



HOUSE OF COMMONS

# Public Accounts Committee

## Oral evidence: Emergency Services Network, HC 1006

Wednesday 26 April 2023

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Members present: Dame Meg Hillier (Chair); Ashley Dalton; Mr Jonathan Djanogly; Mr Louie French; Anne Marie Morris; Nick Smith.

Questions 1-62

### Witnesses

I: Simon Ricketts, Home Office Independent Technical Assurance Panel, Ben Norman, Deputy Chief Fire Officer, Greater Manchester Fire and Rescue Service, Chris Lucas, Senior User, NHS Ambulance Radio Programme, and Chief Constable Kier Pritchard, Emergency Services Network lead, National Police Chiefs' Council.

Gareth Davies, Comptroller and Auditor General, National Audit Office, Oliver Lodge, Director, NAO, Emma Willson, Director, NAO, and David Fairbrother, Treasury Officer of Accounts were in attendance.



Report by the Comptroller and Auditor General  
Progress with delivering the Emergency Services Network  
(HC 1170, Session 2022-23)

Examination of witnesses

Witnesses: Simon Ricketts, Ben Norman, Chris Lucas and Chief Constable Kier Pritchard.

Q1 **Chair:** Welcome to the Public Accounts Committee on Wednesday 26 April 2023.

A few weeks ago, we questioned officials from the Home Office about the long-running problems besetting the new Emergency Services Network, which is something that has been looked at by this Committee at least 13 times now since the programme's inception. This was supposed to be a world-beating technology to overhaul the system for our emergency services to communicate as the old Airwave system came to an end, but progress has been painfully slow, and after questioning the Department we really felt that we needed to hear from people on the ground who dare not try to use it. We have had some great evidence from the College of Policing and others over the years, but we wanted to hear from stakeholders themselves about the practicalities, the cost and whether this is really still fit for purpose, so I am really pleased to welcome our witnesses today.

We have Simon Ricketts, who is the Home Office independent technical assurance panel chair. He is formally from the private sector, so not a Whitehall insider, but here to test and check with the Home Office what they are doing independently on their technical work. Ben Norman is the deputy chief fire officer at Greater Manchester Fire and Rescue Service. Chris Lucas is the senior user at the NHS ambulance radio programme, so he is very close to this issue. Kier Pritchard was the chief constable of Wiltshire police. I very warmly welcome you.

Before we start, I also want to warmly welcome Ashley Dalton MP, who has just joined the Committee and will be sitting in today.

As I said, this has been a long, long running issue. We all know the background and why there needed to be a change. I just wanted to ask you each in turn how it has been working for you in terms of trying to implement this system, and what the main barriers have been in delivering it. Let's just go along the table, starting with you please, Mr Lucas.



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**Chris Lucas:** The main barrier is lack of delivery—I think that is fairly obvious.

**Chair:** We like candour.

**Chris Lucas:** It has proved challenging, especially for the ambulance service, because we have designed further products to utilise on ESN. It has caused challenges to redesign our delivery and procurements going forward, so it is impacting our actual delivery. We have had to remove dependence on ESN for the short term, with a dotted line to take ESN products in the future. That is the biggest impact for us.

Q2 **Chair:** We will certainly come on to that, because it is something that we have often picked up on. Mr Pritchard?

**Chief Constable Kier Pritchard:** For policing, we are very close to the programme and now fully engaged with it through the new leadership, both with the senior responsible owner and the programme director. That is very reassuring. But, similar to the ambulance service, of course the delays have impacted on our capabilities around being able to plan into the future. Being able to plan financially has been particularly difficult around mid-term financial planning and strategies. There have been impacts as a result of the delay around needing to procure additional Airwave devices, for instance. The old new devices, as the Committee referred to them in the previous session, are a particular issue for us.

We are incredibly focused on trying to ensure that we play our part in setting out the use requirements and being absolutely clear on what we need in policing. Critical voice around mission-critical communication is vital for policing. We are crying out for a realistic plan that sets out the timeframes of what needs to be delivered and when. Then we need to ensure that our user requirements are traced into the new contracts with the lot 3 and lot 2 suppliers, in a way that we can be confident that the testing and user assurance processes give police chiefs across the country confidence not just that the coverage is there, but that the ESN network performs at capacity and scale in the most rural through to the densest locations.

We are confident that our requirements are understood—they have been jointly developed with the Home Office programme team—but because of the supplier issues, we are now in a period of pause, which is making future planning quite difficult. There are challenges, but there is optimism for the future.

Q3 **Chair:** Before I move on to Mr Ricketts, who has a slightly different perspective on this as he is not a frontline user, am I right in thinking that Wiltshire Police was always ahead of the curve when dealing with new technologies compared with other forces? Do you think you are in a better place as a force than some other police services?

**Chief Constable Kier Pritchard:** The national governance that I have in place as the ESN lead for the National Police Chiefs' Council means that we have a representative from each of the regions, a chief constable



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colleague at reference group, and then gold colleagues. All chiefs are engaged, and the programme team have been explicitly focused on engaging with users through sessions of the National Police Chiefs' Council.

We know that in the last regime we had what were called assurance partners. There were two forces, in the north-west and the south-west—one of those being Wiltshire—that were early adopters of the assurance process. We are not particularly further forward than other forces, but the region itself probably had a more advanced programme team ready for engagement. Of course, you will now be aware that those programme teams have started to be reduced in size, as we are in this pause period, and as we work through procurement around lot 2.

**Q4 Chair:** I am going to come back to Mr Ricketts, because I want to get the frontline servicer users in first. Mr Norman?

**Ben Norman:** I agree with what colleagues have said. Just to add some context, I think the main thing is user confidence. Fire and rescue services around the country have a lack of confidence in being able to deliver the programme. The last iteration, with the 27-month transition plan, looked as if it was achievable, but we now know that not to be the case, and that creates the key issue for the sector. Going forward, convincing the sector that this is the moment when the programme does transition is going to be very difficult. Mobilising the sector in a practical and a leadership sense is the area that we have got to work hardest on.

As the chief constable said, the SRO for the programme, Simon Parr, could not be more engaged with us as a sector and with chief fire officers through the National Fire Chiefs' Council, to ensure that he retains what confidence he can—albeit, as the chief constable said, we are in a period of pause.

Those are the key aspects. There are clearly unintended consequences as well. While we are rightly focused on ESN today, colleagues up and down the sector have looked at engaging with the programme and their wider infrastructure in a way that creates interoperability-based benefits. Most fire and rescue services now have alternative data-related provision on their fire engines that supports incident command and the transfer of risk-critical information. Alternatives have emerged in the wider sector, and those have already allowed fire and rescue services to reap some of the benefits that were in the first business case for Airwave.

Effectively, at the moment Airwave is hugely simplistic, as I am sure you and many of your colleagues on the Committee are aware, Chair. Essentially, at the moment fire and rescue services use that as a database product, but in truth they are really sending text messages, and little more than that. We have found alternatives, and there is a real risk that people will not step away from those alternatives or that those alternatives are so heavily embedded that will be difficult culturally to make that change. Those are the key threats, but, as I said, I am completely convinced that the SRO and the wider programme team are fully aware of the things that



I have said today and are working hard with us to try to eradicate those as we progress the new timeline as it emerges.

- Q5 **Chair:** It is depressing to hear this again and again. We have been looking at it for a number of years. Mr Ricketts, you chair the technical assurance panel, and obviously you have heard the concerns about the fact that people are now finding workarounds. Can we turn to the technical challenges of the ESN directly? What are your top concerns about that, as the technical assurance panel? This was world-beating, groundbreaking—whatever you want to call it, it sends a chill down the spine of the Public Accounts Committee, because usually these things can be very problematic. You have come in to try to help assure it. Can you give us some assurance? What is your honest assessment of where we are?

