Ninety-Ninth to the One Hundred and Eleventh reports from Session 2017-19* which contains input from the Home Office on ESN at paragraph 5.3 on page 45

<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/835748/CCS001_CC_S0919078904-001_Response_to_Public_Accounts_on_the_95_and_99th_PRINT__1_.pdf>.

⁸⁹ [redacted]

⁹⁰ [redacted]

- (134) Some three months later, the Home Office agreed a three-year extension at a 5% discount. It is not clear to Motorola why the Home Office would choose a three-year extension at a 5% discount in preference to the proposal made by Motorola which had an initial period of [REDACTED], unless (a) the Home Office was very confident that it would have no further need for Airwave after 2022; or (b) politically, the Home Office could not be seen to enter into another [REDACTED]; or (c) the Home Office wanted to guarantee itself the ability to extend Airwave for ever.
- (135) These negotiations directly contradict any theory of a ‘market’ not working well. First, negotiations about contract extensions of this nature are typically driven by customer requests. The Home Office asked Airwave to provide quotes for different scenarios, and Airwave engaged with the Home Office constructively, exploring alternative ways of providing the Home Office with the requested flexibility that could be made to work with the requirement for long term commitments from Airwave to its suppliers and the nature of the investments needed to maintain the service at the agreed standard.
- (136) Second, it is obvious that the Home Office was in the driving seat. The Home Office set its requirements and decided which of the options offered by Airwave it would eventually pursue. Airwave provided a range of options rather than simply setting terms and threatening to stop providing the service altogether if the Home Office did not accept those terms, as the CMA seems to insinuate. As the Home Office itself recognised when giving evidence, it would not be a sensible strategy for Motorola not to engage constructively with respect to the provision of emergency services in the UK, since this is its core business. Furthermore, given that a significant part of Motorola’s global business is tendering for government projects, it would make no sense to be seen to be threatening the UK government.
- (137) The working assumption during these the negotiations was that the migration to ESN would occur at the point at which the new network was ready. At no point did the Home Office suggest that it might cancel or delay ESN if Airwave offered “better” terms, and the decision ultimately not to pursue any longer Airwave extension shows very clearly that playing off ESN and Airwave in the manner the CMA claims was not an option in reality.
- (138) In the event, on 22 September 2018 as noted above, Airwave made an offer to the Home Office relating to an extension of the National Shut Down Target Date (as introduced by the UCCN) and a further discount. The Home Office accepted the offer and the parties agreed that the Blue Light Contracts would be further amended in accordance with UCCN2. In addition to discounting of Airwave Service Charges by [REDACTED], the parties agreed to amend the payment profile of the Blue Light Contracts which benefitted the Home Office who wanted to push payments out of 2020 and into 2021 and 2022 for their own budgetary reasons. Motorola then had to take working capital funding at its own cost to accommodate this requirement of the Home Office. In addition to the cashflow benefits from this, the main benefit to the Home Office was that it preserved in the contract its ability to later exercise the Home Office’s original extension option (via issuance of a National Shut Down Notice as prescribed in the Heads of Terms and the UCCN) by amending the National Shut Down Target Date in the UCCN to [REDACTED].

3.5.2 The Home Office as a customer and value derived from the Airwave contract

- (139) The CMA notes in the Final Report that “[i]n 2010 and in the context of the broader austerity measures being rolled out across public services, the Government sought to negotiate a discount with Airwave Solutions but failed to come to an agreement, one reason among others being that the Government was not prepared to offer an extension in return for a discount”. This is just one example of the Home Office, within the context of a commercial relationship, acting [REDACTED].

- (140) In addition to being a well-performing system, Airwave represents value for money for customers. Furthermore, the agreement entered into with Motorola offered the Home Office better value for money even than the deal that the Home Office had with Airwave’s previous owners, as explained in April 2017 to the Public Accounts Committee:

“Q46 Philip Boswell: As a previous contracts manager for contractors, designed obsolescence is a convenient mechanism to squeeze money out of customers—mobile phone users will be completely familiar with that, and clients alike. The contractor having moved the goalposts by saying they are going to withdraw their support, what can you possibly do about this? Do you think it gives them a stronger position if you want to extend beyond? You are just figuring out what you need at the moment.

Mark Sedwill: Just one point of context: this was a severe risk when Macquarie were the owners of Airwave—and we spent quite some time on this at the previous hearing—because they had essentially been telling the market that they were going to be able to charge us pretty much any price they liked after the end of the PFI 2020.

With Motorola taking over and agreeing a much more reasonable set of price extensions, we have already mitigated that financial risk very substantially. As Mr Webb says, it is Vodafone not Motorola who have issued the notification about the support for this particular part of the infrastructure. There is a question between them as well as between us and Motorola but, as Mr Webb says, we have a price agreement with Motorola for those extensions that is firm. Is that fair? (emphasis added)

Stephen Webb: indicated assent—”⁹¹

3.6 Airwave Profitability

- (141) Motorola believes that, having carefully considered the nature of the Airwave contract and the opportunities available to the Home Office both in respect of Airwave and ESN, the Group will rightly view the extension discussions in relation to 2026 as a matter contractually **already agreed** between the parties. It bears repeating that any reference to current contractual “negotiations” is in fact a charitable description for the Home Office seeking subsequently to obtain better terms than the Home Office chose in 2018 ([~~§~~]). The terms for the extension are agreed, and there is no reason to depart from those terms unless the Group is prepared to extinguish legal certainty.
- (142) It should be emphasised that this comment is not made in order to “explain away” any excess profits. As the following demonstrates, viewed properly, such profits do not exist. The only way to create the perception of the existence of such possible excess profits is to do exactly what the CMA did, which is to take an incorrect point of departure for the assessment, in doing so compounding the very problem associated with inappropriate intervention into extensions of long-term contracts.
- (143) In looking at this, it is important to keep firmly in mind that the heart of the issue is not Airwave pricing. The issue is the failure of ESN to launch, and whether the CMA should intervene to rewrite then end of a long-term contract. The contemplated extension period amounts to no more than the exercise of a four-year option at a price agreed in 2018 – four year terms are

⁹¹ Public Accounts Committee, *Upgrading emergency service communications – recall* (21 April 2017)

<<https://publications.parliament.uk/pa/cm201617/cmselect/cmpubacc/997/997.pdf>>.

routinely concluded and it would be unprecedented and a huge mistake to interfere with such a contract.

