

## GLA Oversight Committee – Wednesday 17 October 2018

### Transcript of Item 5 – Emergency Services Network update

**Gareth Bacon AM (Chairman):** The main item of business for today is the Emergency Services Network (ESN) update. Can I welcome our guests? I will go from left to right. Stephen Webb, who is the Senior Responsible Owner for the Emergency Services Mobile Communications Programme (ESMCP) at the Home Office. Welcome, Stephen. Then we have Bryan Clark, who is the Programme Director for the ESMCP at the Home Office. Welcome. Shashi Verma, who we are familiar with, the Chief Technology Officer and Director of Customer Experience at Transport for London (TfL), and Siobhan Peters, who we are also familiar with, who is the Chief Financial Officer at the Mayor's Office for Policing and Crime (MOPAC). Siobhan is here because she is a member, Emergency Services Network National Programme Board. Welcome to you, Siobhan.

This is a follow-up meeting to one that we had a year ago. It is, I suppose, a progress update. The first question is to Mr Clark and Mr Webb. I have no preference as to who answers that. Can you please set out for us the new strategic direction for ESN and how the rollout is expected to work?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** Maybe I can just start off and then hand over to Bryan [Clark]. Obviously, the Minister wrote and we have had a reset and strategic review of the programme following negotiations with our suppliers and completion of heads of terms, which was all announced on 21 September [2018]. Broadly, what this is about is an incremental delivery of capability over the next couple of years, rising to the point in late 2020 at which the final parts of the software will be available for the most sophisticated use cases. We expect the first bits of the ESN capability, the first products, to be coming out around the turn of this year. Initially it will be a product to test the network, to prove it works from end to end and to test that the coverage meets the requirement to give comparable coverage to what we have at the moment from Airwave. We will then have early versions of the voice and data products and those will be gradually improved over the next couple of years.

As part of that, the conclusion has been that we have negotiated a three-year extension to the Airwave contract, up to the end of 2022, which is now the period we are looking at for national shutdown. This is obviously later than was originally envisaged, reflecting a number of well-known and understood issues that we have had. We have discussed them in this Committee and other places. However, I think we are very close. We have now taken a software product that is being used in a number of parts of the world and has a clear upgrade path to meet our requirements. We have a much higher degree of confidence now that we have something here that is going to work and is going to meet the, rightly, high expectations of emergency services. Bryan, do you want to add to that?

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** That broadly covers what we are doing. Just to take a step back, we are two-thirds of the way through what we are describing as the reset of the programme. We have completed the first two phases of that.

The first one was to look very seriously at whether we should continue with the programme or not. We did a very serious comparison of the two alternatives and we concluded, quite clearly I think, that if we could find a way of completing the project effectively, it was quite clearly the right thing to do and the advantages were significant.

We then moved into a second phase, where we put ourselves under quite a lot of scrutiny. We had a number of reviews by the Major Projects Review Group and a number of internal audit reviews. We also got into serious discussions with our suppliers about remediating the approach that they were adopting. We got to a point about six weeks ago where we felt confident that we had a robust plan, albeit more work to do on some of the details, and we had been able to negotiate acceptable terms from our principal suppliers. That allowed us to go into the third phase of the reset. The announcement we made about direction was at the end of phase 2. One important point to note is that we have an ability to extend Airwave but we have not made a commitment to do that. We have an option that we may exercise.

We are now working through the final phase, which is going to do a number of important things. First, we are going to be delivering against a series of milestones that should give us increasing confidence that we have an end-to-end solution that is capable of deployment. We should be in a position to assert that at the end of this year. Secondly, we are rewriting our business case so there is absolute transparency in terms of the costs and the benefits. That is in draft at the moment. We are also going through detailed consultation with each of the emergency services, the idea being that phase 3 of the reset should complete in December [2018]. Perhaps January [2019] might be more sensible, to give everyone a chance to really understand the implications of what we are doing.

Meanwhile, we are not being idle. We are getting on with some of the key activities within the programme, we are extending the network around the country, putting new sites in, testing a new push-to-talk technology to run on mobile phones, and as Stephen [Webb] said, in the next month we will have our first application live, which will enable emergency services personnel to actually test the coverage while they are working. It is an application that makes use of the new network and it shows very clearly where the signals are and whether it is good. It is part of a detailed audit of the coverage that we are achieving. That is going to be particularly relevant in London.

**Gareth Bacon AM (Chairman):** Just to clarify one point you made in your answer just then, our understanding was that Airwave had been extended for three years. You are saying that you have negotiated the possibility of extending it but have not exercised that option yet? Is that correct?

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** That is correct.

**Gareth Bacon AM (Chairman):** OK. When will you be making a decision? When is the deadline for making a decision on extending it or not?

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** It is twofold. In terms of the contractual decision, we are aiming to do that at the end of the year. The option is available to us until the end of March next year [2019]. The current contract with Airwave terminates December 2019. We are obliged to give 12 months' notice if we want to change the shutdown date for Airwave, so we will formally need to give notice that we are changing to shutdown date in December [2018], but that is not a contractual change.

**Gareth Bacon AM (Chairman):** So you will need to have made a decision by March [2019] either way? OK.

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** It is worth pointing out that there is no alternative available beyond December 2019. If we do not extend, then we do not have an emergency services network in play.

**Gareth Bacon AM (Chairman):** Yes. OK, that is fine. What do you see as the key risks at the moment and what mitigation measures have you put in place?

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** I think there are two main handfuls of risks. On one side is the ability to execute against the plan. We do not have a strong track record of delivery, to date, on the programme. We have a very viable recipe for success, but we need to bake the cake. It is at that detailed, granular level, working closely with our suppliers to be effective in delivering against that plan.

How will I know that that is working? We have a series of milestones and measures of behaviours and ways of working that we can tick off between now and Christmas [2018]. My feeling is that our confidence should rise significantly in our ability to mitigate those risks as we evidence that we can do it over the next weeks. For example, we will deliver the first product within a month. We will also deliver the first push-to-talk application and we will witness the next version of the push-to-talk application operating in the United States (US) with FirstNet before Christmas. That is three milestones that should give us significant confidence before we sign up to the next phase.

The other set of risks are associated, I think, with managing the uncertainty of the programme. There are significant number of areas in such an ambitious programme that we cannot just be definitive in terms of how it is going to resolve itself. We have a plan, we have thought through each of the issues - it comes down to about six - and we know what we think will be the best outcome, but we recognise that as more information becomes available there is the potential that we may take a slightly more expensive, longer or more challenging option. We have thought that through and we are factoring that explicitly into our planning so that we know what sort of contingency we need to build in. That is in the business case.