**Simon Ricketts:** First, let me strip this down a bit. Members will be aware that the original need for a replacement for Airwave arose around 2010 or 2011, when the Home Office was having a challenging commercial relationship with the then owner, Macquarie. It was also worried about the network falling into a further period of foreign ownership, having had at least three owners since BT. So the challenge was that we wanted to replace Airwave by 2019, when the contract expired. I think you will recall from my first independent report, Chair, that there were no standards published at that time and no products available, so going live by the end of 2019 was simply not feasible.

**Chair:** As this Committee highlighted as well.

**Simon Ricketts:** The cause of that is that the programme actually started executing on 1 January 2016 and gave itself 48 months to deliver; 27 months of that was for implementation and transfer, and 21 months was for construction, at a time when there were no products or standards. That, I think, is well recorded and well documented. So there was a whole period after 2019. You will also recall that when Sir Philip Rutnam, newly appointed, learnt of some of the challenges in the programme during 2018-19, he did a further independent review, which led to the creation of the panel and the assembly of experts whose CVs you have. We then started doing some real heavy lifting.

- Q6 **Chair:** I was one of the members of this Committee who saw that private independent review, and I have to say that it told us what we already knew, really. It was helpful in that it made sure that there was a reset, but it wasn't rocket science was it?

**Simon Ricketts:** I agree. Moving on, from 2019 onwards we have seen the programme trying and starting to make differences: network components getting built, though not all of them yet, and software being developed—that is Kodiak. But of course we have a fractured programme at the moment, because after 2021 and 2022, we do not have a lot 2 supplier. All the deliverables that were planned to come out of lot 2—the links to the control rooms; the upper core network, or the switches and servers, if you like, that link to the mast in the fields and make the



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network work; and the Kodiak app itself—are all on pause while the programme reprocures a second lot 2 supplier.

From an assurance perspective, I was getting more comfortable—the panel was getting more comfortable—that we were seeing progress on some of the heavy infrastructure, such as the network devices. We do not have a device contract at the moment, but devices in the field had proven to work, with the early versions of Kodiak arriving. Where we are at the moment, Chair, is that we do not have that lot 2 at all, or the app.

From an assurance point of view, whereas the panel would like to get on to the area referred to by colleagues on my left and right—assuring users that this is going to work—we are now spending our time, rightly, assuring the procurement of lot 2, ensuring that we have credible suppliers in that space, and looking very carefully at what the proposed application is going to be. There are push-to-talk applications now out in the market. An area of particular concern to the panel is to get across assurance to make sure that the critical success factors are in place, with the right suppliers and the right solution, while also looking at what other people have been doing internationally.

We did an international review of seven other European countries, and the States and Korea, and concluded that everyone is now starting to move in this general broadband direction. They would, I think, rightly describe that they watched and learnt while the UK almost certainly went prematurely. I am aware that, following a follow-up by the team in France last week, there is real evidence that the French are going to have something similar working for the Olympics in '24. I am not in the position of—

**Q7 Chair:** But will it be working for the Olympics?

**Simon Ricketts:** I am not in the position of thinking this will never, ever work. I think the technology is now credible. The whole issue, which is why this Committee has been wrestling with it since 2012, I believe, is that it was just premature and not feasible at the time. When it started to become feasible—we have been seriously helped by John Black and former chief constable Simon Parr—it coincided with a very difficult '21 in terms of delivery from Motorola, and then of course their decision to leave the programme. Just as progress was starting to be made, a whole piece of the programme was missing.

**Q8 Chair:** That is a very helpful summary of the challenges. I have been on this Committee since 2011, so I have lived the delights of this. A book needs to be written about it at some point.

You are looking at the technological things, but you have an interesting, tangential relationship with the Home Office. You are independent in your assurance. What has your relationship been with senior civil servants? Are they willing to hear your candid approach? Are they concerned that what you sometimes have to do might slow down their, at times across the project, ambitious timetables?



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**Simon Ricketts:** It has been pretty good. Let me again explain how it works. None of us is a civil servant, with the exception of Dr Michael Short, although he has now stepped down—retired—from his role as senior scientific adviser at the Department for International Trade. We are not civil servants, although we report to the permanent secretary, and we are independent from the programme.

As I think colleagues from the NAO will testify, our reports are pretty blunt and pretty thorough. For example, in 2019 we discovered that we were several hundred masts light in the radio access network that needed fixing and building, and that has happened. We noted, for example, that the design of the firmware for the handsets—the version at the time—did not have proper links with the Android operating system. We have written about 12 very heavy-hitting reports. The process that the programme uses is to take our reports and track the recommendations and present those to the programme board.

There has been what I would call healthy tension between the programme director, the SRO and myself. We are there to make sure that value for money is ensured, and where we think there are things that are not quite right we will pull that out, but we have not had any pushback. It is for others to comment, but in general it feels healthy, and I am encouraged to see a number of the things that we have pulled out actually in some of the NAO Reports that are used to brief this Committee.

Q9 **Chair:** What is also interesting for us as a Committee is the wider point about using independent expertise in a constructive way, rather than having an optimism bias that can sometimes bite inside Whitehall.

**Simon Ricketts:** That works because, in Dr Steve Ungar and Dr Michael Short, we have two world class experts in radiocommunications; they have spent their lives in this area. We have also been helped by having a very experienced former SRO, Michael Hurn. Their views are generally respected and sought by the programme, so this is not just about “Let’s wait and see what the panel says this time.” We are actually asked questions about whether we have got this right and can we give early assurance in these areas. I think that is working well. It is tough and there is an awful lot still to do.

**Chair:** Thank you. I think we may want to explore separately the issue of how advice is given, but that is a slightly tangential issue for today’s session. Anne Marie Morris is next.

Q10 **Anne Marie Morris:** Any project that has taken this long to deliver—although it sounds like you may have turned the corner, Mr Ricketts, by finding a potential solution in France—will probably benefit from just a rethink. Are we going in the right direction? Given that all the emergency services have had to engage in new ways of doing things absent the new solution coming on board, what is the learning? Are there different things that we might now want out of this ESN, whatever it finally looks like? I will ask the three services first if there are new things or something that they do want, or do not want, that ought to be fed in, given where we are



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now before I come to Mr Ricketts for his perspective. I will start with Mr Lucas.

**Chris Lucas:** First, to pick up on the extent to which ESN remains the right thing to do, the DHSC commissioned an independent report in 2020 that recommended that the technology that the ESN will utilise is the correct direction of travel, because Airwave and the TETRA service will become increasingly obsolete. I suppose the analogy that I would use is that we are still on a VHS or DVD system. It is mature. It will not develop any further. There is no business change to come from the TETRA platform.

The ambulance service has always—I say always; for at least 25 years—used data for mobilisation. That is via commercial methods and using TETRA as almost a text messaging service to mobilise for the criticality. Data services are key to us. We are increasingly using more LTE commercial services to backfill the gap where ESN isn't at the moment. I think that that is the challenge, as some of my colleagues have said already, especially Mr Norman. We are getting used to using those services. We are currently mobilising vehicle hardware—next generation with LTE connections. It was originally designed for ESN, but we are putting EE commercial SIMs in their place at the moment. That is happening now, going live in Yorkshire ambulance service.

We need a critical voice service and a critical data service. We are waiting for ESN, I think is the message. In our minds, the LTE critical service is the right way to go. Voice and data are the same things. Give us a pipe and let us make the business change, and use it as we require.

**Chief Constable Kier Pritchard:** It is clear from the NAO Report that Airwave is currently delivering to target—99.86%—of availability, and it is exceeding that. We have seen that within the Report, so it delivers against the critical voice aspects that are vital to the emergency services. We understand the strategic case from the independent assurance panel, the international comparisons, and the general direction of travel that Airwave will become obsolete, and we fully understand that there needs to be a viable replacement, but that needs to be able to meet the requirements that TETRA provides to us today, and the future requirements that we have.

Your question is very much around what that future needs to look like. For policing, voice is absolutely vital. We know that there are 245,000 Airwave devices in the hands of policing that are being utilised on a daily basis. The radio—the ability to communicate, press the emergency button, open talk groups and share situational awareness—is vital. Because of the dynamic nature of policing, we are often patrolling in isolated circumstances where there is an unknown threat or risk, and that situation can change dynamically. Voice is something that is really important to us.