- (144) Furthermore, it certainly makes no sense to split the original PFI contract period (2000-2019) from the extension period to look at profitability, in circumstances where the tail of the contract is extended through the exercise of an option that was already agreed. The only fair way to measure profitability (if indeed that is justified in relation to a project company with well-advised parties) is over the entire lifespan of the contract, and Airwave has been provided at extraordinary value for money.
- (145) If, theoretically, one were to look solely at the period after 2019, it would at least be necessary to begin with the correct asset valuation at the beginning of the contract, not the net book value. Motorola understands that the CMA has essentially used the net book value of assets at the end of 2019 as a measure of the upfront investment that would be needed for providing the services over the extension period in order to calculate the IRR over this period. This is entirely inappropriate for a truncated IRR analysis. As Oxera, in a report for the OFT, the predecessor body to the CMA, notes, a truncated analysis can in theory be undertaken but:

“requires data about the cash flows of the activity in question over the relevant time period, and the asset values at the start and end of that period. ... [A]sset values should be based on either the cost of replacing the asset (specifically on a ‘modern equivalent asset’, or MEA, basis), the present value (PV) of future earnings, or the value derived from selling it (its net realisable value, or NRV). In particular, assets should be valued on the lower of the replacement cost or economic value, where its economic value is determined by the higher of its PV of its future earnings or its NRV. This valuation principle is also known as the value-to-the-owner principle. For the assessment of excessively high profits, assets should be valued on an MEA basis.”⁹²

- (146) This means that instead of using the net book value to measure the asset value at the start of the extension period, the CMA should have used the replacement cost. Without even having undertaken a detailed analysis of these costs, it should be obvious that the cost of replacing the Airwave network with an alternative infrastructure capable of providing the same services over the extension period would by far exceed the net book value.
- (147) In addition, the CMA’s assessment of project returns for the initial PFI contract period appears to be suffering from a flawed view of the proper treatment of uncertainty. Using its split model, the CMA estimates the post-tax real IRR for the period of the original PFI agreement to be 7.6% and states that these returns:

“appear to have been sufficiently high to enable Airwave Solutions to recoup its initial investment. While the original economic model for the Airwave project may have anticipated a nominal pre-tax IRR of [X], we do not consider that a realised return over the PFI period which falls below that level necessarily reflects an economic loss. Rather, in a context in which, as Motorola highlights, there was significant complexity involved in designing, building and operating the Airwave system, it seems probable that the [X] anticipated return contained an element of insurance against adverse financial performance, such as higher than expected required capex.”⁹³

⁹² Oxera, “Assessing profitability in competition policy analysis”, OFT Economic Discussion Paper No 6 (July 2003) paragraph 1.15 <<https://www.oxera.com/wp-content/uploads/2018/03/OFT-Assessing-profitability-1.pdf>>.

⁹³ Paragraph 1.75 and 1.76 of the Decision. In effect, the “anticipated return” reflects expected profitability if the forecast cashflows associated with the project are realised. However, such a return can be increased above the cost of capital to reflect uncertainty in those cashflows rather than a higher cost of capital. Such an approach could be seen to provide Airwave with a “fair bet”.

- (148) The CMA refers to this as providing Airwave with a “fair bet”.⁹⁴ However, it then fails to observe that for the same reason that a return below the agreed level does not imply economic loss, a return above the target level does not imply economic profit. One outcome amounts to losing that bet and the other one to winning it, and there is no economic justification for treating the two outcomes differently.
- (149) In terms of the price charged by Airwave, Motorola strongly rejects the allegation that the price paid for the Airwave service is uncompetitive and “*significantly higher than for similar services in other European countries*” (paragraph 1.55 of the MIR Decision). Motorola finds it difficult to reconcile claims made of the cost of the Airwave network being higher by at least 200% than that of similar public safety systems in Europe with reality. This claim is apparently based on the findings of a Gartner Study⁹⁵ “*commissioned by the Home Office in July 2013*” which “*calculated the normalised total cost of ownership for Home Office users compared to a European peer average and concluded that ‘Gartner concludes that the UK is paying above the market rate for TETRA services by 250%. The tolerance of the UK total cost of ownership calculation is estimated to be 15%; allowing for this tolerance the UK would still be 200% more expensive than European peers’*” (footnote 30 of the MIR Decision).
- (150) Motorola does not have access to this study and is unable to comment on the methodology used. However, a benchmarking study of Airwave Services undertaken by Gartner for Airwave and the Home Office dated July 2014, which was available to the CMA, casts severe doubts on the idea of there being a “market rate for TETRA services”. The 2014 Gartner study goes to great length to point out the methodological difficulties encountered in trying to benchmark Airwave’s pricing and highlights the efforts that had to be taken – with full support from Airwave – to overcome these difficulties. In particular, Gartner notes that “*none of the peers are delivered as PFIs and thus they all have different and unknown set up costs borne by their respective Governments or agencies and consequently different costs associated with capital.*” Trying to correct for these differences, Gartner attempted to construct a measure of ongoing service charges for Airwave, stripping out components that should cover implementation and capital maintenance and cost of capital, as well as calculating a single annual contract charge for peer networks. Using the first approach, Gartner found that Airwave’s imputed ongoing service charges were between [X] % and [X] % [X] what Gartner considered to be a value-for-money price. Looking at single annual charges, Gartner found that the total Airwave cost was between [X] % and [X] % [X] than the value-for-money price.
- (151) Motorola invites the Group to take a careful look at these comparisons and to consider what can and cannot be concluded with any reliability from looking at price measures for services that cannot be compared directly.

3.7 Conclusion

- (152) It is important to recognise that Airwave’s returns are not guaranteed. At the outset of the project an estimated return was generated based on the forecasted costs associated with developing and operating the network over the life of the contract, i.e., 2000-2019. In the event, Airwave had to make far greater investments than anticipated and, in the overall period between 2000-2019, only achieved a nominal post-tax 9-10% return even though Airwave was expanded to cover the ambulance, fire service and other users. It is imperative that the Group recognises the level of risk associated with this programme and which was assumed by

⁹⁴See footnote 62 of the Decision.

⁹⁵ Gartner Consulting, Benchmark of Airwave Services, Final Report, 1 July 2014, Prepared for: Airwave and Home Office

Airwave. There was never any question of the Home Office “making good” the shortfall in return.

