



House of Commons
Committee of Public Accounts

Emergency Services Network: further progress review

One Hundred and Eighth Report of
Session 2017–19

*Report, together with formal minutes
relating to the report*

*Ordered by the House of Commons
to be printed 10 July 2019*

The Committee of Public Accounts

The Committee of Public Accounts is appointed by the House of Commons to examine “the accounts showing the appropriation of the sums granted by Parliament to meet the public expenditure, and of such other accounts laid before Parliament as the committee may think fit” (Standing Order No. 148).

Current membership

[Meg Hillier MP](#) (*Labour (Co-op), Hackney South and Shoreditch*) (Chair)

[Douglas Chapman MP](#) (*Scottish National Party, Dunfermline and West Fife*)

[Sir Geoffrey Clifton-Brown MP](#) (*Conservative, The Cotswolds*)

[Chris Evans MP](#) (*Labour (Co-op), Islwyn*)

[Caroline Flint MP](#) (*Labour, Don Valley*)

[Robert Jenrick MP](#) (*Conservative, Newark*)

[Shabana Mahmood MP](#) (*Labour, Birmingham, Ladywood*)

[Nigel Mills MP](#) (*Conservative, Amber Valley*)

[Layla Moran MP](#) (*Liberal Democrat, Oxford West and Abingdon*)

[Stephen Morgan MP](#) (*Labour, Portsmouth South*)

[Anne Marie Morris MP](#) (*Conservative, Newton Abbot*)

[Bridget Phillipson MP](#) (*Labour, Houghton and Sunderland South*)

[Lee Rowley MP](#) (*Conservative, North East Derbyshire*)

[Gareth Snell MP](#) (*Labour (Co-op), Stoke-on-Trent Central*)

[Anne-Marie Trevelyan MP](#) (*Conservative, Berwick-upon-Tweed*)

Powers

Powers of the Committee of Public Accounts are set out in House of Commons Standing Orders, principally in SO No. 148. These are available on the Internet via www.parliament.uk.

Publication

© Parliamentary Copyright House of Commons 2019. This publication may be reproduced under the terms of the Open Parliament Licence, which is published at www.parliament.uk/copyright/.

Committee reports are published on the [Committee’s website](#) and in print by Order of the House.

Evidence relating to this report is published on the [inquiry publications page](#) of the Committee’s website.

Committee staff

The current staff of the Committee are Richard Cooke (Clerk), Laura-Jane Tiley (Second Clerk), Hannah Wentworth (Chair Liaison), Ameet Chudasama (Senior Committee Assistant), Baris Tufekci (Committee Assistant), Hajera Begum (Committee Assistant) and Stephen Luxford (Media Officer).

Contacts

All correspondence should be addressed to the Clerk of the Committee of Public Accounts, House of Commons, London SW1A 0AA. The telephone number for general enquiries is 020 7219 5776; the Committee’s email address is pubacom@parliament.uk.

You can follow the Committee on Twitter using [@CommonsPAC](#).

Contents

Summary	3
Introduction	4
Conclusions and recommendations	5
1 The 2018 'reset' of the ESN programme	8
The ESN programme	8
The new approach to delivering ESN	8
Warning signs about the delivery of the programme	10
Confidence of emergency services in the new approach	11
2 Remaining risks for ESN	14
Integration risks	14
Commercial risks	14
The case for continuing with ESN	15
Formal Minutes	17
Witnesses	18
Published written evidence	19
List of Reports from the Committee during the current Parliament	20

Summary

Effective, reliable mobile communications are vital for police, firefighters and ambulance crews to do their life-saving work. But despite repeated warnings from this Committee and others, the Home Office's (the Department's) programme to create the new Emergency Services Network (ESN) has been beset by problems. Delays to the delivery of the programme have continued and costs have escalated. ESN is now three years late and expected to cost the taxpayer at least £3.1 billion more than planned. The Department's original approach was far too optimistic given the level of risk, and its governance arrangements were insufficient to deal with problems that emerged.

In 2018 the Department announced it was to 'reset' the programme, but we are not yet convinced that it has done enough to turn the programme around. The plan for delivering ESN is still not sufficiently robust and the Department does not yet have the skills to make it work. The programme faces substantial levels of technical and commercial risk, and failures to date have undermined the confidence of users that the programme will deliver a system that is fit for purpose and meets their needs. On current evidence it seems inevitable that there will be further delays and cost increases. The department has put itself in a position where the status quo is costly and leaves little option but to progress with ESN. One company, Motorola, is involved in both the new and the old contract leading to perverse incentives and putting the department in a weak negotiating position. The committee has seen other examples where the lack of a market in certain technical or IT products and services puts the Government in a weak contractual position. This is the eighth occasion that we have examined the programme. We will continue to be concerned about the progress of this programme until the Department has a clear plan for delivery and can demonstrate that it has the skills and capacity to meet the substantial challenges ahead.

Introduction

In 2015 the Home Office (the Department) set out to replace the Airwave radio system, which is currently used by all 107 emergency service organisations in England, Scotland and Wales to communicate in the field. The replacement system, the Emergency Services Network (ESN), is intended to be as least as good as Airwave, add 4G mobile data capabilities and be far cheaper. The Department is responsible for the delivery of the ESN programme, which is also co-funded by the Department of Health & Social Care, the Scottish and Welsh Governments, and the organisations that will use it. In 2015, the Department awarded contracts for the main parts of ESN to EE and Motorola and appointed KBR to be the Department's delivery partner. ESN was due to be completed by December 2019 at which point Airwave, owned by Motorola since 2016, would be turned off.