Just to amplify that, in March we know that the utilisation of Airwave voice was 46 million minutes. That is 767,000 hours' worth of voice being used in March alone. That is how important it is to policing, to keep colleagues





safe, officers safe, police staff safe, and obviously the public safe as we respond to try to protect.

Data is obviously vital to us too, but as has already been described today, policing has gone out to procure off-the-shelf commercial products to fill the gap that ESN may well have prepared for us, so we are already able to share livestream video from drone footage, for instance. We are already able to share some of that situational awareness; however, what ESN will give us in the future, so long as it is affordable, and that is a really important point, is the ability to do that on a priority and pre-emption basis across the emergency services, where for instance at the scene of a major, live incident we may be able to share live footage across the emergency services. It has operational benefits, but it must be at a price that can be afforded. At the moment, we are concerned around the affordability of the ESN versus the in-house solutions that we have procured.

- Q11 **Anne Marie Morris:** Very interesting. We will look at costs later. Mr Norman, what is your sense, because in the three comments that we had earlier in response to the Chair you were probably the most vocal in terms of how you had evolved workarounds within your service, and the challenges in terms of moving away from what that workaround is. Are you still convinced, as your colleagues are, that despite all those workarounds, you still need, and must have, the ESN as originally specced out, or is there a change that you would like to see in that specification?

**Ben Norman:** For us, the specification has been detailed through a list of what is referred to as “elab. Rs”—elaborated requirements—which is effectively 1,500 items of specification. They do not detail exactly how they are delivered, but they detail our requirement: we want voice as critically as the other blue light services. We may not have officers on an open mic in the way of harm as frequently as the chief constable and his colleagues do, but it is certainly just as critical for us to have that voice. So, our requirements have not changed specifically since the start of the programme. They have been reviewed recently and, if I recall rightly, we as a sector made amendments to between 10 and 15 of those 1,500, so they are not changing significantly.

We have made great use of data, and services have found ways of using modern-day technology to aid them on the incident ground. The key elements that ESN needs to deliver for us—to make a compelling case for us—is that we do that on this platform. The key benefit would be the interoperability. While the 45 fire and rescue services up and down the country nearly all have drones and nearly all can see their drone footage, Kier’s colleagues cannot see that, or it is highly unlikely that they can unless they have done a blue light collaboration-type project where they have drones that are a shared resource on locality. There is such a scattered view—it has been self-led—and that is because of the lack of a co-ordinated approach that a programme like this brings.



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As I said, I forecast that there will be some issues in transitioning, because we have to give up the things that are working fine for us at the moment, but the longer-term view of the ESN is that it should deliver a level of interoperability. I do not need to tell this Committee or members of the public about the critical need for interoperability from the outset of incidents. By that, I even mean from control room to control room. The idea that we rely on phone calls to share information because we do not have interoperability in our system is flawed, because as we have seen in many a national report that has looked back over several atrocities over the past decades, the ability to co-locate, co-communicate and have interoperability across the three blue light services in the opening few minutes, or certainly in the first 30 or 40 minutes, of an incident is critical. That is one key difference that ESN should bring us, if successful, as opposed to the self-led solutions that we have innovated within the sector currently.

- Q12 **Anne Marie Morris:** Mr Ricketts, given what has happened and that all the blue light services have in the interregnum built their own systems, I think what they are asking for is the ability to plug what they are currently doing into a new pipeline, rather than being constrained by having to start all over again with some standardised approach to doing what they are currently doing. Is that the way you are looking at ESN? Have you changed the way in which you are looking at scoping it? At the outset, I think it was very much about standardisation across all the forces. Are we now looking at something that, in a way, has some standardisation because you need the interoperability, but with some flexibility? Does that compromise the sustainability, reliability and robustness of the system that is then built?

**Simon Ricketts:** The ESN programme is planning to do that. Again, Ms Morris, it would be helpful if I gave a bit more detail. In some senses, the ESN is not very dissimilar to the network that we use in our private lives. The radio access network—the mast in the fields—and the call switches in the data centres handle calls in the same way that we do privately. The big difference here is the way that voice is handled in terms of a push to talk application, so instead of making and dialling calls, the devices that are in use literally have buttons on them by which people can make emergency calls and do push to talk, over and out, and that sort of thing.

Voice started off as the No.1 requirement. It still is, but because this is on a broadband network, when that network is finally live and because it is regulated by international standards for broadband, there are a number of plug-and-play facilities that are available—for example, wider use of video, drones and wearable technologies, all of which are beginning to emerge, and we can see some of them now in the United States and Korea—and are able to be attached to the network in a more standardised way.

The stubbornness of this is that we still do not have the network complete, because of what is now going on in lot 2. In order for the programme to respond to the extra facilities that you, Ms Morris, quite rightly wonder will now be needed—and it would actually solve some of the problems that colleagues to my left and right have called out—we need that network



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completed. It is not a cul-de-sac, and it is not a technical piece of legacy: it is something that needs to be finished voice first.

Once that network is live, it has the ability to attach an app store and introduce many other things that the emergency services are currently using now, but in a more co-ordinated way. I cannot emphasise enough that there is a difference between what is theoretically possible, what is happening internationally and what is actually going on in this country. The stubbornness of getting this programme over the line is the critical thing here. That is why there is nothing more important than finishing the network, finding a new lot 2 provider, finding a replacement app and voice, voice, voice, voice, voice, but it will give you the extra things that you have been inquiring about once it is done. We have just got to get it over the line.

- Q13 **Anne Marie Morris:** How confident are you that, given what you have seen going on internationally, you will be able to find a replacement for the Kodiak software? Is it just the French option, or are there other options, because if this cannot be found, clearly a big rethink is needed?

**Simon Ricketts:** That is a very, very good question. Again, I would unpack it like this. There are two pieces to push to talk: one is the server in the data centre, which is the clever box of tricks that decodes what is going on as you push the button, and the other is the app itself.

Kodiak was a very advanced app. The great shame here is that Kodiak actually had quite a lot of functionality. If you asked people who looked at it, it was almost 85% there—that is a number I am told quite often. Other countries are looking at other apps, and there are other apps available. The French are looking at them. Nokia has a product; Samsung has a product. The critical issue is whether that app is sophisticated enough to do what we need it to do.

Now, in this country, Airwave is one of the most sophisticated land-based mobile radio systems in the world, used by all three services, and it has a number of specific requirements—not just push to talk, but things like ambient and discreet listening where control rooms can listen in, emergency buttons and the ability to set up group calls across multiple operations inter-working with the services. It is very sophisticated. Any push-to-talk app has got to provide not just the basic walkie-talkie functionality, but all those things. There are hundreds of use cases that have to be found.

I know and believe that there are existing push-to-talk apps, and others are emerging, but the critical issue here is finding a supplier that is prepared to adjust that app to do what the programme needs it to do. The good news is that in international standards—it is a horrible word—there is 3GPP, the 3rd Generation Partnership Project, which is the name of the body in Europe that looks after standards, but those standards and the various releases of 4G and 5G telecommunications legislate for and specify some of the features I just mentioned.



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This is about encouraging a supplier to adopt all the 3GPP standard features that relate to mission-critical public safety. I do not think that this is going to be the easiest task in the world. I do not think it is impossible, but one of the things I will want to assure assiduously is that we really have identified an app, can look the supplier in the eyes and make sure that we are going to get the changes that are needed, and that the supplier can earn a living out of this. We need to get back to a Kodiak lookalike.

It is not impossible, or I would be calling it out. Dr John Black is very shrewd and very risk-averse in this area. He will want to make certain we have got that right, but it is going to be quite a task. They have already been to France again, last week, and we are looking at Streamwide, which is the app that they are proposing to use. It needs to be stripped down and looked at.

The answer to your question is that it is not an impossible challenge, and it has to do what the original specification was.