- (153) Any intervention in what is anticipated to be the final years of the Airwave contract to significantly amend the terms runs a very serious risk of undermining all incentives to enter into any long-term project with the UK government where the procurer asks the supplier to assume any material level of risk associated with the project. It is also obvious that the relevant question is simply whether, based on the price agreed for the project, including any extension, represents a fair return. At the price at which the Home Office is entitled to extend the Airwave network until the end of 2026, Airwave estimates it will have earned a total project nominal post-tax IRR of [X], which given the level of risk assumed represents substantial value for money.

4. Competitive Assessment

4.1 The nature of the ‘market’ to be investigated

(154) We invite the Group to consider how it can be said that servicing the Airwave contract constitutes a ‘market’. As the CMA stated in the Consultation, and repeats in the MIR Decision:⁹⁶

“the Airwave network is a highly differentiated, bespoke piece of critical infrastructure, requiring it to be designed, built and operated under a long-term exclusive contract.”

(155) In other words, the Airwave network cannot be supplied by anyone who has not invested in the design, build and operation of a network that is functionally sufficiently similar. If anyone were willing to make such an investment without an equivalent commitment from a purchaser, there would be no need for entering into a long-term exclusive contract in the first instance, as the customer would simply select from the array of alternative networks.⁹⁷ It should be emphasised here that (as explained in detail below) ESN is **not** a “competing” alternative: Airwave has always been viewed as a backup for ESN since the Home Office began discussions concerning Airwave’s replacement. There is no competitive relationship between ESN and Airwave, and the evidence makes clear it is hopeless to suggest otherwise.

(156) Whether or not Airwave amounts to a ‘market’ is not simply about semantics. It is not only meaningless, but dangerous to treat a long-term contract as a ‘market’. Following this logic, any bespoke service developed under a long-term exclusive contract would constitute a market which would be susceptible to becoming the subject of a market investigation because the very condition of the service existing at all would be a factor indicating that the market does not work well: by definition, any such market would be ‘extremely concentrated’ with competition not working well.

(157) DotEcon, in its submission in response to the Consultation,⁹⁸ explained this as follows:

“The very first reason given by the CMA for why this supposed market might not be working well is the ‘highly differentiated and bespoke nature of the Airwave network’ which requires it to be ‘designed, built and operated under a long-term exclusive contract’. This effectively says that the services provided by Airwave could not be bought and sold in a (spot) market where the customer could at different points in time choose between competing suppliers. By definition, the Airwave network can only be supplied by whoever has been contracted to design, build and operate the network.”

(158) Leaving aside the fact that the CMA misrepresented or misunderstood the above statement in the MIR Decision,⁹⁹ the CMA sets out in the MIR Decision how competition in such a

⁹⁶The CMA, however, considers this to be a reason for which the supposed market might not be working well rather than as a reason why it does not make sense to consider such services as constituting a market.

⁹⁷ In the DotEcon submission, this was referenced as the services not being capable of being supplied in a (spot) market where the customer could at different points in time choose between competing suppliers – i.e. buy from Airwave this year, and from another provider the next, depending on a comparison of commercial terms on offer. By its bespoke nature and the significant investment required to deliver the service, it can only be provided through a long-term exclusive contract.

⁹⁸ Mobile radio network services for the police and emergency services: Observations on the CMA’s proposal to make a market investigation reference (August 2021) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1027809/DotEcon.pdf>.

⁹⁹ Whereas the DotEcon statement focused on whether the services in question could conceivably be bought and sold in a (spot) market where a customer could buy from one supplier one year and another supplier the next, the CMA claims that

supposed market could work and be adversely affected. To establish the existence of a ‘market’, the CMA focuses on the availability of an alternative network to which users could switch: according to the CMA, negotiations about the extension of the Airwave contract could be subject to competition in the sense that Airwave would have an incentive to offer better terms to delay the migration of its users to ESN, while ESN would be highly motivated to secure a speedy roll-out.

(159) The CMA states:

“[T]he market realities surrounding the supply of LMR network services for public safety changed materially when contracts for the design and roll-out of ESN were awarded by the Home Office, because this development introduced the prospect of revenue losses from Airwave Solutions to ESN operators over time (as users would gradually transfer to the new provider) and eventually the wholesale switch away from LMR technology by all public safety customers in Great Britain. Under such circumstances, Airwave Solutions may be expected to seek to retain users on its network as long as possible, for example by offering an attractive price during negotiations. Similarly, the ESN operator(s) may have the incentive to seek to take revenues away from Airwave Solutions as soon as possible, e.g. by incentivising more users to switch to its services sooner (or taking steps to develop the necessary technology sooner). Both of these are part of the competitive process.”¹⁰⁰

(160) This supposed competitive constraint is at the heart of the CMA’s assessment of competitive conditions and is the key piece linking Motorola’s ownership of Airwave and its alleged incentives to delay the delivery of ESN. The CMA’s MIR Decision stops short of directly accusing Motorola of having affected the two competitive forces that the CMA states would otherwise exist, but strongly insinuates this to be the case. Of course, this issue is [REDACTED], but the Group is respectfully invited to consider whether this was ever a justifiable basis for proposed intervention.

(161) It is of course insufficient to insinuate. Absent a reasonable evidential basis to consider otherwise, the Group will of course dismiss as irrelevant the presence of Motorola in both the ESMCP and Airwave, given the magnitude of implications which potentially follow from the conclusion that there exists a ‘market’ that is not functioning well. As explained below, there is simply no opportunity for the kind of competition that the CMA theorises could exist. Second, as explained in detail above, Motorola did not cause one of “*the UK’s worst public sector IT disasters*”¹⁰¹, and it is pure fantasy to imply that Motorola’s absence would have spurred the ESMCP to a speedier outcome. The CMA’s theory betrays a fundamental ignorance about the way in which the Home Office procured these networks. The CMA’s theory is based on the presumption that the transition rate from one bespoke network solution for the emergency services to its replacement would at least in part be governed by the commercial terms offered by the old and the new providers. This is factually incorrect as a matter of contract and bears no resemblance to the procurement in which bidders were invited to participate in 2014. Even at a theoretical level, there is no sensible argument to be had that the ESN solution could have been commissioned and built with the providers taking on the risk that, at the point of readiness (where they could start to recoup their significant

DotEcon had posed the existence of a spot market and scope for switching as a requirement for there to be a market (paragraph 2.16 (a) of the MIR Decision. In doing so, the CMA at least misunderstood the point that was being made. <<https://www.computerworld.com/article/3412308/the-uk-s-worst-public-sector-it-disasters.html>>.

