

Item 8

MEETING	Shadow Policy and Resources Committee Meeting
DATE OF MEETING	23 March 2016
SUBJECT OF THE REPORT	Emergency Services Mobile Communications Programme (ESMCP)
STATUS OF REPORT	For open publication
PURPOSE OF REPORT	For decision
EXECUTIVE SUMMARY	ESMCP is a cross Government-led programme to provide new mobile communications to replace the Firelink (for the FRS) with a new commercial system based on 4G LTE. (4th Generation Long Term Evolution)
	The Department for Communities and Local Government (DCLG) has committed to provide all reasonable transitional funding for those fire and rescue authorities moving on to the Emergency Services Mobile Communications Programme. However, before significant funding is provided to fire and rescue authorities, DCLG requires Chief Fire Officers (or appropriate individuals) to provide a signed commitment to take up the service when the Firelink contract expires in 2020. This commitment is required by the 25th March 2016.
RISK ASSESSMENT	To provide a suitable mobile communications network outside of the ESMCP will have a higher financial cost to Dorset & Wiltshire Fire and Rescue Service. DCLG has stated that project funding will not be available to a FRS's for any alternative system. Single service procurement for an alternative along with all other project costs would fall entirely to the FRS which would make any alternative solution more expensive than the Government supported preferred choice. Additionally, the reduced risks associated with shared development and procurement on a project of this size would see those risks imposed upon Dorset & Wiltshire Fire and Rescue Service. Dorset & Wiltshire Fire and Rescue Service would not be able to work as effectively with its partner agencies if they choose not to take up ESMCP due to a lack of functionality and

	interoperability. This the current threat le	s risk may not be deemed acceptable given vels.			
COMMUNITY IMPACT ASSESSMENT	None for the purpos	ses of this report.			
BUDGET IMPLICATIONS	The budget implicate the report. (Sections	tions are contained within the main body of s 1.11 and 2)			
RECOMMENDATIONS	To confirm that Dorset and Wiltshire FRA will transition on to the new Emergency Services Network via the Emergency Services Mobile Communications Programme (ESMCP).				
BACKGROUND PAPERS	None for the purpos	ses of this report.			
APPENDICES	Appendix A: Indicat	ive savings from ESMCP			
	Appendix B Time lir	ne for ESMCP			
	Appendix C: Sign C	off Pack Wiltshire			
	Appendix D: Sign C	off Pack Dorset			
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1. Introduction

1.1 The existing contract for a mobile communications service (Firelink for the Fire Service) is due to expire between 2016 and 2020. Emergency Services Mobile Communications Programme (ESMCP) is the preferred option for the Department for Communities and Local Government (DCLG) for replacing this contract.

- 1.2 The ESMCP is a Government programme to replace the current Airwave product with new mobile communications affecting the Home Office, the Department of Health and DCCLG
- 1.3 Interim capacity of half a post per region has now been put in place to co-ordinate work this financial year in preparation for ESMCP. The South West region post has been filled and the post holder is working with technical leads in all emergency services to complete key pieces of work. The same individual is undertaking the same role for South Central Region which benefits Dorset and Wiltshire FRS as coordination between all Network Fire Control Partnership (NFCSP) members
- 1.4 In the latest Spending Review, DCLG have announced at least £74 million of funding for ESMCP 'to ensure fire and rescue services can benefit from the latest mobile digital technology.'
- 1.5 In practice there will be some costs for our Fire and Rescue Authority and there will be some funding from Government. These costs will become known in the period leading up to the commencement of testing in June\July 2016. A local project plan to support the delivery within Dorset and Wiltshire FRS will be developed as additional details become available.
- 1.6 However, DCLG has indicated that it will meet all reasonable transitional costs in moving between contracts.
- 1.7 Whilst there are other options available to FRAs, there are significant risks in not joining the nationally preferred contract. DCLG have stated that they will not provide funding for transition to any alternative selected.
- 1.8 There are dependencies between the implementation of the ESMCP by the Dorset & Wiltshire Fire and Rescue Service and ongoing delivery of NFCSP. The NFCSP cuts across two regions and involves close working between FRSs. Therefore, ESMCP will need to be implemented in a way that is suitable for our NFCSP arrangements.
- 1.9 Our ICT strategy will be effected and will need to be reviewed as additional details and requirements become known in relation to devices.
- 1.10 The additional capabilities of the new Emergency Services Network (ESN) that will provide the next generation integrated critical voice and broadband data services for the three emergency services will bring additional opportunities to change our

current ways of working. This is particularly relevant to how we may operate our Incident Command System. It should be noted that any beneficial changes will have an impact on the service in terms of policy, procedure and equipment and the training of personnel to work in a new way.

- 1.11 DCLG has stated that the ESMCP will provide the best solution for updating and enhancing the fire and rescue services emergency communications system and have identified the following benefits.
 - Cheaper overall when compared to Firelink costs, saving the fire and rescue service £80m nationally up to 2032.
 - Indicative savings over the costs of Airwave as supplied by DCLG, predict an average saving for Dorset and Wiltshire FRS of c£240,000 per annum from 2020\21 2031\32 these figures are based on the continuation of a historical 5%pa increase in Airwave costs against the predicted costs of the replacement network. (Refer to Appendix A)
 - Fire and rescue services will be able to make further efficiencies by reconfiguring data and connections to suit their specific needs and by deciding on the scale and timing of device refresh.
 - Future savings are likely as the new ESN is linked to commercial providers and as such re-tenders will take place in a competitive environment rather than via a monopoly provider.
 - DCLG will support fire and rescue services with the cost of transition, removing a potentially costly barrier.
 - DCLG believes the new system will be more interoperable, resilient and will support data functions better than the current system.
- 1.12 The overall objectives of the ESMCP are:
 - Better integrated broadband data services, public service functionality, national coverage and high availability.
 - Smarter to be more flexible, to evolve and improve over time, pay only for features required by users.
 - Cheaper to address budget pressures, re-competed regularly to leverage market forces.
- 1.13 There are three strategic drivers that are influencing the scope and timing of ESMCP's development and deployment. These are that:
 - Current contracts for the three emergency services (provided by Airwave) expire between 2016 and 2020 and cannot be readily extended. As such

there will be no Airwave Firelink service from the end of 2020, identifying this as a good time to procure an alternative system.