- Q14 **Anne Marie Morris:** My final question is about the decision to use a commercial network provider. As I understand it, there are some pluses and, indeed, the forces are already beginning to use the commercial network. Once you are sharing it with others for a particular purpose, as I understand it, there is huge demand on it. If there is an emergency, as I understand it, there is to be the functionality that you can switch off the everyday user so that they cannot access the network.

There are risks with that, because you then have a number of people trying to find out whether their relative has been caught in a particular crisis. Is it right to have a system that is integrated and provides that downside to the rest of the community? If, most of the time, it is trying to deal with the usual stream of stuff, together with emergency services, how can you be absolutely sure that it will be robust enough to take that amount of traffic?

**Simon Ricketts:** That is a good question. The area you are referring to is prioritisation and pre-emption, and I would like to strip that down as well. One of the big challenges that the programme has, and I think the Home Office has, is that to build its own commercial network would require the construction of about 20,000 masts in fields, to replicate, for example, the EE network or the Vodafone network. That is a huge technical infrastructure build. That was one of the reasons behind wanting to share a commercial network, because it avoided that up-front investment—although, as you will know from programme papers, several hundred additional masts had to be built.

Although they share the RAN with 32 million commercial subscribers, the core network is dedicated. The core network is the boxes and switches that sit inside the data centre, that allow you to route traffic from mast to mast. The way that the dedication works is that the emergency services mobile phones have dedicated ESN cards, so the network can spot straightaway that this is an ESN device. The way that prioritisation works



is that there are parameters in the network that give the emergency services priority over all other traffic. That is how that works.

The critical issue is, of course, how do you know that it works? Initially, field testing has shown that to work, but the crucial issue is getting that tested at scale. It is not so much about having 10,000 ESN devices in play—it is about having a few hundred and using them when you have several hundred thousand other people making calls at the same time.

For example, at the coronation next week, the FA cup and Notting Hill, as head of the assurance panel, I am particularly interested to see the results of the tests that the programme are performing. Quite literally, they are going to practice prioritisation and pre-emption situations in areas where hundreds of thousands of other people will be in town or at events using their devices. That is the way one would test it.

Prioritisation and pre-emption is one of those standards I referred to. There are rules and parameters about how the network has to be configured to allow that to take place. In situations where the configuration is found not to be working, there is a need for further investment, but at the moment, the technology is known to work and has been shown to work, and the big stress tests are about to happen.

It is of course the case that, if those stress tests are not convincing, further changes to the RAN will need to be made, but I don't think I am concerned about that particularly, because it is a piece of technology that is well defined and the tests are in play. But it is a very good question, and something I am not going to let up on until I see decent answers.

- Q15 **Anne Marie Morris:** You have answered half the question, and not the other half. The other half is around the average consumer. If I think about 9/11 and some of the major crises we have had, you could cause more panic and create more of a crisis because you have disabled communication for the general public. Is work going on to look at, given the priority on the existing network has gone to the emergency services, how you deal with the communication issue for the general public?

**Simon Ricketts:** EE in particular will be looking at this from its network point of view. This is less about disabling—it is about prioritisation. It is not a situation where, if there is a major incident and the three services are in high usage on the network, everyone else is off. It is more a question that the priorities have changed in the queue. This isn't binary—on or off—but it is a really good point. There are modelling parameters in the network that EE has to adhere to, and people are working on that. It is a genuine concern, and it is something that has to be managed all the time. That is what network management is doing.

- Q16 **Nick Smith:** Mr Norman, you came over as being very critical of the delays so far. You have talked about your development of workarounds, which you seem to be satisfied with, and where you are beginning to engage with other emergency services to work co-operatively.

Given the continued delays and the problems that we have heard about,



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do you think the programme is worth continuing with, or are you satisfied with the workarounds you have and do you think you should concentrate on making those more effective or co-operative?

**Ben Norman:** I think the sector has advanced from its sole Airwave use and is better placed with those ancillary aspects, so in the absence of the programme delivering on the timescales it set, the sector has done as much as it can. However, I would say, as the chief constable did, we had assurance partners; we had two fire and rescue services adjacent to my home service, Merseyside and West Yorkshire, who were early adopters of many aspects of this, and they are keen to see them back as soon as practically possible. There were other fire and rescue services the length and breadth of the country—Dorset and Wiltshire were a user, and Durham and Darlington were another user of data relating to the early products of this.

We can see the benefits. The thing I am critical of is the fact that we configured to adopt this, so we stalled on procuring control-room solutions and left them as late as we could because we were hoping to buy ESN-ready control-room solutions. If it was running to time, we would be doing that this year or next year, but that is not the case. It is the delay I am critical of and the impact of that delay, which prompts services to look at alternative products because, clearly, they are not going to continue using a 10-year-old product with that narrowness, albeit I agree that Airwave is superb at what it set out to do, and it still does it. I agree with the analogy used by my colleague on behalf of the ambulance services; we are fearful of how long it will last, and we are driving an ageing vehicle in Airwave. It is brilliant today. The reliability is as the chief constable has detailed.

I will not back down from my critical voice today. It is most unhelpful for the sector not to know when ESN is going to be delivered, because it prompts us to lose confidence in it, look elsewhere and develop other products, and critically, it stops us being able to serve the public with the first-class opportunities that it presents. If we can be as interoperable as the programme has detailed, once that is live, it will be the best technological solution we have ever had to respond as emergency services on behalf of the public. Me seeing the chief constable's drone footage, me being able to see the casualty care that ambulance staff are carrying out at a major incident or crews being able to do that within the first few seconds or minutes of an incident will change incidents significantly. As I said earlier, as national lessons learned reports have taught us, greater interoperability will change outcomes.

Q17 **Nick Smith:** So you think it is worth sticking with, but boy, you need it tomorrow.

**Ben Norman:** We would like it as soon as we can. I think every chief fire officer up and down the country will say they have lower confidence in it because of the delays, particularly when they have heard the SRO—Simon Parr has been cited. He has been to chiefs council. He has given them confidence, and they are operating at the moment that it is a when, not an if, of a project.



**Q18 Mr Djanogly:** I want to look at the cost implications, but before I do, I am slightly confused, because the brief that we got and some of the answers we have had say that the Airwave system will be good well into the 2030s, which conflicts with Mr Norman saying he wants the new system tomorrow. The first thing to understand is, from an operational point of view, can you use the existing Airwave system well into the 2030s? In the case of any of the operators, is there a date when we know it will not be able to be used?

**Chair:** This date has stretched since we have been looking at it.

**Chris Lucas:** I appreciate that. We have a contract with Airwave to provide a service, which it does. There is a cost attached to it. If it continues investing in the network, it is sustainable into the 2030s. However, it will become increasingly obsolete and, I think, costly to maintain.

**Q19 Mr Djanogly:** When do you think that will happen? In a year? In 10 years?

**Chris Lucas:** Obsolescence will build in. There are currently sustainability programmes in place, where Airwave is investing in moving to new technologies, which it has to, with the underpinning infrastructure, which is provided by BT, and the systems it has to move towards, but we have increasing obsolescence challenges ourselves around connecting control rooms into the network.

**Chief Constable Kier Pritchard:** It is quite a complicated position, because the technology and the advice we are receiving from the independent assurance panel and from looking at international partners would suggest that it will continue to deliver the service we need into the beginning of the next decade. It is extremely expensive, albeit it is reliable. We understand that if you then look at the human element, in terms of those who will be available to fix it and to invest in it, that will become much reduced as services are looking at different standards in the way that has been described today. It is very costly, but it provides the service.

We are seeing the Airwave shutdown date moving to the right, from 2026 probably towards the end of the decade, so it makes financial planning quite difficult when we can see the timeline extending. There are some nuances that we need to work through. One of those is the relationship with the current supplier of Airwave, which is Motorola. Further to the Competition and Markets Authority inquiry and the remedy that it set, that relationship between the Home Office and Motorola is absolutely fundamental to ensure that this time period between now and the ultimate shutdown of Airwave and beginning of ESN is not going to come with any compromise or risk. Therefore, the system and the infrastructure—where it needs to be invested with the masts, concrete, and human and technical—needs to continue to give us the confidence that we still have in Airwave today. The onward affordability, I can come to—

**Mr Djanogly:** I will come on to that. Mr Norman.



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**Ben Norman:** I would repeat what colleagues have said. It is working exceptionally well. Over the past two or three years, our only concerns about Airwave have been some of the remote sites' resilience, particularly during extreme weather conditions in the winter. I have to pay homage to its reliability and what it gives us, but I suppose the salient point that I am trying to weave through today is that we have been very happy with Airwave for what it was and is currently, but what was and is currently is yesterday's technology, and we are very excited about being able to engage with today and tomorrow's technology as its replacement as soon as we can.

