LONDONASSEMBLY

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Sadiq Khan
Mayor of London

(Sent via email)

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Dear Sadiq

Emergency Services Network

On 18 July I chaired a meeting of the GLA Oversight Committee to review the risks connected with the implementation of the new Emergency Services Network (ESN) in London. The ESN will provide a mobile-data based communications network for the emergency services, replacing their existing Airwave solution. The ESN aims to deliver numerous improvements over Airwave, including providing high-speed data to users, greater flexibility to make use of new technologies as they are developed, and cost savings. Switching from Airwave to ESN is expected to deliver over £3.6 billion of quantified benefits over 17 years.[1] As you will be aware, the ESN is being implemented across Great Britain, but poses particular challenges in London because of the need for the emergency services to communicate on the London Underground.

Our meeting was attended by representatives from the Emergency Services Mobile Communications Programme. Guests included the Home Office, Transport for London (TfL), the Mayor's Office for Policing and Crime, the Metropolitan Police Service, the London Fire Brigade, the London Ambulance Service, the Ambulance Radio Programme, and the British Transport Police.

We found the meeting reassuring. Broadly, our guests were confident that the programme would be delivered in a way that posed minimal risks for the emergency services in London and for the safety of our citizens. Many of the issues that had been identified in the National Audit Office's (NAO's) report in 2016 have been addressed in the last few months. Nevertheless, we believe there is a need for you, in your role as Mayor and as Chair of Transport for London, to continue to monitor the situation, and in particular to keep the pressure on the Home Office and TfL to ensure they deliver a solution that works for London. We suggest that the following risks and issues form the basis of your ongoing oversight of the programme, and we include two practical recommendations for doing this at the end of this letter. For our part, the GLA

[1] National Audit Office, Upgrading emergency service communications: the Emergency Services Network, 15 September 2016.

Oversight Committee will also monitor ongoing progress of the programme with a view to identifying any future risks.

Risks with the technology

There are no systems similar to the ESN anywhere else in the world, as no other countries currently use 4G technology for their emergency services. Some are planning to do so in the future, but will adopt a lower risk approach, for example developing a dedicated 4G network that is separate from that used by commercial users.[2] In Great Britain, the intention is for the ESN to use the same 4G network as the public to deliver maximum value for money. A further justification for adopting this approach was to provide a government incentive to commercial suppliers to increase their 4G coverage. The Home Office told us that the "core [ESN] programme is complex […] We will be first country in the world to deliver emergency services over 4G, sharing commercial networks and sharing the commercial spectrum. This is something that has not been done before, which is not necessarily a situation you would choose to be in."[3]

The Government has promised that the ESN will be 'at least as good as Airwave'. This is a significant challenge as Airwave provides an exceptionally high quality service.[4] The main issue is that current commercial mobile coverage is much more limited than the service provided by Airwave. The move to the ESN therefore requires the service provider, EE, to increase 4G coverage across Great Britain - from the existing level of approximately 70 per cent to 97 per cent in order to match Airwave coverage levels.

EE faces a particular challenge in increasing 4G coverage in London. London is ranked in the bottom five cities for 4G coverage in the UK. In June 2017, the Assembly's Regeneration Committee produced a report on Digital Connectivity in London which found that less than 77 per cent of the capital was covered by a 4G service. This is significantly short of the requirements for the ESN solution. However, in our meeting, the Home Office representatives disagreed with these figures, saying that EE maintained that its coverage was higher than 77 per cent in the capital. To establish a correct position, I have asked the Home Office to provide the committee with details about the current level of 4G coverage provided by EE in London and the predicted capacity of it once its upgrades to support the ESN are complete.[5]

Delays

The timetable for awarding the main ESN contract, building and testing the system, and transitioning from Airwave to ESN has slipped. The 2015 business case showed a July 2017 target date for building and testing the ESN.[6] The emergency services were to begin

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[2] National Audit Office, Upgrading emergency service communications: the Emergency Services Network, 15 September 2016, page 12.
[3] The Director of Law Enforcement Programmes at the Home Office, Stephen Webb, speaking to the GLA Oversight Committee on 18 July 2017.
[4] National Audit Office, Upgrading emergency service communications: the Emergency Services Network, 15 September 2016, page 9.
[5] The ESN will operate solely on EE's 4G network. It will not allow users to roam onto other 4G networks, such as O2 or Vodafone.
[6] National Audit Office, Upgrading emergency service communications: the Emergency Services Network, 15 September 2016.

transitioning to the ESN between September 2017 to December 2019. We now believe that the ESN programme is thought to be at least nine months delayed, with transition from Airwave to the ESN now due to begin in July 2018, and be completed by September 2020.[7] An updated transition timetable is yet to be published by the Emergency Services Mobile Communications Programme Board, but we understand that the Home Office will produce a revised timetable this autumn. That timetable should give a more realistic indication about when London will begin transition to the ESN.

It is vital that the new national programme timescales work for London: the British Transport Police told us that "transition should only be comfortable during January to June to avoid transition during the period of Carnival and New Year's Eve."[8] And the Metropolitan Police Service said that the "big risk associated with timelines moving is, obviously, we have to maintain a lot of our [TETRA] radios and things. That is of some concern as they approach end-of-life and the project slips out."[9] I have asked the Home Office to provide the Committee with the revised timetable once it has been published this autumn.