- The current Airwave Firelink service is significantly more expensive than comparable public safety systems in use across Europe and pricing structures for publically available mobile telephony.
- Users within the three emergency services are increasingly requiring broadband data in addition to voice communications to support operational transition to modern command and control systems.
- 1.14 The delivery and realisation of the new ESMCP will have two major stages. Initially there will be a transition stage where fire and rescue services will prepare for and undertake the switch to ESN. This will be followed by a steady state stage whereby fire and rescue services will be fully utilising the ESN solution.
- 1.15 The baseline timetable for how and when the mobilisation transition will be implemented can be seen below. (Refer to Appendix B)
- 1.16 As with most technology change programmes, ESMCP will incur some significant transition costs as FRSs move from Firelink to ESN. To secure a smooth and effective transition, DCLG has made a commitment to support FRAs in meeting these transitional costs. Details regarding the individual costs of transition are to be provided over the first two quarters of 2016.
- 1.17 During the transitional period FRAs will continue to pay the costs of Firelink, to offset this they will receive the associated new burdens grant until the point at which they have completed transition and no longer require a connection to Airwave other than for interworking to achieve mutual aid. Once a FRS has fully completed its transition it will commence paying for the ESN service that will provide greater functionality and in most cases at a lower cost.
- 1.18 DCLG contends that it is therefore in the best interest of a FRS to facilitate a timely completion of transition to maximise the reduced cost of ESN. There will be no period when a FRS will be paying for both Airwave and ESN.
- 2. Project Resources and Funding
- 2.1 DCLG has indicated it will provide funding for;
 - Local transition support
 - Control rooms and public services network
 - Vehicle installations
 - Devices

- Regional Implementation Managers
- 2.2 The figure for devices, connections and vehicle installations and fit outs have been derived from a DCLG survey conducted in April 2014. Whilst DCLG believes this survey is a good indicator of costs, it is understood that some changes are likely to occur. The programme will undertake a more up to date survey during the spring of 2016.
- 2.3 There is a planned replacement of Mobile Data Terminals (MDT) for the Dorset and Wiltshire FRS operational fleet in 2017with a budget of £340,000. As it will be possible to procure ESMCP compliant equipment from mid to end 2016 this planned expenditure within the ICT replacement program will enable a saving to be realised from the DCLG grant for MDT replacement which is part of the ESMCP programme. Unfortunately, it is not possible to identify what DCLG has costed for MDT replacement at present as these figures have not been separately identified within the "Core, Data and Devices" figures supplied by DCLG.
- 2.4 South West Fire and Rescue Services funding for the Emergency Services Mobile Communications Programme by the Department for Communities and Local Government is for 3 years. This programme is however due to run for 4 years. This would then leave a funding gap. The DCLG funding will not cover the full costs to FRS's beyond like for like replacement of our current Airwave network and equipment costs.
- 2.5 With the added opportunities and functionality afforded by the new system it is unlikely that like for like replacement will satisfy our needs over the next 10 years. The difference will require funding from capital. The programme will not identify the available equipment until June\July 2016 making the identification of budget requirements difficult.
- 2.6 Regional trainers are being funded by ESMCP for the move to new equipment and new functionality, however, this resource will not be sufficient. The funded Regional trainers are likely to be used as train the trainers supported by in house trainers as was the case with the introduction of Airwave.
- 2.7 Chief Fire Officers Association (CFOA) has lobbied DCLG for funding to enable work to be co-ordinated this financial year in response to DCLG requests for information from FRSs. DCLG have now provided just less than £19,000 in funding to each Fire ESMCP Regional Chair. An interim co-ordinator has been put in place for the South West using this funding. He is now supporting FRSs to provide their responses to DCLG. An informal agreement has been made with the South Central FRSs to pool the funding for the interim co-ordinator. Having the same coordinator across both regions will have a beneficial effect for all Network Fire Control Partnership (NFCSP) members
- 2.8 The DCLG funding won't be fully ring fenced and will not cover the true project costs. This will leave FRSs to deliver the project and to make up the difference yet

- to be determined. Alternatively, DCLG may ring fence the funding for ESMCP and reduce other grant funding to FRAs.
- 2.9 In order to support the transition to ESN, Governance arrangements are being established at a Regional and Service level. Regionally, strategic and operational level boards are being established.
- 2.10 At a service level a transitional post has been created as part of the combination programme to support service arrangements and a multi functional team is being established to support the work going forwards.
- 2.11 A project plan will be produced to detail the requirements of the Service through the transitional period and will be presented to Members once more detail becomes available.

3. Options

- 3.1 FRAs do not have to sign up to ESMCP, and whilst DCLG are not mandating the take up of ESMCP, it is strongly recommending that FRAs sign up to the system from both a financial and an operational perspective. FRAs, can, if they so wish, procure their own replacement communications system. This course of action would consequently remove the FRA from the funding arrangements currently on offer from DCLG. Taking this route could also mean that an FRS would not be able to work as effectively with partner agencies. This therefore would not be the recommendation of Officers.
- 3.2 To assist FRAs in deciding whether to commit to the ESMCP, DCLG has produced a financial information and sign off pack (refer to Appendix C and D). The pack contains, amongst other thing, indicative net savings / costs for the Authority of adopting the ESMCP solution. The costs are only indicative and should be treated as such, other costs to support the implementation of this project across all departments in Dorset and Wiltshire FRS cannot yet be fully understood until DCLG have given more information.
- 3.3 DCLG recognises that fire communications systems continue to be the responsibility of each individual FRA. Central government has a strong interest, however, in ensuring that the country is fully prepared to deal with civil contingency issues. As such, the government believes it is important to have in place a communications system that enables interoperability working across boundaries and the emergency services. Any emergency services communications must therefore be robust and resilient, using the latest technology to aid the delivery of a more effective service.
- 3.4 The government considered a range of options for updating emergency service communications as part of the Outline Business Case for ESMCP. The result of this options analysis was that ESMCP (an enhanced commercial long-term evolution

network) provided a compelling case going forward. ESMCP will provide a system that is:

- Robust, interoperable and contains data capabilities
- Smart in that it only charges for what is used
- Cheaper overall than the existing system
- Contains scope for future efficiencies as it is linked to a commercial system
- In deciding whether to go ahead with ESMCP, the FRA should note that maintaining the status quo through the Airwave system will not be an option.