Q20 **Mr Djanogly:** The feedback I am getting is that it will work at a cost, and no one is imminently saying that it will not. That being the case, the question is how much it will cost to keep going. Mr Ricketts, can you give a broad picture as to the extra costs that everyone will have to incur as a result of the delay?

**Chair:** We have some figures from the Home Office, so it is partly about your technical understanding of where the risks in those costs are.

**Simon Ricketts:** There are three areas of obsolescence always to be worried about, the first one being steel and concrete. With circa 4,000 Airwave masts across the country, more than 20 years old now, there are likely to be engineering infrastructure issues, and I do not think that those costs have necessarily been taken into consideration.

The second area is what I would call technical obsolescence. The good news is that there is a plan—I have seen the first plan—between Airwave Solutions Ltd and the Home Office which is their upgrade commitment to Airwave, its network and its backfall between now and 2026. Dr John Black expects to see a further plan. That is main, current, perpetual maintenance, which has always been going on, and there appear to be plans in place. The first one is being executed and the second will follow on; those are included in the Home Office's figures.

The third area of worry is where skills start to be in shorter supply. That is where other European nations have left TETRA, so the number of people in the field working on it and upgrading the operating systems become fewer. The final thing is a risk that we have not discussed. Once ESN is successful and a cut-over date looms, there is obviously a concern that, in the last 18 months to two years, the individuals working for Airwave Solutions Ltd in, say, Rugby, who have careers there, are suddenly looking at a situation where they wonder what they are going to do next. Watching staff turnover in Airwave is going to be critical.

To summarise, the Home Office's costs are realistic—they bake in the normal technical refresh—but I wonder and worry about the metal and concrete costs. That needs watching. Of course, nothing is more important than getting the ESN beast over the line, so that we have a network.

**Chair:** It is interesting to raise the idea of the essential golden handcuffs for those last staff.





- Q21 Mr Djanogly:** Absolutely. The other side of the coin—I think I have heard from all the different operators—is that you are in your different ways bringing in alternative technology to do what should have been done by this system. Are you able to cost that? How much more are you spending on these extra bits of kit that you would not have had to spend if you had had what you were meant to have?

**Chris Lucas:** The ambulance service has a slightly different funding model. We are core-funded by the Department of Health and Social Care and are part of a national team who deliver and do that. The platforms that we are delivering were originally procured to work on ESN. Additional costs for the LTE connections are probably minimal. Rather than put an ESN in, we put in an ESN commercial SIM, so we are trying to ensure value for money going forward.

The challenging area for us is probably around handheld terminals. I know policing experienced this originally, especially the Met police. Our handheld terminal fleet is aged—that is the polite way of putting it—and we have to replace them. It puts us in a quandary. Do we replace them in the short term and then have to replace them again with increased costs? We have been fortunate. We are hopefully finalising the procurement. I know Simon Parr and Dr John Black are also interested. The dual-mode handheld connects to the TETRA network and also gives us ESN connectivity. We are hopefully finalising that contract in the coming months, and we will launch customer-internationally for ambulance, and there is a development pathway, but that is trying to maximise in some ways the best of both worlds.

- Q22 Mr Djanogly:** So you are relatively resilient either way.

**Chris Lucas:** There are lower costs where we have had to connect in EE commercial for the infrastructure. The biggest cost for us is that we are still dual paying. The Department of Health and Social Care is contributing towards ESN. It is a core funder—about 10% of the core funding—but we are also paying for Airwave as well, so we are almost paying double. How long is that going to go on for? That is where the cost pressure is for us. I appreciate it is different for my colleagues in police and fire.

**Chief Constable Kier Pritchard:** We understand the business case. The net present social value extended into the 2040s does demonstrate a great return on investment. We can see some productivity charges that are within that in terms of data. The immediate position that we found ourselves in is needing to refresh our fleet of existing handheld devices in the way that the ambulance service has described.

We know that as a result of the delays between 2018 and 2022, that was 175,000 Airwave devices at a cost of £122.5 million that we needed to purchase. Our predictions from 2023 until the first Airwave shutdown at the end of '26 is another 37,000 Airwave devices, and that is a cost of £25.9 million. So they are significant. There is normally a 10-year life cycle on those with one battery replacement. We need to be confident.



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On those radios that we purchased in 2018, for instance, which will become obsolete in 10 years' time prior to shutdown, is there a replacement cost for those that will be required? We are not yet as advanced in terms of understanding the cost bracket for dual mode devices, but it makes great business sense to ensure that you procure the right device once, and you can then use it through transition, but we have not yet seen an affordable price that will enable us to do that, so we are having to purchase new old technology, which is a concern.

Suddenly, when we get to the position where we are then needing to purchase new ESN devices, there will be dual costs starting to unfold. We are incredibly concerned about the affordability of that and would like to have a conversation, with multi-year comprehensive spending review settlements, to look at transition costs as a non-core grant to policing, either to support transition or to pay for the Airwave devices at the time we are buying ESN devices.

**Q23 Mr Djanogly:** That is the "must have" element. Most police now use tablets and things like that. Is that an extra cost?

**Chief Constable Kier Pritchard:** It certainly is. I have just talked for those last few moments about radio and essentially voice, but the data services that we are providing generally is around £3 per connection per unit, and that is for tablet and for agility, and that gives us the functionality that ESN will be able to give, but from a pure policing sector perspective.

**Q24 Mr Djanogly:** At the moment that is an extra cost.

**Chief Constable Kier Pritchard:** That is an extra cost.

**Q25 Mr Djanogly:** Can you quantify that?

**Chief Constable Kier Pritchard:** If we extrapolate out from broadly £3 per connection per frontline officer—140,000 officers and special constabulary volunteers—we can see the sums are fairly substantial.

**Ben Norman:** At risk of repeating what colleagues say, other than the scale for our sector is somewhat smaller with circa 10,000 Airwave users at the moment, generally half of those are with senior officers and those with specialist function roles. The other half are fixed devices in fire engines. Apart from that, it is exactly the same position as the two colleagues have described in terms of the interoperability, the dual-running aspects and the incurred costs.

Moving on to your point about where we have innovated and brought in tablets and such, it is similar to the position that the chief constable described, albeit we have diversified in some areas, using devices and suchlike, which may well be end of life when ESN is realigned, although we do not know when the business case is going to realign.

There may well be a natural joining where our tablets and devices and the things we have been doing in the space, where we have innovated more recently, come to a natural conclusion, and we are ready for that refresh—



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to have a device that meets the replacement of both Airwave and our more business-as-usual risk information and the type of detail we are using on tablets and so on. They may come together, but until we know the business case refresh timelines, it is difficult to comment on whether they will join together.

- Q26 **Mr Djanogly:** Going back to Mr Smith's question, Mr Norman spoke of the problems of delay. There is also the financial aspect. If we called the whole thing off, would it be cheaper from a cost perspective to see what new technology is out there? If we waited five years, would it just be cheaper to take something off the shelf? What are the chances of that, Mr Ricketts?

**Simon Ricketts:** Again, that depends on which elements of the programme we are talking about. The panel's view and my view is that broadband-based cellular networks is the right technology—4G, 5G, 6G. There isn't really another game in town.

Having said that, there are different things you can attach to the network. The challenge for us, in the UK, is that we have to get the network finished, the masts in the right place, the masts constructed, and the core network working, so you can actually use the thing at all.