¹⁰⁰Paragraph 2.16. (c) of the MIR Decision

¹⁰¹Computerworld, The UK’s worst public sector IT disasters (15 June 2008) <<https://www.computerworld.com/article/3412308/the-uk-s-worst-public-sector-it-disasters.html>>.

investment costs incurred during a mobilisation phase in which they received no revenue),¹⁰² they would be required to compete with Airwave for users and that it might therefore not be used for potentially extended periods of time, depending on whether Airwave would offer more attractive terms for continued use of its infrastructure. The operators could not assume such a massive risk and the entire theory is complete fallacy.

- (162) The change of control consent negotiations introduced an interoperability service (referred to in the 2016 HOTS as “Site Link”) which was to be used in the ESN Transition phase and which emergency services users would be able to communicate on an interoperable basis via the existing Airwave Tetra system and the new ESN PTT voice communication system during the transition phase from Airwave to ESN.¹⁰³
- (163) ESN was never considered to be a possible alternative to Airwave that would improve the Home Office’s bargaining position in negotiating contract extensions. It was simply a replacement for Airwave. As the CMA itself acknowledges:

*“[r]ecognising the high cost of the Airwave network (and other issues) and in the face of a deteriorating commercial relationship, the Government decided to commission a replacement communications solution (ESN) that would enable all emergency services to switch to a 4G network by the time the PFI Agreement came to an end: following a review of options that had started in 2011, the Government put contracts for the delivery and roll-out of ESN out to tender in 2014 and awarded them in 2015; the transfer of customers to ESN was expected to start in 2017 and be completed by around 2019. **The Airwave network was expected to be shut down once the switching process was completed, and therefore any market power Airwave Solutions may have had until then, would have been extinguished at that point**”* (emphasis added).¹⁰⁴

- (164) The intention to replace Airwave with ESN rather than commissioning a new network that might or might not be used at the point of readiness, depending on the commercial terms offered by the incumbent provider, is also apparent from various contemporaneous documents as well as the National Audit Office review. For example, the signing of the final contracts was announced as promising “[d]elivery of a cheaper, smarter communications network that will enable more effective use of police, fire and ambulance resources ... EE and Motorola Solutions will join Kellogg, Brown and Root to provide the emergency services with a more affordable and capable Emergency Services Network (ESN). Offering more flexibility than the old system, **the new services will replace the existing system from mid-2017 as the current contracts expire**”¹⁰⁵ (emphasis added). The National Audit Office report prepared for the Public Accounts Committee leaves no doubt that ESN was intended to “[f]ully replace Airwave, matching it in all respects”. This was clear from the outset of the procurement, with the OJEU Contract Notice stating “*The ESN will replace those services delivered under current*

¹⁰² The Lot 2 contract was procured with a payment structure under which essentially during the Mobilisation Period the build was done at below cost with the investment only being recouped when the service goes live and the service charge starts.

¹⁰³ The original interoperability / interworking solution was delivered in respect of Motorola’s Wave 7000 PTT solution in accordance with CCN171 (signed in March 2017 and amended by subsequent CCNs 177 and 183). Then, as part of the ESN reset in 2018 /2019 where the Home Office elected to move from Wave 7000 PTT to Motorola’s Kodiak PTT solution, it was necessary to further update the interworking service so that it could operate in conjunction with Kodiak. CCN186 (May 2019) facilitated this update.

¹⁰⁴ Paragraph 1.29 of the MIR Decision; emphasis added

¹⁰⁵ Final contracts for new emergency services network are signed (9 December 2015) <<https://www.gov.uk/government/news/final-contracts-for-new-emergency-services-network-are-signed>>; emphasis added.

service contract(s)”¹⁰⁶. Even though Home Office “did not define this in detail, but it expected ESN to replace all the functionality of Airwave including its network coverage and reliability, devices and upgraded control rooms.”¹⁰⁷

- (165) Finally, any questions about the duration of the transition period were linked to the general problems with ESN delivery, resulting in doubts from prospective users about the suitability of ESN not the availability (or absence) of any competing offers. In response to questions by the Public Accounts Committee in 2019, the Home Office stated that *“while it had been talking to users, delays in producing real products meant it had not yet been able to discuss how ESN fitted into the real-world environment, and that it was only now beginning to work through the details of how ESN would be rolled out. As a result of this some emergency services do not yet have confidence in the programme.”* While the Home Office *“continued to assert that it will not force emergency services to adopt ESN ... [and that] ... it will not leave users without communication, [it] could only say that there would be further discussions if emergency services were not happy.”* Thus, any changes to the transition process as initially envisaged would have been the result of user concerns rather than the result of commercial negotiations.
- (166) The CMA is correct in identifying that competition for a market exists at the point at which a contract is being re-tendered, and this happened back in 2015 when the Home Office tendered for a new network, ESN. It was open to the Home Office at this point to extract better conditions in exchange for delaying the replacement of Airwave. It is at this point Airwave would have been able *“to retain users on its network as long as possible, for example by offering an attractive price during negotiations”* not after the successful delivery of the ESN network.
- (167) In fact, the Home Office had a further two opportunities (which it took full advantage of) to exercise its bargaining power: first when Motorola acquired Airwave (see Section 3.4 above), and then again more recently when the Home Office secured an extension in 2018 (see Section 3.5 above). The position post-2018 bears further comment. At no point did the Home Office seek to “play off” Airwave against ESN, and not because Motorola was supplying one element of ESN. The Home Office had the choice of taking a longer-term contract in 2018 with a very substantial discount, but the Home Office elected not to, which is consistent with the fact that the Home Office did not see Airwave and ESN as competing networks. Simply put, the supposed trade-off between retaining users for longer in exchange for lower prices that is at the heart of the CMA’s theory of competitive interaction does not exist and never existed.
- (168) Equally, the idea that the Home Office could simply re-compete more frequently the opportunity to provide an ESN-type service with little modification of an existing XG network (with its technological advances) is unrealistic. Any commercially available network service would always need to be complemented with bespoke technology to meet the very specific needs of the emergency services.
- (169) As one of the responses to the consultation points out¹⁰⁸, there are benefits of 5G solutions, which support network slicing that would effectively allow the definition and delivery of customer-specific network capabilities which could be tailored to the requirements of the

¹⁰⁶ United Kingdom-London: Telecommunications services, 2014/S 077-133654, Contract notice (18 April 2014)
<<https://ted.europa.eu/udl?uri=TED:NOTICE:133654-2014:TEXT:EN:HTML>>

¹⁰⁷House of Commons Public Accounts Committee, ‘Emergency Services Network: further progress review’ (17 July 2019)
<<https://publications.parliament.uk/pa/cm201719/cmselect/cmpublicacc/1755/1755.pdf>>.