In September 2018, the Department announced that it would reset ESN and would launch it in several stages. This involved changes throughout the programme, including a renegotiation of contracts with EE and Motorola and delaying the point at which ESN is expected to replace Airwave to December 2022. The cost of building and running ESN until 2037 is now expected to be £9.3 billion, an increase of £3.1 billion since the 2015 business case.

Conclusions and recommendations

1. **Despite extending the Emergency Services Network (ESN) by 3 years and increasing its budget by £3.1 billion, the Department has still not got a grip on whether it can deliver the programme.** The Department announced it had ‘reset’ ESN in September 2018, but there are significant issues to resolve if it is to meet its extended deadline. Emergency services were meant to have started transitioning to ESN in September 2017, but nearly two years later the Department still does not yet have an integrated plan for how and when each emergency service will deploy ESN. Technology for some parts of ESN is still not yet ready, for example work to build a network to enable emergency service aircraft to use ESN has not yet started and coverage is not available everywhere it is needed, including on underground railways. The Department has extended the Airwave contract to December 2022 but is already describing this as a “not before” date rather than a realistic target for when ESN will be ready.

Recommendation: *The Department should set out, by October 2019 a detailed, achievable, integrated programme plan including a realistic date for turning off Airwave and the cost of any extension of Airwave that may be needed and update the Committee when this plan is ready.*

2. **An unhealthy, ‘good news’ culture in the Department meant it failed to heed warning signs that the programme was undeliverable.** Many of the issues with the Department’s original approach were foreseeable and should have been challenged earlier. For example, the Department could have taken a more incremental approach from the start and should have allowed more time to get planning permission for sites on which to build masts. We have been warning that ESN is a high-risk programme since 2016, but only now does the Department accept that it was too optimistic about how long it would take to build ESN. The Department admits that where problems had been identified, they were not escalated properly, which meant the Department missed opportunities to correct its approach earlier. For example, the Senior Responsible Owner for the programme was not made aware of an early report which had identified some of the issues and risks with the Department’s approach. It is positive that the current Accounting Officer quickly commissioned an independent review of the programme when he took up post in 2017, and that, as a result, action was taken to reset ESN, but it is concerning that such a report was necessary.

Recommendation: *The Department should write to the Committee by October 2019 setting out the steps that it has taken to: improve senior oversight of the programme; ensure assumptions are subject to appropriate challenge; and to make sure the findings of independent assurance reviews are widely shared and taken seriously.*

3. **The Department’s mismanagement of the programme means the emergency services do not yet have confidence that ESN will provide a service that will meet their needs.** Our previous examinations of the Department’s e-borders programme and the modernisation of the Disclosure and Barring Service have shown that a lack of understanding of user needs can lead to programme failure. The intended users of ESN have not yet seen enough evidence that it would be ready to replace Airwave by

December 2022. The new incremental approach adopted by the Department could improve users' confidence in the programme. But the initial test, the first version of 'ESN Direct', will only be used by about 120 users in immigration enforcement, a tiny fraction of the 300,000 potential ESN users. The Department continues to say that it will not force users to accept ESN until they all agree it is 'as good' as Airwave, but it has not defined what this means with sufficient clarity. It has also yet to confirm what happens if some users require expensive changes before they will accept ESN.

Recommendation: *The Department should, without delay, agree with users a set of specific and detailed criteria that will be used to determine when ESN is ready to replace Airwave, and who will ultimately decide when those criteria are met.*

4. **We are not convinced that the Department has the plans or the skills needed to integrate the different elements of ESN into a coherent service.** The Department's first attempt at integrating ESN was unsuccessful, with the 'delivery partner' KBR failing to provide planning and collaboration between the other contractors after its role was downgraded by the Department. The critical role of making all the different elements of ESN work seamlessly together has now passed to the Department, but it does not yet have sufficient skills to undertake this role. Its plans for testing ESN are not well developed and the its track record of coordinating this programme so far is poor. It failed to realise the implications of EE and Motorola making plans based on different versions of telecommunications standards. It similarly failed to ensure suppliers worked together in the same location at the start of the programme, which could have improved collaboration. The Department intends to contract a new delivery partner, but this has not yet happened.

Recommendation: *Before contracting with a new delivery partner, the Department should analyse the skills and tasks needed to integrate ESN, how any skills gaps will be filled, and how lessons from the failure of the KBR contract will be applied to the new delivery partner contract.*

5. **Based on past failures to manage its contractors, we are concerned about the Department's ability to manage the significant commercial risks facing the programme, including those presented by Motorola's position as supplier to ESN and owner of Airwave.** The Department failed to ensure contractors delivered ESN to the timetable in the original contracts. It admits that the commercial structure for ESN is highly disaggregated and adds complexity to an already difficult task, and is trying to improve the contracts by changing them. But it signed the new Motorola contract 5 months late and the new EE contract was still not signed when we took evidence. The Airwave contract has been extended to end in December 2022, but a further negotiation will be needed to cover the additional delays which now seem inevitable given the Department's admission that it could take longer to build and deploy ESN. It is vital that Airwave does not cease working before ESN is fully ready but extending Airwave again is likely to further increase the costs of the programme. Given its previous negotiation to extend Airwave achieved only a 5% discount, and given Motorola, which is a key supplier to ESN, has a monopoly position as Airwave's owner, we are concerned that the Department has limited leverage to secure value for money in any future extension of Airwave contract.