Why is there that level of uncertainty? Well, the plain fact is that we are a world first in terms of what we are aiming to achieve. It is a highly technically ambitious programme, though much less ambitious today than it was historically because the market has moved significantly in its capabilities over the past years. The risk is diminishing but there are uncertainties, things like, "How are we going to put the push-to-talk application into an aircraft?" There are options. Some are more expensive than others. We are just working through with a number of suppliers what is the most cost-effective solution. We are talking with TfL about the way in which we will provide a signal underground. There are options. It is difficult to be precise as to how that is going to play out. There are also a number of other areas, but we know them. We know what we do not know, and we have the branchpoints factored into our plan. To some extent, some of those are beyond our control, but we have contingencies planned in. Those are the two risks, I think.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** Can I just add a third category? Obviously once we have delivered the product there is then an adoption process and so the other risk is the rapidity with which the users are able to transition, such that we can turn the system off. We have allowed a consistent amount of time over the life of the programme for that adoption period. The fact that we are doing incremental delivery should mean that users have a chance to try this out earlier to start installation, to start some of the preparations a little earlier, but fundamentally we need the users to have completed before we are then able to turn it off. There is a strong incentive on users. The users are funding the continuation of the network and they will obviously want to minimise the amount of dual running, but through the Programme Board, as well as holding the programme to account in its delivery, we will need to hold the users to account on their readiness. Obviously, you will be wanting to talk to the Metropolitan Police Service (MPS) and MOPAC on that as well.

**Gareth Bacon AM (Chairman):** That is a nice link. I will move to TfL. Shashi, are there any additional risks to those that we have just heard from the Home Office that you would like to highlight and perhaps any additional mitigation that you would like to see?

**Shashi Verma (Chief Technology Officer and Director of Customer Experience, Transport for London):** Not particularly. We are working at the Home Office's instruction on this. We divided up the programme into two phases. Phase 1 is already in progress and as part of that we have installed fibre optic cables in 170kms of tunnels. We have also installed leaky feeder in about 250kms of tunnels. That is about 60% of the leaky feeder that has already been installed. Because of the review of the programme, our delivery approach has changed a little bit. We are going through an extended phase 1, which we are extending right now. Phase 2 is where the bulk of the procurement for active equipment, the actual switch gear, has to be done. That is awaiting final confirmation of funding from the Home Office and then we will get on with it.

**Gareth Bacon AM (Chairman):** Same question to you then, Siobhan. From a MOPAC point of view, any additional risks?

**Siobhan Peters (Member, Emergency Services Network National Programme Board):** There are three areas that we focus on. Operational policing colleagues are very concerned to make sure that the ESN delivers the functionality of Airwave. It is really encouraging to hear the programme feel that it has a pathway to that, but people are waiting for data, they are waiting for assurance, they are waiting for things they can touch and feel, and there is a degree of scepticism about whether we can get there. That is very, very important. We must not lose sight of critical operational functionality for the emergency services.

We are obviously concerned about the delay in the programme and the additional costs. Of course, a lot of the cost of the programme so far has been met as a top-slice from the policing grant, from within Home Office funding. We are very concerned that the additional costs and delay should be dealt with as part of the Spending Review and not taken from policing grants in the future.

Then, of course, from an MPS point of view, the MPS have to make some calls about quite expensive capital purchases of, say, additional Airwave handsets, which form a big part of the capital programme which we will be back here discussing later this year. They are the three main areas that we are watching closely.

**Gareth Bacon AM (Chairman):** On that last point about the new handsets, I gather the MPS' handsets at the moment are reaching the end of their life and they are going to have to re-procure if we extend Airwave for three years.

**Siobhan Peters (Member, Emergency Services Network National Programme Board):** Yes.

**Gareth Bacon AM (Chairman):** Is there likely to be a bid from the MPS to the Home Office for that to be covered by them rather than the MPS?

**Siobhan Peters (Member, Emergency Services Network National Programme Board):** The Deputy Mayor [for Policing and Crime] wrote to the Policing Minister last week highlighting that additional cost and highlighting the cost in relation to the scale of the grant we receive from the Home Office. It is three times our grant from the Home Office in terms of capital funding. We are absolutely highlighting that issue to the Policing Minister.

**Gareth Bacon AM (Chairman):** It is not a request yet, but it is a highlight.

**Siobhan Peters (Member, Emergency Services Network National Programme Board):** Yes.

**Gareth Bacon AM (Chairman):** You are hoping they can join up the dots.

All right. That is a useful scene-setter. We are going to talk about the delay a little bit more, I think. Assembly Member Whittle is going to lead that.

**Peter Whittle AM:** Good morning. Can I ask Stephen and Bryan about this? Thank you. Gentlemen, as you know, the Chairman wrote to the Minister of State [for Policing and the Fire Service], [Rt Hon] Nick Hurd [MP], in June [2018], and we understand from that letter that the ESN system will not take over from Airwave entirely until 2022. The two will have to run in tandem until then. As I understand from my reading, that is at a cost of something like £1.1 billion, amazingly. How do you know that this delay will not be further extended? Maybe Stephen?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** The end of 2022 is our planning assumption. In the business case, as Bryan said, we are looking at contingencies and whether we need to allow further time contingency. We think it is a reasonable plan but there are no absolute guarantees in these things that it might not take longer. As I say, that is what we are working towards with the suppliers and that is what we are working towards with the users. That is what we are aiming to achieve.

**Peter Whittle AM:** Is this just a date that has been picked out of thin air? What is it based on?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** As I say, it is based on the availability of the products and then the transition period, how long we thought the users would take to transition, which has been agreed for some time on the programme. You could argue it either way. You could argue that users have a bit more opportunity to try the products early and could potentially transition more quickly, but we have not made that assumption. We have assumed they are going to continue to need a 24-month or 27-month period at the end of the programme. That is where the end of 2022 comes from.

**Peter Whittle AM:** I see. What is the process for the overlap period? Maybe you can help us with what the process is for that period.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** You mean the interworking? There will be a fully functioning ESN network and Airwave will continue. Then there is an interworking technology that allows people to communicate even if they are on different systems. The two will be running in parallel for that period.

**Peter Whittle AM:** Do you want to add anything?

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** I think it is confidence that will determine the absolute end date of the programme.

**Peter Whittle AM:** It has not been so good so far though, has it?

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** No. There is a lot of work to do to build that confidence and we explicitly have a plan of how we are doing that. If you looked at the detailed plan you would see that we have finished the technical work

well in advance of the shutdown period. The full functionality of the solution will be completely delivered, well ahead of the December 2022 shutdown date. It will be delivered in partial steps starting next year. We can be reasonably confident, based on the analysis that we have done of the project plan, that we will get through the technical work in good time to complete that.

The issue that remains is the speed of adoption across the emergency services. I would echo the point that was made earlier. There is a nervousness. "Is this going to work? Is it going to affect us?" That is the consultation we are going through in detail at the moment. However, we do have a plan that I think will demonstrate quite clearly that we can deliver this solution in good order. The issue now is to determine a timetable that recognises the importance of doing it safely but also recognises the cost of prolonging it unnecessarily.

**Len Duvall AM (Deputy Chair):** Can I come in? That cannot be right. You have just told us earlier on that you are three-quarters of the way through your revised plan. Your Permanent Secretary [Sir Philip Rutnam] went before the Home Office Public Accounts Committee (PAC) and got a rather hard time about what the revised model looks like. He said he wanted one and I presume that is what you mean by "the revised plan", the revised model.

I am a supporter of this scheme. It is a national scheme and I understand why it is needed. I get that. However, there are so many other technical questions, particularly for London. As much as I want a national programme to succeed, the purpose of this meeting is about the London specific issues and why they are so important. Every day and every year your overrun costs us money, which we cannot spend on policing. That is money going out the back door to the existing providers, never mind the new providers who are doing quite well out of this scheme and our delays.