 Airwave is due to come to an end in 2019 (with scope for a contractual extension of 1 year until 31 December 2020). This means that a change in communication system will have to take place regardless of the Authority's decision to sign up to ESMCP or not.
- 3.6 The table below highlights available alternatives to ESMCP together with the Governments rationale as to why these are not viable when comparing the benefits of ESMCP.

Economic Option	Description
Option 1 –	Existing Airwave contracts naturally expire. No central involvement in procurement of
Do Nothing	replacement services.
Option 2 –	Procure a private TETRA network with public safety voice and narrow band data
Continue with Tetra network	augmented by locally procured operational broadband data services. This requires
(do Minimum)	400MHz spectrum which is not available until 2020.
Option 3	Procure a private LTE network with public safety voice and broadband services. This
Build a new private LTE network	requires 700MHz spectrum which is unlikely until 2020.
Option 4 –	Transition to a commercial LTE network
Enhanced commercial LTE service	when Airwave contracts expire. Additional procurement of necessary public safety features to enhance the network.

3.7 Whilst on the face of it this may be seen as a straight forward replacement of Airwave, the implications for the service are far broader. There will be key interdependencies, especially on the ICT strategy in terms of devices that will be used, as they must have ESN compatibility.

4. Conclusions

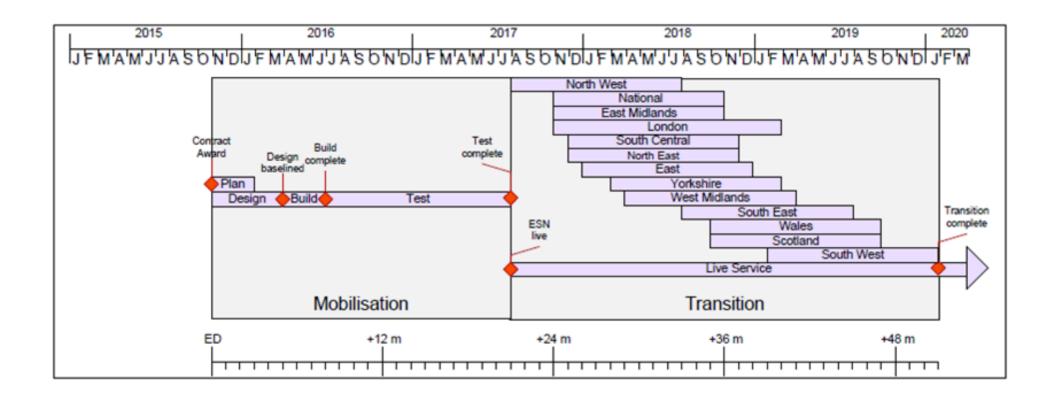
- 4.1 Airwave ceases to be available in 2019 with no choice but to move to a different platform.
- 4.2 All FRSs are believed to be committing to ESN and all NFCSP partners are supporting a commitment to ESMCP.
- 4.3 ESMCP will provide greater interoperability with partners thereby enhancing our approach to dealing with emergencies.
- 4.4 ESMCP is cheaper than other options open to Dorset and Wiltshire FRS and is the only option supported by government funding.

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Appendix A

ESN Costs D&WFRS	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32
Core	£-	£17,774	£111,242	£114,960	£129,250	£139,191	£142,064	£145,337	£148,678	£152,086	£155,566	£159,117	£162,741	£163,923
Data	£-	£5,287	£31,968	£34,746	£34,686	£34,686	£34,686	£34,686	£34,686	£34,686	£34,686	£34,686	£18,462	£18,462
Devices	£-	£-	£-	£-	£10,016	£23,157	£5,499	£86,454	£64,264	£21,174	£25,568	£3,290	£-	£-
Total	£-	£23,061	£143,210	£149,706	£173952	£197,034	£182,249	£266,477	£247,628	£207,946	£215,820	£197,093	£181,203	182,385
Airwave Co	osts													
Dorset	£-	£25,204	£176,690	£180,224	£183,828	£187,505	£191,255	£195,080	£198,981	£202,961	£207,020	£211,161	£215,384	£219,692
Wiltshire	£-	£30,791	£212,783	£217,039	£221,379	£225,807	£230,323	£234,930	£239,628	£244,421	£249,309	£254,295	£259,381	£264,569
Total		£55,995	£389,473	£397,263	£405,207	£413,312	£421,578	£430,010	£438,609	£447,382	£456,329	£465,456	£474,765	£484,261
Indicative savings	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32
D&WFRS		£32,934	£246,263	£247,557	£231,255	£216,278	£239,329	£163,533	£190,981	£239,436	£240,509	£268,363	£293,562	£302,236

Appendix B



Appendix C

Emergency Services Mobile Communications Programme (ESMCP)

Fire and Rescue Authorities Financial Information and Sign Off Pack

Wiltshire FRA

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1.0Introduction

- 1.1 The purpose of this pack is to provide Fire and Rescue Authorities (FRAs) with the information they require to make an informed decision about their participation in the Emergency Services Mobile Communications Programme (ESMCP) which will deliver a new Emergency Services Network (ESN.)
- 1.2 DCLG has committed to provide all reasonable transition funding for FRAs moving on to ESN. This process will begin with the mobilisation phase in spring 2016. As such, before significant funding is provided to FRAs, DCLG requires Chief Fire Officers (or appropriate individuals) to provide them with a signed commitment that they would like to take up the new service (see Annex A.)
- 1.3 The Pack provides summary information about the Programme rationale and its benefits for the fire service from both an operational and financial perspective. In particular this pack:
 - Provides an explanation of the Programme's transition and steady states and the financial implications involved
 - Provides an <u>indication</u> about the likely costs for your FRA of the ESN through its steady state up to 2032
 - Highlights where there may be scope for additional efficiencies by FRAs
 - Demonstrates that the potential alternatives to participation in ESMCP carry significant risks for FRAs both from a financial and operational perspective
 - Asks FRAs to provide the Department for Communities and Local Government (DCLG) with a decision about whether your FRA intends to participate in the ESMCP going forward.
- 1.4 DCLG believes that the ESMCP provides the best solution for updating and enhancing the Fire Service's emergency communications system. From a financial perspective it is cheaper overall when compared to Firelink costs, saving the Fire Service some £80m up to 2032. In addition the ESMCP allows Fire and Rescue Services (FRSs) to make further efficiencies by reconfiguring data and connections to suit their specific needs and by deciding on the scale and timing of device refresh. Further savings are likely to be made in the future as the new ESN is linked to commercial providers and as such retenders

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will take place in a competitive environment rather via a monopoly provider (as is the case at the moment.) Furthermore DCLG will support FRSs with the cost of transition, removing a potentially costly barrier. From an operational perspective DCLG believes the new system will be more interoperable, resilient and will support data functions better than the current system. It will also be better able to respond to innovations in the mobile communications market as it is linked to commercial providers.