¹⁰⁸Response 3

<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1027805/Response_3.pdf>.

emergency services. However, it is unclear whether these benefits could be harnessed under the existing delivery plans for ESN.

(170) Thus, whilst the Home Office might have “*hoped that the long-term competitive dynamics would be very different, once the ESN solution was fully implemented*”¹⁰⁹, there is little reason to believe that this hope will come true. In any case, the different competitive dynamics would seem to have been linked to an ability to tender distinct elements of the service more frequently (which would of course require a fully developed and robust systems integration infrastructure) rather than playing off Airwave and ESN.

(171) In the absence of such competitive interaction, which in Motorola’s view could never exist unless one were prepared to accept the theory that an alternative to the Airwave network would become available without any firm commitment to migrate to this network as soon as it was ready, the CMA describes negotiations as follows:

*“The outside options open to the two negotiating parties will have a significant impact on their relative bargaining powers and we note in this respect that while walking away from the negotiations (the only outside option Motorola and the Home Office have) would mean giving up large profits for Motorola, for the Home office it would result in the loss of critical communication capabilities for the police, fire services and emergency services in the field.”*¹¹⁰

(172) This description is misleading since Motorola never realistically had an option to ‘walk away’, quite aside from any loss of profits (and, in fact, a write-off of a substantial portion of the price that Motorola paid for Airwave in 2016). Walking away would have ruined Motorola’s reputation as a trusted partner in all other markets around the world, and the Home Office recognised this in evidence given to the PAC (in respect of which see below). It is unrealistic to theorise that Motorola could afford to be seen to walk away from its core business.

(173) Of course, in the event, the Home Office insisted on a provision entitling the Home Office unilaterally to demand that Airwave continues to provide its service at the agreed service levels at existing prices (save for indexation), regardless of the cost that it may have to incur in order to keep its network operational (see paragraph (4) above). These costs are expected to be substantial, will only increase in the future, and are extremely uncertain, not least in the case of decommissioning – a decommissioning exercise of this scale (including 3,800 physical sites) has never been accomplished before.

(174) It also bears pointing out that, within an extension agreement (as happened in 2016), there is nothing inherently wrong with taking current prices as a starting point, especially where those same terms have yielded a better-than-expected outcome for the customer.

(175) Indeed, it is important not to lose sight of the fact that what the CMA is proposing amounts, in essence, to drafting, de novo, the terms for the final years of a carefully negotiated contract with **risk and price already allocated between the parties**. There is certainly no reason to link prices paid to the net book value of assets, as the CMA seems to suggest by stating that there was no reason in principle to use the existing pricing structure as the large upfront investment needed for delivering Airwave had been largely recovered by the end of the original PFI agreement. If this logic were to be accepted, any landlord who has recovered the original cost of constructing a building would be required to slash rents and any manufacturer whose plant

¹⁰⁹ Paragraph 1.34 of the MIR Decision.

¹¹⁰ Paragraph 1.52 of the MIR Decision.

and machinery continues to be used in production even though fully written off in the accounts would have to lower prices to reflect its lower cost base. This makes no sense.

4.2 Home Office complaint to the CMA at the request of the Cabinet Office

- (176) It is unclear to what extent the Home Office was required by the Cabinet Office to complain to the CMA, and therefore to what extent the Home Office believes there really is a ‘market’ that is not working well. It is even less clear whether a major private sector organisation, having procured a long-term contract that it wanted to extend on better than previously agreed terms would ever attract any interest from the CMA. It is however clear that the Home Office did not consider that Motorola’s dual role in Airwave and the ESMCP caused any kind of incentive issue until it became convenient for the Home Office to do so. For example, in 2016¹¹¹ the Public Accounts Committee were told:

*“Q100 **Charlie Elphicke**: My sense, from everything I have heard, is that this is a programme that is going to end up falling behind, and there is a risk, if it does fall behind, of a 12-month extension of the Airwave contract, which is—the maximum at risk—£475 million. When I asked Motorola about this earlier—who take the risk—they were basically saying that it was the Home Office that takes the risk¹¹². My concern is that delivery seems to be partly in the control of Motorola—so if everything gets delivered on time then it is all fine and Motorola did well under contract, but if it does not, then Motorola do well under the extension. **To what extent have Motorola got skin in the game to deliver this project?**”*

***Stephen Webb**¹¹³: It is a very fair question. I think they do. Obviously, there are clear contractual provisions around the existing contract. They are not going to be paid until that has been delivered, and they are putting quite a lot of investment in—there is a large team working very hard—**so it would be quite painful for them, obviously, not to deliver on the current contract.**”*

*As to an extension period, that could potentially be quite painful for them as well. As Mr Mills described, they may need to do some capital investment; they may need to keep some people on. The actual income they get from the extension may be less than the cost of running the network if we ask for it only for a few regions for a certain period. I think they have a strong incentive for the orderly wind-down of their network. **But most of all, this is the future of emergency services communications. This is now pretty much their sole business. They will want to get it right.**”*

4.3 Transparency

- (177) The CMA has identified as an alleged feature of ‘the market for the supply of LMR network services’ *“the asymmetry of information between Motorola and the Home Office in relation to key drivers of pricing, for example the level of capital expenditure needed to keep the Airwave*

¹¹¹ Oral evidence: Emergency Services Communications (16 November 2016) <<https://publications.parliament.uk/pa/cm201617/cmselect/cmpubacc/770/770.pdf>>.

¹¹²Q 56 Charlie Elphicke: If it falls behind, who takes the risk? Vincent Kennedy: I guess the programme risk sits with the prime contractor, the Home Office. We have our own risk to manage. If we fall behind, we obviously manage our own contract risk in that respect.

¹¹³Stephen Webb, SRO Emergency Services Mobile Communications Programme, Home Office.

*network operational*¹¹⁴. The CMA notes that this asymmetry relates to both information on future expenditure and lack of transparency on actual past capital expenditure.

(178) The alleged information asymmetry is irrelevant in the context of a contract where the price is fixed and the provider is obliged to meet service levels; the onus is on the provider to determine how best to manage its own costs while meeting service levels. Airwave is an output-based managed service contract and Airwave complies with all of its information sharing obligations. It is therefore unclear what relevance any lack of transparency has on contractual arrangements between the parties.