I am a great believer in confidence and you mentioned the word "trust", but I do remember having a very similar conversation, in this room, with a rather larger gathering. That was about confidence in terms of what the emergency services - the end customers, if we can call them that - want. "If they just say what they want and how they want it, everything will be hunky-dory". It does not come across like in the information we have or the information you have provided to others. I just want to go back over that statement you made because that cannot be correct.

Let me paraphrase what I have heard. You tell me if I am wrong. If I have misunderstood you, come back to me. You are saying, "All the technical stuff is there. What we need is the emergency services to say when they can take it and how they can take it". Yes?

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** Well --

**Len Duvall AM (Deputy Chair):** The bit that is missing for me is about the people providing the product and how quickly they can do that. I am not suggesting that you are misleading us but there are all sorts of ancillary issues I want to add that make that statement overconfident. You have already been criticised for this in the original plan. The national audit body said that you were very ambitious in the timescales before.

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** That is a fair challenge. I think I was not clear because I certainly did not mean to give that impression. There is a fundamental difference in the approach that we are adopting in the programme now. Bear with me.

The previous approach was that we had a very high standard that we aimed to achieve in terms of capability, and the programme was designed to deliver against that standard. When that standard was achieved, an adoption of the new solution would take place. When we looked at that in detail, we felt - I think quite justifiably - that that was not feasible. It was infeasible to do that. Brand new technology, cutting-edge; "We are going to make it perfect first time and then we are going to switch it on".

So, what we deliberately did was, instead of going for a Big Bang transition, we decided to go for parallel running where we start quite unambitiously in non-critical situations, with the Airwave solution as a safety net throughout that period. We will prove the end-to-end solution and then we will enhance it in a series of planned steps, which will have two benefits. Firstly, it will enable us to build progressively, which is always the most effective way of building solutions. Secondly and more importantly, we will build confidence in the solution with our customer base. That is the difference.

I did not mean to imply, "Do not worry, it is all fine". There are huge challenges to complete the task but we have a way to do that, in a provable way, as we go. As I said earlier, we will have a very good increase in confidence by the end of this calendar year because we will be able to show you a solution working in the field.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** We are not saying the technical solution is ready now, but it will be ready well before the 2022 shutoff. As I say, the final version of the software and the capability should be ready toward the end of 2020. That is the point at which we will be able to prove the whole thing. Then it moves into the tempo that users can deliver for adoption.

Bryan's point is right. We had an approach with the users such that everything had to be ready before you even started trials and transition. We have a very wide range of users of Airwave, from what you might almost call orange-light services, which do not have quite the same level of criticality, right up to covert users who have very specialist requirements. Everything was being held up by the requirements of the most sophisticated users, compared to what we now have with this incremental delivery.

On the point about confidence, there has been so much talk for the last couple of years: "Will it do this? Will it do that? People are confident. People are not confident". Nothing beats getting it into people's hands on the streets, using it and seeing it. One agency can take it up and people from the other agencies can come to have a look. That is the heart of the approach that Bryan is running now, and it seems to be better practice. I think it is a better approach. In many ways it is the approach I would have liked to have had from the start, but I am very glad we are able to do this now. It has taken longer, and I completely understand why people have a confidence issue with the programme but, as I say, I think within a couple of months people will be able to see what has been built and what is still to come.

**Len Duvall AM (Deputy Chair):** You alluded earlier to this Merseyside pilot. Is that where you are saying you are going to test it so that people can see it? Is Merseyside one of the first areas to have a rollout, or at least to test it, in this overlapping period?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** There have been some early trials in Cheshire. There are a number of different trials in different areas. There is some data work with some fire and rescue services and there is potentially some work with some of the Home Office agencies. Cheshire are doing an early pilot of the voice. There are a few other potential candidates.

**Len Duvall AM (Deputy Chair):** Where are the pilots in London?

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** We do not have a pilot planned for London at the moment.

**Len Duvall AM (Deputy Chair):** OK. Do you think, in terms of rolling out this programme, that London is probably one of your greatest challenges, not just in terms of risk for people on the ground in emergency services if we get it wrong, but technically as well with some of the issues that have been thrown up?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** There are the logistics of completing the work in the London Underground. Because it is such an important operational area for our emergency services, they clearly need a high degree of confidence that they have a communications solution in the Underground. That is the challenge there. Obviously, the technical challenges in the air are the same nationally. For coverage, in many ways the urban areas are the areas we are most confident in. However, the London Underground is certainly a particular challenge here.

**Len Duvall AM (Deputy Chair):** Just remind us, is there one forum in London where all the users, as you have described them, come together to talk about and resolve any problems? Is there one area or are we talking to individual users? How does it work?

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** We are talking to the individual emergency services. Just to be clear in terms of our planning for the adoption process, we are still in discussions as part of this final phase of the reset with each of the emergency services about the exact timing that they will take. We are acknowledging the challenges that are particular to London and certainly completing the work in the London Underground or finding a way to be able to communicate effectively in the Underground is a key element.

**Len Duvall AM (Deputy Chair):** One of your fundamental approaches in what has been described as “the new model” is something like a pick ‘n’ mix; I get a menu and I can opt into different bits of this new system as I want. In London, if you are talking to individual emergency services, could there be a case where we have the City of London police adopting a pick ‘n’ mix of X, the MPS adopting a pick ‘n’ mix of Y and some of our other emergency services doing differently? That is why I am asking if there is one forum in London. You are talking to them individually. Who says what is in the interest of Londoners? Are individual services driving it or is it the needs of mitigating risk and getting the best system for London?

Maybe I am looking to Siobhan. Is there a gathering where you all come together to talk about the brave new world of pick ‘n’ mix and what you choose for this service? I know you are looking out for the MPS. Where does that happen in London?

**Siobhan Peters (Member, Emergency Services Network National Programme Board):** There are existing blue-light collaboration mechanisms and obviously there are discussions there. There is a forum between London Underground policing, MOPAC and the London Ambulance Service which meets fairly regularly. We are quite early into understanding the new approach from the programme and you are now going out in that period of very intensive consultation. My sense at the moment is that individual services are understanding what it means for them. I have not been at a gathering where everybody from London has come together. You may have been; I have not.

**Len Duvall AM (Deputy Chair):** The pick ‘n’ mix is a good, interesting approach but in terms of somewhere like this, you can have the choice but you all have to come together with one system for emergency services.



**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** The pick 'n' mix is really about people's transition route. They take products on the way, then ultimately everybody takes the product and they all get to the position where Airwave can be turned off. Any forum where users come together would be valuable. For example, the ambulance has quite a large, significant national Ambulance Radio Programme and the Ambulance Improvement Programme, which covers the National Health Service (NHS) nationwide. It has largely been driven by that.

We would welcome regional and London forums where we could talk some things through because certainly in things like coverage it would make sense to have a single picture for London. The data could then be shared with all the emergency service users collectively. It is the same programme.

**Len Duvall AM (Deputy Chair):** Forgive me, but is there not a cost element to this? The more they come together with one approach, the better it is for public money. A better gain for public values, dare I say? Value for money?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** It would be helpful, yes.