2.0Assumptions

- 2.1 This paper uses a number of assumptions to calculate the annual costs of ESN for your individual FRA. It is important to stress that the figures within this pack are <u>indicative</u>. Whilst we believe that the figures in this pack provide a good representation of the likely costs involved, in reality the final figures for an FRA will depend on a range of local decisions (such as configuration of data and connections and device refresh.)
- 2.2 The assumptions within this pack (such as the timeline for transition and the costs for Airwave) derive from the Programme's Full Business Case. If you would like to discuss these assumptions, please do not hesitate to contact the DCLG Policy Team at chris.hall@communities.gsi.gov.uk.
- 2.3 The figures for devices, connections and vehicle installations and fit-outs have been derived from the As-Is2 survey which the Home Office collected in April 2014. Whilst DCLG believes that this survey gives a good indication of costs, we understand that some changes are likely to occur (or have occurred) before mobilisation begins in 2016. The Programme will undertake a more up to date survey prior during spring 2016.

3.0ESMCP Background

- 3.1 ESMCP is a cross-government programme to replace the existing mobile communications service for the three emergency services (Firelink for the FRS) with a new commercial system based on 4G.
- 3.2 Overall the objectives of ESMCP are to be:
 - **Better** with integrated broadband data services; public service functionality; national coverage and high availability.
 - **Smarter** to be more flexible, to evolve and improve over time, pay only for features required by users.
 - Cheaper to address budget pressures, re-competed regularly to leverage market forces.

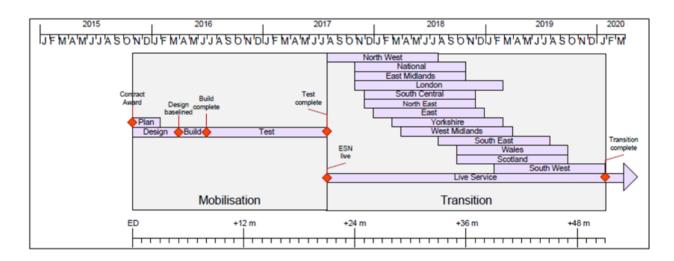
- 3.3 There are three strategic drivers that are influencing the scope and timing of ESMCP's development. These are that:
 - Current contracts for the three services (provided by Airwave) expire between 2016 and 2020 and cannot readily be extended. As such there will be no Airwave Firelink service from 2020 meaning that now is a good time to procure an alternative system.
 - The current Airwave Firelink service is already significantly more expensive than similar public safety systems in Europe and price trends for publically available mobile telephony.
 - Users within the three emergency services are increasing requiring broadband data (not just voice communications) to support operational transformation. This cannot be met by current Airwave technologies.
- 3.4 The intended scope of ESMCP will include 44 police forces, 50 fire and rescue services (including those in Scotland and Wales) and 13 Ambulance Trusts. A range of other civil contingency user organisations will also join ESMCP as second tier users. Overall this means that the system is likely to have approximately 300,000 users.
- 3.5 FRS transition on to the new ESN is due to begin with the mobilisation phase in 2016 and will be complete by January 2020 by which time all FRSs will be in a steady state. The steady state will last until the end of the financial year 2032 by which point a retendering of the contracts will have taken place.
- 3.6 DCLG recognises that Fire communications systems continue to be the responsibility of each individual FRA. However central government has a strong interest in ensuring that the country is fully prepared to deal with civil contingency issues. As such the Government believes that it is important to have in place a communications system that enables inter-working across boundaries and between the three emergency services. Furthermore the Government believes it is important to ensure that emergency services communications are robust and resilient, using the latest technology to aid the delivery of a more effective service.
- 3.7 As such, whilst DCLG is currently not mandating take up of ESMCP, it is strongly recommending that FRAs sign up to the system, both from a financial perspective (the fire service as a whole stands to make significant savings of approximately £80m) but also from an operational perspective.

4.0The Financial Rationale

4.1 The delivery and realisation of the new Emergency Services Network via ESMCP will take place in two major stages. These will be a transition stage whereby FRSs will prepare for and undertake the switch to ESN and the steady state stage whereby FRSs will be fully utilising the ESN.

Transition Stage

4.2 The table below provides an indicative timetable regarding how and when the mobilisation and transition process will operate.



- 4.3 As with many significant change programmes, ESMCP will incur some significant transition costs as Fire Services move from one communications system to another. In order to help achieve a smooth and effective transition, <u>DCLG has made a commitment to support FRAs in the cost of transition.</u> Whilst we are not yet in a position to confirm funding on an individual basis, a total of £50.4m will be made available to FRAs to fund transition.
- 4.4 Details regarding the individual costs of transition will be provided over the first two quarters of 2016. However as DCLG requires a commitment from FRAs prior to

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providing transition funding, it was deemed prudent provide the indicative costs at the earliest opportunity.