It may well be the case that there will be other "push to talk" applications and other software applications on the shelf that can be pulled off in years to come, to give the programme more choice, but the bottom line is that without a network and without those masts in the right places covering the right roads with the right signal strength, we would be nowhere.

If we paused the programme, which is definitely a possibility, we would still face having to restart reconstructing the network. There aren't really many choices around how you build that network.

- Q27 **Nick Smith:** Mr Pritchard, I was listening carefully to your remarks on transitional costs and totting it up. It seemed to be a chunky number. You talked about £150 million being spent. You talked about new data costs and multiplying that by the number of officers you have. I wonder whether you have added that up and whether you have a figure you can share with us.

I was then going to ask your colleagues if they have a number for transitional costs as well, so that we can try and understand what the costs of the delay really are across the piece.

**Chief Constable Kier Pritchard:** I do not have that figure with me. I am sure we could extrapolate the costs together, both in terms of the refreshment of devices and the data connection costs. I am sure I could submit that to the Committee. You are correct in terms of the numbers I have described—£122 million so far, in terms of Airwave devices; in the refresh, another £25 million-plus to go on top of that, plus the data connection.

It is incredibly significant, against very difficult budget arrangements for policing, and policing needing to try to plan for the future. It needs to deal



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with the growing costs around the cost of living, pay, and some of the very many difficult challenges.

Capital projects are particularly difficult. There are cost-neutral projects that need to be extended. We are trying to provide clarity through our National Police Chiefs' Council finance committee to chief financial officers across the country to ensure their capabilities around prudence and planning in their mid-term financial cycles. It is incredibly difficult for us to do that.

The surveys we have completed across the service show that forces are relying on borrowing as a strategy. Pretty much one in three forces will look to borrow the year's end transition. Now with high interest rates, that also presents a threat. There are limited earmarked reserves ready to complete this, and they have been drawn down for other reasons.

The financial position, and the uncertainty around the plan and the delivery of that plan, presents challenges for those trying to plan for the financial challenges ahead.

Q28 **Nick Smith:** Mr Norman, you suggested that your costs would be low because you have fewer personnel, but do you have a back-of-the-envelope transitional cost that you could share with us?

**Ben Norman:** Like Mr Pritchard, I would have to take that offline and write back to you with the figures that it has cost to date. It would be difficult to quantify what we have spent on innovating elsewhere because of ESN, because it is difficult to create a direct relationship between some of the innovations and the gap that ESN has created through its delay, but we can certainly provide the direct costs in relation to Airwave replacements.

Q29 **Nick Smith:** Mr Lucas, are you in the same place, or can you give us some numbers?

**Chair:** Just to be clear, Mr Lucas is funded by the Department of Health and Social Care.

**Chris Lucas:** We would need to write to you, but we are in a slightly different position because the hardware we are delivering, which we would be anyway, we are trying to dual-purpose, to minimise additional costs. There are additional costs, so we will quantify those and write to you to advise.

Q30 **Nick Smith:** I have one more question for Mr Ricketts. This project has suffered terrible delays. It has been described by others as the "reddest of the red" in the Home Office bundle of delayed projects. Have you really got the ear of the permanent secretary and the decision makers at the Home Office, so that you can make progress on delivering this project? Convince us.

**Simon Ricketts:** I must apologise; I am having a bit of trouble with my hearing this morning. I got most of the question, but could you repeat the last bit?



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Q31 **Nick Smith:** Excuse me; I was sitting back. This project has been described to us as being the “reddest of the red” in terms of delay, and this is a critical service. Convince us that you have the ear of the permanent secretary and the decision makers at the Home Office to give you all the power and the effort you need to deliver this project. Convince us that you have the support of your decision makers.

**Simon Ricketts:** The most recent change in that direction is that Mr David Kuenssberg, who you took evidence from in his newly appointed role as director general for capabilities and delivery, is going to sit between me and the permanent secretary as a regular contact every week, so that we have more regular conversations at DG level and the permanent secretary is not simply reliant on a monthly check-in. We are also going to attach my role to something that the Home Office calls its sub-fic, which is its internal governance mechanism—

Q32 **Nick Smith:** Its what?

**Simon Ricketts:** I have forgotten what “fic” stands for, but it is one of their key committees.

**Chair:** One of the many Home Office committees. Mr Lodge from the NAO can tell us.

**Oliver Lodge:** Finance and investment committee.

**Simon Ricketts:** I am being inserted into that. That may not be entirely welcomed by all, but it will certainly give the panel an opportunity to say rather more about what it wants to say. While we have not had any obstruction in the Home Office, it has been challenging on occasions getting the right bandwidth to unpack everything that we want to say. Sometimes there is a little tension between us and the programme, but that is identified. I would not continue chairing this panel if I did not think we had the opportunity to make our points, because our reputations would be at stake. I have, I think, been satisfied of recent that they are upping our ability to talk to them, particularly in this critical period, because with lot 2 effectively collapsing, all the mistakes that were made back in 2012-13 are waiting to happen again.

The good news is that we have Dr John Black and former chief constable Simon Parr, both of whom I have supreme confidence in, but it still means we can make those mistakes, and the things we have to get right are: who are the suppliers? Do they have credibility in this space, or are they just preaching from slide decks? It is critical, before contracts are awarded—and you will remember that I called this out in my very first review—to have lot 2 and lot 3 final supply in the room, singing off the same hymn sheet and making clear that we believe they know what they are on the hook for. What went wrong before was different standards and not appreciating what each other was doing, and lot 1 had collapsed. That is critical. The final area is the one we have discussed already, which is the app. Prove to me that this app is going to be adjusted to do what we want it to do.



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The right agenda items are there, and we are certainly being given more airtime with the permanent secretary, but our job—and our reputations depend on this—is to make sure that we are there and calling this out, and to call out via the National Audit Office if we are not being listened to.

- Q33 **Chair:** Mr Norman—you touched on this for the Home Office, Mr Pritchard—we have been repeatedly asking the Home Office, “Will you be adding to the cost?” You have made a plea here, Mr Pritchard, for them to pay. At the moment, they have not said that they will. Can you give us any indication of the conversations that you are having with the Home Office? There will be a cost to transition, as you highlighted. The more figures you can give us, by the way, the better, because we can help put that point. Are they still holding to the line that they will not back-fill the transitional costs?

**Ben Norman:** It is a difficult question to answer, given that the business case requires a refresh. We are not clear on what the transitional arrangements are, or the costs associated with them. We had transition cost clarity under the previous business case, and we had started to draw down some funds from the programme for transition costs, for services. We are different from the ambulance services, as my colleague has detailed. Individual fire and rescue services will onboard ESN as a product, but all project and programme managers at this stage have stood down from that. We have a small central team working on behalf of the National Fire Chiefs Council. The transition costs, as clarified at this stage, are very minimal.

- Q34 **Chair:** You are saying that the conversation will have to be restarted, effectively, after the pause.

**Ben Norman:** Yes; I think that is in the National Audit Report; it mentions that the detail is not there. Neither are the in-service costs. We do not know how the devices or the contracts will be managed.

- Q35 **Chair:** You are still arguing about the amount, but it has not yet been agreed in principle that there will be any extra funding from the Home Office, except for the transition pot, but even that is not certain; it depends on the cost of transition.

**Ben Norman:** Yes, that is the case as I understand it. At the moment, we do not know what the transition cost will be. We cannot agree whether that is sufficient, because we do not know what the transition plan, or in-service management, look like. Will that be Home Office-led, as with Airwave? The Airwave contract is managed centrally. The colleague sitting behind me attends meetings on that. That is not something that we require funding for, because of the way that it is led. The lack of detail about in-life management is unhelpful, when it comes to being able to comment on whether costs will be incurred in the sector.

- Q36 **Chair:** Mr Pritchard, you spoke on this in more detail earlier. Is there anything you want to add to what Mr Norman said—any assurances that you have had from the Home Office?