Recommendation: *The Department should write to the Committee by October 2019 setting out how it will manage the risks presented by Motorola's position and the possible need to extend Airwave until it can be replaced by ESN.*

6. **Delays to the Department's revised business case for ESN and the prospect of further increases in cost raises doubts over the value for money case for ESN.** Although the forecast cost of ESN has increased by £3.1 billion, the Department still asserts that ESN will eventually be cheaper than Airwave. But it no longer expects this to happen until 2029, a delay of 7 years compared to the 2015 business case. Delivering ESN later than planned is also likely to create cost pressures for emergency services who may need to buy new Airwave devices while they wait for ESN to be ready. The Department's forecast costs for the programme are not finalised as they are part of a business case which is not approved. The business case is now expected to be approved in early 2020, over a year late. Given it is likely that Airwave will need to be extended further than December 2022 it seems inevitable that the £9.3 billion cost of ESN will increase again. This will further delay the point at which ESN is cheaper than Airwave, weakening the argument for continuing with ESN.

Recommendation: *The Department should ensure it delivers a revised and approved business case, which both the emergency services and the other funders of ESN support, by the end of 2019 at the latest. The business case should include an appraisal of when continuing to spend money on ESN ceases to be value for money and should set out a 'plan B' for what would happen if that point was reached.*

1 The 2018 'reset' of the ESN programme

1. On the basis of a report by the Comptroller and Auditor General, we took evidence from the Home Office (the Department) about progress in delivering the Emergency Services Network (ESN).¹

The ESN programme

2. The ESN programme is Department's chosen replacement for the Airwave digital radio system, currently used by 107 emergency services and 363 other organisations, in England, Scotland and Wales for communicating in the field.² The Department intends that ESN will:

- **Fully replace Airwave, matching it in all respects.**

The Department 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.

- **Allow users greater access to mobile data.**

Emergency services require mobile data for their life-saving work. While the existing Airwave system provides only limited mobile data capabilities, ESN is intended to provide 4G, for example the fire service could use ESN to transmit live video of incidents to firefighters on the way to an incident.

- **Cost less than Airwave.**

The Airwave network was fully dedicated to its users, but ESN will see the emergency services share an existing commercial mobile network, which is expected to be far cheaper. ESN is jointly funded by the Home Office, the Department for Health & Social Care, and the Scottish and Welsh Governments, and some costs are paid for by users.³

3. The Department let the main contracts for building and running ESN in 2015 to: EE Ltd (EE), to provide priority access to its existing 4G mobile network and increase its coverage; and Motorola Solutions UK Ltd (Motorola), to provide the software and systems that ensure ESN meets the needs of the emergency services. The Department also appointed KBR Ltd (KBR) to be the delivery partner for ESN and other suppliers were, or will be, contracted to provide other elements of ESN including devices and upgraded control rooms.⁴

1 C&AG's Report, *Progress delivering the Emergency Services Network*, Session 2017–19, HC 2140, 10 May 2019

2 C&AG's Report, para 1

3 C&AG's Report, paras 1–2, 1.5

4 C&AGs Report, paras 3–4

The new approach to delivering ESN

4. When the Department awarded contracts for ESN in 2015, its timetable assumed that emergency services would start transitioning away from Airwave and onto ESN in September 2017, allowing Airwave to be shutdown in December 2019. In February 2017, the Department reported that the completion of ESN had been delayed by 9 months, and in September 2018 it announced it had ‘reset’ the programme. The reset involved extending the timetable, adopting an incremental delivery approach, with ESN delivered in phases rather than all at once, replacing a key piece of technology and renegotiating the main contracts with EE and Motorola. The point at which ESN is planned to replace Airwave was delayed by three years to December 2022, and the total cost of ESN has increased to £9.3 billion, an increase of £3.1 billion.⁵

5. The Department admitted that its original timetable for ensuring ESN provides network coverage everywhere it is needed was too optimistic.⁶ The Department is responsible for building 292 new mobile phone sites in rural areas and connecting them to EE’s network. But only 2 out of 292 have been finished and it could not say when the rest would be going live.⁷ The Department told us that it had anticipated that acquiring the land for these sites and gaining planning permission would be difficult, but accepted that getting the agreement of land owners had been more difficult than it had expected.⁸ EE has also been slower than expected in rolling out the physical infrastructure needed to support ESN, including coverage for regional metros, which is now expected to be completed in 2020 rather than September 2017 as originally planned. The Department told us that EE had been over-optimistic about the time needed to build coverage into underground railways, such as those in Glasgow and Tyne and Wear, but that in other areas EE would have been able to deliver quickly if it had needed to, but delays elsewhere in the programme meant that it had deliberately spread out its investment over a longer period.⁹

6. We asked the Department how it could now be confident that ESN would deliver on time, particularly given the amount of work that is still left to do to ensure that the new technology is available.¹⁰ The Department told us it had a “pretty high” degree of confidence of launching the first substantive ESN prototype product later this year, but recognised that there was a remaining challenge to roll-out the new technology and ensure people use it. But key technology for ESN is not yet proven in real-world conditions. The National Audit Office found that Samsung had produced a prototype handset, and EE had successfully tested its core network’s ability to prioritise emergency services’ use of ESN, but this has not yet been fully tested for the ESN system as a whole or in demanding scenarios such as major public events or disasters. Technology for providing direct communication between devices without the need for a network signal is also not yet provided by any device on the market.¹¹ The Department told us it was hoping to award contracts for devices for aircraft soon.¹² But work on the network to provide a signal for those devices has not yet started and the Department told us that emergency services

5 C&AG’s Report, paras 7, 8, 10, 1.10, Figure 4

6 [Q 126](#)

7 [Qq 131–132](#)

8 [Qq 127–129](#)

9 [Qq 125–6, 133–135](#)

10 [Qq 73–74](#)