- 4.5 During their transition FRAs will continue to pay the costs of Firelink (and receive the associated New Burdens Grant) until the point at which they have completed transition and no longer require a connection to Airwave (except for interworking in instances of mutual aid.) Once an FRS has completed its transition it will then begin paying for the ESN service, benefitting from the greater functionality this provides, and in most cases, a lower cost. It is therefore in an FRA's interest to facilitate a timely completion of transition in order to benefit from reduced costs of ESN. There will be no period when an FRA will be paying for both Airwave and ESN.
- 4.6 DCLG will provide funding for:
- 4.7 <u>Local Transition Support</u> DCLG has previously agreed with Fire Customer Group the funding for Local Transition Support. This includes roles such as local project managers, control room managers and training. We would encourage local collaboration within transition regions and would welcome a lead authority model. Grant Payment would be made on an annual basis by Section 31.
- 4.8 <u>Control Rooms and PSN</u> Due to the degree of variation in Control Room solutions, as part of the future control room scheme, and therefore the path for upgrade required for ESMCP, it is appreciated that there is not likely to be any simple, one size fits all calculation for splitting transition grant. As such, it is our intention to request bids for control room upgrades, based on quotes received following engagement with suppliers, in the new year with a view to agree funding at the appropriate stage. FRAs and Control Room Partnerships would be expected to make reasonable bids, with a focus on completing all control room upgrades required to deliver ESN functionality by commencement of transition.
- 4.9 <u>Vehicle Installations</u> DCLG and the Programme have made an estimate on the anticipated cost for Vehicle Installations. We would propose to fund FRAs (proportionately) on the basis of the number of Fire Appliances. FRAs who intend to collaborate on vehicle installations will then have the flexibility to combine pots or appoint a lead authority.
- 4.10<u>Devices</u> DCLG has committed to fund ESMCP devices, however we also want to encourage flexibility for local decision making within Fire and Rescue Authorities. As such we would seek to provide funds to FRAs for the replacement of existing devices, based on the Programme's calculations. Local FRAs would have the flexibility to

purchase from the Device Catalogue at the cost level and in volumes they wish. DCLG will only be providing funding for devices during the transition stage. Individual FRAs will have the flexibility to determine their own device refresh in steady state (although the indicative costs provided in this paper include a full refresh taking place over a five/six year period.)

- 4.11Regional Implementation Managers In addition to the above funding for Local Transition Support the Department will be funding a Regional Implementation Manager for each of the 10 Regions in England. They will be required to coordinate the transition of FRS and they will be responsible for monitoring and ensuring the core elements of the programme are delivered locally, but not the Non-Core (Vehicle Fit outs, Devices, Control Room upgrades).
- 4.12Over the next few months DCLG will put in place a process for receiving bids for Control Room and PSN upgrades, with a view to begin receiving bids in 2016. For the other elements of Transition Funding we would intend to work with the Programme and Delivery Partner to confirm how many vehicle fit-outs and replacement devices (either Handheld or Vehicle) are required.

Steady State Stage

- 4.13Overall the Programme estimates that ESN will produce at least an £80m saving to English Fire and Rescue Authorities nationally between 2020 and 2032. This indicates a strong value for money case for ESN. Furthermore the vast majority of FRAs will make a saving on the costs they were paying for the Airwave system. As such, DCLG believes that this saving combined with the support for transition costs makes a compelling case for FRA sign up.
- 4.14However, there are a few FRAs (usually those authorities that have enjoyed generous subsidies for Airwave) who will see their individual costs rise. In most of these cases, FRAs will only see a small rise, however for a few it may be more significant.
- 4.15There is however scope within the programme for an FRA to make efficiencies which will reduce their individual bill meeting a long term wish of FRSs which have had fixed-price bills under Firelink. Non-Core costs (i.e. those for connections and data usage) are locally driven. In other words, an FRA will only pay for what they use. As such there may be scope to make savings on data and connection charges by reconfiguring devices to suit the specific needs of a particular fire service. Furthermore, the scale and timing of any device refresh will be up to individual services (the model at 5.0 provides for a full refresh of devices in the steady state, the cost of which would fall to the FRS.)

4.16In order to help those FRAs that will see their individual costs rise, an element of tapering has been included within the modelling/indicative costs for the Core element on a declining basis (75%, 50%, 25%) for the first 3 years of ESN. This will mean that those FRAs affected by higher costs will not see a sudden rise but rather a gradual increase.

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5.0 The Indicative Financial Figures for your FRA

Indicative ESN Costs to Wiltshire FRA

	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32
Core	£-	£9,444	£59,144	£61,149	£68,750	£74,038	£75,566	£77,307	£79,084	£80,897	£82,748	£84,637	£86,564	£87,193
Data	£-	£2,812	£17,004	£18,522	£18,462	£18,462	£18,462	£18,462	£18,462	£18,462	£18,462	£18,462	£18,462	£18,462
Devices	£-	£-	£-	£-	£5,328	£12,318	£2,925	£45,986	£34,183	£11,263	£13,600	£1,750	£-	£-
Total	£-	£12,256	£76,148	£79,671	£92,540	£104,818	£96,953	£141,756	£131,729	£110,622	£114,810	£104,849	£105,027	£105,655

Indicative Airwave Costs to Wiltshire FRA over same period – [Please note Airwave cannot continue post Dec-2020 at the latest]

	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32
Airwave	£-	£30,791	£212,783	£217,039	£221,379	£225,807	£230,323	£234,930	£239,628	£244,421	£249,309	£254,295	£259,381	£264,569

Net Saving	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32
Cost of ESN	£-	£(18,535)	£(136,635	£(137,367)	£(128,839	£(120,989	£(133,370	£(93,174)	£(107,899)	£(133,799)	£(134,499	£(149,446	£(154,355	£(158,914

Indicative Net Saving/Cost to Wiltshire FRA

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6.0Issues with Alternatives to ESMCP

- 6.1 Whilst DCLG is currently not mandating the take up of ESMCP, it is strongly recommending that FRAs sign up to the system both from a financial and operational perspective.
- 6.2 The Government considered a range of options for updating emergency service communications as part of the Outline Business Case for ESMCP (these are summarised at **Annex B**.) The result of this options analysis was that ESMCP (an enhanced commercial Long-Term Evolution network) provided a compelling case going forward. ESMCP will provide a system that is:
 - Robust, interoperable and contains data capabilities
 - Smart in that it only charges only for what is used
 - Cheaper overall than the existing system
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- 6.6 The table below highlights a variety of alternatives to ESMCP and an explanation regarding why the Government believes they are not viable when compared to the benefits that ESCMP will bring.

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Option	Potential Issues
Do Nothing (Continuation of Airwave)	 DCLG's current contract with Airwave runs out at the end of 2019 (with a possible extension to end of 2020) As such the Fire Service will need to re-procure a communications service whether or not they are part of ESMCP. Even if we could continue with Airwave, we would have to incur the higher costs associated with a monopoly provider. In addition the Airwave system is becoming increasingly outdated – as it is based on voice rather than data communications which are increasingly used by Fire Services.
Procure own 4G Network for your FRA	 Likely to be more expensive than joining ESMCP which provides a 4G network and has gained cost efficiencies by negotiating on behalf of a wide range of users. If provided by an organisation that is different to the ESMCP provider, the network is unlikely to be interoperable with other ESMCP users The FRA would be responsible for its own procurement and delivery. This risks not having completed the transition to a new system by the time Airwave Firelink contacts end in 2019 or 2020
Become a Tier 2 User within the Programme*	 Likely to be more expensive for the FRA over the long term as connection and costs will be higher for Tier 2 users. There will be no DCLG financial support available for undertaking this option Will have no influence over Control Rooms going forward Will need to assess the impact of the relationship with

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other FRAs with whom they have a formal relationship.