(179) There is, in any event, already significant transparency vis-à-vis the Home Office. Throughout the operation of the Airwave, Airwave has been responsive to Home Office requests for additional oversight over the service often at no additional cost. The Airwave service is monitored by two central teams at the Home Office:

[✂]

[✂]

(180) This [✂] team have regular communication with Airwave teams (including the Airwave Senior Leaders) many of which exceed contractual obligations, for example:

- (a) Review of Network Upgrade Plans (including progress reports against those plans);
- (b) A twice-yearly Supplier and Engineering forum which gives the Home Office direct access to Airwave's engineering teams and subcontractors;
- (c) Quarterly Security meetings for the Home Office to discuss any matters relating to security;
- (d) A "Service Map" Review - with Home Office regional leads to discuss service performance in each region of Great Britain; and
- (e) Review and agreement of Service Improvement Plans.

(181) This oversight is in addition to that which individual User Organisations have over the Airwave service at Police Force, Fire Service or Ambulance Trust level.

4.4 Remedies

(182) The CMA identifies three potential remedies: price control (to remedy any exercise of market power), open book accounting (to remedy any informational asymmetries), and finally Airwave divestiture (to remedy Motorola's position in both Airwave and ESN).

(183) [✂], an Airwave divestiture remedy would solve nothing. Open book accounting is also irrelevant as a remedy since the remaining term of the Airwave contract is not structured to require open book accounting. Finally, it is clear that the economics of Airwave simply do not justify any price control intervention at the end of its life.

¹¹⁴ Paragraph 2.20(b) of the MIR Decision

5. Conclusion

- (184) The Airwave and ESN contracts are highly complex, and need to be understood, but the underlying issue is very simple. The Airwave service is no different to a dedicated long term power supply agreement, with all the terms already agreed, including in relation to any extension. The CMA would not undertake a ‘market’ investigation to change the price of the final years of such a decades-old supply arrangement that had performed at least as well as the (well-advised) parties’ expectations and whose provisions already set the price for the remaining term at such a level that, overall, the returns achieved would remain within the parameters agreed by the parties at the outset of the project. Quite aside from the devastating impact on contractual certainty, the CMA would be inundated with requests for ‘market’ investigations in the final years of a long-term contract.
- (185) Airwave faces exactly this scenario, and the MIR Decision offers no credible reason for this. This is despite the fact that every long-term contract with the UK government is affected by this MIR Decision and the outcome of this market investigation. The Airwave service that is the subject of this market investigation is simply a highly complex nexus of long-standing detailed contractual arrangements, without which Airwave would not exist, and whose terms the parties have agreed will apply until Airwave is switched off. Moreover, when those terms were agreed the Home Office was in the strongest negotiating position, holding a veto right over the approval of Motorola’s acquisition of Airwave, and the Home Office extracted, as part of the acquisition arrangements, a very favourable position in respect of a significant number of commercial and contractual matters.
- (186) As matters stand, Airwave is now subject to an MIR Decision that is ill-reasoned, littered with basic factual mistakes and hopeless theories, and which does not even attempt a rudimentary depiction of the underlying contractual arrangements between the Home Office and Motorola. The CMA refers, in its Decision, repeatedly to “*negotiations*” between the Home Office and Motorola in respect of Airwave, as if there are contractual matters that are not settled for the remaining period of Airwave’s life.
- (187) Much is made in the MIR Decision of Motorola’s “*incentives*” to delay ESN. These incentives were fully dealt with as a contractual matter through the Deed of Recovery, which was amended over time. If Motorola had caused such delay, the Home Office would [✂]. It makes no sense therefore to point to a historic hypothetical adverse incentive that was never acted upon, not least due to the [✂] damage that such act would have caused to Motorola’s business under the Deed of Recovery.
- (188) This market investigation follows a process conducted by the CMA that was seemingly engineered to find whatever support it could for a narrative directed by the Cabinet Office and/or Home Office. In truth, the CMA already reviewed Motorola’s participation in ESN and Airwave when the CMA correctly cleared the Airwave acquisition. There remains no Airwave ‘market’ and trying, as the CMA now does, to manufacture notional competition between Airwave and ESN to try to claim the existence of a ‘market’ does not change that reality.
- (189) At the same time, Motorola is extremely concerned that the record administrative timetable will not allow the Group properly to understand this complex service arrangement and the implications of any proposed intervention. It is entirely unclear why the timetable proposed is approximately 13 months faster than the average speed of the past seven market investigations (funerals, investment consultations, retail banking, energy, private healthcare, payday lending and aggregates, cement and ready-mix concrete) in which the average time from reference to final report was around one year and nine months, and seven months faster than the shortest investigation to date (investment consultants which took 15 months).

Motorola requested that the draft timetable be amended to allow for a fair process, but this was rejected with the explanation given that the CMA consulted with Motorola and the Home Office and chose to keep to the current timetable (a record timetable which, it will be noted, was accurately anticipated by the Home Office before it was shared with Motorola despite being substantially expedited relative to all other previous market investigation).

- (190) Motorola trusts that the Group will resist all pressure to undertake a superficial assessment of the matters at hand, to rush to judge, and will instead insist upon a timetable that allows for both a fair opportunity for Motorola to participate as well as sufficient opportunity for the Group to arrive at a considered assessment.
- (191) Motorola strongly believes that Airwave's performance over approximately two and a half decades (by the time it is shut down) should be a cause for celebration by the UK government as a project that was well delivered, and which has helped save countless lives. The Home Office (and the British taxpayer) has received – and continues to receive - an exceptional critical national infrastructure at great value.
- (192) Motorola is unequivocally proud of the Airwave service and looks forward to supporting the Group's investigation.