11 [Q 74](#); C&AG’s Report, para 12

12 [Q 136](#)

would not have access to this until 2020–21.¹³

7. When the current Accounting Officer joined the Department in April 2017, he found that the programme’s timetable needed revising again despite the Department having recently announced 9 month delay.¹⁴ In July 2017 he commissioned an independent review that reported in October 2017 and found the programme did not have a complete integrated programme plan.¹⁵ The Department has now approved a new plan, but the National Audit Office found that the plan is not yet robust or sufficiently detailed to demonstrate that the Department understands the challenges faced by the programme, including how emergency services will implement ESN, or how the components of ESN will be integrated successfully. For example the Department’s plan assumes ESN will be rolled out in some areas before key parts of the system, such as upgraded control rooms, are expected to be ready.¹⁶ The Department told us that it would have an integrated deployment plan in place by August 2019.¹⁷ It was unable to confirm that December 2022 was a realistic target for turning off Airwave, and described it as a “not before date” rather than a firm deadline.¹⁸

Warning signs about the delivery of the programme

8. The Department admitted that its programmes, and the people running them “tend to optimism”, which can help get them through challenges but can also narrow the perspectives of those responsible for programme.¹⁹ We asked the Department the extent to which concerns about the programme were obvious and raised and discussed. The Department told us that while these concerns were obvious and were raised at a senior level, it could not confirm how widely they were discussed across the organisation.²⁰ In 2016, the programme team commissioned a report into the problems facing ESN. But this was not shared with the programme’s Senior Responsible Owner, who told us he only learned of it when it was referenced in the independent review commissioned the following year. The Department was not able to explain why this had happened. The 2016 report had identified some of the problems in the programme, including a lack of clarity around integration. We asked, had the report been more widely discussed, whether the Department could have avoided problems with the programme. It told us that, had those now responsible been aware of the report, it was likely that they would have initiated the independent review of the programme at an earlier stage.²¹

9. We asked the Department’s Accounting Officer what his view of ESN was when he took up his post in April 2017. He told us that it had quickly become apparent that the programme was under strain and he had been concerned that there was a risk additional time would be needed, beyond the 9 month delay that had already been reported.²² As well as commissioning an independent review in July 2017, he strengthened the leadership and governance of ESN so that the programme now reports to the Chief Digital, Data

13 Qq 74, 137; C&AG’s Report, para 12

14 Q 13

15 Q 23

16 Q 96; C&AG’s Report, para 16

17 Qq 113, 139

18 Qq 60,73

19 Q 45

20 Q 17

21 Qq 67–71

22 Qq 13–16

and Technology Officer.²³ The independent review identified multiple issues with the programme, including the failure of the delivery partner contract with KBR, EE and Motorola assuming different versions of telecommunication standards, a disagreement on the responsibilities for systems integration and technical design, challenges locking down the detailed requirements for software, and late delivery of the projects that the Department controlled itself.²⁴

10. We were concerned that it took so long to surface the problems with the delivery of ESN and realise that the timetable was over optimistic. We and the NAO had been warning that ESN was high risk since 2016.²⁵ In September 2016, the NAO warned that the Department appeared to be under-rating the seriousness of the risks to delivering ESN.²⁶ In our report in January 2017, we concluded that the programme was unlikely to meet its ambitious timetable and recommended that the Department reassess its timetable and milestones to ensure that all parties involved in delivering the programme agreed they were deliverable.²⁷ We reiterated these concerns and our disappointment that the Department's risk management and assurance arrangements had not picked these problems up earlier in our second report on ESN in April 2017 and recommended the Department review the risks to the programme as we thought it was too ambitious.²⁸

11. The Department now admits that it had believed the suppliers when they said they were “confident” that they would be able to deliver ESN on time, and that the Department itself had under-estimated the difficulty in obtaining planning permission for the new sites. We were concerned that the Department had not anticipated these issues given that they were not a surprise to Committee Members based on experience within their constituencies.²⁹ We also asked why, given the scale, complexity and level of risk of ESN, the Department had not adopted an incremental approach to rolling out the new technology from the start. The Department recognised that it had become overly focused on delivering everything at once, and that this was not the way to deliver such a complex programme.³⁰ The Department admitted its original timetable was too optimistic, but some optimism remains, for example the programme contingency is only enough to cover a small further delay.³¹

Confidence of emergency services in the new approach

12. Our previous examinations of major programmes within the Home Office have found that failing to understand or engage with the end users can pose serious risks. Our predecessor Committee's report on the e-borders programme found that, while stakeholder engagement was a critical to the success of the programme, throughout the Department had underestimated the importance of securing their co-operation. The Department did not fully recognise the diversity of the industry users, and feedback from users had not

23 Qq 18- 22

24 Q 21; C&AG's Report, para 6

25 Qq 40-44

26 Comptroller & Auditor General, [Upgrading Emergency Services Communications: the Emergency Services Network](#), Session 2016-17, HC 627, 15 September 2016

27 Committee of Public Accounts, [Upgrading emergency service communications](#), 35th Report of Session 2016-17, HC 770, 25 January 2017

28 Committee of Public Accounts, [Upgrading emergency service communications – recall](#), 52nd report of Session 2016-17, HC 997, 21 April 2017

29 Qq 55, 127-129, 149

30 Qq 147-148

31 Q 42; C&AG's Report, para 10

been acted on. We recommended that the Department should ensure all stakeholders were consulted as programmes develop and that the issues they raise were considered carefully and responded to effectively.³² In our report on modernising the Disclosure and Barring Service we found that the Department launched the updated service without a sound idea of demand or whether customers would use it, and was only just starting to look at why it was not popular. It had launched the service without a pilot or properly engaging with users, which it subsequently admitted was a mistake as demand had been much lower than was predicted. We recommended that before making changes to services in future, the Department should undertake a proper and robust forecast of user needs and demand.³³