- There is no guarantee that the procurement and delivery of a new system will be cheaper for an FRA than ESMCP participation
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Procure your own Radio (Tetra) System or Revert to Existing Legacy System

- There may be resilience issues if coverage is not as good as the new ESN (which will be at least as good as Airwave)
- There will be no financial support from DCLG either for transition or steady state
- Broadband provision will be included. This is increasingly being used for fire services and so an alternative solution will need to be found.
- This system will not be future proofed to take advantage of a developing commercial 4G market.
- The impact on formal Relationships with other FRAs that are using ESN will need to be addressed.

^{*} Apart from the 3ES, there are a significant number of government and other public safety users totalling over 300 organisations all with individual ASL contracts, known as sharers. Under the current ESMCP model these organisations will be known as Tier 2 organisations.

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- 7.1 DCLG will require a formal response from each FRA's Chief Fire Officer regarding whether or not they intend to migrate onto the new Emergency Services Network as part of the ESMCP. This will allow DCLG to have the assurance it needs to be able to distribute the required funding for transition in line with the Programme timescales.
- 7.2 A draft confirmation letter to be signed and returned to DCLG is attached at **Annex A**. In order to ensure that payments are made promptly we would ask that DCLG receive this letter no later than Friday 25th March 2016.

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- 8.1 Between January and March 2016 members of the ESMCP Policy Team within DCLG shall arrange a number of meetings with FRAs around the country to discuss their particular ESMCP figures. If you feel that your FRA would benefit from such a conversation or if you have any specific quires about this pack or the sign off procedure, please contact Chris Hall at chris.hall@communities.gsi.gov.uk.
- 8.2 As noted at paragraph 7.2, DCLG require the signed response letter by Friday 25th March 2016.
- 8.3 Following FRA sign up to ESMCP, DCLG will make the appropriate funding payments via a Section 31 grant (subject to legal/financial approvals), in time for the transition arrangements.

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Annex A – Sign Off Emails for DCLG

- DCLG has committed to provide all reasonable transition funding for FRAs moving on to ESN. This will begin with the mobilisation phase in spring 2016. <u>As such, before</u> <u>significant funding is provided, DCLG requires Chief Fire Officers (or appropriate</u> <u>individuals) to provide them with a commitment that they would like to take up the new</u> service.
- If your FRA would like to proceed with ESMCP we would be grateful if your Chief Fire Officer (or appropriate person) could sign, scan and email the statement below to DCLG's Policy Official at chris.hall@communities.gsi.gov.uk by 25th March 2016.
- Alternatively if your FRA does not wish to sign up to the new network, we would be grateful if you could sign, scan and email the alternative statement below to DCLG at the same email address.

Confirmation of Transition to the Emergency Services Network

I can confirm that Wiltshire FRA will transition on to the new Emergency Services Network via the Emergency Services Mobile Communications Programme (ESMCP). I understand that the Department for Communities and Local Government (DCLG) will provide all reasonable transition funding for the Programme between 2016 and 2019.

Signed	Date
6	
	Chief Fire Officer - Wiltshire FRA

Rejection of the Emergency Services Network

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I can confirm that Wiltshire FRA will not transition on to the new Emergency Services Network via the Emergency Services Mobile Communications Programme (ESMCP).

Signed	Date	
Chief Fi	re Officer - Wiltshire FRA	

Annex B - Overview of Options for Replacement of Emergency Services Communications.

Economic Option	Description
Option1 – Do Nothing	Existing Airwave contracts naturally expire. No central involvement in procurement of replacement services.
Option 2– Continue with a TETRA network (Do minimum)	Procure a private TETRA network with public safety voice and narrow-band data augmented by locally-procured operational broadband data services. This requires 400MHz spectrum which is not available until 2020
Option 3 –Build a new private LTE network	Procure a private LTE network with public safety voice and broadband data services. This requires 700MHz spectrum which is unlikely to be available until 2020
Option 4 – Enhanced Commercial LTE Service*	Transition to a commercial LTE network when Airwave contracts expire. Additional procurement of necessary public safety features to enhance the network

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*From the ESMCP Outline Business Case – "The cost benefit analysis concludes that Option 4 is the preferred option on the basis that it represents the highest Net Present Value. Option 4 also provides the most non-financial benefits and critically delivers the non-financial benefits of interoperability required to meet the Programme's objectives"

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Appendix D

Emergency Services Mobile Communications Programme (ESMCP)

Fire and Rescue Authorities Financial Information and Sign Off Pack

Dorset FRA

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9.0Introduction

- 9.1 The purpose of this pack is to provide Fire and Rescue Authorities (FRAs) with the information they require to make an informed decision about their participation in the Emergency Services Mobile Communications Programme (ESMCP) which will deliver a new Emergency Services Network (ESN.)
- 9.2 DCLG has committed to provide all reasonable transition funding for FRAs moving on to ESN. This process will begin with the mobilisation phase in spring 2016. As such, before significant funding is provided to FRAs, DCLG requires Chief Fire Officers (or appropriate individuals) to provide them with a signed commitment that they would like to take up the new service (see Annex A.)
- 9.3 The Pack provides summary information about the Programme rationale and its benefits for the fire service from both an operational and financial perspective. In particular this pack:
 - Provides an explanation of the Programme's transition and steady states and the financial implications involved
 - Provides an <u>indication</u> about the likely costs for your FRA of the ESN through its steady state up to 2032
 - Highlights where there may be scope for additional efficiencies by FRAs
 - Demonstrates that the potential alternatives to participation in ESMCP carry significant risks for FRAs both from a financial and operational perspective
 - Asks FRAs to provide the Department for Communities and Local Government (DCLG) with a decision about whether your FRA intends to participate in the ESMCP going forward.
- 9.4 DCLG believes that the ESMCP provides the best solution for updating and enhancing the Fire Service's emergency communications system. From a financial perspective it is cheaper overall when compared to Firelink costs, saving the Fire Service some £80m up to 2032. In addition the ESMCP allows Fire and Rescue Services (FRSs) to make further efficiencies by reconfiguring data and connections to suit their specific needs and by deciding on the scale and timing of device refresh. Further savings are likely to be made in the future as the new ESN is linked to commercial providers and as such retenders will take place in a competitive environment rather via a monopoly provider (as is the case at the moment.) Furthermore DCLG will support FRSs with the cost of transition, removing a potentially costly barrier. From an operational perspective DCLG believes

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the new system will be more interoperable, resilient and will support data functions better than the current system. It will also be better able to respond to innovations in the mobile communications market as it is linked to commercial providers.