**Len Duvall AM (Deputy Chair):** Does that not enter into the equation here?

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** These are all good suggestions. Two points. First, if you look at Scotland and Wales there is much more over collaboration around this, which certainly makes it more straightforward for us to agree an approach. I would very much welcome a similar approach in London. Secondly, on the value for money point, clearly doing it all in unison is potentially better but I would balance that by saying that if you look at the costs within the programme, the dominant factor is the extension of Airwave coverage. Every day that we extend Airwave beyond the earliest finish date is a very expensive day. Shortening the elapsed time to complete adoption is the way to achieve best value for money.

**Len Duvall AM (Deputy Chair):** You are dealing with risk in this project in an interesting way. I am thinking of risk to people, to criminality and accidents and our response to those. I would put that into the risk assessment. I do not understand why London is not at the forefront of an implementation programme. This is not the arrogance of London. I do not think it has to be the pilot. I would like to see, particularly in policing, another urban area trial it and learn lessons from it. I do not see where London is as a priority in this overlapping system or how, when there is an issue, the issues will be resolved.

In terms of what is different from when you came to the [GLA] Oversight Committee before, we have had the shrinking violets of the police service say there are a few more problems. Have they been resolved? The National Police Chiefs [Council] have been raising issues about the pick 'n' mix system in the revised plan. What has been done to resolve those? Give us a little picture of what has been resolved. Then we will talk about some of the London-specific issues.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** We have a number of issues we want to talk through with the chiefs. There is the level of contingency and there are a number of assumptions that we need to agree collectively. What is best value for money? We can talk about areas like coverage, resilience and the precise approach we are going to take to air-to-ground, the sorts of things that Siobhan [Peters] was talking about, having a definitive answer to some of their issues with parts of the operational capability. That is what we are looking to close

down as we finalise the numbers in the final business case. I think good progress is being made. Bryan might want to talk a little bit more about that.

Again, one of the advantages of the Assure product that Bryan was talking about is that so much of the debate in this area has been the anxiety about whether ESN coverage will be as good as Airwave. It has been a theoretical discussion for many years now. Again, within a couple of months we will have actual data. "This is where ESN coverage actually is". Certainly, our experience of going with emergency services around London is that very often Airwave coverage is quite poor. You have odd gaps in areas. It does not work very well in lots of buildings and people are using their personal mobiles. There is very strong evidence already that commercial-equivalent coverage would give you a better in-building solution than we have at the moment with Airwave. Again, that is still my view. Within a few months we will have the data to demonstrate that.

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** It is absolutely right that the MPS are concerned about a number of issues on the programme. We are in detailed consultation with them at the moment, going through each of their concerns. That is what we are trying to do as part of phase 3 of the reset of the programme. It is very helpful to the programme that they are being so clear about the areas that need to be addressed because there has been quite a long period in the programme where these concerns had not been clearly articulated and clearly answered. As part of this phase, we are welcoming those points. For example, I have a session organised next week with a number of senior police officers. We are going through all of their issues explicitly and there will be a follow-up session the following week. I am anticipating that it is going to be a really lively conversation and we are going to work through to - hopefully - a resolution on that.

**Len Duvall AM (Deputy Chair):** We know of some London wide issues, particularly about emergency services and TfL operations underground. Where have we got to on the 4G coverage, which is not great in London? Is it great now? This was in a letter from the Chairman of this Committee, Gareth Bacon [AM], to the Home Secretary, listing all number of London-centric problems. Where are we on progress with those issues?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** The Policing Minister wrote back. We were forwarding largely information we had from EE and the mobile operators about the state of 4G coverage. Again, I think the proof of that will be in the pudding. It will be when we take the ESN Assure devices out and we see what ESN coverage is actually going to look like. Again, the thing that always needs to be remembered is that the comparison is, "How does this compare to Airwave?" Everybody would like better 4G coverage everywhere and we are working closely with the Department for Digital, Culture, Media and Sport and the Office of Communications (Ofcom) to understand what the national programmes are to improve coverage. Our challenge is, "Can we do better than Airwave?" In London we would certainly expect to be able to do that, but we cannot promise blanket universal coverage for 4G yet because that is going to be part of a much wider exercise we do with the mobile operators to provide it to the general public.

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** Is there a good signal everywhere you need it? That is the question and people are concerned about that. How can you answer that question? That is what we ask. How can we get people to a place where they are confident that the signal is sufficient to do the job effectively? The plain fact of the matter is, it is quite an involved process of working through that in detail. We have a process now that we have agreed with our operator and we are working through it with each region around the country, including London.

We have contracted coverage with EE, that is what we are expecting to be delivered. We are checking that. We are doing drive tests and we are measuring the signal against their contracted obligations and they are required to fill any gaps, over the next year or so, that we identify. We are also looking to see if there are places that are not covered by the contract that we need to find coverage in. That is one of the uses of this Assure product that we are deploying. Emergency services can take a device to places that they require coverage and determine exactly whether there is coverage there or not. If there are other requirements, we can do it.

It is clearly an issue in London but similarly it is a huge issue in Scotland for remote areas. We are working through this very complex process. It is going to take a period of time to complete that consultation with people. It is not something that we can do theoretically. It is a very practical job.

**Len Duvall AM (Deputy Chair):** It is such a basic issue for us. We know the limitations of Airwave, where it works and where it does not work in London. This system has to be better, not 41% better but significantly better for the investment that we are putting in as a nation, never mind the money that we are spending here in the region of London. I just want to be sure that we are going to deal with that. If we come back with a system that does not do that, that is no better, there have to be some real questions that will be asked of you about why we have done this.

My last two questions, Chairman. The overlapping period conjures up all sorts of pictures in my mind of how it works. If you are operational police officer, are you going to be carrying two handsets around with you because of trust and confidence in the system? How do we minimise that overlapping period? Is that true? Is that really what we are going to ask of people who are on the front line just so that we get through this period, that they are going to have two systems in their hand?

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** We have built a box that connects the two. There is an interoperability capability that is fully --

**Len Duvall AM (Deputy Chair):** Is that a box on paper or is that a box in reality?

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** That really exists.

**Len Duvall AM (Deputy Chair):** It exists, does it?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** It is not a box they have to carry.

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** You can have a mixed estate, but the reality is that most police officers have two devices anyway. They have a mobile phone and they have their Airwave device.

**Keith Prince AM:** And a camera.

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** Yes.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** But we do not want to encourage --

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** We are not adding to the burden. That is the point.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** They do not need to. They can choose to. When Airwave came in there was general dual-carrying for a very substantial period with the Very High Frequency systems people had before. The interworking solution over the air should mean that you could have a group of people in a talk group, some of whom are on ESN and some of whom are on Airwave. That has been tested and that seems to be quite an elegant solution.

**Len Duvall AM (Deputy Chair):** OK. At least people are thinking in terms of those issues, because as a layperson I am thinking, "What is going on here? How does that work?"

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** It has always been the case. We have always recognised that during transition you were not going to get the entire force or all the ambulances going at once. Therefore, there was always going to be a position where some of them would be on the old system and some of them would be on the new. Therefore, we have always thought quite hard about how we could make that as seamless an experience as possible and the interworking solution has been the answer.