13. We were concerned that the delays to ESN had reduced users' confidence in the programme and asked the Department how it was addressing this.³⁴ The Department told us that the new incremental approach to delivering ESN will give greater opportunity for emergency services to test ESN and gain confidence that it will meet their needs. But it recognised that, given the risks of using a new system in life or death situations, most may prefer to wait until later versions of ESN are available, rather than try out the earlier products.³⁵ The first test will come with the launch of the 'ESN Direct 1' product later in 2019, which is expected to be used by 120 people in Immigration Enforcement.³⁶ The Department told us that it hoped to expand the numbers using Direct 1 to around 1,000 people by November 2019, but recognised that this was still a small fraction of the 300,000 expected to eventually use ESN.³⁷

14. The Department did not start to undertake exercises with three police forces to understand their needs in rolling out ESN until July 2018. The Department told us 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.³⁸ As a result of this some emergency services do not yet have confidence in the programme. We heard from the Police and Crime Commissioner of Bedfordshire, who told us that they had "seen nothing to give [us] assurance that [ESN] will be delivered by the end of 2022, as currently proposed".³⁹

15. The Department continued to assert that it will not force emergency services to adopt ESN, and that ESN will be as good as Airwave in all respects.⁴⁰ We asked how this will be judged in the absence of an agreed, and locked down statement of what the ESN service will look like or how it will be used in practice.⁴¹ The Department told us that it knows the end point for the programme and had agreed the technical requirements that the programme must meet.⁴² But it admitted that the operating model—the way ESN will

32 Committee of Public Accounts, 27th report of Session 2015–16, [e-Borders and successor programmes](#), HC 643, 4 March 2016, para 5

33 Committee of Public Accounts, [Modernising the Disclosure and Barring Service](#), 42nd Report of Session 2017–19, HC 695, 25 May 2018, para 5

34 Qq 28, 107

35 Qq 31,32, 148

36 Qq 28–32

37 Q 32; C&AG's Report Figure 11

38 Qq 96, 101–103

39 Q 115; Written Evidence ESR0003, Bedfordshire Police, 5 June 2019

40 C&AG's Report, para 15

41 Qq 150–167

42 Qq 154–160

be used in practice—had not yet been agreed. We were concerned that this created a risk that ESN might not be accepted by the emergency services despite meeting the technical requirements.⁴³

16. We heard from representatives of fire and police services, who told us that they were working on detailed acceptance criteria. The National Police ESN Coordinator told us that they had discussed and were agreeing an extensive set of exit criteria that need to be met before Airwave can be switched off. The National Fire Chiefs Council similarly told us that they had produced a comprehensive set of acceptance criteria which must be met in full for the fire service to consider ESN as fit for purpose.⁴⁴ We asked what would happen if the Department considered ESN to be fully delivered but emergency services were not content to transition. The Department told us it will not leave users without communication, but could only say that there would be further discussions if emergency services were not happy.⁴⁵ The Department was unable to explain in detail what would happen if some services were not convinced, or where the tipping point would be at which ESN is accepted by enough services to put pressure on others to accept it.⁴⁶

43 Qq 160–169

44 Q 123; Written Evidence: ESR0001, National Police ESN Coordinator, 22 May 2019; ESR0002 National Fire Chiefs Council, 22 May 2019

45 Qq 120–122

46 Qq 173–177

2 Remaining risks for ESN

Integration risks

17. The Department appointed KBR to act as its ‘delivery partner’ in 2015, to oversee testing and support the integration of the different elements of ESN into a coherent system. The Department admitted that the contract was not successful and that it had downgraded the role of KBR and did not expect to continue to employ KBR much longer. Following our evidence session, it wrote to us to confirm that its contract with KBR had been terminated.⁴⁷ KBR was contracted to deliver planning and collaboration between suppliers but the Department told us that while the contact had been useful to procure specialist resource, in some instances it had felt it necessary to appoint its own staff as those supplied by KBR did not have the experience or expertise the Department required.⁴⁸

18. The responsibility for integrating ESN has now passed wholly to the Department. The Department recognised that this was not naturally the role of a Government department and that it needed to build its capability to take on the role.⁴⁹ It told us that it was strengthening the programme team to increase its ability to undertake the integration, and that it was in the process of procuring a new delivery partner to ensure it has the system integration skills it needs.⁵⁰

19. The Department recognised that several of the early problems faced by the programme could have been avoided with better integration and coordination between the different suppliers, for example, managing the impact of different versions of telecommunications standards being assumed by EE and Motorola. While the Department understood there was a difference, it admitted that it did not fully comprehend that this was a fundamental problem for the programme until software entered testing.⁵¹ We asked why the Department had not ensured suppliers worked in the same location at the start of the programme so that they could have talked to each other. We have seen such co-location bring benefits to other programmes such as efficiencies, savings and technological improvements. The Department admitted that, on reflection, it should have ensured suppliers were co-located and that while it thought its arrangements to work with suppliers would have been good enough, this had not been the case.⁵²

Commercial risks

20. As part of the reset, in June 2018 the Department realised that the existing ESN contracts were not deliverable.⁵³ The Department told us that it had tried to hold its suppliers to account but it admitted that it had needed to clarify the contract to make responsibilities clear.⁵⁴ As part of the reset, since mid-2018 the Department has been renegotiating its contracts with EE and Motorola and has extended the Airwave contract. It has agreed temporary working arrangements with both EE and Motorola to enable