10.0Assumptions

- 10.1This paper uses a number of assumptions to calculate the annual costs of ESN for your individual FRA. It is important to stress that the figures within this pack are <u>indicative</u>. Whilst we believe that the figures in this pack provide a good representation of the likely costs involved, in reality the final figures for an FRA will depend on a range of local decisions (such as configuration of data and connections and device refresh.)
- 10.2The assumptions within this pack (such as the timeline for transition and the costs for Airwave) derive from the Programme's Full Business Case. If you would like to discuss these assumptions, please do not hesitate to contact the DCLG Policy Team at chris.hall@communities.gsi.gov.uk.
- 10.3The figures for devices, connections and vehicle installations and fit-outs have been derived from the As-Is2 survey which the Home Office collected in April 2014. Whilst DCLG believes that this survey gives a good indication of costs, we understand that some changes are likely to occur (or have occurred) before mobilisation begins in 2016. The Programme will undertake a more up to date survey prior during spring 2016.

11.0ESMCP Background

- 11.1ESMCP is a cross-government programme to replace the existing mobile communications service for the three emergency services (Firelink for the FRS) with a new commercial system based on 4G.
- 11.20verall the objectives of ESMCP are to be:
 - **Better** with integrated broadband data services; public service functionality; national coverage and high availability.
 - **Smarter** to be more flexible, to evolve and improve over time, pay only for features required by users.
 - Cheaper to address budget pressures, re-competed regularly to leverage market forces.

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- 11.3There are three strategic drivers that are influencing the scope and timing of ESMCP's development. These are that:
 - Current contracts for the three services (provided by Airwave) expire between 2016 and 2020 and cannot readily be extended. As such there will be no Airwave Firelink service from 2020 meaning that now is a good time to procure an alternative system.
 - The current Airwave Firelink service is already significantly more expensive than similar public safety systems in Europe and price trends for publically available mobile telephony.
 - Users within the three emergency services are increasing requiring broadband data (not just voice communications) to support operational transformation. This cannot be met by current Airwave technologies.
- 11.4The intended scope of ESMCP will include 44 police forces, 50 fire and rescue services (including those in Scotland and Wales) and 13 Ambulance Trusts. A range of other civil contingency user organisations will also join ESMCP as second tier users. Overall this means that the system is likely to have approximately 300,000 users.
- 11.5FRS transition on to the new ESN is due to begin with the mobilisation phase in 2016 and will be complete by January 2020 by which time all FRSs will be in a steady state. The steady state will last until the end of the financial year 2032 by which point a retendering of the contracts will have taken place.
- 11.6DCLG recognises that Fire communications systems continue to be the responsibility of each individual FRA. However central government has a strong interest in ensuring that the country is fully prepared to deal with civil contingency issues. As such the Government believes that it is important to have in place a communications system that enables inter-working across boundaries and between the three emergency services. Furthermore the Government believes it is important to ensure that emergency services communications are robust and resilient, using the latest technology to aid the delivery of a more effective service.
- 11.7As such, whilst DCLG is currently not mandating take up of ESMCP, it is strongly recommending that FRAs sign up to the system, both from a financial perspective (the fire service as a whole stands to make significant savings of approximately £80m) but also from an operational perspective.

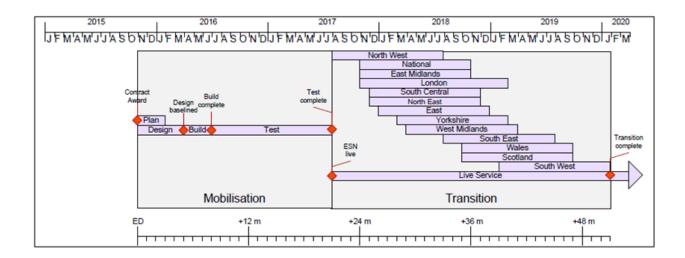
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12.0The Financial Rationale

12.1The delivery and realisation of the new Emergency Services Network via ESMCP will take place in two major stages. These will be a transition stage whereby FRSs will prepare for and undertake the switch to ESN and the steady state stage whereby FRSs will be fully utilising the ESN.

Transition Stage

12.2The table below provides an indicative timetable regarding how and when the mobilisation and transition process will operate.



- 12.3As with many significant change programmes, ESMCP will incur some significant transition costs as Fire Services move from one communications system to another. In order to help achieve a smooth and effective transition, <u>DCLG has made a commitment to support FRAs in the cost of transition</u>. Whilst we are not yet in a position to confirm funding on an individual basis, a total of £50.4m will be made available to FRAs to fund transition.
- 12.4Details regarding the individual costs of transition will be provided over the first two quarters of 2016. However as DCLG requires a commitment from FRAs prior to

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providing transition funding, it was deemed prudent provide the indicative costs at the earliest opportunity.

12.5During their transition FRAs will continue to pay the costs of Firelink (and receive the associated New Burdens Grant) until the point at which they have completed transition and no longer require a connection to Airwave (except for interworking in instances of mutual aid.) Once an FRS has completed its transition it will then begin paying for the ESN service, benefitting from the greater functionality this provides, and in most cases, a lower cost. It is therefore in an FRA's interest to facilitate a timely completion of transition in order to benefit from reduced costs of ESN. There will be no period when an FRA will be paying for both Airwave and ESN.