**Len Duvall AM (Deputy Chair):** Good. Siobhan, since the last meeting of the [GLA] Oversight Committee you now sit on the [Emergency Services Network] National Programme Board. Of course, you have been appraised of these discussions in terms of the revised Business Model. In the paperwork we have, the revised Business Model talks about issues in relation to control centres. As an aside to the control centres, there has been a debate - not in your remit - over the last couple of years about whether we should merge control centres and whether there are any savings around that. If that is the case, what have you taken back to your colleagues? There was not so much resistance from the MPS to merging control centres, it was from other emergency services in London, if I recall that rightly.

If we are changing the system of communication for emergency services, is this not the right time to re-establish that debate amongst the emergency services of whether they should start thinking about how to bring their control centres closer together and if there are any savings for the respective services?

**Siobhan Peters (Member, Emergency Services Network National Programme Board):** Not directly stimulated by this Programme Board but separately, the police, fire and ambulance [services] are taking part in a Home Office supported project to look at collaborative contact and response. We have a grant of possibly £2 million for building a business case looking across police, fire and ambulance around collaborative contact and response that is in the fairly early stages. It needs to align with the very major upgrades and the very big technology decisions that need to be made, certainly amongst policing and I am not as familiar with the decision making in the other two. However, there is both a very developed programme in policing to look at what we need to do and also a programme looking at the potential for collaboration and the savings that might come from that.

**Len Duvall AM (Deputy Chair):** Am I right in thinking there are implications for control centres and that we should take these opportunities, while they are there, to expand the ambition and to see whether it is appropriate?

Sorry, Chairman, it is a side issue, but I thought an important one. The right people need to be involved in those discussions around the communications bit. However, are the right people being involved in the discussion about some of the strategic choices about control centres and what we need to do? That is why I am asking that question.

**Siobhan Peters (Member, Emergency Services Network National Programme Board):** I think they are. Those people are connected.

**Len Duvall AM (Deputy Chair):** We might follow up on that.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** In the Business Case we have taken quite a prudent approach to the upgrade of control rooms. We have assumed basically that the existing estate would need to be upgraded. Clearly, if there were any consolidation that would make the task a little simpler, but we did not think it was safe to rely on that.

**Gareth Bacon AM (Chairman):** Thank you. That is an interesting line of enquiry for the future.

Assembly Member Prince has a follow-up question on the exchange we have just had. He is going to ask about costs.

**Keith Prince AM:** You mentioned earlier there are no tests being run in London. However, I have some information - they might be small tests - that at the Notting Hill Carnival there were some tests run to see whether it could deal with the volume, because clearly you not only have the emergency services needing bandwidth, or whatever you call it, but also umpteen million people as well. Do you want to elaborate on that? There was also another event and I do not know if you want to mention that.

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** We are obviously trying things out within the programme and working with our suppliers to test solutions. What we were saying in terms of testing in London was that it would be adopted by emergency services in their daily working. I am sorry I cannot remember the whole series of events but throughout the summer we have been attending well-known events, including Notting Hill, to see it in practice.

I do not know if you are aware but if you have a mobile phone and look at the signal on the phone you will see that the signal is live now. We are really pleased with the progress we have made. We are just about to start using it.

**Keith Prince AM:** You are obviously having much more success with EE than I am having in relation to it.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** One of the main challenges and concerns about this programme from day one was the idea that rather than having a separate network it was going to be run over commercial networks with priority and pre-emption for emergency service users. Internationally that would be a first and there has obviously been a certain amount of anxiety about that. What EE has been able to show is that even with a huge surge of demand, that priority and pre-emption can indeed be demonstrated. It has been a very welcome test from our point of view because obviously that is one of the things that users like the MPS will want to be confident about.

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** Another one that might be worth noting is that we have a series of vehicles stationed around the country that provide mobile masts to intervene in the case of an emergency and we have been testing those out. We took one up to the moorland fires at Saddleworth Moor and it was very effective in providing communications capability to firefighters there. We are trying things out within the Programme, but we have not gone operational yet.

**Keith Prince AM:** I want to come back on coverage but that is someone else's area, so I will not step on their toes at the moment. I was more concerned about capacity in that particular question, but we seem to think there is a solution to that.

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** One of the fundamental capabilities of the programme is that even though we are using a commercial network the technology within the datacentres we have created gives priority and also pre-emption. If you go to [London] King's Cross [Station] at rush hour this evening, and try to make a phone call, you might not be very lucky in getting onto the network because there are lots of people making phone calls. If you are using the ESN network, you will be given priority. Indeed, if there are not any lines available someone will get bumped off in favour of the emergency services.

**Keith Prince AM:** That is quite reassuring in a way, I suppose. OK, that is fine. There are obviously advantages with using a commercial network. Having been involved in local government for many years, you get these tailor-made systems and, of course, you are hostage to fortune. In fact, in many cases you are completely snookered if they want to shut the system down or they can hold you to hostage to pay more and more, so I can see the advantage of that.

Can we come onto costs then? I understand the estimated cost for extending Airwave is about £1.1 billion which is, even in today's figures, a significant amount of money. As you already know, all our services are stretched in relation to finance, so who is going to pay for it?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** Broadly speaking, it will continue to be paid for as a service. People who are paying the bills now will, unfortunately, continue to pay. As Siobhan [Peters] mentioned, for policing the cost of Airwave is split at the moment between the core charge and menu services. The vast majority of it is the core charge, which is paid for by the Home Office and is out of the reallocation of the Police Settlement before it goes out into the forces under the Police Funding Formula. That will continue to have to be paid for the duration. The same for the Department of Health for the ambulance contract, and in Scotland, Wales and so on.

The other part are the menu services. Those are services you buy locally, maybe if you exceed the set amount of traffic units or have bought some additional local coverage. There is an exercise going on across policing nationwide to see how much of those menu services will also be wanted beyond 2019. Do you assume all that has to be extended to the national shutdown or could you start making some savings there? Different parts of the country made different decisions back in the early 2000s about how many of those menu services they wanted. That is being reviewed by policing. To the extent it is continued, it will continue to be paid for out of the police grants.

**Keith Prince AM:** That is understandable but, of course, they will also have the additional burden of paying for the new 4G service, I assume.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** That is also coming out of the central police reallocation. This year, for example, there is a £495 million reallocation out of the Police Settlement that pays for the current Airwave cost, the cost of ESN and for a number of other national technology programmes on things like biometrics, national police data, automatic number plate recognition (ANPR) and child abuse imagery. All those are funded out of the single reallocation.

**Keith Prince AM:** To cut through the 'Whitehall speak' --

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** Yes, sorry.

**Keith Prince AM:** -- are you putting more money into the budget? Yes, you give what you call a core allocation to MOPAC, for instance, to fund the MPS. However, there are going to be additional costs as a result of having to pay for two parallel services to run. Are you saying that the Home Office will be upping the amount of money it gives to the police in order to offset that additional cost that is not their fault?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** No, what I am saying is that reallocation will be continuing in years where we would otherwise be able to cut it right back and where those savings would have been potentially available for policing. What is happening is that we will need to continue with this level of reallocation for longer than we had hoped, because under the original Business Case the savings would have started kicking in during 2020.