47 Q 93; [Letter from Home Office to Meg Hillier, 4 June 2019](#) C&AG’s report, para 3, 14

48 Q 93; C&AG’s Report, para 6

49 Q 97

50 Q 98

51 Qq 46–50, 56

52 Qq 59–60

53 C&AG’s Report, para 3.3

54 Qq 36–37

work to continue due the renegotiation. The Department had intended to complete this by December 2018 but it only signed the Motorola contract in May 2019, 5 months late, and it had not signed the revised contract with EE at the time of our evidence session.⁵⁵ The Department told us that the revised contracts would be clearer with a sharper division of responsibility. But it has not changed the complicated commercial structure of ESN, which it admitted is highly disaggregated.⁵⁶

21. The National Audit Office concluded the Department needed to manage Motorola's contractual position carefully as it is both a main supplier to ESN and the owner of Airwave and may therefore benefit from delays to the programme. The Department will also need to manage any potential conflict of interest regarding Motorola's role as one of the main suppliers to ESN as well as accreditor and potential vendor of control rooms and devices for the new system. Motorola will benefit from the successful development of ESN but also receives large revenues from the Airwave contract including £1.4 billion from extending Airwave to December 2022.⁵⁷

22. As part of its renegotiation with Motorola, the Department agreed a 5% discount in extending Airwave to December 2022 and a fixed price of £620 million per year to continue to run Airwave. We asked whether this cost would increase substantially if the Department needed to extend Airwave further. The Department told us that it had not tried to agree a longer contract because it did not want to be locked into Airwave.⁵⁸ It said it had secured a commitment for Motorola not to put the future price of Airwave up "unreasonably", but acknowledged that extending Airwave again would require another negotiation. The Department recognised that there was a risk of the cost of Airwave increasing again if a further extension is needed.⁵⁹ For example, the Department told us that the TETRA technology used by Airwave is not likely to last into the 2030s without further capital investment.⁶⁰

The case for continuing with ESN

23. ESN is now expected to cost up to £9.3 billion, £3.1 billion more than was forecast in 2015. Of this, £1.4 billion is due to the cost of extending Airwave.⁶¹ The forecast costs of the programme are still uncertain as they are part of a business case which has not yet been approved. The Department expected to approve the new business case for ESN by December 2018, but it is not now expected until the end of 2019.⁶² We asked the Department whether the business case still stacked up and the programme would still provide value for money given the increases in cost. The Department told us that it still considered ESN to be cheaper than Airwave due to the savings expected after Airwave is turned off. It told us that, had it known at the beginning of the programme everything it knew now, the programme would still have represented value for money. It asserted that the only circumstances where it would make sense not to undertake ESN would be if it believed it was not technically possible to deliver it, which was not the case.⁶³

55 C&AG's Report, paras 3.4, 3.5, Q 37

56 Q 37; C&AG Report, para 8

57 C&AG's Report, paras 10, 20

58 Qq 75–77

59 Qq 75–80

60 Qq 62, 79

61 Q 61; C&AG's Report, para 10

62 Q 140, C&AG's Report, para 10

63 Qq 62–63

24. The Department estimated that running ESN will be about half the cost of running Airwave.⁶⁴ It told us that it also continued to expect that ESN will deliver 5 minutes of time saved per officer per shift. It described this as a “conservative” estimate despite police not having approved it.⁶⁵

25. The Department now expects the point at which savings from ESN will outweigh the additional costs to happen by 2029, a delay of 7 years compared to the 2015 business case. But this assumes the cost of the programme is within the estimate in the draft business case, which only contained enough contingency to fund a delay to Airwave of less than two years.⁶⁶ The Department was not able to tell us what level of cost increases would make it cheaper to pursue options other than ESN, such as pausing to allow the market to develop more of the needed technology rather than the Department being the first to develop it. It asserted that there were benefits to continuing with ESN despite the extra costs that will be incurred to be the first in the world. The Department also considered that there was no realistic alternative other than to continue with ESN because if it was stopped, a future Government would likely return to it later.⁶⁷

26. We were concerned that the increased cost of ESN was also likely to create local cost pressures for emergency services. Emergency service organisations told us that they have delayed upgrading their Airwave equipment in the hope ESN would be delivered will need to buy new Airwave devices while they wait for ESN.⁶⁸ The Department accepted that delays were causing problems for emergency services who need to plan their expenditure and had relied on ESN being ready when drawing up these plans. It acknowledged this was “unfortunate” but was not able to offer any solution other than it was working with the National Police Chiefs Council to identify whether there was scope for emergency services to pool devices.⁶⁹

64 Q 63; C&AG’s Report, para 8

65 Q 124

66 Q 60; C&AG’s Report, paras 10, 11

67 Qq 64, 65

68 Qq 117–118, Written Evidence ESR0003, Bedfordshire Police, 5 June 2019

69 Qq 18, 117–118

Formal Minutes

Wednesday 10 July 2019

Members present:

Meg Hillier, in the Chair

Sir Geoffrey Clifton-Brown	Anne Marie Morris
Caroline Flint	Bridget Phillipson
Shabana Mahmood	Gareth Snell
Layla Moran	Anne-Marie Trevelyan

Draft Report (*Emergency Services Network: further progress review*), proposed by the Chair, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 26 read and agreed to.

Introduction agreed to.

Conclusions and recommendations agreed to.

Summary agreed to.

Resolved, That the Report be the One hundred and eighth of the Committee to the House.

Ordered, That the Chair make the Report to the House.