12.6DCLG will provide funding for:

- 12.7<u>Local Transition Support</u> DCLG has previously agreed with Fire Customer Group the funding for Local Transition Support. This includes roles such as local project managers, control room managers and training. We would encourage local collaboration within transition regions and would welcome a lead authority model. Grant Payment would be made on an annual basis by Section 31.
- 12.8<u>Control Rooms and PSN</u> Due to the degree of variation in Control Room solutions, as part of the future control room scheme, and therefore the path for upgrade required for ESMCP, it is appreciated that there is not likely to be any simple, one size fits all calculation for splitting transition grant. As such, it is our intention to request bids for control room upgrades, based on quotes received following engagement with suppliers, in the new year with a view to agree funding at the appropriate stage. FRAs and Control Room Partnerships would be expected to make reasonable bids, with a focus on completing all control room upgrades required to deliver ESN functionality by commencement of transition.
- 12.9<u>Vehicle Installations</u> DCLG and the Programme have made an estimate on the anticipated cost for Vehicle Installations. We would propose to fund FRAs (proportionately) on the basis of the number of Fire Appliances. FRAs who intend to collaborate on vehicle installations will then have the flexibility to combine pots or appoint a lead authority.
- 12.10<u>Devices</u> DCLG has committed to fund ESMCP devices, however we also want to encourage flexibility for local decision making within Fire and Rescue Authorities. As such we would seek to provide funds to FRAs for the replacement of existing devices,

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based on the Programme's calculations. Local FRAs would have the flexibility to purchase from the Device Catalogue at the cost level and in volumes they wish. DCLG will only be providing funding for devices during the transition stage. Individual FRAs will have the flexibility to determine their own device refresh in steady state (although the indicative costs provided in this paper include a full refresh taking place over a five/six year period.)

- 12.11Regional Implementation Managers In addition to the above funding for Local Transition Support the Department will be funding a Regional Implementation Manager for each of the 10 Regions in England. They will be required to coordinate the transition of FRS and they will be responsible for monitoring and ensuring the core elements of the programme are delivered locally, but not the Non-Core (Vehicle Fit outs, Devices, Control Room upgrades).
- 12.12Over the next few months DCLG will put in place a process for receiving bids for Control Room and PSN upgrades, with a view to begin receiving bids in 2016. For the other elements of Transition Funding we would intend to work with the Programme and Delivery Partner to confirm how many vehicle fit-outs and replacement devices (either Handheld or Vehicle) are required.

Steady State Stage

- 12.13Overall the Programme estimates that ESN will produce at least an £80m saving to English Fire and Rescue Authorities nationally between 2020 and 2032. This indicates a strong value for money case for ESN. Furthermore the vast majority of FRAs will make a saving on the costs they were paying for the Airwave system. As such, DCLG believes that this saving combined with the support for transition costs makes a compelling case for FRA sign up.
- 12.14However, there are a few FRAs (usually those authorities that have enjoyed generous subsidies for Airwave) who will see their individual costs rise. In most of these cases, FRAs will only see a small rise, however for a few it may be more significant.
- 12.15There is however scope within the programme for an FRA to make efficiencies which will reduce their individual bill meeting a long term wish of FRSs which have had fixed-price bills under Firelink. Non-Core costs (i.e. those for connections and data usage) are locally driven. In other words, an FRA will only pay for what they use. As such there may be scope to make savings on data and connection charges by reconfiguring devices to suit the specific needs of a particular fire service. Furthermore, the scale and timing

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of any device refresh will be up to individual services (the model at 5.0 provides for a full refresh of devices in the steady state, the cost of which would fall to the FRS.)

12.16In order to help those FRAs that will see their individual costs rise, an element of tapering has been included within the modelling/indicative costs for the Core element on a declining basis (75%, 50%, 25%) for the first 3 years of ESN. This will mean that those FRAs affected by higher costs will not see a sudden rise but rather a gradual increase.

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13.0The Indicative Financial Figures for your FRA

Indicative ESN Costs to Dorset FRA

	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32
Core	£-	£8,330	£52,098	£53,811	£60,500	£65,153	£66,498	£68,030	£69,594	£71,189	£72,818	£74,480	£76,177	£76,730
Data	£-	£2,475	£14,964	£16,277	£16,224	£16,224	£16,224	£16,224	£16,224	£16,224	£16,224	£16,224	£16,224	£16,224
Devices	£-	£-	£-	£-	£4,688	£10,839	£2,574	£40,468	£30,081	£9,911	£11,968	£1,540	£-	£-
Total	£-	£10,805	£67,062	£70,088	£81,413	£92,217	£85,296	£124,723	£115,899	£97,325	£101,010	£92,245	£92,401	£92,954

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Airwave £	£-	£25,204	£176,690	£180,224	£183,828	£187,505	£191,255	£195,080	£198,981	£202,961	£207,020	£211,161	£215,384	£219,692

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Indicative Net Saving/Cost to Dorset FRA

		18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32
Sa /	et aving	£-	£(14,399)	£(109,628)	£(110,135)	£(102,415)	£(95,288)	£(105,958)	£(70,357)	£(83,082)	£(105,636)	£(106,010)	£(118,916)	£(122,983)	£(126,738)
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Signed	Date
Chief F	ira Officar - Dorsat FRA

Rejection of the Emergency Services Network

I can confirm that Dorset FRA will not transition on to the new Emergency Services Network via the Emergency Services Mobile Communications Programme (ESMCP).

Signed	Date	
Chief Fire	on Officer - Dorset FRA	

Annex B - Overview of Options for Replacement of Emergency Services Communications.

Economic Option	Description
Option1 – Do Nothing	Existing Airwave contracts naturally expire. No central involvement in procurement of replacement services.
Option 2– Continue with a TETRA network (Do minimum)	Procure a private TETRA network with public safety voice and narrow-band data augmented by locally-procured operational broadband data services. This requires 400MHz spectrum which is not available until 2020
Option 3 –Build a new private LTE network	Procure a private LTE network with public safety voice and broadband data services. This requires 700MHz spectrum which is unlikely to be available until 2020
Option 4 – Enhanced Commercial LTE Service*	Transition to a commercial LTE network when Airwave contracts expire. Additional procurement of necessary public

safety features to enhance the network

*From the ESMCP Outline Business Case – "The cost benefit analysis concludes that Option 4 is the preferred option on the basis that it represents the highest Net Present Value. Option 4 also provides the most non-financial benefits and critically delivers the non-financial benefits of interoperability required to meet the Programme's objectives"