**Keith Prince AM:** I will rephrase it another way. Are you saying you are therefore not looking for the savings that were expected with the deletion of Airwave?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** Yes, those savings have been delayed.

**Keith Prince AM:** First of all, there will not be the savings of deleting Airwave. I get that. However, there will be the additional cost of, we will call it 4G, ESN.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** For a period, yes.

**Keith Prince AM:** There is an extra cost and I am asking you: are you going to be giving MOPAC more money because of your tardiness in delivering the service?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** The Department is in discussion with HM Treasury, and obviously into the next Spending Review, about this. We are looking for more funding for policing and this is one of the priorities within it.

**Keith Prince AM:** Right. Clearly what we would like in London is more funding that comes to the police to be spent on frontline police officers.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** Absolutely.

**Keith Prince AM:** This could be referred to as the opportunity cost of the tardiness of the project, it is going to cost us frontline police officers.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** I understand that, yes.

**Keith Prince AM:** When will we get the actual detail of all the costs? When we will know what all this additional cost is going to be?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** We have been sharing our current, quite detailed breakdown of how the financial model works. That has, itself, been refined and as we go into the final Business Case that Bryan [Clark] was talking about in December or January [2019], we will have some quite detailed numbers.

As I say, the costs of ESN are a combination of the core areas we are funding and running centrally. Then there are a lot of assumptions about local costs and certain assumptions about what sorts of devices forces will choose to buy. Some of the numbers in the Business Case will still be guesswork at the moment because decisions will need to be made force by force. What sort of vehicle devices people decide to choose and what kind of handsets people choose, those decisions are huge cost drivers in the Business Case. They are some of the biggest costs there. Different forces and different users may well take different approaches to that.

**Keith Prince AM:** We heard earlier from Shashi [Verma] that TfL has run fibre optics and, more importantly, leaky cables through the tunnels, which will be a requirement. That is a cost. Is TfL bearing that cost?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** No, at the moment the costs that have been borne so far have been paid for by the Home Office. There is obviously a separate exercise going on with TfL about public access to the Underground. The agreement that has been reached between the Home Office and TfL is that infrastructure that is paid for by the Home Office will only be available in that wider context once we give agreement and we will be looking for some sort of gain share. Shashi might want to comment on that.

Ultimately the best thing for everyone will be that we have a single network that is used both by the general public and by the emergency services in the Underground. At the moment we have been cracking on and paying for the stuff that has been going in so far purely from emergency services' budgets.

**Keith Prince AM:** There are a number of public buildings that - this one [City Hall] is a particularly good example - one might call a Faraday cage, where mobile phones do not work. EE phones do not work in here. What are we doing about that? What about the cost of making it work here?

**Gareth Bacon AM (Chairman):** And other places, not just here.

**Keith Prince AM:** I have just used this as an example.

**Gareth Bacon AM (Chairman):** Can you park one of your booster masts outside City Hall? I think that is what he is asking.

**Keith Prince AM:** Or inside, which would be helpful.



**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** EE will have certain contractual requirements for meeting building coverage. Then you need to make a call, area by area, about how much of a priority it is to do more.

**Keith Prince AM:** This is for a number of public buildings. I dare say there are certain parts of Parliament - I will not mention where they might be - where you would not get a very good signal. There are certainly parts of buildings like St Paul's where you would not get a signal. In some of the bigger tourist attractions - let us not name everything and help people - and large public buildings, you will not have a good signal. Then, of course, you will find there are private businesses as well where you will not get a signal. How are we going to get around all the additional costs or do private people just have to take a chance?

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** This is a really complicated thing to explain. There is a contracted coverage and we are ensuring the areas we have contracted to achieve that coverage. There is also incidental coverage, which is not contracted but exists and we are aware of it. There are also a number of places and I do not know whether this building is on the list, but it almost certainly should be --

**Keith Prince AM:** Perhaps you could have a look for us, not now but when you get back to the Home Office.

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** We have a list of locations where we would want to enhance the coverage to provide a signal within. That is a list that is subject to discussion with the emergency services at the moment.

**Keith Prince AM:** The issue we have in London is that there is a lot of subterranean activity going on and people digging basements. We all know the signals do not work down there. The way you get around it, if it is your own personal property, is you have your own WiFi but your systems will not kick into those WiFi systems when you go into the buildings.

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** We have a solution available for specific named locations and we are working through that list.

**Keith Prince AM:** I understand that, but it is the ones that --

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** The police, for example, have given us their list of places we need to make sure there is a signal within and we are going to do that. The only debate is how long the list is at the moment. What we are almost certainly going to find, when we do the detailed measurements, is that many of the locations on the must-have list are already covered. I know everyone is quite sceptical, but the reality is a lot of those locations already do have coverage and we just need to establish that.

**Keith Prince AM:** That is helpful and gives some reassurance. However, I am still worried. For instance, one of my colleagues lives just around the back of Bond Street and has almost a whole house underneath the ground. If you had to go in there and attend your guys will not be able to communicate. How are you going to get around that?

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** Is there Airwave coverage there?

**Keith Prince AM:** That is not the problem, is it? We are having a better system.

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** No, I agree.

**Keith Prince AM:** The idea of a new and better system is that it is better than Airwave and not, "It is not as good as Airwave" --

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** We are going to work on that. I completely agree.

**Keith Prince AM:** I am just trying to help you in saying these are the problems you are going to confront, and you need to have a solution.

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** I think we do and I am just not being very clear.

**Keith Prince AM:** I am not convinced.

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** We are working through the named locations where we --

**Keith Prince AM:** You have said that, and I get that. I am talking about the exceptions.

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** Then what happens next and how does this evolve over time? How does it get better? If you look at the history of Airwave you will find there was a steady evolution of coverage as people discovered needs they were not originally aware of, but it was limited by the technology. If we look at what we are deploying now, which is a commercial network, it is quite clear that within the next three or four years we will be looking at 5G handsets and we will see that extension of capability as we ride forward with the evolution of the commercial network.

**Keith Prince AM:** I am raising with you the concerns of Londoners and at the moment you do not have a solution. What I am saying to you is that perhaps you should think about what solutions there are. There are solutions, it is just how you are going to deal with it.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** Like you said earlier, because we are working on a commercial network we have an advantage, as the commercial operators have an incentive to sort out exactly those same problems. If we were still running a private network like Airwave we would be on our phone and would have to try to sort those problems out one by one.

**Keith Prince AM:** I accept that is the advantage, but we need to be aware that in London there are exceptions. I understand why you are trialling it in Liverpool because you are likely to get the bulk of the problems dealt with. However, when you come to London you are going to have unique problems and I am trying to raise those with you.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** We are expecting it to be better but there will always continue to be gaps, in the same way there are with Airwave, and the question is how we have a path to fix those.