Appendix: Factual chronology of events leading to the delay of ESN

Date	Event
October 2015	This was the target date for awarding the main contracts for the provision of ESN. However, as of 15 September 2016, certain of these contracts were still to be awarded. ¹¹⁵
December 2015	Motorola signed the Lot 2 contract and EE signed the Lot 3 contract as part of the Programme. ¹¹⁶ At the same time, the end date for the Programme was brought forward to reduce the time available for the emergency services to transition to the new service from 30 months to 27 months. ¹¹⁷ This timetable was subsequently described as ambitious and over-optimistic. ¹¹⁸
March 2016	This was the target date for completion of the ESN designs. However, the ESN designs were not fully complete until August 2016. ¹¹⁹
June 2016	By this date, ESN did not feature on the list of risks escalated to the Home Office's management board. This was because the Home Office had downgraded the risk of not delivering ESN twice since the beginning of 2016, as the Home Office considered the risks associated with the roll-out of ESN to be under control. ¹²⁰
July 2016	At this stage, the percentage of landmass covered by EE's network was 70%. It was anticipated that sufficient coverage (i.e., 97%) would be available by September 2017. ¹²¹ However, this date was extended by the Home Office twice. As of 17 July 2019, the requisite coverage was still not available everywhere it was needed, and was expected to be completed in 2020. ¹²² At the same time, there were no devices (such as mobile phones) that could be used with ESN, as ESN used software standards that had only recently come into existence. These devices were required by the end of 2016 to enable ESN to be tested. ¹²³
15 September 2016	The Programme (i.e., the Home Office) ¹²⁴ had delivered detailed designs three months late, and had delayed the delivery of some elements of functionality by eight months. The Home Office was therefore between five and ten months behind the Full Business Case at this stage. ¹²⁵

¹¹⁵National Audit Office, 'Upgrading emergency service communications: the Emergency Services Network' (15 September 2016) <<https://www.nao.org.uk/wp-content/uploads/2016/09/Upgrading-emergency-service-communications-the-Emergency-services-Network.pdf>>.

¹¹⁶ibid.

¹¹⁷Public Accounts Committee, 'Upgrading Emergency Service Communications' (18 January 2017) <<https://publications.parliament.uk/pa/cm201617/cmselect/cmpubacc/770/770.pdf>>.

¹¹⁸House of Commons Public Accounts Committee, 'Emergency Services Network: further progress review' (17 July 2019) <<https://publications.parliament.uk/pa/cm201719/cmselect/cmpubacc/1755/1755.pdf>>.

¹¹⁹(n 3).

¹²⁰ibid.

¹²¹ibid.

¹²²Public Accounts Committee, 'Emergency Services Network: Further Progress Review' (10 July 2019) <<https://publications.parliament.uk/pa/cm201719/cmselect/cmpubacc/1755/1755.pdf>>.

¹²³(n 3).

¹²⁴The Programme is part of the Home Office, but is co-funded by the Department of Health, Scottish Government and Welsh Government.

¹²⁵(n 3).

Date	Event
	At the same time, technical oversight of the Programme was found to be insufficient. Although the Programme had a technical steering group, this met infrequently and did not provide a robust technical challenge function. In addition, at this point, it was found that the Home Office's Chief Technology Officer had only attended the Programme's main board twice since the beginning of 2014. ¹²⁶
16 November 2016	<p>The percentage of landmass covered by EE's network had increased to 74%, but EE noted that it still had a considerable amount of further coverage to achieve.¹²⁷</p> <p>The Home Office and Transport for London had not yet agreed a means by which to deliver the Programme in the London Underground. The Home Office indicated that negotiations were ongoing at this stage, and that the business case for providing this coverage would not be complete until June or July 2017. The process of delivering the Programme in the London Underground could not be commenced until this agreement was reached.¹²⁸</p> <p>The Home Office reported that it was pushing back the date on which emergency services would commence transition to ESN from September 2017 to July 2018. This was to allow sufficient time for the new system to be tested.¹²⁹</p>
October – December 2016	A report into the problems facing ESN was commissioned by the Programme's team. The resultant report was not shared with the Programme's Senior Responsible Owner. The Home Office subsequently stated on 22 May 2019 that had those responsible for the Programme been made aware of the report, it was likely that they would have initiated an independent review of the Programme at an earlier stage. ¹³⁰ The Home Office also admitted that problems such as those identified in the report were not escalated properly, which meant that the Home Office missed opportunities to correct its approach to ESN at an earlier stage. ¹³¹
February 2017	The Home Office reported that ESN would be completed nine months late. ¹³²
April 2017	The Home Office's Accounting Officer commissioned an independent review of ESN. The independent review identified five causes of delay to the Programme: (a) the failure of Kellogg Brown and Root ("KBR") to deliver planning and collaboration between the other ESN contractors; (b) the fact that Motorola and EE had prepared solutions

¹²⁶ibid.

¹²⁷Public Accounts Committee, 'Oral Evidence: Emergency Services Communications, HC (16 November 2016) <<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/public-accounts-committee/emergency-services-communications/oral/43448.pdf>>.

¹²⁸ibid.

¹²⁹ibid.

¹³⁰Public Accounts Committee, 'Oral Evidence: Emergency Services Network: Progress Review, HC 1755' (22 May 2019) <<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/public-accounts-committee/emergency-services-network-further-progress-review/oral/102447.html>>.

¹³¹(n 5).

¹³²National Audit Office, 'Progress delivering the Emergency Services Network' (10 May 2019) <<https://www.nao.org.uk/wp-content/uploads/2019/05/Progress-delivering-the-Emergency-Services-Network.pdf>>.

Date	Event
	based on differing technical standards; ¹³³ (c) the lack of agreement between the Home Office and Motorola as to Motorola's role in integrating ESN systems "end-to-end"; (d) challenges in locking down the specification for software and user services, as there was no effective process for signing off software developed by Motorola in a timely manner; and (e) the late delivery of the related projects for which the Home Office itself controlled, such as the handsets and vehicle equipment that the emergency services would use, providing ESN on the London Underground and providing an air-to-ground service for helicopters and aeroplanes. ¹³⁴
August 2017	Motorola purchased the Kodiak push-to-talk product, which was compatible with telecommunication standards used by EE. At this stage, the system required further development and testing, and was anticipated to meet user requirements in 2020. ¹³⁵
October 2017	An independent review of the Programme found that the Home Office had not yet been provided with a complete software solution by Motorola. ¹³⁶
Mid-2018	<p>The Home Office was increasingly using its own and sub-contracted staff for management and integration work relating to the Programme due to the shortfalls in KBR's performance.¹³⁷</p> <p>The Home Office commenced the renegotiation of its contracts with EE and Motorola. Temporary working arrangements were agreed under Heads of Terms with both EE and Motorola so as to allow work on the Programme to continue during the renegotiations. The contract renegotiations were due to be agreed by December 2018, but were delayed in their conclusion until 2019, and this affected the progress of the Programme reset.¹³⁸</p>
June 2018	The Home Office realised that the existing ESN contracts were not deliverable. ¹³⁹
21 September 2018	The Home Office announced that the Programme was being reset. ¹⁴⁰
2019	The Home Office was due to prepare a re-worked Full Business Case, but the Public Accounts Committee found on 10 September 2020 that this had been delayed until March 2021 due to COVID-19. The Public Accounts Committee noted that this would cause further delays to the delivery of ESN. ¹⁴¹

¹³³The Home Office subsequently admitted that it had been aware that there was a discrepancy in Motorola and EE's technical standards at the time, but that it had not appreciated the problems, and resultant delays, that this would cause (n 18). The Home Office also admitted that problems such as this could have been avoided with better integration and coordination between the different ESN suppliers (n 5).