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**Chief Constable Kier Pritchard:** The imminent refresh of the business case is really welcome; there was a significant delay to the last refresh. The refresh is an opportunity for the Home Office to do a number of things, the first of which is setting out again the current strategic case. Is that still the right direction of travel for mission-critical comms, and can the project be delivered at a price that can be afforded and is value for money for the public? Things are very different now. That is based on the direction of travel, the outcome from the Competition and Markets Authority and the change of supplier, so the refresh is incredibly welcome.

The business case needs to set out the transitional arrangements. We saw a definition of core and non-core costs in previous versions. Training, device connection, and purchase of new devices all sit in non-core costs, for which the three emergency services should have funding available. The business case is rather silent on the specific cost of transitional arrangements, and that is the part that we really need to work on, because the situation has changed.

The price capping capabilities, and the funding that they may bring back to the Treasury and to users, could give us an opportunity to ensure that there is a specific grant that we can draw on, so that when we are ready to transition through that 27-month period, we do it well—to everyone's satisfaction—and coverage, reliability and resilience needs are met. We will then be able to safeguard colleagues and the public with a mission-critical service that is ready for action.

Q37 **Chair:** I think there has been an announcement, while we have been in this room, about the target of 20,000 extra police officers—an issue that this Committee has looked at. To be clear, when you get those officers in Wiltshire, and indeed across the country, has the cost of the kit that they will need, whatever system they are using, been factored into your budget?

**Chief Constable Kier Pritchard:** It certainly has. That is the national uplift programme, and it has reached its target of 20,000. The on-costs of the uplift catered for training, equipment, and the infrastructure in the background.

Q38 **Chair:** That is helpful to know. Of course, Mr Lucas, you are under a different Department. What is the Department of Health and Social Care doing for you in that respect?

**Chris Lucas:** It devolves the funding. It provides core funding to the Home Office, so we do come under the Home Office remit here, in some ways. I will probably share Mr Pritchard's position. To me, the future transition costs at the moment are a little bit unknown. The key bit is that we have not got a plan. We need the user services for the lot 2 supplier in place—

Q39 **Chair:** So really it is similar to you, even though your sponsor Department is different.

**Chris Lucas:** Yes; we need that overarching plan—



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**Q40 Chair:** Because they put money into the Home Office, we have not really tackled the Department of Health and Social Care on this issue. If Sir Chris Wormald were sitting in front of us now, is there anything that you would like us to ask him in order to help support the ambulance service in this respect? You can be bold; your funding is not going to depend on this.

**Chris Lucas:** I am not sure, actually. I think they will be looking for value for money; that is the key part. For the team I work for, our key driver is value for money. Part of our strategy is trying, with anything we are delivering at the moment, to have one eye on here and now—supporting the current services, supporting our frontline colleagues, the paramedics and clinicians, and ultimately supporting patient care—but being aware of the technology that is coming, and asking whether we have given a pathway that can be easily adopted. We are fortunate that—slightly differently from my policing and fire colleagues—we are funded as a national team wholly to do that, but it is about the unknown going forward. Where he would be concerned is about the dual costs, because he is paying for TETRA, Airwave and ESN.

**Q41 Chair:** We know the pressures on that budget, among other things. I need some quick-fire questions and answers now. You have talked about transition. I think it was you, Mr Norman, who mentioned that you were demobilising some of the transition teams. You have got to demobilise them and then bring them back up again. Do you want to give me an understanding of how long that will take and whether you are going to have the right people when it comes to ramping up again?

**Ben Norman:** I think it will take as long as the programme business case defines. That is uncertain at the moment.

**Q42 Chair:** So they really need to factor that in when they are writing the business case?

**Ben Norman:** Absolutely. The SRO, Simon Parr, has acknowledged that as a sector it would take us circa 12 months to stand up and properly mobilise the level of expertise, so he is fully aware, and we certainly sense he is leaning in and understands this from our perspective as senior users from the emergency services. His experience is hugely helpful in that regard.

The concern we have is whether individuals who step away from this programme will step away from the sector. Fire and rescue services are trying to do all they can to retain them and use their skills to be able to innovate in other digital solutions, as I think we spoke about earlier. The challenge for services is to align their medium-term digital strategies with ESN once the programme is back up and running. They will now set about a piece of work, none more so than purchasing control room solutions, as two thirds of the sector now need to do. Approximately 20 out of the 32 control rooms have got a procurement of a control room exercise, so the expertise that was on this will be helpful for that.

**Q43 Chair:** If you can persuade people to move to do that.





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**Ben Norman:** Absolutely, and also if we can retain them until exactly the right juncture to be useful.

Q44 **Chair:** Do you have any limits on what you can pay people? There is a huge challenge for digital skills, as we know, in every sector and every Department, in the private and public sectors. Might you have to pay people more to hold on to them? Is that something you have to factor in?

**Ben Norman:** I think the services have got a blend. Obviously, it is a scale and value-for-money based decision. Most fire and rescue services do have a fairly small, niche team to deal with digital ICT requirements in service. As you would anticipate, they use third party providers, whether that be consultants or commissioning pieces of work, where they do not have the expertise.

Q45 **Chair:** There are a lot of moving parts. Mr Pritchard, do you have anything to add to that? Are there any particular issues for the police service?

**Chief Constable Kier Pritchard:** We had established regional programme teams to help with this transition. I think it is evidence of good, positive relationships with the programme team, and certainly with the SRO, Mr Parr, that we paused and de-scaled some of those regional programme teams based on the ongoing lot 2 supplier challenges, rather than having them sitting there not being able to fully mobilise. They have been repurposed into other programmes.

Q46 **Chair:** You have held on to them for now?

**Chief Constable Kier Pritchard:** We have been able to hold on to subject matter experts and key individuals, but they are not solely dedicated to the transition.

Q47 **Chair:** How long would it take to ramp them up again? Mr Norman says it would be 12 months for the fire service. Would it be a similar time for you?

**Chief Constable Kier Pritchard:** We would expect a similar timescale. Some of them are currently working on assessing the critical operational locations that we have set out and delivering what we call COL passports, looking at the gaps, going out with a sure technology to test whether those locations are still of concern.

Q48 **Chair:** At the moment you are holding on to people and it is not the biggest worry for you.

**Chief Constable Kier Pritchard:** The numbers have reduced quite dramatically, and we share the same concerns in terms of skill fade and retention. There are not teams that were of the same establishment sitting out there in the regions now, but we are confident that we will be able to rescale and remobilise those resources.

Q49 **Chair:** Any issues for you, Mr Lucas?



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**Chris Lucas:** We are slightly different because we are actually in delivery now of digitisation products. It is more around timing—when is this coming so we can actually plan forward and look to deliver, especially the transition? On paper, retention is possibly a challenge because of the skillsets. They are in high demand outside the public sector.

Q50 **Chair:** We are hearing that salaries are extraordinary.

**Chris Lucas:** Yes, salaries. It is a challenge for us.

Q51 **Chair:** I do not want to fuel the market out there, but you do not have a cap? In Whitehall, you cannot pay more than the Prime Minister gets, so that can be a challenge for witnesses we often have here. Do you have any caps like that in your sector?

**Chris Lucas:** For ourselves, it is the NHS agenda for change pay scales.

Q52 **Chair:** Okay, so that can limit you. What about the police?

**Chief Constable Kier Pritchard:** It is similar. There will be market plussage that will be locally negotiated to ensure that we can attract talent.

Q53 **Chair:** Locally negotiated, okay. Mr Norman?

**Ben Norman:** It's the same. If they are in-house staff, they have to sign to our existing pay scales.

Q54 **Chair:** That is interesting. Turning to you quickly, Mr Ricketts, you talked about the French having a system in place by 2024 for the Olympics. How fast have they been delivering that? That is potentially an extraordinary pace. Do you know more about it?

**Simon Ricketts:** I do. My first reaction is that that feels a little edgy, to say the least.

**Chair:** That is exactly my thinking. I had a different word in mind, but it is perhaps not polite enough to say out loud.

**Simon Ricketts:** One thing that I would draw the Committee's attention to is that the French have quite a reputation for delivering technology projects. If you go and have a look at the technology in France in all sorts of areas, it works and they usually get it right to time. The panel did a review internationally and noted the French's intention to have something working for the Rugby world cup and then the Olympics. I think that that ambition has now slipped to be more in terms of the Olympics.