**Keith Prince AM:** Yes. To finish, I think we touched on this, we are anticipating £200 million worth of savings when this all goes live and 'hunky-dory'. However, at the moment we have lost five years of savings and we are getting additional costs because we have the cost of the new system on top. I do not expect you to answer the question right now, but when you finish doing your cost-benefit analysis and all your business cases do you think you can give an estimate of when London or the MPS is like to see a net profit out of the whole operation? I think that is as much as seven to ten years down the road.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** Yes, the payback period. It will be part of the sort of calculations --

**Keith Prince AM:** You can just write to us with that figure.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** We have done a very rigorous exercise - as Bryan [Clark] mentioned earlier - and we are very confident this has a considerably better net present value than either of the options of stopping and continuing indefinitely with Airwave or stopping and coming back in a few years when the market is better. We are very confident those net savings are going to come in at the point at which we can turn Airwave off, because then we are on contract and we have a pretty good idea of what the core costs of the ESN are going to be, and we know what the costs of Airwave are. There clearly has been a larger investment cost over a longer period so, yes, the payback period calculations are going to be part of that when we do it.

**Keith Prince AM:** That is the point. Yes, there will be a saving but there is --

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** It is going to take longer.

**Keith Prince AM:** -- the cost of delivering that saving as well.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** Yes, absolutely.

**Keith Prince AM:** I get that, thank you.

**Tom Copley AM:** I was not quite clear on this point about the costs of the two systems running at the same time and who would pick those up, maybe I did not quite understand. Are local emergency services going to be expected to pick up the cost of both maintaining Airwave and the new system? Will they be paying additional costs?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** In the case of policing, the vast majority of those costs are going to be paid for from the reallocation - the part of the police grant that was held back in the Home Office or, if you like, the top-slice - before it goes out to emergency services. There are some local costs - I am sorry I do not know how much that is in the case of the MPS - which are the local Airwave costs for additional traffic units or for additional coverage that might have been paid locally. To the extent that emergency services want those to continue beyond the end of 2019 towards the national shutdown those will continue to need to be paid for. The only ESN costs they will be incurring directly in that period will be the teams to set up the new programme and buying the devices, the investments they are doing to prepare. The contract with Motorola or EE is being paid for out of the Home Office, out of the top slice.

**Tom Copley AM:** There are potentially some additional costs?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** There are some additional costs. The Airwave menu costs will continue.

**Tom Copley AM:** Shall I move on to the TfL question?

**Gareth Bacon AM (Chairman):** Yes.

**Tom Copley AM:** I will start with the cost question. To be clear, the Home Office is going to be paying TfL for the cost of the system, is that right?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** Exactly.

**Tom Copley AM:** Fine, OK. In terms of the reporting arrangements, what are the reporting arrangements for the TfL Board on ESN and what information is being given to the Mayor?

**Shashi Verma (Chief Technology Officer and Director of Customer Experience, Transport for London):** We have had a series of meetings with the Mayor's Chief of Staff, which have been attended by TfL and also by MOPAC, where we discuss the progress on telecom projects, including ESN. ESN is set up as part of our technology and data portfolio of projects within TfL, so we have to report into the Programmes and Investment Committee routinely.

**Tom Copley AM:** OK, thank you. What concerns do you have about the phased rollout of ESN?

**Shashi Verma (Chief Technology Officer and Director of Customer Experience, Transport for London):** I have said this before to the Committee, this is quite a difficult project logistically, but our record so far is that the things we have promised to do we are doing. As I mentioned earlier, 250kms of leaky cables and 173kms of fibre optic installed in phase 1 is progress. It is exactly the sort of progress we have promised the Home Office we will do and so we are getting on with it.

There is quite a lot of work that still remains to be done. The active equipment still has to be designed and procured. However, we do not see there is any particular technical obstacle to being able to do any of that. It is a complicated project, both technologically and logistically, but there is nothing we are doing in TfL that has a status of unproven.

**Tom Copley AM:** You are confident the system can and will work?

**Shashi Verma (Chief Technology Officer and Director of Customer Experience, Transport for London):** Yes.

**Tom Copley AM:** What sort of 4G coverage do we have at the moment on the Underground?

**Shashi Verma (Chief Technology Officer and Director of Customer Experience, Transport for London):** There is no 4G coverage on the Underground right now.

**Tom Copley AM:** Sorry, it is WiFi coverage, is it not?

**Shashi Verma (Chief Technology Officer and Director of Customer Experience, Transport for London):** There is WiFi coverage at stations. There is no coverage in the tunnels. We do have Airwave coverage in the tunnels, alongside the Connect radio system that we operate for our train operations.

**Tom Copley AM:** It is said they need to get to 97% of 4G coverage across London. Can we get up to 97% across all the tunnels and the stations on the Underground?

**Shashi Verma (Chief Technology Officer and Director of Customer Experience, Transport for London):** Yes.

**Tom Copley AM:** What date do you think we will reach that point?

**Shashi Verma (Chief Technology Officer and Director of Customer Experience, Transport for London):** The overall delivery is completely in line with the Home Office requirements. As the Home Office firms up its funding and its requirements we will deliver to that. The current plan is for completion of the project in 2021 and we are comfortable we can do that.

**Tom Copley AM:** Going back to the issue of the risks of using the same 4G system as members of the public, are you confident that is not going to make the system susceptible to the risk of failure or malicious interference?

**Shashi Verma (Chief Technology Officer and Director of Customer Experience, Transport for London):** I think the technology is sufficiently well tested on that front so that you can provide prioritised access for emergency services. We do not see an issue with that ourselves. In any case, the issues that will arise on the Underground will be the same issues that arise on the ESN network nationally.

**Tom Copley AM:** OK, thank you.

**Gareth Bacon AM (Chairman):** Thank you very much. Just before we move on from that, a clarification point. Assembly Member Copley asked you if we would get to the 97% 4G coverage in the Underground. By what date?

**Shashi Verma (Chief Technology Officer and Director of Customer Experience, Transport for London):** As I said, for the ESN we are putting in dedicated infrastructure with a due date for completion in 2021 and at that point we will have the coverage.

**Gareth Bacon AM (Chairman):** Will that be only accessible by ESN or will it be accessible by anybody? If I got on the Tube, I would be able to use my phone?

**Shashi Verma (Chief Technology Officer and Director of Customer Experience, Transport for London):** The infrastructure we are providing right now is accessible only for ESN purposes. Separately, there is a telecoms commercialisation project that is running in parallel. I think Stephen [Webb] mentioned earlier that we are looking at how we can combine the infrastructure, or potentially access the ESN infrastructure, for public use in which case there is an agreement to be struck with the Home Office. However, as of now the infrastructure that is being put in is only for ESN purposes and so will not be accessible by the public.

**Gareth Bacon AM (Chairman):** OK, that is reassuring, to a degree. Subject to that, I think Mr Clark earlier on was saying the emergency calls will take priority over commercial traffic anyway, is that correct?

**Shashi Verma (Chief Technology Officer and Director of Customer Experience, Transport for London):** Yes.

**Gareth Bacon AM (Chairman):** Even if there was public access too that would kick in on the Tube as well. Assembly Member Copley, you wanted to come back?

**Tom Copley AM:** Sorry, one follow up. Going back to costs, is the Home Office going to be covering the cost of upgrading the Connect system to keep Airwave running in the meantime?

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** Yes.