Ordered, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

[Adjourned till Monday 15 July at 3:30pm]

Witnesses

The following witnesses gave evidence. Transcripts can be viewed on the [inquiry publications page](#) of the Committee's website.

Wednesday 22 May 2019

Sir Philip Rutnam, Permanent Secretary, **Stephen Webb**, Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office and **Joanna Davinson**, Chief Digital, Data and Technology Officer, Home Office.

[Q1-188](#)

Published written evidence

The following written evidence was received and can be viewed on the [inquiry publications page](#) of the Committee's website.

ESR numbers are generated by the evidence processing system and so may not be complete.

- 1 Bedfordshire Police ([ESR0003](#))
- 2 National Fire Chiefs Council ([ESR0002](#))
- 3 National Police ESN Coordinator ([ESR0001](#))

List of Reports from the Committee during the current Parliament

All publications from the Committee are available on the [publications page](#) of the Committee's website. The reference number of the Government's response to each Report is printed in brackets after the HC printing number.

Session 2017–19

First Report	Tackling online VAT fraud and error	HC 312 (Cm 9549)
Second Report	Brexit and the future of Customs	HC 401 (Cm 9565)
Third Report	Hinkley Point C	HC 393 (Cm 9565)
Fourth Report	Clinical correspondence handling at NHS Shared Business Services	HC 396 (Cm 9575)
Fifth Report	Managing the costs of clinical negligence in hospital trusts	HC 397 (Cm 9575)
Sixth Report	The growing threat of online fraud	HC 399 (Cm 9575)
Seventh Report	Brexit and the UK border	HC 558 (Cm 9575)
Eighth Report	Mental health in prisons	HC 400 (Cm 9575) (Cm 9596)
Ninth Report	Sheffield to Rotherham tram-trains	HC 453 (Cm 9575)
Tenth Report	High Speed 2 Annual Report and Accounts	HC 454 (Cm 9575)
Eleventh Report	Homeless households	HC 462 (Cm 9575) (Cm 9618)
Twelfth Report	HMRC's Performance in 2016–17	HC 456 (Cm 9596)
Thirteenth Report	NHS continuing healthcare funding	HC 455 (Cm 9596)
Fourteenth Report	Delivering Carrier Strike	HC 394 (Cm 9596)
Fifteenth Report	Offender-monitoring tags	HC 458 (Cm 9596)
Sixteenth Report	Government borrowing and the Whole of Government Accounts	HC 463 (Cm 9596)
Seventeenth Report	Retaining and developing the teaching workforce	HC 460 (Cm 9596)
Eighteenth Report	Exiting the European Union	HC 467 (Cm 9596)

Nineteenth Report	Excess Votes 2016–17	HC 806 (Cm 9596)
Twentieth Report	Update on the Thameslink Programme	HC 466 (Cm 9618)
Twenty-First Report	The Nuclear Decommissioning Authority’s Magnox	HC 461 (Cm 9618)
Twenty-Second Report	The monitoring, inspection and funding of Learndirect Ltd.	HC 875 (Cm 9618)
Twenty-Third Report	Alternative Higher Education Providers	HC 736 (Cm 9618)
Twenty-Fourth Report	Care Quality Commission: regulating health and social care	HC 468 (Cm 9618)
Twenty-Fifth Report	The sale of the Green Investment Bank	HC 468 (Cm 9618)
Twenty-Sixth Report	Governance and departmental oversight of the Greater Cambridge Greater Peterborough Local Enterprise Partnership	HC 896 (Cm 9618)
Twenty-Seventh Report	Government contracts for Community Rehabilitation Companies	HC 897 (Cm 9618)
Twenty-Eighth Report	Ministry of Defence: Acquisition and support of defence equipment	HC 724 (Cm 9618)
Twenty-Ninth Report	Sustainability and transformation in the NHS	HC 793 (Cm 9618)
Thirtieth Report	Academy schools’ finances	HC 760 (Cm 9618)
Thirty-First Report	The future of the National Lottery	HC 898 (Cm 9643)
Thirty-Second Report	Cyber-attack on the NHS	HC 787 (Cm 9643)
Thirty-Third Report	Research and Development funding across government	HC 668 (Cm 9643)
Thirty-Fourth Report	Exiting the European Union: The Department for Business, Energy and Industrial Strategy	HC 687 (Cm 9643)
Thirty-Fifth Report	Rail franchising in the UK	HC 689 (Cm 9643)
Thirty-Sixth Report	Reducing modern slavery	HC 886 (Cm 9643)
Thirty-Seventh Report	Exiting the European Union: The Department for Environment, Food & Rural Affairs and the Department for International Trade	HC 699 (Cm 9643)
Thirty-Eighth Report	The adult social care workforce in England	HC 690 (Cm 9667)
Thirty-Ninth Report	The Defence Equipment Plan 2017–2027	HC 880 (Cm 9667)
Fortieth Report	Renewable Heat Incentive in Great Britain	HC 696 (Cm 9667)