Following up on that report, the programme went to France last Friday, spent time with the suppliers that the French have engaged, one of which is Capgemini, and talked to the people who are going to be providing the app and the group that are going to be running the network, noting that they had already started to construct their data centre and were building at scale.



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One of the observations is that we have quite a sophisticated network here. Airwave has huge coverage and has a lot of facilities and features. Tetrapol, which is the French equivalent, is not quite so dense, and the French plan, I believe, is to start with handsets only. The crucial point is that I believe that around the Olympics we will be seeing a working solution, standards based, with some form of push-to-talk app.

Q55 **Chair:** When did they actually start?

**Simon Ricketts:** They waited—

**Chair:** They waited for us to make mistakes first?

**Simon Ricketts:** We have had this conversation before. It is hard to exaggerate the onus that was put on the programme in terms of the way it was procured and the way that lots were set up. Right at the last minute in 2015, for purposes of disaggregation, content was taken out of lots and given to the Home Office, so the Home Office suddenly inherited a whole load of programmes, which at that stage it was not qualified to deliver. All that inertia feeds into our evidence bank, yours included, that this sounds like it is a very long job. How come the French suddenly did this in a couple of years? The clue is how we started off.

Also, standards have moved on. Releases 13, 14 and 15—that ghastly word, 3GPP standards, which govern this network—are here. They talk about ambient listening. They talk about discreet listening. They talk about prioritisation and pre-emption. The app providers have been looking at this for a while now. There is more than one alternative app. They are a little immature, but the French are on that, so I think that we will see enough evidence in France.

Q56 **Chair:** So they had a better start because the technology was further advanced.

**Simon Ricketts:** I think so. The good news for us—I am hoping that assurance will confirm this—is that we will be able to see evidence of that network, including the app, push-to-talk, the dedicated SIM card, and the split core working, which is something that we desperately need to see here. The real frustration is of course that if lot 2 had not failed we would be sort of in that position now. It is worth remembering that the golden opportunity that the transition services agreement represents—to be able to use the current network and the Kodiak app between now and the end of the year, with a possibility of a six-month extension—gives the programme the opportunity to stress-test the network. That sort of evidence, as well as watching what France and the Dutch are doing, is important. There is no doubt whatever that the international community is moving in a broadband direction—cautiously.

Q57 **Chair:** The French can deliver by 2024, which raises lots of questions. Mr Ricketts, we talked about how there is more commercial off-the-shelf product out there, but that there would be risks in an approach of taking that on board and adapting it. What are the top risks of the approach that could be taken now, because technology is moving on?



**Simon Ricketts:** The clue is standards—

**Chair:** The 3GPP?

**Simon Ricketts:** Yes. Let's take a push-to-talk app: it either caters for an emergency button or it does not; it either has call groups that can be set up or it does not; it allows control rooms to do all the things that they need to do in terms of listening and discreet listening, and it allows prioritisation—or not. The first test is: how much of the standard set does the app cater for? Have we got it all baked in, or only some of it? If some of it, that is a problem; it needs to be all. The second thing, and this is a huge challenge, is that there is a difference between specification—I am talking about the 1,400 "elab Rs"—and use cases. It is all very well having an app where you can prove that this works and that works, but it is how it works in the field. The dialogue is less about changing and having a bespoke solution—that would be a nightmare—and much more about the use cases and how the app is actually used on the frontline. In part, is functionality present, yes or no; and, secondly, is it clunky or not? That is a huge risk area that we will be assuring, to ensure that we do not have a mass of bespoke stuff.

Q58 **Chair:** My final question hopefully needs just a straightforward yes or no. Now we are out of the European Union, are there any issues about the common standards, or do they transcend the political structures?

**Simon Ricketts:** They do transcend them, but there is some concern in a different place at the moment. So, 3GPP and those standards—standards for 4G, 5G and 6G—

**Chair:** They are universal.

**Simon Ricketts:** They are, but I was talking to Dr Mike Short yesterday, and they are universal based on consensus, so if the world becomes more fractured, we might get regions choosing to adopt different standards for political purposes. Although we are out of Europe, however, the good news is that the European market is relatively stable, and I think that we will see that carrying on.

Q59 **Chair:** That is one less risk. The final question is to the frontline users. The Home Office has said that it will not roll ESN out until every police force, ambulance service, fire service and any other users are confident that it will work. Effectively, as we keep telling the Home Office, you have a power of veto. Do you feel that that power of veto might kick in, or are you positive that consensus will be reached, so you will be confident about switching off at the right point? It could cost us a lot of money: if one of your forces or organisations decides that it is not confident, we cannot switch off Airwave.

**Chris Lucas:** For the ambulance service, positive—we would all go, to be honest.

**Chair:** You have central national control anyway.



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**Chris Lucas:** I do not have individual authority to say to an individual ambulance trust, "You have to go." The coverage will be key for them, but I think we would have warning signs well before we got to that point—if there were technology problems.

Q60 **Chair:** Mr Pritchard, you have the highest number of personnel.

**Chief Constable Kier Pritchard:** Chair, we have been provided with constant reassurance on the issue, from the former permanent secretary and the current permanent secretary, and from the former SRO and current SRO, Mr Parr. Again, in evidence provided to the Committee, it states that no force will be forced to adopt or accept the Emergency Services Network. We are reassured that it will be a joint decision, when we are jointly and equally satisfied. There are a number of important steps. First, we need the Lot to supply to be confident that it will deliver the user requirements that we have. The testing arrangement to prove coverage, reliability and resilience—

Q61 **Chair:** They cannot shrink that now—in the first iteration, we saw a very shrunken testing time, so you are clear that that will not be a problem.

**Chief Constable Kier Pritchard:** We would be incredibly concerned if it was shrunken down; we need that to be really robust to give confidence.

Through the National Police Chiefs' Council, we have prepared a service acceptance strategy that was socialised in December 2021 and was approved by all chiefs. That demonstrates a series of inputs—the elaborated requirements and the requirements being met—and what must be achieved through testing. It sets out a series of certificates that we require from the SRO, the director-general and the permanent secretary, then independently verified. It would be the role of my successor to recommend to the National Police Chiefs' Council that all those tests have been met, and that it is now safe to accept, but it will be a joint decision with the Home Office.

Q62 **Chair:** Thank you. Mr Norman, any likelihood of a veto from any part of the fire service?

**Ben Norman:** It is much the same for us as for colleagues. We have a specification, so once it is met, we go forward. What has been helpful is that both the programme and the sector have been very keen to engage, adopt and test products early. We have seen that through previous iterations of the business case, so we have done significant testing of the coverage at the moment. It is now critical around that second lot and the functionality and quality of that product when it is enacted. I think we have probably done the harder work in terms of "Have I got coverage?" It is still not everywhere it needs to be, and some extended area service coverage is still to be built, but I think that work that has gone through to date will help us to keep confidence.

Certainly, as colleagues have said, with the programme's approach since Simon Parr took over as SRO, we have noticed a step change in increased user engagement. There is an element that we have to communicate



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differently with the sector—we still use traditional means of communication—and to get end-users confident with the products, we have to use more innovative ways of demonstrating its ability when we get there. In terms of chief fire officer sign-off, though, I have the same confidence that my colleagues have.

**Chair:** That is a whole other issue: you think you have it sorted at the top end, but you have to get all the users involved.

It has been a really fascinating session. I thank you very much indeed for your time. It is interesting to hear Mr Parr's name mentioned so often and so positively. That is a very big change from where we were a long time ago, when we first started looking at this. I am in my 11th year of looking at this, which is rather depressing. But if the French can do it, that is a challenge for the Government—a little competitive edge there. Thank you.

The transcript of the session will be up on our website uncorrected in the next couple of days. Many thanks to our colleagues at *Hansard* for that. The report that we will be publishing as a result of this session and the one about a month ago will be published in May or June. We will finalise dates once we have the draft. I thank you again.