**Tom Copley AM:** Thank you.

**Keith Prince AM:** Shashi, you said the programme you currently have - probably mainly leaky cable - will not be completed until 2021, is that what you said?

**Shashi Verma (Chief Technology Officer and Director of Customer Experience, Transport for London):** 2021 is the expected completion date for all of the works for it, yes.

**Keith Prince AM:** Can I then turn back to Stephen? The switchover was due to be, I believe, in 2019 and that has now been delayed, is that right?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** Originally, yes.

**Keith Prince AM:** You are extending the programme to 2021, but in an earlier answer you mentioned you may switch it off sooner if you get to a position whereby it is all working, so on and so forth.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** I said you could have argued that, I do not think it is particularly likely. The end of 2022 is the target we are working toward.

**Keith Prince AM:** We are a bit 'snookered', for want of a better adjective.

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** Absolutely, that will be a key factor in whether that will be possible.

**Keith Prince AM:** Are you not therefore looking to have conversations with TfL to speed up their programme?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** We are talking all the time about the funding that is available and the timing. As I say, we would like to work as fast as possible with users but, absolutely, we cannot turn the system off until the MPS has fully migrated and, understandably, the MPS and the other emergency services will want the work in the Underground to have been completed.

**Keith Prince AM:** Can I come back to Bryan regarding the conversation we had earlier about key places, so on and so forth. When do you think that work will be completed, you have identified all the key locations and all the necessary work has been done?

**Stephen Webb (Senior Responsible Owner, Emergency Services Mobile Communications Programme, Home Office):** It is never really completed, is it? It is something that goes on all the time as you build new buildings.

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** I am just trying to get the detailed plan in my mind. The process has started now, the discussions have started in each area. The first phase runs through till January [2019], which is all about checking that we have done what we think we have done. At the same time, we are starting a region-by-region consultation around these additional locations. We have information about the coverage that is likely anyway. We have a model, which is pretty accurate, that is the basis for the conversation. This goes on well into next year ahead of the large-scale adoption. I am sorry I am being slightly vague on the exact date.

**Keith Prince AM:** You are.

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** That is only because it is a very complicated plan.

**Keith Prince AM:** When do you guesstimate?

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** I think we will definitely know where we are by the end of next year. A lot of it will be done --

**Keith Prince AM:** Prior to that?

**Bryan Clark (Programme Director, Emergency Services Mobile Communications Programme, Home Office):** Yes.

**Keith Prince AM:** OK, I will leave it there. Thank you.

**Gareth Bacon AM (Chairman):** Members, we have been joined by children and teachers from Earlham Primary School from Newham. We are discussing with members of the Government and some of the Mayor's staff a new ESN that enables all the different emergency services - ambulance, police and fire - to talk to each other. That is what we are talking about at the moment. I hope you have a good visit to City Hall today.

We are going to move on to the final section in this session, which are questions to MOPAC primarily. Assembly Member O'Connell is leading on that.

**Steve O'Connell AM:** Thank you, Chairman. I want to turn to the mayoral family context. I understand MOPAC has representation on the National Programme Board for ESN. I am going to be interested in that line of communication. You will be there with a MOPAC hat on but presumably you will be there also with half an eye on representing the other mayoral parts of the family, TfL and so on. Can you tell me first of all how that process and structure is [working]?

**Siobhan Peters (Member, Emergency Services Network National Programme Board):** There are a couple of things to clarify there. I go as a MOPAC representative. As Shashi [Verma] has mentioned, the

Mayor's Chief of Staff chairs a quarterly meeting that enables us to co-ordinate. At that Programme Board I do not in any way represent TfL.

I think Stephen [Webb] will not mind me saying the Government's arrangements are quite complex for this programme. He has a number of different groups and stakeholder arrangements for consulting with different people. The National Programme Board is set up within the philosophy of the Government major projects methodology, so Stephen is personally accountable. The Programme Board itself is not the decision-making body, it is a forum in which many of the key stakeholders come together and we are updated on the progress of the Programme. We have not, in general, taken financial papers and decisions, there is a separate finance working group. There are separate arrangements for consulting with police Chiefs in a senior stakeholders' group with TfL and so on. I do not want you to over-understand what my role on that National Programme Board would be.

**Steve O'Connell AM:** I have never been accused of over-understanding anything so that is fine. Let us pull back it to MOPAC then. You are there representing MOPAC and the Mayor on the programme and then reporting back therefore to the Deputy Mayor for Policing and Crime, and the Mayor, is that how that works?

**Siobhan Peters (Member, Emergency Services Network National Programme Board):** Yes, that is how it works.

**Steve O'Connell AM:** Earlier in the month the [London Assembly] Police and Crime Committee had the Deputy Mayor for Policing and Crime here and the Deputy Commissioner giving their concerns, particularly around the programme. We have heard today of those concerns around the finance aspect and the operational aspect, and how the finance aspect affects the operational aspect because there is money being - shall we say - drained away on this project. It will be a great project, no doubt, but that is money that may otherwise be going to parts of the policing family and is much needed by London.

How is that working with reporting to the Deputy Mayor for Policing and Crime, and the Mayor, that responsibility? This is a big issue for the MPS, for MOPAC and for the Mayor. How is that line of communication working back to the Mayor actively?

**Siobhan Peters (Member, Emergency Services Network National Programme Board):** In two ways. As I say, the Mayor's Chief of Staff chairs a co-ordination group that I attend and give regular feedback on. Those co-ordination meetings are timed so they take place after the Programme Board, so I can report back on key Programme Board developments in that forum. I also touch on this with the Deputy Mayor for Policing and Crime monthly at our investment advisory meetings, where we look at MPS investments. The MPS preparations to meet ESN are part of their transformation portfolio, which is something we look at on a monthly basis. By exception, we will not necessarily talk about this programme every month but when this programme is flagging an issue we will.

Obviously from the point of view of the MPS, one of the issues through the programme reset has been that it has been a period of uncertainty when TfL is actively laying cable and doing things. For the MPS the Programme pause means some of the work can be done but for some things it has put decisions on hold. It is very important to have that clarity for the MPS to be able to carry on with its decision making and make the right calls in the capital programme.

**Steve O'Connell AM:** How is MOPAC and the Deputy Mayor for Policing and Crime in essence passing on the information to Londoners? Obviously, we are having conversations here, and this will be transcribed and



published. However, how is the Mayor keeping Londoners in the loop, which he has a duty to do, on this process with the delays and the aspirations?

**Siobhan Peters (Member, Emergency Services Network National Programme Board):** The Deputy Mayor for Policing and Crime comes in front of the [Assembly's Police and Crime] Committee and briefs you in response to your questions.

**Steve O'Connell AM:** We are all avid readers of the MOPAC quarterly reports. I am looking at it for another reason, I have the joy of meeting Sophie [Linden, Deputy Mayor for Policing and Crime] later. It might be worth thinking about how we are keeping Londoners alive and in contact about this because there are operational and financial implications and it is a massive issue. I think that is enough from me, Gareth.

**Gareth Bacon AM (Chairman):** Thank you. We have reached the end of the question and answer session. Obviously, this is a major programme of huge importance to London so I dare say we are going to be revisiting in the future.

I would like to thank our guests very much indeed for their time and their answers this morning.