Forty-First Report	Government risk assessments relating to Carillion	HC 1045 (Cm 9667)
Forty-Second Report	Modernising the Disclosure and Barring Service	HC 695 (Cm 9667)
Forty-Third Report	Clinical correspondence handling in the NHS	HC 929 (Cm 9702)
Forty-Fourth Report	Reducing emergency admissions	HC 795 (Cm 9702)
Forty-Fifth Report	The higher education market	HC 693 (Cm 9702)
Forty-Sixth Report	Private Finance Initiatives	HC 894 (Cm 9702)
Forty-Seventh Report	Delivering STEM skills for the economy	HC 691 (Cm 9702)
Forty-Eighth Report	Exiting the EU: The financial settlement	HC 973 (Cm 9702)
Forty-Ninth Report	Progress in tackling online VAT fraud	HC 1304 (Cm 9702)
Fiftieth Report	Financial sustainability of local authorities	HC 970 (Cm 9702)
Fifty-First Report	BBC commercial activities	HC 670 (Cm 9702)
Fifty-Second Report	Converting schools to academies	HC 697 (Cm 9702)
Fifty-Third Report	Ministry of Defence's contract with Annington Property Limited	HC 974 (Cm 9702)
Fifty-Fourth Report	Visit to Washington DC	HC 1404 (Cm 9702)
Fifty-Fifth Report	Employment and Support Allowance	HC 975 (Cm 9702)
Fifty-Sixth Report	Transforming courts and tribunals	HC 976 (Cm 9702)
Fifty-Seventh Report	Supporting Primary Care Services: NHS England's contract with Capita	HC 698 (Cm 9702)
Fifty-Eighth Report	Strategic Suppliers	HC 1031 (Cm 9702)
Fifty-Ninth Report	Skill shortages in the Armed Forces	HC 1027 (9740)
Sixtieth Report	Ofsted's inspection of schools	HC1029 (Cm 9740)
Sixty-First Report	Ministry of Defence nuclear programme	HC 1028 (Cm 9740)
Sixty-Second Report	Price increases for generic medications	HC 1184 (Cm 9740)

Sixty-Third Report	Interface between health and social care	HC 1376 (Cm 9740)
Sixty-Fourth Report	Universal Credit	HC 1375 (Cp 18)
Sixty-Fifth Report	Nuclear Decommissioning Authority	HC 1375 (Cp 18)
Sixty-Sixth Report	HMRC's performance in 2017–18	HC 1526 (Cp 18)
Sixty-Seventh Report	Financial Sustainability of police forces in England and Wales	HC 1513 (Cp 18)
Sixty-Eighth Report	Defra's progress towards Brexit	HC 1514 (CP 18)
Sixty-Ninth Report	Sale of student loans	HC 1527 (Cp 56)
Seventieth Report	Department for Transport's implementation of Brexit	HC 1657 (Cp 56)
Seventy-First Report	Department for Health and Social Care accounts	HC 1515 (Cp 56)
Seventy-Second Report	Mental health services for children and young people	HC 1593 (Cp 79)
Seventy-Third Report	Academy accounts and performance	HC 1597 (Cp 79)
Seventy-Fourth Report	Whole of Government accounts	HC 464 (Cp 79)
Seventy-Fifth Report	Pre-appointment hearing: preferred candidate for Comptroller and Auditor General	HC 1883 (Cp 79)
Seventy-Sixth Report	Local Government Spending	HC 1775 (Cp 79)
Seventy-Seventh Report	Defence Equipment Plan 2018–28	HC 1519 (Cp 79)
Seventy-Eighth Report	Improving Government planning and spending	HC 1596 (Cp 97)
Seventy-Ninth Report	Excess Votes 2017–18	HC 1931 (Cp 97)
Eightieth Report	Capita's contracts with the Ministry of Defence	HC 1736 (Cp 97)
Eighty-First Report	Rail management and timetabling	HC 1793 (Cp 97)
Eighty-Second Report	Windrush generation and the Home Office	HC 1518 (Cp 113)
Eighty-Third Report	Clinical Commissioning Groups	HC 1740 (Cp 97)
Eighty-Fourth Report	Bank of England's central services	HC 1739 (Cp 97)

Eighty-Fifth Report	Auditing local government	HC 1738 (Cp 97)
Eighty-Sixth Report	Brexit and the UK border: further progress review	HC 1942 (Cp 113)
Eighty-Seventh Report	Renewing the EastEnders set	HC 1737 (Cp 113)
Eighty-Eighth Report	Transforming children's services	HC 1741 (Cp 113)
Eighty-Ninth Report	Public cost of decommissioning oil and gas infrastructure	HC 1742 (Cp 113)
Ninetieth Report	BBC and personal service companies	HC 1522 (Cp 113)
Ninety-First Report	NHS financial sustainability: progress review	HC 1743 (Cp 113)
Ninety-Second Report	Crossrail: progress review	HC 2004 (Cp 113)
Ninety-Third Report	Disclosure and Barring Service: progress review	HC 2006
Ninety-Fourth Report	Transforming rehabilitation: progress review	HC 1747
Ninety-Fifth Report	Accessing public services through the Government's Verify digital system	HC 1748
Ninety-Sixth Report	Adult health screening	HC 1746
Ninety-Seventh Report	Local Government Governance and Accountability	HC 2077
Ninety-Eighth Report	The apprenticeships programme: progress review	HC 1749
Ninety-Ninth Report	Cyber security in the UK	HC 1745
One-Hundredth Report	NHS waiting times for elective and cancer treatment	HC 1750
One-Hundred and First Report	Submarine defueling and dismantling	HC 2041
One-Hundred and Second Report	Military Homes	HC 2136
One-Hundred and Third Report	Planning and the broken house market	HC 1744
One-Hundred and Fourth Report	Transport infrastructure in the South-West	HC 1753
One-Hundred and Fifth Report	Local enterprise partnerships: progress review	HC 1754
One-Hundred and Sixth Report	Eurotunnel	HC 2460
One-Hundred and Seventh Report	Consumer protection	HC 1752

First Special Report	Chair of the Public Accounts Committee's Second Annual Report	HC 347
Second Special Report	Third Annual Report of the Chair of the Committee of Public Accounts	HC 1399
Third Special Report	Fourth Annual Report of the Chair of the Committee of Public Accounts	HC 2370