Delivery of the ESN on the London Underground

Airwave proved to be a very effective system for the emergency services in London. Before that system was implemented, officers had to carry two separate radios for above ground and below.

It is essential that the ESN is not a step backwards in communications technology. In theory, the ESN should allow the emergency services to use their radios above and below ground, but this is contingent on 4G being extended across the London Underground, including the tunnels. Several commentators have looked at this issue. The Public Accounts Committee flagged it as a "significant and imminent risk".[10] And in our meeting, the committee heard that the ESN is a "very complicated programme, as you would imagine. The reason we have not had 4G in tunnels is a good one. It has always been technically challenging and this project is technically challenging as a result."[11] Providing further detail, TfL's Chief Technology officer told us:

Our aim is to try to get the stations ready by January 2019 and as much of it done as possible by January 2019, with the aim to complete the rest of the tunnels in the months after that. I have to be honest and say that that is a very challenging timescale… If I were to reword your question and say, 'Are we absolutely confident that all of this can be done for January 2019?' the answer is no, we are not confident that this can be done for January 2019.[12]

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[7] House of Commons Committee of Public Accounts, Upgrading Emergency Service communications – recall, Conclusions and recommendations 1, 18 April 2017.
[8] The Deputy Chief Constable Adrian Hanstock, British Transport Police, speaking to the GLA Oversight Committee on 18 July 2017.
[9] The Chief Information Officer of the Metropolitan Police Service, Angus McCallum, speaking to the GLA Oversight Committee on 18 July 2017.
[10] House of Commons Committee of Public Accounts, Upgrading Emergency Service communications – recall, 18 April 2017, page 6.
[11] The Chief Technology Officer and Director of Customer Experience at Transport for London, Shashi Verma, speaking to the GLA Oversight Committee on 18 July 2017.
[12] The Chief Technology Officer and Director of Customer Experience at Transport for London, Shashi Verma, speaking to the GLA Oversight Committee on 18 July 2017.

You will also be aware that the Lord Harris review of London's preparedness to respond to a major terrorist incident raised concerns about the ESN's effectiveness on the tube. The report references the failings of the Airwave system on the underground during the 2005 London bombings. Lord Harris notes that he is "very concerned that this new system may not operate effectively on the underground system" and that "Londoners would find it unforgiveable if the authorities were so quickly to step away from the learning taken from the tragedy that befell London in 2005."[13]

In short, this risk is well documented. The question is whether the programme, and TfL, is managing the risk adequately. At programme level, the Government has contracted with EE to expand its existing 4G network in order to provide the ESN. Separately the Home Office is working with TfL to extend coverage on the London Underground. When we asked if TfL has the sufficient technical skills to deliver the ESN, TfL replied that "this is a very specialised activity. It is very clear that we do not have all the skills that are needed to deliver this."[14] For this reason, TfL is relying on external suppliers to provide various services to support the delivery of the ESN on the London Underground. This approach in itself brings its own risks, as TfL will need to ensure that it contracts with the right suppliers and maintains robust programme and commercial management of them to ensure the successful delivery of the programme.

Recommendations

Monitoring of progress at the national Emergency Services Mobile Communications Programme level

IT projects are inherently risky. The committee recommends that you monitor the progress of the ESN at a national level, to ensure that the current delays do not put the safety of Londoners at risk, and that a suitable solution for London is developed. The financial benefits of the ESN as set out in the original 2015 business case reduce as the programme delays mount up. The NAO reports that a 12-month nationwide delay in the time taken to transition from Airwave to the ESN will cost £475 million. For context, this means that every day of delay to transition will cost approximately £1.3 million. It is inevitable that delays at the national programme level will have implications for local services, including financial implications for services such as the Metropolitan Police Service, which are already experiencing their own funding pressures, and operational implications for London's wider emergency services and TfL.

Oversight of TfL's skills and progress

We also recommend that as Chair of Transport for London, you monitor progress of the ESN in London, with particular regards to the performance of TfL. The ESN programme and the rollout of it on the London Underground is a crucial element in the ability of the emergency services to respond to emergencies across London. Ultimately, TfL – a transport authority – is responsible for delivering a major IT programme on the London Underground. Previous London Assembly Budget and Performance Committee reports into TfL's tube signalling upgrades and new bus

[13] Lord Toby Harris, Independent review of London's preparedness to respond to a major terrorist incident, October 2016, page 25.
[14] The Chief Technology Officer and Director of Customer Experience at Transport for London, Shashi Verma, speaking to the GLA Oversight Committee on 18 July 2017.

procurement have highlighted weaknesses in procurement processes.[15] The committee recommends that you should consider whether the GLA Group has sufficiently strengthened its procurement processes in order to support the delivery of ongoing and future projects.

We suggest this is an area that you, both as the Mayor and as the Chair of Transport for London, may wish to oversee. It is vital that strong leadership is in place at TfL to drive forward the ESN programme, and the committee would encourage you to seek assurances that TfL has the right IT, technical and procurement skills to manage the delivery of the ESN across London's transport network.

We would welcome a reply to this letter by 6 October 2017.

Yours sincerely

Len Duvall AM,
Chair of the GLA Oversight Committee

[15] For example, see the Budget and Performance Committee's report, Transport for London's Signal Failure, March 2016.