¹³⁴(n 20).

¹³⁵ibid.

¹³⁶ibid.

¹³⁷ibid.

¹³⁸ibid.

¹³⁹(n 5).

¹⁴⁰Home Office, 'New strategic direction for the Emergency Services Network (ESN)' (21 September 2018) <<https://www.gov.uk/government/news/new-strategic-direction-for-the-emergency-services-network-esn>>.

¹⁴¹Public Accounts Committee, 'Oral Evidence: Home Office Recall, HC 678' (10 September 2020) <<https://committees.parliament.uk/oralevidence/820/pdf/>>.

Date	Event
March 2019	<p>By this date, only two of the 292 masts that the Home Office was responsible for commissioning under Extended Area Services (“EAS”) were live.¹⁴²</p> <p>The Home Office identified six concerns amongst potential users of ESN, which were: (a) overall coverage; (b) coverage on the London Underground; (c) network resilience; (d) upgrades to systems in control rooms; (e) air-to-ground coverage; and (f) the timeframe for the adoption of ESN within 27 months was unrealistic. The Home Office anticipated that these concerns would be addressed in full by December 2022.¹⁴³</p>
30 April 2019	<p>The Home Office’s contract with KBR was terminated.¹⁴⁴ KBR was the Home Office’s ‘delivery partner’, and was to support the Programme in implementing ESN.¹⁴⁵ KBR’s performance had been noted to be unsatisfactory as early 2016.¹⁴⁶</p>
10 May 2019	<p>The Home Office was yet to award contracts for parts of the ESN system, such as air-to-ground communications with emergency service aircraft.¹⁴⁷</p> <p>Aspects of the Home Office’s plans for ESN were based on technological solutions that were not yet available, such as how aircraft will receive an ESN signal and direct communication between devices without the need for a network signal.¹⁴⁸</p> <p>The Home Office did not have a plan for running ESN as a live service, despite the fact that the Home Office would be responsible for running ESN upon the completion of its roll-out. In addition, although the Home Office had received a recommendation to set up a new Government-owned organisation to manage ESN once live in September 2018, the Home Office had not yet decided whether to implement this approach.¹⁴⁹</p> <p>The Home Office’s failure to manage the risks associated with the Programme was found to have led to delays in bringing the intended benefits of ESN to the emergency services.¹⁵⁰</p>
22 May 2019	<p>The Home Office had yet to further progress the commissioning of masts under EAS, as it was identified at this point that the Home Office had still only built two of the 292 masts that it was responsible for. The</p>

¹⁴²(n 20).

¹⁴³ibid.

¹⁴⁴Letter from Meg Hillier MP to the Chair of the Committee of Public Accounts (4 June 2019) <<https://www.parliament.uk/globalassets/documents/commons-committees/public-accounts/Correspondence/2017-19/Corresp-Home-Office-to-Chair-re-ESN-190604.pdf>>.

¹⁴⁵(n 3).

¹⁴⁶ibid.

¹⁴⁷(n 20).

¹⁴⁸ibid.

¹⁴⁹ibid.

¹⁵⁰ibid.

Date	Event
	<p>Home Office was unable to state when the rest of the mobile phone sites would be going live.¹⁵¹</p> <p>At this stage, the Home Office admitted that it had been aware that Motorola and EE had been working on different technical criteria, but that the Home Office had not realised how major the impact of this fact would be. In addition, the Home Office conceded that it should have co-located Motorola and EE, or teams within Motorola and EE, so that the two suppliers could liaise with each other as to the technical criteria employed.¹⁵² This had previously been identified as an issue in an independent review of ESN commissioned by the Home Office in April 2017, which noted that Motorola and EE had prepared solutions based on differing technical criteria.¹⁵³</p>
17 July 2019	<p>It was found that the Home Office did not have an integrated plan for how and when each emergency service would deploy ESN at this stage, and technology for some parts of ESN were still not ready.¹⁵⁴ This included work to build a network to enable aircraft to use ESN, and the provision of coverage on the London Underground.¹⁵⁵</p>
18 May 2020	<p>At this stage, delays were identified in relation to the [REDACTED].¹⁵⁶</p>
10 June 2020	<p>[REDACTED] there was a delay to the delivery of the [REDACTED].¹⁵⁷</p>
10 September 2020	<p>The Home Office reported that there was a lot more work required in order to have in place the core infrastructure needed to deliver the Programme in the London Underground, and that work had been paused due to COVID-19.¹⁵⁸</p> <p>The Home Office stated that the provision of handsets by Samsung was taking longer than originally planned, and that the Home Office and Samsung were having commercial discussions in this regard.¹⁵⁹</p>
15 December 2020	<p>[REDACTED]. Further delays were also announced [REDACTED] and it was anticipated at this stage that this would be achieved by [REDACTED].¹⁶⁰</p>
8 February 2021	<p>The Minister of State for Crime and Policing stated that the Programme expected to appoint contractors to allow the execution of network coverage in rural areas, as it was noted that there were still coverage issues in areas such as mid-Wales.¹⁶¹</p>
19 May 2021	<p>Further delays to ESN were announced, and the plan date was pushed back from [REDACTED].¹⁶²</p>

¹⁵¹(n 18).

¹⁵²ibid.

¹⁵³ibid.

¹⁵⁴(n 5).

¹⁵⁵ibid.

¹⁵⁶[REDACTED].

¹⁵⁷[REDACTED].

¹⁵⁸(n 29).

¹⁵⁹ibid.

¹⁶⁰[REDACTED].

¹⁶¹House of Commons, 'Emergency Services Network, Volume 689' (8 February 2021) <<https://hansard.parliament.uk/Commons/2021-02-08/debates/AE5777B7-E5C4-467A-8886-44017023A4F1/EmergencyServicesNetwork>>.

¹⁶²[REDACTED].

Date	Event
16 June 2021	[REDACTED] had been delayed from [REDACTED] ¹⁶³

¹⁶³[REDACTED].